



THE REPUBLIC OF UGANDA  
Ministry of Education and Sports

# SECONDARY SCHOOL ABRIDGED CURRICULUM FOR UGANDA

- ECONOMICS
- CLOTHING AND TEXTILE
- FOOD AND NUTRITION
- MUSIC
- SUBSIDIARY ICT

## SENIOR 6







**SECONDARY SCHOOL  
ABRIDGED CURRICULUM  
FOR UGANDA**

**ECONOMICS  
CLOTHING AND TEXTILE  
FOOD AND NUTRITION  
MUSIC  
SUBSIDIARY ICT**

**SENIOR 6**



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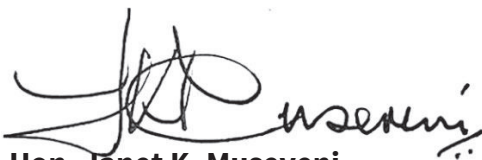
## Foreword

The COVID-19 pandemic caused a disruption in our education system and made learners miss schooling for almost 18 months of the 2020-2021 schooling period. This has created a need to re-think what and how learners will learn when schools re-open.

The Ministry of Education and Sports through National Curriculum Development Centre (NCDC), has developed this abridged curriculum for Primary and Secondary schools in the country. This curriculum presents a selection of priority learning competences and concepts, along with psychosocial support, which should be the focus of instruction in the 2022 school year in order to achieve learning recovery.

This curriculum is not a departure from the existing curricula for the different classes but rather, a modification of the same with a purpose of recovering the lost learning time with minimum learning loss. It has been packaged for all Primary and Secondary classes with exception of Primary One, Senior One and Senior Five that will use the standard curriculum.

I therefore, recommend this abridged curriculum and ask all stakeholders to support its implementation as a strategic intervention towards the mitigation of the effects of COVID-19 pandemic on our education system. The effective implementation of this curriculum by the implementers will be a great milestone towards the recovery of lost learning time and giving hope and confidence to learners and teachers.



**Hon. Janet K. Museveni**

First Lady and Minister for Education and Sports

## Acknowledgement

National Curriculum Development Centre (NCDC) would like to express its most sincere appreciation to all those who worked tirelessly towards the development of the abridged curriculum for Primary and Secondary levels of education.

The Centre is indebted to the NCDC Governing Council and the Academic Steering Board whose guidance and input helped to develop quality curriculum materials.

Great thanks go to the Specialists, panel members, the Quality Assurance and Editorial Committees that invested heavily in the conceptualisation, development and quality assurance processes that collectively delivered the materials that we have here. Their efforts, extra energy and professionalism has been unmatched.

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NCDC takes responsibility for any shortcomings that might be identified in this publication and welcomes suggestions for addressing the gaps. Such comments and suggestions may be communicated to NCDC through P.O. Box 7002 Kampala or email [admin@ncdc.go.ug](mailto:admin@ncdc.go.ug) or [www.ncdc.go.ug](http://www.ncdc.go.ug).



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# ECONOMICS

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Economics is the study of how individuals and societies allocate scarce resources. It is a social science that examines the behavior of individuals and groups in the production and distribution of goods and services. Economics is a branch of social science that studies the behavior of individuals and groups in the production and distribution of goods and services. It is a social science that examines the behavior of individuals and groups in the production and distribution of goods and services. It is a social science that examines the behavior of individuals and groups in the production and distribution of goods and services.

## ECONOMICS SPECIFIC GUIDANCE

### Introduction

The economics syllabus has been condensed to bridge the gap created by the outbreak of covid-19. This abridged curriculum among others is aimed at standardizing the teaching of the subject for a period of one year (2022) and producing potential managers **without compromising quality**.

The methodology provided is designed to emphasise the teaching approaches to be used for each sub-topic from the general approaches to achieve specific objectives. The suggested teaching/ learning strategies should be based on the content covered, number of learners in class, general objectives and assessment standards to be addressed, individual needs of learners and the time available. The teaching learning is focusing on **participatory methods** that are **learner centred** in nature.

The economics abridged syllabus has catered for fourteen topics, on assumption that two topics i.e introduction to economics and Price theory were covered within the time Learners were at school before lockdown. However, obsolete content was removed and similar content merged as will be guided later in this document.

The **fourteen topics** are; Production, National income, Structure of Uganda economy, Economic growth and development, Development process and choice of development strategy, Development of agriculture and industry, Population and labour, Employment and unemployment, Money and banking, inflation, Public finance and Fiscal policy, International Trade, Economic development planning and Public and Private enterprises.

### ***Aims and objectives***

Economics syllabus was condensed to catch up with lost time as earlier mentioned due to the lockdowns that followed the outbreak of covid-19. The lockdowns left the educational sector paralysed just like other sectors.



The abridged curriculum therefore aims at standardizing the teaching of Economics for a period of one year (2022) and producing potential managers without compromising quality of knowledge, understanding delivery of content.

### ***Instructional strategies***

The instructional strategies in this abridged curriculum are largely learner centred. This is to allow learners construct their own knowledge from known to unknown as guided by the teacher and allow faster but effective learning. These strategies include;

- Brainstorming
- Question and answer
- Guided group discussions
- Role play
- Narrate/signs stories
- Individual Research
- Demonstration
- Use of expository method

### ***Assessment strategies***

With learner centred teaching/learning strategies, the teacher is expected to observe learners as they go about learning, engage them in conversations relating to activities administered to encourage critical thinking and allow them critique their presentations. Additionally, the teacher will evaluate learner's presentations and outputs from activities. These strategies are summarized as below;

- Observation of learners during the learning activities, through observation of actions, talks, attitudes
- Conversation through Self-assessment by learners, Peer feedback, Effective teacher feedback.
- Use of questioning
- Formative and summative assessment- Product evaluation of the output during teaching and learning and at the end of a specific cycle.

**ECONOMICS JUSTIFICATION MATRIX**

SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
1	Production	<ul style="list-style-type: none"> <li>Economies of scale and diseconomies of scale.</li> <li>Reasons for co-existence of small scale and large-scale firms.</li> <li>Factors influencing location and localisation of firms.</li> <li>Advantages and disadvantages of a monopoly firm.</li> <li>Identify conditions necessary for price discrimination.</li> <li>long run profit maximization under of oligopoly firms.</li> </ul>	<ul style="list-style-type: none"> <li>content overload</li> <li>Refer to the topic of small scale industries vs large scale industries under Development of Agriculture and industry.</li> <li>More relevant to entrepreneurs who establish industries and therefore can be foregone for now.</li> <li>Monopoly is more disadvantageous than advantageous and with limited application in Uganda.</li> <li>Conditions are implied within sources of monopoly and thus the teacher can make reference.</li> <li>Limited variation with short run situation and thus the teacher can simply talk about it.</li> </ul>
2	National income	<ul style="list-style-type: none"> <li>Measurement of national income over time and between countries.</li> </ul>	<ul style="list-style-type: none"> <li>Implied in the determinants of national income.</li> </ul>

SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
		<ul style="list-style-type: none"> <li>• Adjustments in national income</li> <li>• Concepts of aggregate demand and aggregate supply (inflationary and deflationary gaps).</li> <li>• Explain the arguments for and against income inequality.</li> <li>• Challenges of computing consumer price indices.</li> </ul>	<ul style="list-style-type: none"> <li>• Implied in concepts related to national income</li> <li>• Implied under topic of inflation and related concepts and price theory. The teacher can make necessary reference.</li> <li>• arguments for and against income inequality are not relevant for growth.</li> <li>• The emphasis is on promoting computation making challenges irrelevant for now.</li> </ul>
3	<b>The structure of Uganda's economy</b>	<ul style="list-style-type: none"> <li>• Structure of agriculture and its implications.</li> <li>• Structure of industry and its effects on the economy.</li> <li>• Structure of subsistence and monetary sectors and the need to reduce the subsistence sector</li> <li>• Implications of a large subsistence sector to the economy.</li> <li>• Role of the</li> </ul>	<ul style="list-style-type: none"> <li>• To be handled under the topic of development of agriculture and industry.</li> <li>• The structure of subsistence and monetary sectors and the need to reduce the subsistence sector will be handled under production in-- the sub topic of subsistence production vs commercial production</li> <li>• Implied in the</li> </ul>

SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
		<p>government in the development of an economy.</p>	<p>advantages and disadvantages of subsistence production handled in the topic of production.</p> <ul style="list-style-type: none"> <li>• Make reference while handling public sector.</li> </ul>
4	<p><b>Economic growth, Development, planning and Choice of development strategy</b></p>	<ul style="list-style-type: none"> <li>• Factors that determine economic growth.</li> <li>• Factors for economic development.</li> <li>• Explain the limitations of Rostow's growth stages to Uganda.</li> <li>• Application of Rostow's growth stages to his/her country.</li> <li>• Advantages and disadvantages of Rostow's growth theory.</li> <li>• Balanced growth theory.</li> <li>• Limitations of unbalanced growth theory.</li> <li>• Apply the Big-push growth theory to Uganda.</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to determinants of national income.</li> <li>• Refer to factors that determine economic growth.</li> <li>• limitations of Rostow's growth stages to Uganda and their application is content overload.</li> <li>• Content overload</li> <li>• Balanced growth theory is not applicable in Uganda at the moment and thus it's for only knowledge purposes which learners can obtain later in their educational path.</li> <li>• Emphasis is on promoting unbalanced growth theory.</li> <li>• Content overload.</li> </ul>

SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
		<ul style="list-style-type: none"> <li>• Characteristics of the poor.</li> <li>• Effects of poverty to an economy.</li> <li>• Viscous cycle of poverty.</li> <li>• Causes of poverty.</li> <li>• Effects of poverty to an economy.</li> <li>• Government programmes to fight poverty.</li> </ul>	<ul style="list-style-type: none"> <li>• These characteristics are observable and are implied in knowledge.</li> <li>• Poverty can be related to while handling underdevelopment.</li> <li>• Implied under causes of poverty.</li> <li>• Viscous cycle of poverty can be referred to under causes of under development.</li> <li>• Explain the causes of poverty</li> <li>• Government programmes to fight poverty are implied in measures to overcome underdevelopment.</li> </ul>
		<ul style="list-style-type: none"> <li>• Indicate the interdependence between agriculture and industry.</li> <li>• The most appropriate technique of production for Uganda.</li> <li>• Role of foreign aid in the development process alternative sources of funds for development.</li> </ul>	<ul style="list-style-type: none"> <li>• Handle under appropriate technology.</li> <li>• Handle under agriculture and industry</li> <li>• Look at it under advantages of Aid.</li> <li>• Implied under taxation handled in the topic of public finance.</li> <li>• Talk about it under measures to minimize</li> </ul>

SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
		<ul style="list-style-type: none"> <li>• Role of Infrastructure in the Development Process.</li> <li>• The Role of Education in the Economic Development Process.</li> <li>• Resource Endowment and Economic Development</li> <li>•</li> </ul>	<p>poverty or underdevelopment.</p>
	<b>Development of agriculture and industry</b>	<ul style="list-style-type: none"> <li>• Explain the role of cooperatives in the development of agriculture.</li> <li>• Distinguish between small-scale production and large-scale production.</li> <li>• Identify the type of technology to be used in the modernisation of agriculture.</li> <li>• Distinguish between intensive and extensive production, diversification and specialisation.</li> <li>• Explain the</li> </ul>	<ul style="list-style-type: none"> <li>• Cooperatives are no longer actively functional in Uganda save for SACCOs that were handled under money and banking.</li> <li>• Small-scale production and large-scale production are implied in subsistence vs commercial production handled in the topic of production.</li> <li>• Content overload.</li> <li>• Plan for the Modernisation of Agriculture is at policy</li> </ul>

SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
		<p>objectives, achievements and limitations of Plan for the Modernisation of Agriculture in Uganda.</p> <ul style="list-style-type: none"> <li>• Local resource based.</li> <li>• Explain the role of institutions in the promotion of industrial development</li> </ul>	<p>level and learners can research about it independently for knowledge purposes.</p> <ul style="list-style-type: none"> <li>• Content overload.</li> <li>• Content overload.</li> <li>• role of institutions in the promotion of industrial development can be researched on by learners for knowledge purposes.</li> </ul>
6	<b>Population, labour and unemployment</b>	<ul style="list-style-type: none"> <li>• Explain the factors that impact on population (such as HIV/AIDS).</li> <li>• under population.</li> <li>• a declining, and an ageing population.</li> <li>• discuss the consequences of rapid population growth to an economy.</li> <li>• Demographic transitional theory.</li> <li>• Failures of trade unions in Uganda.</li> <li>• Explain labour relations and dispute resolution mechanisms, including labour rights and</li> </ul>	<ul style="list-style-type: none"> <li>• This content is covered in geography and within population growth rate.</li> <li>• Concentration should be on high population which is evidenced in Uganda's context.</li> <li>• Rapid population growth to an economy lacks applicability to Uganda.</li> <li>• Demographic transitional theory makes no economic sense.</li> <li>• Emphasis should be on the success of trade unions and not their failure.</li> <li>• Learners can be encouraged within</li> </ul>

SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
		<p>conventions, within the context of Uganda's labour market for example child labour.</p> <ul style="list-style-type: none"> <li>• Differentiate the methods of wage payment.</li> <li>• Discuss the merits and demerits of each method of wage payment.</li> </ul>	<p>their free time to research about labour relations and dispute resolution mechanisms for knowledge purposes.</p> <ul style="list-style-type: none"> <li>• Piece and time rate methods of wage payment can be researched on independently and are partially handled within forms of wage determination.</li> </ul>
	<b>Employment and unemployment</b>	<ul style="list-style-type: none"> <li>• Describe the composition of a country's labour force.</li> <li>• Describe the nature of unemployment.</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to the subtopic of Labour where it was handled</li> <li>• Content overload.</li> </ul>
7	<b>Money, banking and inflation</b>	<p><b>Barter trade</b></p> <ul style="list-style-type: none"> <li>• Describe the evolution of money.</li> <li>• Differentiate the types of money.</li> <li>• Relate money supply, price level and output in the quantity theory of money.</li> <li>• Explain the relationship between internal</li> </ul>	<ul style="list-style-type: none"> <li>• Barter trade is no longer applicable making it irrelevant.</li> <li>• Implied and can be simply brainstormed in class for knowledge purposes.</li> <li>• Fisher's equation of exchange covers it.</li> <li>• Content overload</li> <li>• Captured within functions of the central bank.</li> <li>• Content overload.</li> <li>• Implied in the</li> </ul>



SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
		<p>and external value of money and its determinants.</p> <ul style="list-style-type: none"> <li>• Justify the role of the Central bank in the economy.</li> <li>• Evaluate the performance of the monetary sector in Uganda.</li> <li>• Explain the role of commercial banks in economic development.</li> <li>• Identify the role played by foreign commercial banks in economic development of a country.</li> <li>• Describe how commercial banks reconcile profitability, liquidity and security.</li> <li>• Discuss the challenges faced by commercial banks in Uganda.</li> <li>• Identify the challenges faced by specialised financial institutions in Uganda.</li> </ul>	<p>functions of commercial banks.</p> <ul style="list-style-type: none"> <li>• Learners can do own research on foreign commercial banks.</li> <li>• It's not relevant to a learner as its more on the bank and not the learner or customer. Also can be summarized under credit creation</li> <li>• Not so relevant to a learner but bank management</li> <li>• Emphasis should be on promoting these institutions.</li> </ul>

SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
	<b>Inflation</b>	<ul style="list-style-type: none"> <li>• Differentiate types of inflation according to cause.</li> <li>• Relate unemployment and inflation (stagflation). establish the trend of inflation in Uganda.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• The types according to causes can be traced in the general causes of inflation.</li> <li>• The relationship between unemployment and inflation can be traced in the core topics of the two concepts.</li> </ul>
8	<b>Public finance and fiscal policy</b>	<ul style="list-style-type: none"> <li>• Classify taxes according to value of commodity, proportion of income and incidence of tax</li> <li>• Identify the tax reforms in Uganda since 1991.</li> </ul>	<ul style="list-style-type: none"> <li>• More applicable at university.</li> <li>• Learners can trace the origin through independent research.</li> </ul>
9	<b>International trade</b>	<ul style="list-style-type: none"> <li>• Explain balance of payments equilibrium, causes and consequences of balance of payments disequilibrium on domestic economy.</li> <li>• Principle of absolute advantage and its applicability.</li> <li>• Explain devaluation and other related concepts of devaluation.</li> </ul>	<ul style="list-style-type: none"> <li>• Reference can be made to the contextualized content on Uganda that was maintained.</li> <li>• Principle of absolute advantage lacks applicability.</li> <li>• Devaluation as a policy is rarely adopted in Uganda and can be explored at the university level.</li> </ul>

SN	TOPIC	CRITICAL CHANGES	JUSTIFICATION
10	<b>Economic development planning</b>	<ul style="list-style-type: none"> <li>• hierarchy of planning in the country.</li> <li>• evaluate the current development plans in Uganda such as Plan for Modernisation of Agriculture (PMA) and Poverty Eradication Action plan (PEAP).</li> </ul>	<ul style="list-style-type: none"> <li>• Content overload.</li> <li>• Removed but learners should be encouraged to research about PMA and PEAP,</li> </ul>
11	<b>Public and private sector</b>	All content	The two are implied under economic systems covered in the topic of introduction to Economics.

**ECONOMICS ABRIDGED CURRICULUM (REVISED FOR UPPER SECONDARY CURRICULUM)**
**CLASS: SENIOR SIX YEAR: 2022**
**ECONOMICS SYLLABUS PROGRAM PLANNER**

TERMS IN THE YEAR	TOPIC	NO. OF WEEKS PER TOPIC	NO. OF PERIODS PER TOPIC
TERM 1	• Production Theory	06	54
	• National Income	06	54
	• Structure of Uganda economy	02	18
TERM 2	• Economic Growth, Development, Planning and Choice of Development Strategy	06	54
TERM 3	• Population, labour and unemployment	04	36
	• Money, banking and Inflation	05	45
	• Public finance and Fiscal policy	04	36
<b>OVERALL TOTALS</b>	• International Trade	03	27
		<b>36</b>	<b>324</b>

## SYLLABUS TEMPLATE

### TOPIC: PRODUCTION THEORY AND MARKET STRUCTURES. DURATION: 6 weeks

#### General Objective

By the end of the topic, the learner should be able to demonstrate knowledge, understanding and appropriate skills in analyzing production, firms' operations and the dynamics of markets.

Period	Sub-topic	Content	Specific objective	Suggested learning activities	Assessment strategy
54	The concept of production	<ul style="list-style-type: none"> <li>- Meaning of production.</li> <li>- Types, forms and levels of production.</li> <li>- Factors of production and their rewards.</li> </ul>	<p>The learner should be able to;</p> <ul style="list-style-type: none"> <li>- Define production</li> <li>- Identify the types, forms and levels of production.</li> <li>- Explain the various factors of production.</li> </ul>	<ul style="list-style-type: none"> <li>- In groups, using the internet and economics reference books, learners research about the meaning of production, its types, forms and levels and present to the class.</li> <li>- In pairs, learners discuss the various factors of</li> </ul>	<ul style="list-style-type: none"> <li>- Observe learners as they research and present their findings on the meaning, types and levels of production in plenary.</li> <li>- Ask learners probing questions to allow deeper thinking.</li> </ul>

		<p><b>The theory of a firm</b></p> <ul style="list-style-type: none"> <li>- Objectives of a firm</li> <li>- The input-output relationship of the firm as a production unit (Total product, marginal product, average product).</li> <li>- The law of diminishing returns / law of returns to scale.</li> </ul>	<ul style="list-style-type: none"> <li>- Distinguish between a firm and an industry.</li> <li>- Explain the objectives of a firm.</li> <li>- Define and illustrate total product, marginal product and average product.</li> <li>- Compute total product, average product and marginal product.</li> <li>- State the law of diminishing returns.</li> <li>- Illustrate the law of diminishing returns/ Law of returns to scale.</li> </ul>	<p>production and their rewards and then share in plenary.</p> <ul style="list-style-type: none"> <li>- In pairs learners discuss and write the difference between a firm and an industry on a card and display in class for plenary sharing.</li> <li>- Learners brainstorm the objectives of a firm.</li> <li>- Demonstrate computation of TP, MP and AP by giving several examples for learners to practice in groups.</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluate learner's presentations as you wrap up.</li> <li>- Observe learners as they interact in pairs and groups.</li> <li>- Ask them probing questions as they brainstorm to allow critical thinking.</li> <li>- Evaluate the presentations accordingly and give necessary feedback.</li> </ul>
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				<ul style="list-style-type: none"> <li>- Guide learners to state and illustrate the law of diminishing returns.</li> <li>• Learners role play the law of diminishing returns using land as a fixed factor.</li> </ul>	
			<ul style="list-style-type: none"> <li>- Define costs.</li> <li>- Define, illustrate and compute total cost, total variable cost and total fixed costs.</li> <li>- Explain and illustrate the long run average costs.</li> </ul>	<ul style="list-style-type: none"> <li>- Using guided discovery, learners derive the meaning of costs.</li> <li>- In groups, learners try out activities on computation of total costs, total variable costs and total fixed costs.</li> <li>- Demonstrate the long run average cost curve and through guided discovery guide learners in groups to</li> </ul>	<ul style="list-style-type: none"> <li>- Observe learners as they interact and go about the tasks in their respective groups.</li> <li>- Engage learners in conversations concerning the tasks to allow critical thinking.</li> <li>- Evaluate the presentations and give feedback.</li> </ul>
			<ul style="list-style-type: none"> <li>- The graphical relationship between total costs, variable and total fixed costs.</li> <li>- Computation of costs.</li> <li>- Long run average costs.</li> </ul>		
<b>The theory of costs</b>					

	<p><b>The theory of revenue</b></p>	<ul style="list-style-type: none"> <li>- Meaning of revenue.</li> <li>- The relationship between total revenue, average revenue and marginal revenue.</li> <li>- Calculation of revenue, change in revenue, profits and losses.</li> </ul>	<ul style="list-style-type: none"> <li>- Give the meaning of revenue.</li> <li>- Define and compute total average revenue and marginal revenue.</li> <li>- Demonstrate the relationship between average revenue, marginal revenue and demand.</li> </ul>	<p>justify the long run average cost curve.</p> <ul style="list-style-type: none"> <li>- Learners brainstorm on meaning and types revenues of a firm</li> <li>- In small groups learners calculate revenues, profits and losses.</li> <li>- In a marketplace game simulation learners apply pricing of factors and revenue to analysis to production.</li> </ul>	<ul style="list-style-type: none"> <li>- Observe learners as they brainstorm and interact in their respective groups.</li> <li>- Ask them probing questions on the tasks to allow critical thinking.</li> <li>- Evaluate the game and supplement accordingly.</li> </ul>
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<p><b>The concept of market structures</b></p>	<ul style="list-style-type: none"> <li>- Classification of market structures.</li> <li>- Illustrate the relationship between average revenue, marginal revenue and demand</li> </ul> <p><b>Monopoly</b></p> <ul style="list-style-type: none"> <li>• Characteristics of monopoly.</li> <li>• Sources of monopoly</li> <li>• Equilibrium, output, and profit maximisation of a monopoly firm</li> <li>• Price discrimination.</li> </ul>	<ul style="list-style-type: none"> <li>- Identify different market structures.</li> <li>- Illustrate the relationship between average revenue, marginal revenue and demand.</li> <li>• Describe the characteristics of <b>monopoly</b>.</li> <li>• Identify the sources of monopoly.</li> <li>• Illustrate profit maximisation position of a monopoly firm.</li> <li>• Define <b>price discrimination</b>.</li> <li>• Identify conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Learners use marketplace game simulations to classify market structures.</li> <li>• Through guided discovery, learners are exposed to the different market structures.</li> <li>• Learners in groups discuss the relationship between average revenue, marginal revenue and demand present to the plenary.</li> <li>• Share a story or a case study of monopoly and brainstorm on</li> </ul>	<ul style="list-style-type: none"> <li>- Observe learners as they interact in groups.</li> <li>- Converse with the learners on the tasks to allow critical thinking.</li> <li>• Evaluate the presentations and give feedback.</li> <li>• Observe learners as they debate.</li> <li>• Engage them in conversations to allow critical thinking.</li> <li>• Evaluate the outcome of the debate and give feedback.</li> </ul>
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<p><b>Monopolistic Competition</b></p> <ul style="list-style-type: none"> <li>• Characteristics of monopolistic competitive firms.</li> <li>• Equilibrium position monopolistic competitive.</li> <li>• Advantages and disadvantages of monopolistic competitive firms.</li> </ul> <p><b>Oligopoly</b></p> <ul style="list-style-type: none"> <li>• Features of an oligopoly firm.</li> <li>• Price-output determination under oligopoly.</li> <li>• The kinked demand curve under oligopoly.</li> </ul>	<p>necessary for price discrimination.</p> <ul style="list-style-type: none"> <li>• Describe the characteristics of <b>monopolistic competition</b>.</li> <li>• Explain the equilibrium position of monopolistic competitive firms.</li> <li>• Explain the advantages and disadvantages of monopolistic competition.</li> </ul> <p>Describe the features of <b>oligopoly firm</b>.</p> <ul style="list-style-type: none"> <li>• Explain price-output determination under oligopoly.</li> <li>• Illustrate the kinked demand curve.</li> <li>• Define <b>non-price competition</b>.</li> <li>• Identify the forms of non-price</li> </ul>	<p>characteristics of monopoly.</p> <ul style="list-style-type: none"> <li>• Role play on price discrimination.</li> <li>• Learners role play monopolistic competition and brainstorm its characteristics based on the role play.</li> <li>• Demonstrate equilibrium position monopolistic competitive firms and have learners practice in their groups.</li> <li>• In groups, learners discuss the advantages and disadvantages of monopolistic competition and present to the class.</li> </ul>
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		<p>competition.</p> <ul style="list-style-type: none"> <li>• Illustrate and explain the short run equilibrium position of oligopoly firms.</li> <li>• Explain the advantages and disadvantages of oligopoly firms.</li> </ul>	<ul style="list-style-type: none"> <li>• Guide a brainstorm on the characteristics of oligopoly firms.</li> <li>• Demonstrate equilibrium position of oligopoly firms using the kinked demand curve and allow learners practice illustrating it in their groups.</li> <li>• Learners brainstorm the various forms of non-price competition while sharing their experiences on non-price competition.</li> <li>• In two groups, learners debate the advantages and disadvantages of oligopoly.</li> </ul>	
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NATIONAL CURRICULUM FRAMEWORK

### Teaching/Learning Strategies

- Role play
- Group discussions
- Guided discovery
- Demonstration
- Brainstorming

**Note:** Guide learners to make their own notes from the presentations and activity wrap ups.

### Teaching/Learning Aids

- A chart showing the different market structures
- Charts illustrating short-run and long-run equilibrium of monopolistic competition, monopoly and oligopoly.
- Flip charts
- Markers
- Economics text books
- Internet

### Topic 3: NATIONAL INCOME

**Duration: 6 weeks**

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
54	<b>The concept of National Income</b>	<p><b>The learner should be able to;</b></p> <ul style="list-style-type: none"> <li>• Give the meaning of national income.</li> <li>• Define the basic concepts used in national income.</li> <li>• Explain the uses of national income.</li> <li>• Explain the methods of measuring national income in an economy.</li> <li>• Explain the problems of measuring national income.</li> </ul>	<ul style="list-style-type: none"> <li>• Basic concepts used in national income.</li> <li>• Uses of national income statistics.</li> <li>• Methods of measuring national income in an economy.</li> <li>• Problems of measuring national income - statistical and conceptual problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Using guided discovery, learners are exposed to the meaning of national income and the various concepts used in national income.</li> <li>• In groups, learners discuss the uses of national income for class presentation.</li> <li>• In three groups, learners are assigned one approach to measuring national income to research about and present to the class.</li> </ul>	<ul style="list-style-type: none"> <li>• Observe learners as they interact in groups.</li> <li>• Ask them probing questions on the factors to allow conceptualisation and deeper thinking.</li> <li>• Evaluate learners' presentations and supplement accordingly.</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
	<b>The concepts of the multiplier and the accelerator principle.</b>	<ul style="list-style-type: none"> <li>The learner should be able to;</li> <li>Distinguish between multiplier and accelerator principle.</li> <li>Identify the types of multipliers.</li> <li>Compute multiplier.</li> </ul>	<ul style="list-style-type: none"> <li>Meaning of multiplier and accelerator principle.</li> <li>Types of multiplier.</li> <li>Computation of multiplier.</li> </ul>	<ul style="list-style-type: none"> <li>In groups, learners discuss the problems encountered while measuring national income.</li> <li>In groups, learners research about the meaning, types and computation of multipliers and share in plenary.</li> <li>Using think, pair and share, learners derive the meaning of Accelerator principle and share in plenary.</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they interact, discuss and present.</li> <li>Ask them probing questions on their research findings to allow critical thinking.</li> <li>Evaluate the presentations and supplement accordingly.</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
	<p><b>Per capita income, Standard of living and Cost of living</b></p>	<ul style="list-style-type: none"> <li>Explain the reasons for low capita incomes in developing countries.</li> <li>Distinguish between standard of living and cost of living.</li> <li>Explain the factors that influence standard of living.</li> </ul>	<ul style="list-style-type: none"> <li>Meaning of per capita income.</li> <li>Reasons for low per capita income in developing countries.</li> <li>Standard of living and cost of living.</li> </ul>	<ul style="list-style-type: none"> <li>Using guided discovery, learners derive the meaning of per capita income.</li> <li>In pairs, learners discuss the reasons for low per capita income and share their findings in groups of six.</li> <li>Using guided discovery, learners share the meanings of standard and cost of living.</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners interact in pairs and share with the class.</li> <li>Ask learners probing questions on the task to allow deeper thinking and conceptualisation.</li> <li>Evaluate the presentations and supplement accordingly.</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
	<b>Saving, consumption and investment</b>	<ul style="list-style-type: none"> <li>Distinguish between saving and investment.</li> <li>Define consumption.</li> <li>Explain the factors that determine investment, saving and consumption</li> </ul>	<ul style="list-style-type: none"> <li>Meaning of saving, consumption and investment.</li> <li>Factors determining investment, saving and consumption</li> </ul>	<ul style="list-style-type: none"> <li>In groups, learners discuss the factors that influence standard of living and share in plenary.</li> <li>In a brainstorm, learners derive the meaning of saving, investment and consumption.</li> <li>In groups, learners discuss the factors that determine saving, investment and consumption as independent variables.</li> </ul>	<ul style="list-style-type: none"> <li>Observe participation of learners and encourage active participation of all.</li> <li>Converse with learners as they interact in groups while asking them probing questions to allow deeper thinking.</li> <li>Evaluate their presentations.</li> </ul>
	<b>Income distribution</b>	<ul style="list-style-type: none"> <li>Define income inequality.</li> <li>Explain the causes of income</li> </ul>	<ul style="list-style-type: none"> <li>Causes and possible solutions to income</li> </ul>	<ul style="list-style-type: none"> <li>Role play income inequality using analogy of mangoes shared</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they role play and give feedback.</li> <li>Ask them probing</li> </ul>



Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		<p>inequality.</p> <ul style="list-style-type: none"> <li>Suggest measures to control income inequality.</li> </ul>	<p>inequalities.</p> <ul style="list-style-type: none"> <li>Arguments for and against uneven distribution of income and wealth.</li> </ul>	<p>unequally amongst learners.</p> <ul style="list-style-type: none"> <li>In a brainstorm, learners share the causes of income inequality and use the library and internet to find out the measures that can be adopted to control income inequality.</li> </ul>	<p>questions to allow critical thinking.</p> <ul style="list-style-type: none"> <li>Evaluate learner's responses from brainstorming and supplement them accordingly.</li> <li>Evaluate the presentations and give feedback accordingly.</li> </ul>
	<b>Price index</b>	<ul style="list-style-type: none"> <li>Types of price indices.</li> <li>Calculation and interpretation of price indices.</li> </ul>	<ul style="list-style-type: none"> <li>Define price indices.</li> <li>Calculate and interpret price indices.</li> </ul>	<ul style="list-style-type: none"> <li>Guide learners to discover the meaning of price index and its</li> </ul>	<ul style="list-style-type: none"> <li>Observe participation of learners as they respond.</li> <li>Engage learners in conversations</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		consumer price index. <ul style="list-style-type: none"> <li>• Uses of consumer price indices.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Appreciate the uses of price indices.</li> </ul>	various forms. <ul style="list-style-type: none"> <li>• Demonstrate computation of price indices.</li> <li>• In groups task learners to practice a variety of computations and present in plenary.</li> <li>• Brainstorm the uses of price indices.</li> </ul>	concerning computation of price index. <ul style="list-style-type: none"> <li>• Observe learners as they compute various activities on price indices.</li> <li>• Evaluate learners' presentations and supplement accordingly.</li> <li>•</li> </ul>

### Teaching/Learning Strategies

- Group discussions
- Guided discovery
- Demonstration

- Brainstorming
- Note:** Guide learners to make their own notes from the presentations and activity wrap ups.

### Teaching/Learning Aids

- Flip charts
- Markers
- Economics text books
- Internet
- A chart showing the circular flow

## TOPIC: THE STRUCTURE OF UGANDA’S ECONOMY. Duration: 2 weeks

**General Objective:** To demonstrate knowledge, critical understanding and application of principles, processes and practices of the economy.

Period	Sub-topic	Content	Specific objective	Suggested learning activities	Assessment strategy
18	Structure of Uganda’s economy	<p><b>The learner should be able to;</b></p> <ul style="list-style-type: none"> <li>• explain the structure of Uganda’s economy and its implications.</li> </ul>	<ul style="list-style-type: none"> <li>• Structure of Uganda’s economy and its implications.</li> <li>• Concept of dualism and the informal sector.</li> <li>• Forms of economic dependence.</li> </ul>	<ul style="list-style-type: none"> <li>• Learners brainstorm the characteristics of Uganda’s economy.</li> <li>• In groups, learners discuss the implications</li> </ul>	<ul style="list-style-type: none"> <li>• Observe learners as they interact in groups.</li> <li>• Ask learners probing questions to allow critical thinking.</li> </ul>

Period	Sub-topic	Content	Specific objective	Suggested learning activities	Assessment strategy
		<ul style="list-style-type: none"> <li>• explain the concept of dualism and the informal sector.</li> <li>• explain economic dependence of countries.</li> <li>• explain economic dependence and its implications to the country.</li> <li>• describe the present structure of imports and exports.</li> <li>• explain the economic implications of the import and export sectors.</li> </ul>	<ul style="list-style-type: none"> <li>• Implications of economic dependence to the country.</li> <li>• The present structure of imports and exports.</li> <li>• Economic implications of the import and export sectors.</li> </ul>	<p>of the structure of Uganda's economy.</p> <ul style="list-style-type: none"> <li>• Through guided discovery, the teacher explores the concept of dualism, its forms and effects.</li> <li>• In groups, learners discuss the meaning and role of informal sector.</li> <li>• Learners brainstorm the meaning, forms, and implications of economic dependence to Uganda's economy.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate learners' findings and give feedback.</li> </ul>

Period	Sub-topic	Content	Specific objective	Suggested learning activities	Assessment strategy
				<ul style="list-style-type: none"> <li>In pairs, learners describe the import and export sector of Uganda and discuss its implications to the economy.</li> </ul>	

### Teaching/Learning Strategies

- Role play
- Group discussions
- Guided discovery
- Demonstration
- Brainstorming

**Note:** Guide learners to make their own notes from the presentations and activity wrap ups.

### Teaching/Learning Aids

- Flip charts
- Markers
- Economics text books
- Internet

## TOPIC: ECONOMIC GROWTH, DEVELOPMENT, PLANNING AND CHOICE OF DEVELOPMENT STRATEGY. Duration: 6 weeks

**General Objective:** To demonstrate knowledge, understanding and critical awareness of the theories, principles and policies underlying economic growth, planning, development and choice of development strategy.

Period	Sub-topic	Specific objectives	Content	Suggested activities	Assessment strategy
54	Economic Growth, Economic development and under development	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>Assess the costs and benefits of economic growth.</li> <li>Explain the main characteristics of developing countries.</li> </ul>	<ul style="list-style-type: none"> <li>Meaning of economic growth.</li> <li>Costs and benefits of economic growth.</li> <li>Main characteristics of developing countries.</li> <li>Meaning of underdevelopment.</li> </ul>	<ul style="list-style-type: none"> <li>Narrate a story about growth.</li> <li>In group learners discuss and present the costs and benefits of economic growth.</li> <li>In pairs. Learners discuss the meaning of under development and its indicators.</li> <li>In groups, learners</li> </ul>	<p>Observe learners as they interact in groups while asking them probing questions on activities to encourage critical thinking.</p> <p>Ask learners</p>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		<ul style="list-style-type: none"> <li>Explain the concept of underdevelopment.</li> <li>Identify the indicators of underdevelopment</li> <li>Identify the causes of underdevelopment.</li> <li>Explain the policy measures to overcome underdevelopment.</li> </ul>	<ul style="list-style-type: none"> <li>Indicators of underdevelopment.</li> <li>Causes of underdevelopment.</li> <li>Policy measures to overcome underdevelopment</li> </ul>	<p>discuss the causes of poverty and</p> <ul style="list-style-type: none"> <li>policy measures to overcome it.</li> </ul>	<p>probing questions to allow critical thinking.</p> <p>Evaluate learners' findings and give feedback</p>
	<b>Theories of Economic Growth and Development</b>	<ul style="list-style-type: none"> <li>Explain the development objectives.</li> <li>describe the stages of Walt Whitman</li> </ul>	<ul style="list-style-type: none"> <li>Development objectives.</li> <li>Stages of Walt Whitman</li> </ul>	<p>Use guided discovery to explain the development objectives.</p>	<p>Observe learners as they participate in the brainstorm</p>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		Rostow's (W.W Rostow's) stages of economic development. <ul style="list-style-type: none"> <li>describe the unbalanced growth theory.</li> <li>assess the advantages and disadvantages of unbalanced growth theory</li> </ul>	Rostow's (W.W Rostow's) stages of economic development. <ul style="list-style-type: none"> <li>Meaning Unbalanced growth theory.</li> <li>Advantages and disadvantages of unbalanced growth theory.</li> </ul>	Use expository methods to explain the stages of Walt Whitman Rostow's (W.W Rostow's) stages of economic development <ul style="list-style-type: none"> <li>Guide a brainstorm on the meaning of unbalanced growth theory and apply unbalanced growth theory to Uganda.</li> </ul>	while asking them probing questions. <ul style="list-style-type: none"> <li>Evaluate learners' responses and supplement accordingly.</li> <li>Observe learners as they interact in groups and pairs.</li> <li>Ask learners probing questions on the on the given activities to allow critical</li> </ul>



Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
	<b>Agriculture versus Industrial Development Strategies</b>	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>distinguish between a development and process development strategy.</li> <li>distinguish between agriculture and industry development strategies.</li> <li>assess the advantages and disadvantages of each strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Difference between a development process and development strategy.</li> <li>Difference between agriculture and industry development strategies.</li> <li>Advantages and disadvantages of each strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Guide a brainstorm on the difference between; -development process and development strategy.</li> <li>-Difference agriculture and industry development strategies.</li> <li>In groups, learners discuss the advantages and disadvantages of each strategy and suggest the most appropriate agricultural</li> </ul>	<p>thinking.</p> <ul style="list-style-type: none"> <li>Observe participation of learners and encourage active participation of all.</li> <li>Converse with learners as they interact in groups while asking them probing questions to allow deeper thinking.</li> <li>Evaluate the</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
				development strategy for Uganda.	presentations and allow learners critique themselves as you supplement.
	<b>Intermediate versus Appropriate Technology</b>	<b>The learner should be able to:</b>	<ul style="list-style-type: none"> <li>Difference between labour intensive and capital-intensive techniques of production.</li> <li>Advantages and disadvantages of each technique of production.</li> </ul>	<ul style="list-style-type: none"> <li>Brainstorm the difference labour intensive and capital-intensive techniques of production.</li> <li>In groups learners discuss advantages and disadvantages of each technique of production.</li> <li>through guided discovery, learners differentiate between intermediate</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they interact in groups.</li> <li>Ask them probing questions on the factors to allow conceptualization and deeper thinking.</li> </ul>
	<b>Labour Intensive versus Capital Intensive Strategies</b>	<ul style="list-style-type: none"> <li>distinguish between labour intensive and capital-intensive techniques of production.</li> <li>Discuss the advantages and disadvantages of each technique of production.</li> </ul>			

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		<ul style="list-style-type: none"> <li>distinguish between intermediate technology and appropriate technology.</li> <li>identify the features of each production technique.</li> <li>identify the advantages and disadvantages of each type of technology.</li> </ul>	<ul style="list-style-type: none"> <li>Difference between intermediate technology and appropriate technology.</li> <li>Features of each production technique.</li> <li>Advantages and disadvantages of each type of technology.</li> </ul>	<p>technology and appropriate technology.</p> <ul style="list-style-type: none"> <li>Learners brainstorm the features of each production technique.</li> <li>In groups, learners discuss advantages and disadvantages of each type of technology.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate learners' presentations and supplement accordingly.</li> </ul>
	<b>The Role of Foreign Aid in the Economic Development</b>	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>explain foreign aid as a source of development</li> </ul>	<ul style="list-style-type: none"> <li>Meaning of foreign aid.</li> <li>Types of foreign aid.</li> <li>Advantages and disadvantages of</li> </ul>	<ul style="list-style-type: none"> <li>Use expository methods to explain the meaning of foreign aid and types of foreign aid.</li> <li>In groups,</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they interact in groups.</li> <li>Ask them probing</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
	<b>of a Country</b>	finance. <ul style="list-style-type: none"> <li>• identify the types of foreign aid.</li> <li>• assess the advantages and disadvantages of foreign aid to developing countries.</li> </ul>	foreign aid.	discuss the advantages and disadvantages of foreign aid.	questions on the factors to allow conceptualisation and deeper thinking. <ul style="list-style-type: none"> <li>• Evaluate learners' presentations and supplement accordingly.</li> </ul>
<b>27</b>	<b>Agricultural development</b>	<ul style="list-style-type: none"> <li>• explain the role of agriculture in development.</li> <li>• Identify the bottlenecks of agricultural development.</li> <li>• explain the role of</li> </ul>	<ul style="list-style-type: none"> <li>• Role of agriculture in development.</li> <li>• Bottlenecks of agricultural development.</li> <li>• Role of research and agricultural</li> </ul>	<ul style="list-style-type: none"> <li>• In groups, learners discuss the role and bottlenecks of agriculture in development.</li> <li>• Task learners to carry out research on the role of research and</li> </ul>	<ul style="list-style-type: none"> <li>• Observe learners as they interact in groups and research.</li> <li>• Ask learners probing questions to</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		research and agricultural institutions in the development of agriculture.	institutions in the development of agriculture.	agricultural institutions in the development of agriculture.	allow critical thinking. <ul style="list-style-type: none"> <li>Evaluate learners' findings and give feedback.</li> </ul>
	<b>Industrial Development</b>	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>explain the factors leading to the growth of industries.</li> <li>discuss the role of industries in the development of Uganda.</li> <li>explain industrial development strategies such as, export promotion versus import</li> </ul>	<ul style="list-style-type: none"> <li>Factors leading to the growth of industries.</li> <li>Role of industries in the development of Uganda.</li> <li>Industrial development strategies such as, export promotion versus import substitution.</li> </ul>	<ul style="list-style-type: none"> <li><b>Task groups to discuss</b> the factors leading to the growth of industries.</li> <li>In pairs learners discuss the role of industries and share with the class.</li> <li>Use expository methods to explain and guide a brainstorm on the industrial development</li> </ul>	<ul style="list-style-type: none"> <li>Observe participation of learners and encourage active participation of all.</li> <li>Converse with learners as they interact in groups while asking them</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
18	<b>Economic development planning</b>	<p>substitution.</p> <ul style="list-style-type: none"> <li>• identify the challenges facing the industrial sector in Uganda.</li> <li>• suggest solutions to the challenges facing the industrial sector in Uganda.</li> </ul>	<ul style="list-style-type: none"> <li>• Challenges facing the industrial sector in Uganda.</li> <li>• Solutions to the challenges facing the industrial sector in Uganda.</li> </ul>	<p>strategies.</p> <ul style="list-style-type: none"> <li>• Task learners in groups to discuss the challenges facing the industrial sector and suggest solutions to them, and make class presentations,</li> </ul>	<p>probing questions to allow deeper thinking.</p> <ul style="list-style-type: none"> <li>• Evaluate their presentations .</li> </ul>
		<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>• define the term economic development planning.</li> <li>• explain the need for economic development planning and its forms.</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning of economic development planning.</li> <li>• Need for economic development planning and its forms.</li> <li>• Principles of planning in the</li> </ul>	<ul style="list-style-type: none"> <li>• Let learners share their experiences on planning.</li> <li>• Guide learners to discover the meaning of economic development planning.</li> <li>• Using expository methods, explain the principles of planning</li> </ul>	<ul style="list-style-type: none"> <li>• Observe learners as they share experiences and work in groups.</li> <li>• Ask learners probing questions on activities given to allow</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		<ul style="list-style-type: none"> <li>describe the principles of planning in the country.</li> <li>discuss the challenges in formulation and implementation of development plans in developing countries.</li> </ul>	<p>country.</p> <ul style="list-style-type: none"> <li>Challenges in formulation and implementation of development plans in developing countries.</li> </ul>	<p>in the country.</p> <ul style="list-style-type: none"> <li>In groups learners discuss the challenges faced in formulation and implementation of development plans in developing countries.</li> </ul>	<p>critical thinking and deeper learning.</p> <ul style="list-style-type: none"> <li>Evaluate the presentations and supplement accordingly.</li> </ul>

### Teaching/Learning Strategies

- Role play
- Group discussions
- Guided discovery
- Demonstration
- Brainstorming

**Note:** Guide learners to make their own notes from the presentations and activity wrap ups.

### **Teaching/Learning Aids**

- Flip charts
- Markers
- Economics text books
- Internet
- Journals on Economic development planning
- A chart showing the main features of the un-balanced growth theory.
- A chart showing the main features of the Big-push growth theory.
- A chart showing features of intermediate technology and appropriate technology
- A chart showing types of foreign Aid
- Guidelines for resource persons
- Journals from NARO, NAADS, DFI'S
- Specimen of agricultural products
- Journals on Economic development planning



## TOPIC: POPULATION, LABOUR AND UNEMPLOYMENT. Duration: 4 weeks

**General Objective:** To demonstrate knowledge, critical understanding, application of the principles and practices of population, labour and policies that solve unemployment problems in the country.

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
36	Population	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>define population and its related concepts.</li> <li>describe the composition of Uganda's population, that is, size, structure, trend and distribution.</li> <li>assess the implications of Uganda's population</li> </ul>	<ul style="list-style-type: none"> <li>Meaning of population and its related concepts.</li> <li>Description of Uganda's population structure.</li> <li>Implications of Uganda's population structure.</li> <li>Consequences of over population.</li> <li>Malthusian population theory.</li> </ul>	<ul style="list-style-type: none"> <li>Guide learners to brainstorm the meaning of population, its related concepts and composition of Uganda's population.</li> <li>In groups learners discuss the implications of Uganda's population structure and consequences</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they brainstorm and interact in groups.</li> <li>Ask learners probing questions to allow critical thinking.</li> <li>Evaluate learners' findings and give feedback.</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		structure. <ul style="list-style-type: none"> <li>• assess the consequences of over-population.</li> <li>• explain the theories of population such as Malthusian theory.</li> </ul>		of over population. <ul style="list-style-type: none"> <li>• In pairs, learners discuss the consequences of an increasing population.</li> <li>• Using guided discovery, learners are exposed to statement of Malthusian population theory and its applicability on Uganda's economy.</li> </ul>	

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
	Labour	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>describe the structure of the labour force and the factors that impact on labour force.</li> <li>describe the supply of and demand for labour and their determinants.</li> <li>explain the different forms of wage determination.</li> <li>explain the theories of wage determination.</li> <li>account for wage differentials.</li> </ul>	<ul style="list-style-type: none"> <li>Structure of the labour force and the factors that impact on labour force.</li> <li>Supply of and demand for labour and their determinants.</li> <li>Forms of wage payment.</li> <li>Marginal productivity theory of wages.</li> <li>Meaning of trade union.</li> <li>Objectives of trade unions.</li> <li>Features of trade unions in Uganda.</li> </ul>	<ul style="list-style-type: none"> <li>Learns brainstorm the features of and factors that influence labour force in Uganda.</li> <li>Through guided discovery, learners generate the meaning of supply of and demand for labour.</li> <li>In groups, learners discuss the determinants of supply of and demand for labour.</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they interact in groups.</li> <li>Ask learners probing questions to allow critical thinking.</li> <li>Evaluate learners' findings and give feedback.</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		<ul style="list-style-type: none"> <li>• define trade unions.</li> <li>• identify the types of trade unions.</li> <li>• explain the objectives of trade unions.</li> <li>• identify the features of trade unions in Uganda.</li> <li>• explain the tools used by trade unions to negotiate for wages.</li> <li>• assess the achievements of trade unions in Uganda.</li> </ul>	<ul style="list-style-type: none"> <li>• Tools used by trade unions to negotiate for wages.</li> <li>• Achievements of trade unions in Uganda.</li> <li>• Challenges facing trade unions in Uganda.</li> </ul>	<ul style="list-style-type: none"> <li>• In pairs, learners discuss the meaning of trade unions.</li> <li>• Using library and internet research, learners find out the tools used by trade unions to negotiate for wages, achievements of trade unions and challenges facing trade unions and share with the class.</li> </ul>	

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		<ul style="list-style-type: none"> <li>• identify the challenges facing trade unions in Uganda.</li> </ul>			
18	<b>Unemployment</b>	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>• Differentiate between employment and full employment.</li> <li>• Distinguish unemployment from underemployment.</li> <li>• Identify the types of unemployment.</li> <li>• explain the term natural rate of unemployment and</li> </ul>	<ul style="list-style-type: none"> <li>• Difference between employment and full employment.</li> <li>• Difference between unemployment and underemployment.</li> <li>• Types of unemployment.</li> <li>• Causes and solutions to the unemployment problem in developing countries.</li> <li>• Keynesian theory of unemployment and</li> </ul>	<ul style="list-style-type: none"> <li>• Guide learners to brainstorm the difference between employment and full employment.</li> <li>• Learners brainstorm the difference between unemployment and employment.</li> <li>• In groups, learners discuss</li> </ul>	<ul style="list-style-type: none"> <li>• Observe learners and encourage active participation.</li> <li>• Evaluate learners' responses and supplement accordingly.</li> <li>• Observe learners as they interact in groups.</li> <li>• Ask learners probing</li> </ul>

Period	Sub-topic	Specific objectives	Content	Suggested learning activities	Assessment strategy
		identify the causes and solutions to the unemployment problem in developing countries. <ul style="list-style-type: none"> <li>describe the Keynesian theory of unemployment and its applicability to developing countries</li> </ul>	its applicability to developing countries.	the causes of unemployment and their solutions in developing countries. <ul style="list-style-type: none"> <li>Use expository methods to explain and demonstrate the Keynesian theory of unemployment and its applicability</li> </ul>	questions to allow critical thinking. <ul style="list-style-type: none"> <li>Evaluate learners' findings and give feedback.</li> </ul>

### Teaching/Learning Strategies

- Group discussions
- Guided discovery
- Demonstration
- Brainstorming

**Note:** Guide learners to make their own notes from the presentations and activity wrap ups.

### Teaching/Learning Aids

- Flip charts
- Markers
- Economics text books
- Internet
- Charts showing population pyramids, optimum population, under population and overpopulation
- Newspaper articles on population.
- A chart illustrating the country's labour force
- A chart showing types of unemployment
- Chart showing the graph for Keynesian unemployment

## TOPIC: MONEY, BANKING AND INFLATION. Duration: 5 weeks

**General Objective:** To demonstrate knowledge, understanding and critical awareness of the role of money, policies of banking and apply a range of skills in dealing with problems of inflation.

Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
45	Money	<p><b>The Learner should be able to:</b></p> <ul style="list-style-type: none"> <li>• Define money.</li> <li>• identify the functions of money.</li> <li>• explain the characteristics of money.</li> <li>• describe the composition of money supply (M1 and M2).</li> <li>• justify the demand for money.</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning of money.</li> <li>• Functions of money.</li> <li>• characteristics of money in relation.</li> <li>• Meaning of money supply.</li> <li>• composition of money supply (M1 and M2).</li> <li>• Determinants of money supply in an economy.</li> <li>• Justification of demand for money.</li> <li>• The quantity theory of money and its applicability.</li> </ul>	<ul style="list-style-type: none"> <li>• Guide learners to brainstorm the meaning of money.</li> <li>• In pairs, learners discuss the functions and characteristics of money in relation to their experience with it.</li> <li>• Use guides discovery to help learners derive the meaning of money supply and its</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate learners' responses and supplement accordingly.</li> <li>• Observe learners as they interact in groups and pairs.</li> <li>• Ask learners probing questions on the on the given activities to allow critical thinking and conceptualisation</li> </ul>



Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
		<ul style="list-style-type: none"> <li>explain the supply of money and its determinants</li> <li>identify the determinants of money supply in an open economy.</li> <li>explain the quantity theory of money (applications and shortcomings).</li> </ul>		<p>composition.</p> <ul style="list-style-type: none"> <li>In pairs, learners discuss meaning of demand for money.</li> <li>Demonstrate the quantity theory of money and guide learners to brainstorm its applicability.</li> </ul>	<p>on of concepts.</p> <ul style="list-style-type: none"> <li>Evaluate the presentations and allow learners critique themselves as you supplement and give guidance.</li> </ul>
	<b>Banking</b>	<ul style="list-style-type: none"> <li>distinguish between Central bank and Commercial bank</li> </ul>	<ul style="list-style-type: none"> <li>Meaning of                             <ul style="list-style-type: none"> <li>Central bank</li> <li>Commercial bank</li> </ul> </li> <li>Functions of a Central bank.</li> <li>Meaning of monetary</li> </ul>	<ul style="list-style-type: none"> <li>In pairs, learners distinguish between central bank and commercial bank.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate learners' responses and supplement accordingly.</li> <li>Observe</li> </ul>

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Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
		<ul style="list-style-type: none"> <li>explain the functions of a Central bank.</li> <li>define monetary policy.</li> <li>identify the objectives of monetary policy.</li> <li>explain the tools of monetary policy.</li> <li>assess the effectiveness of monetary policy in Uganda.</li> <li>identify the functions of commercial</li> </ul>	<ul style="list-style-type: none"> <li>policy.</li> <li>objectives of monetary policy.</li> <li>Tools of monetary policy.</li> <li>Effectiveness of monetary policy in Uganda.</li> <li>Functions of commercial banks in a country.</li> <li>Process of credit creation.</li> </ul>	<ul style="list-style-type: none"> <li>Guide learners to brainstorm the functions of the central bank.</li> <li>Use guided discovery to explain the meaning and objectives of monetary policy.</li> <li>Learners research on the tools and effectiveness of monetary policy and apply them to Uganda's context.</li> <li>Learners brainstorm the functions of commercial</li> </ul>	<ul style="list-style-type: none"> <li>learners as they interact in groups and pairs.</li> <li>Ask learners probing questions on the on the given activities to allow critical thinking and conceptualisation of concepts.</li> <li>Evaluate the presentations and allow learners critique themselves.</li> </ul>

Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
		<p>banks in a country.</p> <ul style="list-style-type: none"> <li>explain the process of credit creation.</li> </ul>		<p>banks and relate them to their roles.</p> <ul style="list-style-type: none"> <li>Use expository methods to explain credit creation.( make reference to the major objectives of commercial banks; profitability, liquidity and security)</li> </ul>	
	<b>Non- banking financial intermediaries</b>	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>discuss the role of specialised financial institutions in the economic</li> </ul>	<ul style="list-style-type: none"> <li>Role of specialised financial institutions in the economic development of a country.</li> </ul>	<ul style="list-style-type: none"> <li>Learners brainstorm the role of specialized financial institutions in the economic development of</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they brainstorm.</li> <li>Evaluate learners' responses and supplement accordingly.</li> </ul>

Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
18	<b>The concept of inflation</b>	<p>development of a country.</p> <p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>define the term inflation and other related concepts.</li> <li>distinguish types of inflation according to degree of change in prices.</li> <li>discuss the causes of inflation.</li> </ul>	<p>Meaning of inflation and other related concepts.</p> <p>Types of inflation according to degree of change in prices.</p> <p>Causes of inflation.</p> <p>Policies to control inflation in an economy.</p>	<p>a country and their examples.</p> <ul style="list-style-type: none"> <li>Through guided discovery, learners derive the meaning of inflation and other related concepts.</li> <li>Learners research about the various types of inflation.</li> <li>In groups, learners discuss the causes and policy measures to control inflation in an economy.</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they interact in groups and research.</li> <li>Ask learners probing questions to allow critical thinking.</li> <li>Evaluate learners' findings and give feedback.</li> </ul>

Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
		<ul style="list-style-type: none"> <li>formulate policies to control inflation in an economy.</li> </ul>			

### Teaching/Learning Strategies

- Group discussions
- Guided discovery
- Demonstration
- Brainstorming

**Note:** Guide learners to make their own notes from the presentations and activity wrap ups.

### Teaching/Learning Aids

- Money
- Information leaflets from banks
- Flip charts
- Markers
- Economics text books
- Internet
- A chart displaying a Phillips curve

## TOPIC: PUBLIC FINANCE AND FISCAL POLICY. Duration: 4 weeks

**General Objective:** To demonstrate knowledge, critical awareness, and apply a range of skills in the management of public finance, fiscal policy and public debt.

Sub- topic	Specific objective	Content	Suggested activities	Assessment strategy
36 <b>Public Finance</b>	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>• distinguish public finance from private finance.</li> <li>• explain the principles and methods of public finance.</li> <li>• identify and explain the sources of public finance.</li> <li>• explain the methods of</li> </ul>	<ul style="list-style-type: none"> <li>• Difference between public finance from private finance.</li> <li>• Principles and methods of public finance.</li> <li>• Sources of public finance.</li> <li>• Methods of expanding the sources of government revenue.</li> </ul>	<ul style="list-style-type: none"> <li>• Use expository methods to differentiate between public finance and private finance and explain the principles and methods of public finance.</li> <li>• In groups learners discuss sources of public finance and methods of expanding them.</li> </ul>	<ul style="list-style-type: none"> <li>• Observe learners as you engage them and ask probing questions on the content to allow critical thinking.</li> <li>• Evaluate learners' responses and presentations and supplement accordingly.</li> </ul>

Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
		expanding the sources of government revenue.			
	<b>Fiscal Policy</b>	<ul style="list-style-type: none"> <li>define fiscal policy and taxation.</li> <li>distinguish the common terminologies used in taxation.</li> <li>explain the objectives of fiscal policy.</li> <li>explain the objectives of fiscal policy.</li> <li>explain the principles, characteristics of a good tax</li> </ul>	<ul style="list-style-type: none"> <li>Meaning of fiscal policy and taxation.</li> <li>Common terminologies used in taxation.</li> <li>objectives of fiscal policy.</li> <li>Principles, characteristics of a good tax system</li> <li>Role of taxation in raising public revenue in an</li> </ul>	<ul style="list-style-type: none"> <li>Using expository methods, explain fiscal policy, taxation and common terminologies used in taxation.</li> <li>Task learners to research and find out objectives of monetary policy, principles and characteristics of a good tax system.</li> <li>Guide a brainstorm on types of taxes and their advantages and</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners to ensure active participation of all.</li> <li>Ask probing questions to encourage critical thinking and deeper learning.</li> <li>Evaluate learners' findings and presentations and supplement accordingly.</li> </ul>

Period	Sub- topic	Specific objective	Content	Suggested activities	learning	Assessment strategy
		<p>system</p> <ul style="list-style-type: none"> <li>discuss the role of taxation in raising public revenue in an economy.</li> <li>distinguish the types of taxes and assess the advantages and disadvantages of each.</li> <li>explain tax base and how to expand it.</li> <li>evaluate the effectiveness of fiscal policy.</li> </ul>	<p>economy.</p> <ul style="list-style-type: none"> <li>Types of taxes and advantages and disadvantages of each.</li> <li>Tax base and how to expand it.</li> </ul>	<p>disadvantages.</p> <ul style="list-style-type: none"> <li>Expose learners to tax base and task them in groups to discuss how tax base can be expanded.</li> </ul>		



Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
	<b>Public Debt and Budget</b>	<ul style="list-style-type: none"> <li>explain the causes and management of public debt.</li> <li>distinguish debt financing from taxation</li> <li>describe taxation expenditure and borrowing as instruments of fiscal policy.</li> <li>discuss the budget as an instrument of social and economic policy</li> </ul>	<ul style="list-style-type: none"> <li>Causes and management of public debt.</li> <li>Debt financing from taxation</li> <li>Taxation expenditure and borrowing as instruments of fiscal policy.</li> <li>Budget as an instrument of social and economic policy</li> </ul>	<ul style="list-style-type: none"> <li>guide a brainstorm on causes and management of public debt.</li> <li>Use expository methods to differentiate between debt financing and taxation financing and how they are used as instruments of fiscal policy.</li> <li>Learners use internet and library resources to find out the role of the budget as an instrument of social and economic policy</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they brainstorm, interact in groups and carry out research.</li> <li>Engage learners in conversations concerning the activities to encourage critical thinking.</li> <li>Evaluate learners' presentations and give feedback accordingly</li> </ul>

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### Teaching/Learning Strategies

- Group discussions
- Guided discovery
- Demonstration
- Brainstorming

**Note:** Guide learners to make their own notes from the presentations and activity wrap ups.

### Teaching/Learning Aids

- Flip charts
- Markers
- Economics text books
- Internet
- News papers
- TV/Radio



## TOPIC: INTERNATIONAL TRADE

Duration: 3 weeks

**General Objective:** To demonstrate knowledge, understanding and application of the concept of international trade in the development of an economy.

Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
27	<b>International Trade</b>	<p><b>The learner should be able to:</b></p> <ul style="list-style-type: none"> <li>• Meaning and forms of international trade.</li> <li>• explain the basis of international trade.</li> <li>• explain the principles of comparative and their applicability.</li> <li>• explain the terms: terms of trade,</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning and forms of international trade.</li> <li>• Basis of international trade.</li> <li>• Principles of comparative advantage and their applicability.</li> <li>• Terms of trade, balance of trade, and balance of payments.</li> <li>• Balance of</li> </ul>	<ul style="list-style-type: none"> <li>• Guide a brainstorm on meaning and forms of international trade.</li> <li>• In groups learners discuss the basis of international trade.</li> <li>• Use expository methods to state, explain and demonstrate the principle of comparative advantage.</li> <li>• Guide learners to</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate learner's responses from the brainstorm and give immediate feedback.</li> <li>• Observe learners as they work in groups.</li> <li>• Evaluate learners' presentations and supplement</li> </ul>

Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
		balance of trade, and balance of payments. <ul style="list-style-type: none"> <li>• explain balance of payments disequilibrium.</li> <li>• discuss the balance payments in Uganda, causes, effects, solutions to overcome it.</li> </ul>	payments disequilibrium. <ul style="list-style-type: none"> <li>• Causes, effects and solutions of balance payments disequilibrium on domestic economy.</li> </ul>	brainstorm the applicability of the principle of comparative advantage. <ul style="list-style-type: none"> <li>• Use guided discovery to derive the meanings of terms of trade, balance of trade, balance of payments and BOP disequilibrium.</li> <li>• In groups, learners discuss the causes, effects and solutions of balance payments disequilibrium on domestic economy.</li> </ul>	accordingly.

Period	Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
	<b>Foreign Exchange Rate and Devaluation</b>	<ul style="list-style-type: none"> <li>define foreign exchange rate.</li> <li>identify and explain advantages and disadvantages of each type of foreign exchange rate.</li> </ul>	<ul style="list-style-type: none"> <li>Meaning foreign exchange rate.</li> <li>Advantages and disadvantages of each type of foreign exchange rate.</li> </ul>	<ul style="list-style-type: none"> <li>Guide learners to brainstorm the meaning of foreign exchange rate.</li> <li>In groups, learners discuss the advantages and disadvantages of each type of foreign exchange rate.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate learner's responses from the brainstorm and give immediate feedback.</li> <li>Observe learners as they work in groups.</li> <li>Evaluate learners' presentations and supplement accordingly.</li> </ul>
	<b>Economic Cooperation / Integration</b>	<ul style="list-style-type: none"> <li>Define economic integration and its various forms for example free trade area, customs</li> </ul>	<ul style="list-style-type: none"> <li>Meaning of economic integration and its various forms for example free trade</li> </ul>	<ul style="list-style-type: none"> <li>Guide a brainstorming session on meaning and examples of economic</li> </ul>	<ul style="list-style-type: none"> <li>Observe learners as they brainstorm, interact in groups and</li> </ul>

Sub-topic	Specific objective	Content	Suggested learning activities	Assessment strategy
Period	<p>union, and common market.</p> <ul style="list-style-type: none"> <li>Explain the necessary conditions for the success of an economic integration.</li> <li>Identify and explain the gains and costs of economic integration.</li> <li>Understand the operation of the East African Community</li> </ul>	<p>area, union, customs and common market.</p> <ul style="list-style-type: none"> <li>Conditions necessary for the success of an economic integration.</li> <li>Gains and costs of economic integration.</li> <li>Operation of the East African Community</li> </ul>	<p>integration.</p> <ul style="list-style-type: none"> <li>Learners research on the stages of economic integration.</li> <li>In groups learners discuss conditions necessary for the success of an economic integration, its costs and gains.</li> <li>use internet and newspapers to find out challenges faced by the east African community and suggest measures to control them. Share the findings in class.</li> </ul>	<p>carry out research.</p> <ul style="list-style-type: none"> <li>Engage learners in conversations concerning the activities to encourage critical thinking.</li> <li>Evaluate learners' presentations and give feedback accordingly.</li> </ul>



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ABRIDGED CURRICULUM FOR UGANDA

## Teaching/Learning Strategies

- Group discussions
- Guided discovery
- Demonstration
- Brainstorming

**Note:** Guide learners to make their own notes from the presentations and activity wrap ups.

## Teaching/Learning Aids

- Flip charts
- Markers
- Economics text books
- Internet
- Journals
- Bank statements
- Newspapers having foreign exchange rates

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# CLOTHING AND TEXTILES

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**SUBJECT: CLOTHING AND TEXTILES - 3456 SUBJECT**
**Introduction:**

This is Clothing and Textiles for the incoming senior six learners. It is important to remember that a lot of time was lost due to covid19 and much content was not covered in senior five. This has been brought on board to be covered before starting on what they are supposed to cover in senior five. All basic sewing processes like seams, stitches, facings and edge finishes among others should be handled during construction of garments and household articles. This will save time for more hands on activities. Other changes can be seen in the matrix below:

SN	CRITICAL CHANGES	JUSTIFICATION
1	Topic 2: Fiber terminologies, to covered under subtopic 2: Classification of fibres	The competencies are the same.
2	Methods of Fabric construction – dropped bonding, felting, lacing and crocheting	Felting and bonding are not common construction methods in Uganda. Crocheting and lacing are common but are also easy the learner who is interested can teach themselves
3	Fabric finishes – dropped <b>methods of applying fabric finishes:</b> - general brushing - pressing - scouring - inspection - shearing - singeing - sizing - tentering - mercerisation - flameproof,	Not so crucial in construction and care of garments
4	Yarns – dropped production of yarns and focused on classification	Classification includes characteristics which are crucial during care of fabrics
5	Under Colour Application,	You can make mention of it when

	classification of dyes was dropped	handling introducing colour in fabrics
6	Dropped Introduction to clothing technology	This mainly deals with history
7	Topics that aid in garment construction such as dress patterns and commercial patterns, equipment used in garment construction, basic sewing processes – stitches, seams, fastenings, controlling of fullness, edge finishes, collars, sleeves, openings, facings, and pockets, as well as taking body measurements have been left out	Some of these were handled before lock down. The rest should be handled practically during the construction of garments and other articles.
8	All basic sewing processes to be handled during construction of garments and household articles	Since the garments comprise of all these processes including enhancing.
9	Historical background has been left out	It was handled before lockdown.
10	Under project work, the construction of under garments has been dropped	This has helped to make the project work lighter

## TERM ONE

### Topic 1: Fibres Duration: 13 Periods

#### General Overview

This topic introduces learners to the classification and characteristics of fibres. It enables them to explain the physical, chemical, thermal and biological properties that guide in the identification of different fibres. Fibres are generally classified into two categories: the natural and those that are developed in laboratories by experimental procedures. The topic exposes the learners to the different methods of producing fibres and gives examples of fabrics made from them. Each fibre undergoes various stages of production. The stages of production for cellulosic, proteinic, regenerated, mineral and synthetic fibres from raw materials form the content of this topic. The topic also introduces the learners to the physical, chemical, thermal and biological characteristics of specific fibres. Appropriate care of fabrics made from these fibres is also handled.

#### General Objective:

By the end of the topic, the learner should be able to classify fibres and explain their production process.

#### Sub-Topic: Classification of Fibres

Specific Objectives	Content
Classify fibres	Classification of fibres: <ul style="list-style-type: none"> <li>• natural fibres               <ul style="list-style-type: none"> <li>✚ cellulosic (cotton, flax (linen), sisal, jute, coir, hemp, manila, palm leaves).</li> <li>✚ protein (silk, wool)</li> <li>✚ minerals like glass, asbestos, etc.</li> </ul> </li> <li>• manmade or artificial fibres:               <ul style="list-style-type: none"> <li>✚ regenerated (viscose rayon, cuprammonium rayon, acetate and tri-acetate)</li> <li>• synthetic fibres (nylon, polyester, acrylics)</li> </ul> </li> </ul> Processing of raw materials of the following

	fibres namely cotton, silk, viscose rayon, and polyester, acrylics from fibres to yarn and to fabric.
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**Methodology:**

- Through observation, guide learners to identify fibres.
- Through text reading and the use of fabric swatches, guide the learners to classify the different types of fibres.
- In groups, let learners make their own files and make presentations to the whole class.

**Teaching/Learning Aids**

- Charts
- Fabric swatches
- Samples of fibres

**Assessment Strategies**

- Learners draw flow charts in their books
- Learners file fibre swatches

## Topic 2: Yarns Duration: 6 Periods

### General Overview

This topic classifies yarns and describes their general and specific characteristics. It introduces the learners to methods of producing various yarns i.e. staple yarn, filament yarn, fancy/ novelty yarn, textured yarn, spun yarn and ply yarns. There are different types of yarns used in fabric construction. Yarns can be staple or filaments, simple or textured, mono- or multi- filament component yarns. Different yarns have specific properties and characteristics which determine the way they behave and therefore, the way fabrics should be treated. In this topic, the properties of yarns which determine their performance will be studied.

### General Objective:

By the end of the topic, the learner should be able to classify yarns, describe their specific characteristics and the methods of production.

### Sub-Topic: Classification of Yarns

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• classify the different types of yarns.</li> <li>• distinguish between the two basic types of yarn.</li> <li>• describe the characteristics of different yarns.</li> </ul>	<ul style="list-style-type: none"> <li>• Classification of yarn: – staple or filament; simple or textured; mono-filament or multi filament yarns</li> <li>• Characteristics of yarns               <ul style="list-style-type: none"> <li>○ A detailed study of physical, chemical, thermal and biological properties of cotton, silk, polyester and rayon</li> <li>○ Identification of yarns.</li> <li>○ Selection and use of fabrics made from cotton, silk, polyester and rayon fibres for different occasions</li> </ul> </li> </ul>



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|--|--|
|  | <ul style="list-style-type: none"><li>○ Brief procedures of caring for different cotton, silk, polyester and rayon fibres.</li></ul> |
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### Methodology

- Through observation, guide learners to identify the various samples of yarn displayed and distinguish between the two basic types of yarns.
- Through demonstrations, guide learners to identify the general characteristics of different variations of yarns using a magnifying glass.
- Through whole class discussion, guide learners to classify yarns and describe their characteristics.

### Teaching/Learning Aids

- Samples of yarns
- Magnifying glasses

### Assessment Strategies Learners:

- draw a table showing the classification of yarns.
- identify four basic types of yarn and explain how each is formed.
- write down the characteristics of the different yarns.
- explain the importance of texturing yarns.
- explain the relationship between courses and wales and the characteristics of yarns.

## Topic 3: Blends and Mixtures. Duration: 3 Periods

### General Overview

Different fibres may be used in the production of yarns and fabrics. A blend is a mixture of two or more fibres of different generic type, length, diameter or colour combined to form a yarn. On the other hand, a mixture is produced using one fibre content on the weft and a different one on the warp, for example, yarns of cotton fibres used with yarns of nylon fibres, thus, two or more yarns from different fibres are used in combination to produce a fabric. For example, a fabric may be made of cotton yarns in the warp and polyester yarns in the weft. This is called a mixture. Blending and mixing improves the performance of a fabric and also affects the way a fabric is used.

### General Objectives

By the end of the topic, the learner should be able to:

- explain the importance of blends and mixtures.
- use and care for blended and mixed fabrics.

### Sub-Topic: Importance of Blends and Mixtures

Specific Objective	Content
<ul style="list-style-type: none"> <li>• With examples, differentiate between blends and mixtures.</li> <li>• describe the characteristics of blends and mixtures.</li> <li>• Explain the importance of Blends and Mixtures</li> <li>• Uses and care for blends and mixtures</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of differences between blended and mixed fabrics</li> <li>• Examples of blends and mixtures</li> <li>• Characteristics of blends and mixtures, for example: - easy to care - more durable - becomes more soft and luxurious - becomes more resistant to wrinkles -becomes more comfortable to wear - does not shrink - becomes stronger to withstand lots of wear and multiple washing</li> <li>• Importance of blending and mixing fibres</li> </ul>

Specific Objective	Content
	<ul style="list-style-type: none"><li>• Uses of blends and mixtures</li><li>• Care of blends and mixtures</li></ul>

### Methodology

- Through text reading, guide learners to explain the concepts of blends and mixtures.
- Through demonstration and observation, guide learners to discuss the characteristics of blends and mixtures making use of the micro-scope.
- Guide learners to discuss the characteristics and uses of blends and mixtures using fabric swatches.
- Through brainstorming, guide learners to describe the care of blends and mixtures.
- Using whole class discussion, guide learners to discuss the importance of blends and mixtures.
- Guide learners to brainstorm the uses and care of mixed and blended fabrics.

### Teaching/Learning Aids

- Samples of blends and mixtures
- Microscope
- Chemicals
- Heat source

## Additional Notes

### Definition of terms

A mixture is a fabric which is comprised of two or more different fibres, each one spun into a separate yarn e.g. a fabric with a cotton warp and woollen weft producing wool/cotton fibre mixture. A blend is a fabric that is composed of two or more different fibres which have been mixed before or during spinning into yarn e.g. cotton and polyester fibres are mixed and spun into yarn. For example, a fabric can be 30% polyester and 70% cotton.

### Importance of blending and mixing fibres

- Reduces costs by mixing a cheap fibre with a more expensive one.
- Combines properties of fibres in order to cover up less desirable characteristics in one fibre and give improved fabric performance.
- Gives different texture and colour effects.
- Improves wearing qualities.

### Characteristics of blended fabrics

- It is easy to care.
- It becomes more durable.
- It becomes more soft and luxurious.
- It becomes more resistant to wrinkles.
- It becomes more comfortable to wear.
- It does not shrink.
- It becomes stronger to withstand lots of wear and multiple washing.

## Uses of fabric blends

- Polyester/Cotton - The tough crease-resistance of polyester combines with the cool comfort of cotton. It is easily laundered, dries quickly and is ironed with lower temperature than pure cotton.
- Nylon/Wool - The blending of nylon with wool makes the fabric more absorbent and softer. It becomes more strong and durable.
- Nylon/Acetate - This combination makes the fabric more absorbent than nylon alone.
- Ramie/Polyester or Ramie/Acrylic - These two blends help the fabric to be easily taken care of and it is less stiff than pure ramie fabrics.
- Wool/Cotton - These two fabrics benefit from the inherent qualities of each other after blending. It gives better comfort, better aesthetics and better performance.
- Linen/Silk or Linen/Rayon - This blend helps the fabric to retain the characteristics of linen and makes the fabric drape better and wrinkleless.
- Silk/Wool - The blending of silk with wool provides subtle texture to the fabric. It is generally used for ties.
- Rayon/Cotton - This fabric of rayon and cotton blend wears well and is washable. It is soft and has fuzzy surface. Dresses, suits, sportswear, men's shirts, etc. are made out of this fabric.
- Wool/Synthetics or Rayon/Synthetics - This blend has a very clear finish and it drapes better and tailors easily. It has exceptional wearing qualities. The fabric is used for men's and women's suits and coats. Ski slacks are also made out of these blends.
- Cotton/Polyester - The quality of polyester helps cotton to give a permanent press property. It is extremely soft, resists wrinkling and is easy to care for. This fabric is widely used as men's dress shirts and christening apparel.

## Assessment Strategies

Learners make swatches of blends and mixtures.

## Topic 4: Fabric Construction Duration: 6 Periods

### General Overview

Fabrics are constructed using various methods. The methods produce different qualities in the fabrics which determine their performance. These methods include weaving, knitting, crocheting, bonding, felting, lacing and braiding. The different methods used in construction produce fabrics with different characteristics. The main and most common methods of fabric construction are weaving, knitting and crocheting. Weaving is a method of fabric construction which involves interlacing of threads. It can be done using various methods to create different characteristics in the fabric. Knitting on the other hand is a method of fabric construction that involves the inter-looping of yarns horizontally or vertically. Crocheting is a technique which is closely related to knitting. It is worked by joining together a series of inter-looped yarns using a single hook and it produces fabrics with an appearance similar to lace fabrics. Besides weaving, knitting and crocheting, some fabrics are constructed by bonding, felting, lacing and braiding. Bonding is whereby layers of material are joined together using heat, moisture and adhesives. Felting is another method of making non-woven fabrics by matting fibres in the presence of heat, moisture and agitation. Lace is one of the most treasured fabrics because of its beauty. Its construction is related to knitting, netting and embroidery. This topic explores the methods of constructing lace fabrics, their characteristics and uses. Fabrics may be created by plaiting together yarns or strips of fabric.

### General Objective

By the end of the topic, the learner should be able to describe the different methods of constructing fabrics.

### Sub-Topic 1: Weaving

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• explain the term weaving.</li> <li>• classify weaves.</li> <li>• outline the parts of a hand loom and their functions.</li> <li>• describe the different</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of weaving</li> <li>• Classification of weaves</li> <li>• Hand loom and its parts</li> <li>• Methods of weaving: - plain weave - twill weave - satin weave - fancy</li> </ul>

<p>methods of weaving procedures.</p> <ul style="list-style-type: none"> <li>• practice the basic steps of weaving.</li> <li>• construct fabric samples using different weaves.</li> <li>• describe the characteristics of different weaves.</li> <li>• select fabric according to weave for different purposes.</li> </ul>	<p>weaves</p> <ul style="list-style-type: none"> <li>• Basic steps in weaving</li> <li>• Construction of basic weaves and their variations</li> <li>• Characteristics of different weaves</li> <li>• Suitability of weaves for various purposes: in making up, cleaning, washing, practicability, hygienic qualities</li> <li>• Caring for woven articles</li> </ul>
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### Methodology

- Through observation and task-based learning, guide learners to describe the characteristics of different weaves using fabric swatches and sample illustrations.
- Using charts and text reading, demonstrate the steps taken in weaving.
- Using guided discussion and diagrams of different weaves, lead learners to classify weaves.
- Using demonstration, let learners name the various parts of a hand loom and explain their functions.
- Through demonstration and group work, guide learners to construct weave samples using different methods.
- Through buzz groups, guide learners to discuss the purpose and care of fabrics made using different weaves.

### Teaching/Learning Aids

- Hand looms
- Yarns

- Fabric swatches in different weaves
- Charts
- Manila cards in different colours
- Pair of scissors
- Banana leaves
- Palm leaves
- Hand lens

### **Assessment Strategies**

- Learners note down the following: - definition of weaves - classification of weaves - basic steps of weaving (Draw the diagrams) - characteristics of different weaves
- Learners collect fabrics swatches for the different weaves
- Learners make samples illustrating various weaves

### **Additional Notes**

- Definition of weaving: weaving is the interlacing of two sets of yarns (warp and the weft) crossing each other at right angles on a loom.
- Classification of weaves is based on the mode of interlacing.
  - Types of weaves: - plain weave and its variations (basket, ribbed) - twill weave (left hand and right hand) - satin weave and sateen - fancy weaves – leno (gauze), pile lacing
- Basic steps of weaving operations, shedding, picking, beating up and letting off
- Suitability of weaves for various purposes: in making up, cleaning, washing, practicability, hygienic qualities



**Sub-Topic 2: Knitting**

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• define the term knitting.</li> <li>• identify knitting equipment.</li> <li>• outline rules and symbols used in knitting.</li> <li>• use basic knitting stitches to create various designs and make articles.</li> <li>• examine the variations of basic knitting stitches.</li> <li>• describe the methods used in knitting.</li> <li>• describe the characteristics of knitted fabrics.</li> <li>• care for knitted articles appropriately.</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of knitting</li> <li>• Equipment used in knitting</li> <li>• Rules and symbols used in knitting.</li> <li>• Basic knitting stitches: - knit – purl</li> <li>• Variations of basic knitting stitches</li> <li>• Methods of knitting (hand and machine)</li> <li>• Characteristics of knitted articles, for example sweaters, cardigans, booties, shawls, Jersey double knits</li> <li>• Care for knitted articles mentioned above</li> </ul>

**Methodology**

- Through brainstorming, guide learners to define knitting, identify equipment and outline rules used in knitting.
- Using text reading, let learners identify knitting symbols/abbreviations.
- Using demonstration and group work, guide learners to knit articles of different designs.
- Through observation and group discussions, guide learners to identify the characteristics of knitted fabrics.
- Through demonstration and task-based learning, guide learners to care for different knitted articles.

### Teaching/Learning Aids

- Knitting machines
- Knitting needles
- Yarns
- Instruction sheets
- Punched cards
- Tape measures

### Assessment Strategies

- Learners define knitting
- Learners outline the characteristics of knitted fabrics
- Learners are given individual tasks to construct knitted articles using the various knitting stitches

### Additional Notes

- Knitting is a method of fabric construction which involves the interlooping of loops of thread.
- Tools and equipment used in knitting: knitting needles, safety pins, knitting machines (warp and weft)
- Variations of basic stitches – rib, basket, accordion stitch, machine knitting stitches (weft and warp knitting)
- Characteristics of knitted fabrics i.e. they stretch, they are porous, do not wrinkle

### Sub-Topic 3: Braiding

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• define the term braiding.</li> <li>• describe the procedure of braiding.</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of braiding</li> <li>• Procedure of braiding</li> </ul>

Specific Objective	Content
<ul style="list-style-type: none"> <li>• describe the characteristics of braided fabric.</li> </ul>	<ul style="list-style-type: none"> <li>• Characteristics of braided fabrics</li> </ul>
<ul style="list-style-type: none"> <li>• illustrate the construction of braided fabrics.</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of braided fabrics</li> </ul>
<ul style="list-style-type: none"> <li>• state the uses of braided fabrics.</li> </ul>	<ul style="list-style-type: none"> <li>• Uses of braided fabrics</li> </ul>

### Methodology

- Using text reading and brainstorming, lead learners to define the term braiding and describe the procedure of braiding.
- Using demonstrations, guide learners to practice braiding.
- Guide learners to individually braid an article.
- Guide learners to display their work and give comments on each other's work.
- Through whole class discussion, guide learners to describe the characteristics and uses of braided fabrics through observation.

### Assessment Strategies

- Learners construct sample items of braided articles individually

### Additional Notes

- Braided fabric is constructed by plaiting three or more yarns originating from a single location and lying parallel before the interlacing occurs.
- Characteristics of braided fabrics: - They have a diagonal surface effect - They have a considerable amount of stretch
- Uses of braided fabrics: rugs, mats, hand fans

## TERM TWO

### Topic 5: Fabric Finishes Duration: 3 Periods

#### General Overview

Fabrics are given specific treatments to improve care, use and performance. A number of finishes are used for general purposes while others are used to bring out specific functions. This topic introduces the learners to the classification of fabric finishes, their advantages and the role of different finishes in fabrics.

#### General Objective

By the end of the topic, the learner should be able to care for and maintain fabrics with different finishes appropriately.

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• classify fabric finishes.</li> <li>• identify the basic finishes</li> <li>• describe characteristics of fabrics with basic finishes.</li> <li>• identify the functional finishes.</li> <li>• describe the characteristics of fabrics with functional finishes.</li> <li>• distinguish between basic and functional finishes.</li> <li>• explain the advantages of fabric finishes.</li> <li>• explain the importance of</li> </ul>	<ul style="list-style-type: none"> <li>• Classification of fabric finishes: - basic finishes/preparatory - functional finishes - difference between basic and functional finishes</li> <li>• Fabric finishes</li> <li>• Basic finishes: - bleaching - de-gumming - carbonising - tentering - dyeing - delusturing - beetling, etc</li> <li>• Functional finishes: - abrasion resistance - mercerisation - anti-static - flame resistance - water resistant water repellent, etc</li> <li>• Characteristics of functional finishes</li> <li>• Advantages of fabric finishes</li> </ul>

Specific Objective	Content
different finishes in fabrics.	<ul style="list-style-type: none"><li>• The importance of functional fabric finishes: - calendaring - embossing - glazing - mercerisation - sanforisation - trubenisation - flame proof - waterproof, etc</li></ul>

### Methodology

- Using text reading, guide learners to explain the meaning of finishes as well as classify and distinguish between basic and functional fabric finishes.
- Through brainstorming and discussion, guide learners to describe the characteristics of fabrics with basic finishes and fabrics with functional finishes.
- Guide learners to brainstorm and discuss the differences between basic and functional finishes as learners record the differences.
- Using the recorded differences between functional and basic finishes, let learners discuss the importance of fabric finishes.
- Using whole class discussion, guide learners to describe the methods of applying fabric finishes.
- Through task-based learning, let learners collect fabric pieces to make swatches of both basic and functional finishes.

### Teaching/Learning Aids

- Textbooks
- Scraps of fabric from tailors
- Pair of scissors

- Manila card
- Glue
- Markers
- Fibre samples

### **Assessment Strategies**

- Learners explain how the following finishes are applied: - sizing - scouring - shearing - pressing - stentering
- Let learners name three performance finishes that are important for consumers. Let them give reasons for their answers.

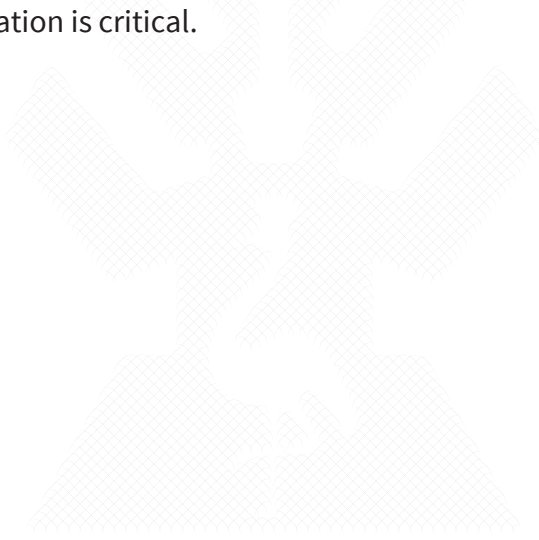
### **Additional Notes**

#### **Fabric Finishes**

- Fabric finishes are any special treatment applied to improve a fabric's appearance, texture or performance.
- Classification of fabric finishes: fabric finishes are classified as basic and functional finish
- Basic finishes are finishes used to prepare the fabric for further processing
- Functional finishes are treatments that are applied to improve the performance of the fabric
- Advantages of fabric finishes: - Fabric finishes improve the properties of fabrics. - Some finishes are used to prepare the fabric for further processing. - They improve the performance of the fabrics as well.
- Types of functional finishes: - Calendaring: it is a smoothing of fabric between heated rollers which produces a highly polished or glazed fabric e.g. Chintz - Embossing: an embossed finish is relatively permanent, stands out and is less expensive than a woven-in design. - Glazing gives a smooth surface to fabrics which enables them keep clean longer. - Mercerisation finish is applied to cotton before or after bleaching and occasionally after dyeing. It involves use of a strong solution of sodium hydroxide at a uniform temperature of 70 – 800 F. The purposes are: to improve its strength; give it

greater affinity to dye and improve its lustre. - Sanforisation: Sanforised cloth is pre-shrunk before appearing on the market and therefore no allowance for shrinkage need be made. - Flame resistant / flame retardant: This finish reduces flaming and burning in fabrics that have been exposed to flame or high heat. They are used on children's sleep wear and other clothing. - Water repellent: This finish makes fabrics resist stains or water marking, for example, on silk and velvet. - Water-proofing renders fabrics impervious to water and is used for rain wear. - Sizing: This is a stiffening finish which may be temporary or permanent that is added to fabric to improve its smoothness, weight, strength and resistance to soiling. • Methods of applying fabric finishes There are various methods of applying fabric finishes including the following: - Brushing is required for smooth surfaced fabrics such as cotton and dress percale. Brushing is done with rollers covered with bristles which remove short ends of fibres. It may be applied to any fabric. - Pressing as applied to wool is the same as calendaring for other fibres. To press wool, the fabric is placed between heavy, electrically heated metal plates that steam and press the fabric. Sometimes the cloth is wound around a cylindrical unit that dampens the fabric and then presses it. This method can be used on woollen, worsteds, rayons and silk. - Scouring removes any sizing, dirt, oils, or other substances that may have adhered to the fibres during processing of yarn or fabric. Soft water is used to avoid the formation of an insoluble soap film on the fabric. - Singeing: In this method, smooth-surfaced cloths are passed over either heated plates or gas flames to remove projecting fibres. The fabric must be passed rapidly over the gas flame so only these fibres are burned. - Shearing: After a nap has been raised on a cloth, it is sheared to make the surface smooth and uniform. Shearing removes all surface fibres. The process also serves to cut off knots, ends or other defects. The shearing device has revolving blades similar to a lawn mower. Shearing can be applied to any of the textile fibres or blends. - Stentering: During the processes of scouring, bleaching, dyeing and printing, the material is sometimes pulled out of shape. It is passed through a stentering machine which has chips on both sides to grip the selvedge and pull the material out to the correct shape. Finishes are applied to many fabrics to enhance their appearance, texture or performance. Although finishes may be applied during different stages of the development of the fabric, they are often applied after the fabric has been produced. They are mechanically, thermally or chemically applied to

the surface of a fibre, yarn or fabric to enhance the aesthetic, tactile or performance characteristics of the fabric. Finishes may permanently alter the fabric or may provide a temporary effect. Finishes affect the inherent characteristics or properties of a base fabric to a greater or lesser degree. Some finishes allow fabrics to become rigid while others result in soft, supple fabrics. Some finishes allow fabrics to appear shiny and smooth while others produce a dull, textured surface. Other finishes enable fabrics to retain their shape, repel water or resist fire. For some end uses, a certain set of properties is highly desirable; yet, for others, the same set of properties may be a disadvantage. For example, it is desirable for most athletic wear to absorb moisture, while it would not be advantageous for an awning, umbrella or rain gear to absorb water. Textile products can be enhanced and made more serviceable by applying finishes that combine a certain set of desirable properties. Take the example of a fireman's uniform, where fire retardation is critical.





## Topic 6: Colour Application Duration: 10 Periods

### General Overview

There are various methods of introducing colour into fabrics. Some of the methods include dyeing, printing and batik. This topic focuses on different ways of introducing colour to fabrics. It highlights different dyes and their principles of application. It also gives the advantages and disadvantages of each type of dye. The procedures of these methods of colour application have been dealt with.

### General Objective

By the end of the topic, the learner should be able to introduce colour into fabric using various techniques.

### Sub-Topic 1: Introducing Colour into Fabric

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• describe the different methods of introducing colour to fabric.</li> <li>• state the principles of dyeing.</li> <li>• outline the different stages of dyeing.</li> <li>• decorate fabrics by dyeing.</li> <li>• explain the meaning of printing.</li> <li>• explain the different methods of printing.</li> <li>• decorate fabrics by printing.</li> </ul>	<p>Different methods of introducing colour into fabrics: -</p> <ul style="list-style-type: none"> <li>• Dyeing: tie and dye, batik</li> <li>• Printing: block printing, roller printing, screen printing</li> <li>• Principles/steps of dyeing</li> <li>• Stages of dyeing: - fibre dyeing - solution dyeing - yarn dyeing - piece dyeing</li> <li>• Dyeing: - tie and dye- batik</li> <li>• Meaning of printing</li> <li>• Methods of printing: - screen printing - block printing - roller printing</li> </ul>

## Methodology

- Through brainstorming and guided discussion, learners state different methods of introducing colour into fabrics.
- Through text reading, think-pair share and brainstorming, guide learners to explain the meaning of the terms dye and colour and classify dyes into their specific categories.
- Through guided discussion, learners state the principles and outline the stages of dyeing.
- Through demonstration, let learners introduce colour into fabrics using different methods.
- Through text reading, let learners explain the meaning of colourfastness.
- Through demonstration and whole class discussion, let learners determine the colour fastness in different fabrics.
- Through guided discussion, guide learners to analyse the principles of dyeing and stages of dye application.
- Through demonstration, visualisation in individual participation and presentation (VIPP), and task-based learning, guide learners to introduce dye in fabrics using tie and dye and batik methods.
- Learners display their dyed work.
- Through discussion, guide learners to explain the meaning of printing and the different methods of printing.
- Through demonstration, VIPP and task-based learning, learners decorate fabrics by block printing, roller printing and screen printing.

## Teaching and Learning Aids

### Samples of fabric

- |                   |             |
|-------------------|-------------|
| • Screens         | • Dyes      |
| • Textbooks       | • Fabric    |
| • Saucepan        | • Salt      |
| • Printing screen | Heat source |

- Blocks
- Iron and ironing boards
- Wooden mixer
- Rollers
- Gloves
- Hot water and wax

### Assessment Strategy

- Learners list the various methods of introducing colour into fabric by using a sample of fabric
- Learners write down the principles used in colour application
- Learners write the procedure of the following methods of colour application: - dyeing - printing - batik

## Sub- Topic 2: Colour Fastness

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• explain the meaning of colour fastness.</li> <li>• test for colour fastness in fabrics.</li> <li>• explain the factors that determine colour fastness.</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning of colour fastness</li> <li>• Tests to determine colour fastness</li> <li>• Factors that determine colour fastness in a fabric</li> </ul>

### Methodology

- Use text reading and whole class discussion to guide the learners explain the meaning of colour fastness and the factors that determine colour fastness. • Demonstrate various tests to determine colour fastness in a fabric. • Through group work, guide learners to imitate the tests demonstrated and display the samples from the group work for comments. Teaching/Learning Aids • Heat source • Water • Flat iron • Lemon • Black pepper • Fabrics with colour • Ammonia

## Assessment Strategies

- Learners write the meaning of colour fastness
- Learners write the factors that determine colour fastness
- Learners write the materials and tools used in testing for colour fastness
- Learners demonstrate the procedure followed when testing and caring for colour fastness

## Topic 7: Care of Fabrics Duration: 19 Periods

### General Overview

Fabrics are attained from different fibres and each fibre has different characteristics which cause it to respond uniquely to laundry agents and methods. Proper care of fabrics is a way of maintaining and prolonging the life of garments. Specific laundry and dry cleaning processes are employed when caring for different fabrics and garments, and this calls for an understanding of the chemical compositions of different soaps, detergents, stain removers and dry cleaning reagents. This topic equips the learners with knowledge about the composition of laundry agents and their effect on different fabrics, the different methods employed in laundering fabrics; and the laundry agents and methods best suited for a given fabric so as to prolong the life of articles made from various fabrics. This topic also introduces learners to the understanding and interpretation of care labels on garments. Already made garments come with care labels that specify the laundry handling of garments during laundry processes. It is important for the learners to also understand and interpret care labels on garments appropriately. Dry cleaning is the cleaning of fabrics and textiles using a chemical solvent. The advantages of these solvents over water is that they do not react with the fibres of the fabric or with dye stuffs in the same way as water does, and many commonly applied fabric finishes are not soluble in them.

### General Objective

By the end of this topic, the learner should use appropriate methods to care for different types of fabrics.

## Sub-Topic 1: Laundry Agents

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>state the different types of laundry agents.</li> <li>Describe the types of water</li> <li>Explain the methods of softening water</li> <li>Describe the characteristics of water as a laundry agent</li> <li>state the advantages of water</li> <li>describe the different types of soap used in laundry</li> <li>describe the qualities and characteristics of a good soap.</li> <li>explain the advantages and disadvantages of laundry soap.</li> <li>describe the cleansing action of soap. <ul style="list-style-type: none"> <li>store soap properly.</li> <li>define soap-less detergents.</li> <li>classify soap-less detergents.</li> <li>explain the properties of soapless detergents.</li> <li>explain the cleansing action of soap-less detergents.</li> <li>describe the advantages of soapless detergents.</li> <li>describe the disadvantages of soap-less detergents.</li> <li>explain the uses of additives</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Types of laundry agents: - water - soap - detergents - fabrics softeners- stiffeners - bleaches - stain removers</li> <li>Water: - types of water (soft and hard) - sources; types of hardness in water</li> <li>Methods of softening hard water</li> <li>Characteristics of water as a laundry agent</li> <li>Advantages of soft water</li> <li>Types of soaps (soap flakes, soap powder, soap jelly and bar soap)</li> <li>Qualities/characteristics of a good laundry soap</li> <li>Advantages and disadvantages of laundry soap</li> <li>Cleansing action of soap</li> <li>Proper storage of soap</li> <li>Definition of soap-less detergents</li> <li>Classification of soap-less detergents</li> <li>Properties of good soap-less detergents</li> <li>Cleansing action</li> <li>Advantages of soap-less detergents</li> <li>Disadvantages of soap-less detergents.</li> </ul>

Specific Objective	Content
<p>in soap-less detergents.</p> <ul style="list-style-type: none"> <li>differentiate between soaps and soap-less detergents.</li> <li>select the right detergents for cleansing fabrics.</li> <li>select the right detergents for cleansing fabrics.</li> </ul> <ul style="list-style-type: none"> <li>State the types and functions of fabric stiffeners</li> <li>Classify bleaches</li> </ul> <ul style="list-style-type: none"> <li>State the functions of bleaches</li> <li>Select and use bleaches correctly</li> </ul> <ul style="list-style-type: none"> <li>state the functions and types of fabric softeners.           <ul style="list-style-type: none"> <li>state the functions of fabric softeners.</li> <li>state importance of other cleaning agents.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Additives in soap-less detergents (builders, softeners, stabilizer, perfumes, dyes, whiteners)</li> <li>Difference between soap and soap-less detergents.</li> <li>Suitability of detergents for cleaning different fabrics.</li> </ul> <ul style="list-style-type: none"> <li>Functions of stiffeners</li> <li>Types of stiffeners: - starches: (powder, spray on) - plastic stiffeners - gum water (gum Arabic)</li> <li>Classification of bleaches: - oxidising bleaches: hypochlorite bleach, hydrogen peroxide - reducing bleaches: sulphur dioxide.</li> <li>Functions of bleaches</li> <li>Selection and use of bleaches in laundry -action of bleaches on fabrics</li> <li>Fabric conditioners/softeners: - meaning of the term fabric softeners           <ul style="list-style-type: none"> <li>Functions of softeners</li> </ul> </li> <li>Other cleaning agents: - importance of other cleaning agents, for example, enzyme detergents, blue, borax optical brighteners, ammonia, etc</li> </ul>

### Methodology

- Through text reading and brainstorming, guide learners to state the different types of laundry agents.
- Through text reading and group discussion learners: - differentiate between soft and hard water. - outline the methods of softening hard water. - list the advantages of soft water.

- Describe the characteristics of water as a laundry agent.
- Through think-pair share and group discussion, learners define soap and describe the different types of soap.
- Through brainstorming and demonstration, learners describe qualities of good laundry soap and the cleansing action of soap.
- Through think-pair share and group discussion, learners define and classify soap-less detergents.
- Through text reading, brainstorming, group discussion, and demonstration, learners explain cleansing action and describe properties, advantages and disadvantages of soap-less detergent and the use of additives.
- Using buzz groups and guided discussion, learners differentiate between soaps and soap-less detergents and select appropriate detergents for fabrics.
- Using text reading and demonstration, learners state the functions and list the types of stiffeners.
- Using text reading, learners define, classify and explain the functions of bleaches.
- Through demonstration, learners select and use bleaches appropriately.
- Using text reading and teacher guided discussions, learners explain and state the functions of fabric softeners.
- Through teacher guided discussions and demonstration, the learners state the importance of other cleaning agents.

## Activities of Assessment

Learners:

- state the different types of laundry agents. - differentiate between hard water and soft water. - outline methods of softening hard water.
- explain the characteristics of water and advantages of water as a laundry agent. - define soap and state the different types of soap used in laundry. - describe the qualities of a good soap. - explain the cleansing action of soap and proper storage of soap. - define and classify soap-less detergents. - explain the properties of soap-less detergents and their cleansing action. - describe the advantages and disadvantages of soap-less detergents. - explain the uses of additives in soap-less detergents. - differentiate between soaps and soap-less detergents. - select the right detergents for cleansing fabrics. - state the functions of stiffening agents and list the types of stiffeners. - define and classify bleaches. - state the functions of bleaches. - select and use bleaches appropriately. - explain the meaning of fabric conditioners / softeners and state their functions. - state the importance of other cleaning agents.

## Sub-Topic 2: Stain Removal

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• explain the term stain removal.</li> <li>• list the stain removing agents.</li> <li>• apply the rules for and principles of removing stains.               <ul style="list-style-type: none"> <li>• classify stains.</li> </ul> </li> <li>• remove stains from fabrics appropriately.</li> </ul>	Meaning of the term stain removal <ul style="list-style-type: none"> <li>• Stain removing agents</li> <li>• Rules for and principles of stain removal</li> <li>• Classification of stains: - animal/protein: egg, milk, blood perspiration - vegetable: coffee, tea, cocoa grass - mineral: rust, ink, dyes - miscellaneous: soot, grease, tar, wax</li> <li>• Methods of stain removal</li> </ul>

### Methodology

- Using text reading and guided discussion, learners explain the term stain removal and list stain removal agents.



- Using guided discussion, learners list the rule followed when removing stains and classify stains.
- Using demonstration and task based learning, learners remove stains from garment articles.

### Teaching/Learning Aids

- Textbooks
- Stain removing agents
- Fabrics with different types of stains
- Basins
- Water

### Assessment Strategies

- Learners: - explain the term stain removal and state stain removal agents. - outline rules to follow when removing stains and classify stains. - list the different types of stains and their methods of removal. - remove different types of stains from fabrics using appropriate methods.

## Sub-Topic 3: Laundry

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• State the meaning of laundry.</li> <li>• describe laundry processes.</li> <li>• launder various articles.</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning of laundry</li> <li>• Laundry processes: - preparation - washing - drying - finishing</li> <li>• Laundering different articles</li> </ul>

### Methodology

- Through text reading, learners define laundry and describe the processes.
- Through demonstration and group work, learners launder various articles.

## Teaching and Learning Aids

- Textbooks
- Laundry agents
- Fabrics of different types
- Basins
- Water

## Assessment Strategies

- Learners carry out the different laundry processes in steps.
- Learners finish their laundry.

## Additional Notes

- Laundering is applying a solvent and pressure to remove dirt from an article. The basic solvent used in laundering is water.
- Laundry processes include preparation (sorting, shaking, checking pockets, mending, soaking / steeping, stain removal), washing (by suction, friction, kneading, squeezing, rubbing, brushing), drying, finishing (pressing, ironing, starching)

## Note

- Coloureds should not be soaked.
- Launder whites separately.
- Boil white cottons and linens that have been used by the sick, or are badly discoloured.
- Do not mix bleaching clothes with other articles.

## Sub-Topic 4: Dry Cleaning

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• explain the term dry cleaning.</li> <li>• outline dry cleaning agents commonly used in Uganda.</li> <li>• describe the procedure followed when dry cleaning.</li> <li>• explain the advantages and disadvantages of dry cleaning.</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning of dry cleaning</li> <li>• Dry cleaning agents: - acetic acid - French chalk - methylated spirit - ethyl alcohol - white spirit, salts of lemon - perchloroethene</li> <li>• Procedure followed when dry cleaning</li> <li>• Advantages and disadvantages of dry cleaning</li> </ul>

### Methodology

- Through text reading and brainstorming, learners explain the meaning of the term dry cleaning and outline the dry cleaning agents.
- Guide learners to discuss the procedure and explain the advantages and disadvantages of dry cleaning.

### Teaching/Learning Aids

- Drying cleaning agents

### Activities of Assessment

- Learners: - explain the meaning of the term dry cleaning. - list guidelines for dry cleaning. - state advantages and disadvantages of dry cleaning.

### Additional Notes

- Procedure of dry cleaning: - Shake the garment. - Put solvent in a container large enough to hold the garment. - Immerse garment in solvent and clean by squeezing gently. - Squeeze out and hang out to dry in open air. - The garment dries quickly, so it may be pressed immediately. - Leave the solvent to settle

and drain off and then store in a container with a lid. After draining, there will be sediment at the bottom representing the amount of dirt particles removed.

## Sub-Topic 5: Care Labels

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• explain the meaning of care labels.</li> <li>• explain the importance of care labels.</li> <li>• interpret the meaning of the symbols on care labels.</li> <li>• classify symbols used in care labels.</li> <li>• create care labels for different garments.</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning of care labels</li> <li>• Importance of care labels</li> <li>• Meaning of symbols</li> <li>• Classification of symbols: - ironing - dry cleaning - bleaching - washing - drying</li> <li>• Making care labels</li> </ul>

### Methodology

- Using textbooks, learners explain the term care labels and illustrate care labels.
- Using guided discussion, help the learners to explain the importance, interpret and classify care labels.
- Through group work, guide learners to create care labels.

### Teaching/Learning Aids

- Care label swatches

### Assessment Strategies

- Learners explain the meaning and importance of the term care labels.
- Learners make care labels.

## SECTION B: CLOTHING TECHNOLOGY

### Topic 8: Principles and Elements of Design Duration: 3

#### Periods

##### General Overview

Good design in garment construction involves careful planning and use of elements and design and their principles. This topic focuses on the application of the elements and principles of design in garment construction. Consumer advice in the buying of garments is also discussed. The topic also equips the learner with knowledge on elements and principles of design which enables them to create and choose suitable styles for different body figures.

##### General Objective

By the end of the topic, the learner should be able to apply elements and principles of design in selection and construction of garments for different purposes.

#### Sub-Topic 1: Elements of Design

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• distinguish between elements and principles of design.</li> <li>• apply the elements of design in garment construction.</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning of elements and principles of design</li> <li>• Elements of design: - colour - texture - line - shape</li> </ul>

##### Methodology

- Through brainstorming, guide learners to distinguish between elements and principles of design.
- Through guided discussion, guide learners to apply the principles of design in garment construction.

##### Assessment Strategies

- Give an assignment to draw the colour wheel and illustrate the different colour schemes.

## Sub-Topic 2: Principles of Design

Specific Objective	Content
The learner should be able to apply the principles of design in garment construction.	<ul style="list-style-type: none"> <li>• Principles of design: - emphasis - proportion - balance - harmony/unity - rhythm</li> </ul>

### Methodology

- Through individual tasks, learners illustrate the application of the different principles of design (draw figures).
- Learners present their drawing for class discussion.
- Wrap up by encouraging learners to outline the principles of design.

### Assessment Strategies

- Learners make notes on the principles of design.
- Give a written exercise on the use of different lines, shapes, colour and textures in garment construction.

## Topic 9: Selection of Fabrics Suitable for Different Services Duration: 10 Periods

### General Overview

This topic provides a guide to consumers regarding the selection of fabrics for different purposes. It provides learners with consumer advice and information and gives the factors affecting choice of clothing for different functions. It equips the learners with guidelines for wise buying of garments and household linen.

### General Objective

By the end of the topic, the learner should be able to select suitable fabrics for garments and household linen.

### Sub-Topic 1: Choice of Fabrics Suitable for Garments

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>state the factors to consider when choosing fabrics for garment construction.</li> <li>identify qualities of a well made garment.</li> <li>analyse the factors to consider when choosing garments.</li> </ul>	<ul style="list-style-type: none"> <li>Factors to consider in the selection of fabrics for garment construction: - colour - texture - design - age of user - weather - occasion - weight - weave - washability - ease of handling - figure types</li> <li>Garments: - qualities of a well made garment - factors to consider when choosing a well made garment</li> </ul>

### Methodology

- Through brainstorming, guide learners to state the factors to consider when choosing garments.
- Through guided discussions, let learners identify the qualities of a well made garment.

- Through brainstorming, guide learners to analyse the factors to consider when choosing garments.
- Through whole class discussion, guide learners to identify different types of linen and the factors to consider when choosing household linen.
- Through brainstorming, guide learners to describe the criteria used in wise buying and explain sources of consumer information.
- Through group discussions, guide learners to define wardrobe and explain the points to consider when planning a wardrobe.
- Through text reading and demonstration, learners describe and carry out the care and maintenance of clothes.

### Teaching/Learning Aids

- Pictures showing different figures

### Assessment Strategies

- Give an exercise on illustration of figure types
- Give a test on the factors that determine the choice of fabrics for garments

### Sub-Topic 2: Household Linen

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• identify different types of household linen.</li> <li>• explain factors that influence choice of fabrics for household linen.</li> </ul>	<ul style="list-style-type: none"> <li>• Types of household linen: - draperies - beddings - towels - kitchen linen - table linen - loose covers</li> <li>• Factors to consider when selecting fabrics for household linen</li> </ul>

### Methodology

- Display various household linen for learners to observe.
- Guide learners to discuss the factors that influence the choice of household linen.



- Wrap up the discussion by supplementing on the factors that influence the choice of household articles.

### Teaching/Learning Aids

- Samples of household linen
- Pictures
- Magazines

### Assessment Strategies

- Learners outline different household linen in their books and compare with what they have at home.
- Give an exercise on factors that influence choice of fabrics for household linen.

### Sub-Topic 3: Consumer Information

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• describe the criteria that determines wise buying.</li> <li>• explain the sources of consumer information.</li> </ul>	<ul style="list-style-type: none"> <li>• Points to consider in wise buying</li> <li>• Sources of consumer information</li> </ul>

### Methodology

- Learners individually write down the definition of the term consumer.
- Through think-pair share, learners discuss and share their findings with the rest of the class.
- Through group work and text reading, learners discuss the importance of consumer education, sources of consumer education and principles of wise buying.

## Teaching/Learning Aids

- Cut outs from newspapers and magazines

## Assessment Strategies

- Give written exercises on the importance of wise buying, sources of consumer information and principles of wise buying.

## Additional Notes

- Points to consider in wise buying: - income level - prices - substitute goods - complementary products e.g. shoe and shoe polish - available time and energy - availability of product within a given locality - the rural and urban set up - the age of the family - education - change in customs and traditions - social status - advertisement - newspapers - magazines - knowledge of the principles of wise buying
- Sources of information for the consumer: - mass media e.g. radios, TV, etc. - other consumers - government bodies e.g. Uganda National Bureau of Standards - journals - fashion shows - trade shows
- Importance of consumer education: - enables one to interpret and use advertisement wisely. - informs one on the importance of planning the family finances. - informs one on their rights as consumers so that they are not exploited by the manufacturer.

## Sub-Topic 4: Wardrobe Planning

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• define the term wardrobe.</li> <li>• explain points one should consider when planning a wardrobe.</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of wardrobe</li> <li>• Points to consider when planning a wardrobe: - need - activities of user - versatility - accessories one has - care - finance (economic status)</li> </ul>

### Methodology

- Through group discussion, guide learners to define the term wardrobe and give examples of items found in the wardrobe.
- Using group work, guide learners to discuss the factors to consider when planning a wardrobe.
- Wrap up the discussion by highlighting the importance of planning a wardrobe.

### Assessment Strategies

- Give learners an exercise to: - write the definition of wardrobe in their books. - outline the factors that determine wardrobe planning. - explain the importance of planning a wardrobe.

## Sub-Topic 5: Care and Maintenance of Clothes

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• outline the general rules to consider in care of clothes.</li> <li>• use different methods of repair in maintaining clothes.</li> </ul>	<ul style="list-style-type: none"> <li>• General rules to observe in care of clothes</li> <li>• Methods of repairing clothes: - darning - patching - remodelling and renovations</li> </ul>

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### **Methodology**

- Through brainstorming, let learners outline the rules to observe when caring for fabrics.
- Demonstrate the working of the different ways of repairing clothes.
- Wrap up by supplementing on the different methods of repair.

### **Teaching/Learning Aids**

- Torn socks and sweaters for repair
- Fabric pieces for working appliqué and calico patches

### **Assessment Strategies**

- Learners outline the rules to observe in care of garments
- Give a test on the different methods of repairing household linen.

### **Additional Notes**

- General rules to observe in care of clothes: - hang clothes up when not in use. - protect them from the effects of perspiration. - launder them frequently. - clothes that cannot be laundered should be dry cleaned. - mend your clothes as soon as the damage is done. - press your clothes frequently. - protect from moths in the cupboards.
- Methods of repairing clothes: darning, patching, appliqué, use of gussets, remodelling and renovations

## Term Three

### Topic 10: Aesthetic Value of Design Duration: 6 Periods

#### General Overview

Garments become more attractive when decorated and therefore more valuable. This topic deals with the aesthetic value of design in garment construction. It helps to equip the learner with knowledge on the importance of decoration as applied on garments and household articles. The topic introduces the learners to the various skills of adding value to articles through decoration. The equipment and materials used in the process of enhancement are also covered in this topic.

#### General Objective

By the end of this topic, the learner should be able to improve the value of garments by using designing skills.

#### Sub-Topic 1: Equipment Used in Enhancement

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• define the term enhancement.</li> <li>• explain the importance of enhancement.</li> <li>• describe different methods of enhancing garments.</li> <li>• use the right equipment and materials in enhancement of garments.</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of enhancement</li> <li>• Importance of enhancement</li> <li>• Methods of enhancement: - printing - embroidery - appliqué - batik</li> <li>• Equipment and materials used in enhancement: - hoops - motifs - tapestry needles - crewel needles - templates - screens - rollers</li> </ul>

## Methodology

- Through brainstorming, task-based learning and buzz groups, guide learners to explain the importance of enhancement in garments.
- Through observation, learners identify equipment and materials used in enhancement.
- Demonstrate the use of different tools as learners observe.
- Guide learners to use the equipment in groups.
- Wrap up by giving precautions on the use of some equipment.

## Teaching/Learning Aids

- |                    |                 |                            |
|--------------------|-----------------|----------------------------|
| • Hoop             | • Carbon paper  | • Thimble                  |
| • Fabric           | • Motifs        | • Pictures                 |
| • Embroidery       | • Dyes          | • Illustrations            |
| • Crewel needles   | • Wax           | • Fabric                   |
| • Tapestry needles | • Sewing thread | • Real objects<br>(realia) |
| • A4 pencil        | • Sewing ring   |                            |

## Assessment Strategies

- Learners write down the meaning of enhancement
- Learners list down the methods of enhancing garments
  - Give a written exercise to learners to explain the importance of enhancing garments.
- Give a test on the functions and care of each equipment.

## Sub-Topic 2: Enhancing Household Articles

Specific Objective	Content
The learner should be able to enhance household articles using different methods.	<ul style="list-style-type: none"> <li>• Methods of enhancing household articles: - appliqué - bead work - quilting - embroidery - patchwork</li> </ul>

### Methodology

- Through whole class discussion, guide learners to identify the different methods of enhancing household articles.
- Demonstrate the working of the methods mentioned.
- Guide learners to use the different methods of enhancement on household articles.
- Conclude by encouraging learners to continue practicing and assigning them a task to make a household article to portray a specific method of enhancement.

### Teaching/Learning Aids

- Hoops
- Fabric
- Embroidery thread
- Crewel needle
- Tapestry needles
- Carbon paper
- Motifs
- Wax
- Sewing thread

### Assessment Strategies

- Give written exercises where learners list the different methods

of enhancement of household articles

## Part Two

### Topic 1: Choice of Materials Duration: 2 Periods

#### General Overview

Fabrics have distinct behavioural characteristics. They can be stiff and unyielding, crisp and business like or soft, flattery and feminine. Successful construction of garments largely depends on the material chosen. It is important to ensure that the fabric and the design in it must be of good taste. It is also important for an individual to develop perfect taste in garment selection. This topic analyses the factors that influence choice of materials used in construction of garments.

#### General Objective

By the end of the topic, the learner should be able to choose the right type of material for a garment.

#### Sub-Topic 1: Choice of Fabrics

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• choose fabrics according to the factors highlighted.</li> <li>• choose the suitable materials for the style.</li> <li>• establish the right costs of materials used in the garments constructed.</li> </ul>	<ul style="list-style-type: none"> <li>• Choosing fabric according to the following factors: - occasion - purpose - colour - style - age - figure</li> <li>• Choice of materials according to style: - notions - trimming - lining - interlining - underlining - shoulder pads - fastenings - threads - inter-facings</li> <li>• Costing the materials used in garment construction</li> </ul>

#### Methodology

- Through think-pair share, observation and group discussion, guide learners to identify fabrics suitable for different styles.



- Through brainstorming and discussion, guide learners to make appropriate choices for material to be used in the construction of their garments.
- Through task-based learning and field work, guide learners to cost the garments they have constructed.

**Teaching/Learning Aids**

- Samples of fabrics of different colours and texture
- Samples of notions and trims e.g. zips, buttons, Petersham, hooks and eyes, etc.

**Assessment Strategies**

- Give learners an assignment on choice of fabric when making garments for different occasions.

## Topic 2: Layout and Cutting Duration: 5 Periods

### General Overview

Before laying out a fabric, there are some necessary preparations to be done. This topic exposes the learners to the different ways and skills of laying and cutting out fabrics. The procedures of laying out and cutting different fabrics are also discussed here. Laying out ensures accuracy to avoid any mistakes in cutting. If instructions for laying out are not followed carefully, the garment pieces will not fit together well and the finished product may not fit the weaver.

### General Objective

By the end of the topic, the learner should be able to lay out patterns and cut out accurately.

### Sub-Topic 1: Fabric Preparation

Specific Objective	Content
The learner should be able to prepare the fabric ready for laying out.	Preparation of fabric for cutting: <ul style="list-style-type: none"> <li>- pulling thread - tearing</li> <li>- ravelling the thread</li> <li>- cutting along prominent line</li> <li>- pressing fabric</li> <li>- folding fabric</li> </ul>

### Methodology

- Through demonstration, guide learners to individually prepare the fabrics for laying out and cutting the fabric.
- Through demonstration, let learners individually prepare patterns and lay out.
- Through demonstration, guide learners to transfer markings from the pattern to the fabric.
- Through task-based learning, guide learners to transfer pattern markings to the fabric.

- Through group discussion, guide learners to describe the processes demonstrated.

### Teaching/Learning Aids

- Pieces of fabric
- Pair of cutting scissors
- Flat iron

### Assessment Strategies

- Give learners an assignment on the procedure for pattern preparation, fabric preparation, laying out, cutting and transferring pattern markings.

## Sub-Topic 2: Laying Out and Cutting

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• prepare the pattern ready for laying out.</li> <li>• lay out the pattern piece correctly.</li> <li>• transfer markings from the pattern to the garment</li> <li>• cut the fabric according to guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>• Pattern preparation: pressing</li> <li>• Laying pattern piece: - follow grain - pattern style - fabric design</li> <li>• Transfer pattern markings: - tracing - thread marking</li> <li>• Cutting out: - general guidelines - cutting specific fabrics</li> </ul>

### Methodology

- Through demonstration and discussion, guide learners to individually prepare the fabric for laying out.
- Through demonstration, learners individually prepare patterns, lay out and cut the fabric.
- Through demonstration, guide learners to transfer markings from the pattern to the fabric and cut out the fabric.

### Teaching/Learning Aids

- Fabric
- Tailor's chalk
- Carbon paper
- Tracing wheel
- Pencil
- Scissors
- Threads
- Tape measure
- Iron

### Assessment Strategies

- Give learners a written test on describing the procedure for proper cutting and transferring pattern marking and to draw a lay out.

### Additional Notes

- Pattern preparation: pressing
- Laying pattern pieces: - Prepare your work table and collect your sewing tools. - Refer to the guide and pattern size and circle the cutting layout you will be using. - Plan the entire layout before you pin so that you can check that the pieces will fit on the fabric. - Place the large pattern pieces on fabric first. - Place the pieces as close together as possible without overlapping. - Keep straight grain arrows parallel to the selvedge so that the fabric will be straight when cut. - Pieces with 'place on fold' indicators must be placed directly on the fold of the fabric.
- Cutting out: - Cut in the direction of the grain of the fabric. - Do not move the fabric while cutting. - Mark centre lines and fold lines by clipping 5 mm in the edge of the fabric. - Cut using long, even strokes to prevent jagged edges. Use shorter strokes for curved areas. - Cut notches outwards.- Check carefully that all pattern pieces are laid out on the fabric and that space has been left for any pieces which are to be duplicated e.g. collars, cuffs, pockets, etc. - Cut out all pieces, cutting though the thick black outlines / cutting lines on printed patterns. - Cut away from or parallel to yourself, never towards yourself. - Lay aside cut out portions neatly, fold together sized cuttings of fabric and throw away small snipping of fabric. - Transfer all necessary markings from the pattern to the fabric. • Transferring pattern markings: - Pattern markings that show construction details should be transferred to the fabric for the cutting

procedure. All markings should be done on the wrong side of the fabric. Pattern markings may be transferred using different methods: o thread marking o carbon paper o marking pencil and chalk o pressing

## Topic 3: Construction of Garments and Household Articles. Duration: 9 Periods

### General Overview

This topic deals with assembling of different sections of pattern pieces to make a garment or household article. Learners are expected to be well acquainted with pattern interpretation, laying out pattern pieces, cutting out the fabric and assembling the different fabric pieces that have been cut out to make a garment. The garments are then enhanced to improve on the appearance and the entire outlook, making them more attractive and marketable. Garments are constructed using various processes. These should be worked correctly to ensure the beauty of the garments.

### General Objective

By the end of the topic, the learner should be able to assemble different sections of a pattern to make a garment and household articles.

### Sub-Topic 1: Assembling Garments

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• prepare the pattern pieces ready for assembling.</li> <li>• assemble different garments in their proper order.</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation of pattern pieces: - basting curved edges - control fullness - attach interfacing - prepare collars, sleeves and facings, waistbands, pockets, bindings and piping</li> <li>• Specific order of assembling garments: - dress - jacket - blouse/shirt - skirt - undergarments</li> </ul>

## Methodology

- Through demonstration, guide learners to individually prepare pattern pieces.
- Through demonstration, let learners individually assemble garments in their proper order.
- Through demonstration, guide learners to construct garments applying the correct processes.
- Through task-based learning, guide learners to enhance the garments made and attach care labels.

## Teaching/Learning Aids

- Tacking thread
- Needles

## Assessment Strategies

- Give learners an assignment to assemble garments and household articles for construction.

## Sub-Topic 2: Garment Construction Processes

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• construct the garment using appropriate processes.</li> <li>• decorate the garment creatively</li> <li>• attach correct care labels.</li> </ul>	<ul style="list-style-type: none"> <li>• Processes used in garment construction:               <ul style="list-style-type: none"> <li>- stitches - seams - fastenings - openings - edge finishing - controlling fullness - sleeves - collars - pockets</li> </ul> </li> <li>• Enhancement of the garment:               <ul style="list-style-type: none"> <li>- embroidery - appliqué - lace, ribbons, tapes</li> </ul> </li> <li>• Labelling of garments</li> </ul>

**Methodology**

- Through demonstration and discussion, guide learners to construct garments applying the correct processes.
- Through demonstration, guide learners to construct garments, neaten them, enhance them and attach care labels.

**Teaching/Learning Aids**

- Sewing equipment
- Enhancement equipment
- Labels Assessment Strategies
- Give learners an assignment to make and finish any type of garment.

**Topic 4: Garment Finishing Duration: 2 Periods****General Overview**

This topic introduces the learners to the various methods of neatening a finished garment. Finishing is important because it contributes grossly to the looks of the garment and is one way of adding value to the garment. This topic should be handled practically to equip the learners with skills to finish garments attractively.

**General Objective**

By the end of the topic, the learner should be able to finish the garment appropriately

**Sub-Topic 1: Neatening a Garment**

Specific Objective	Content
The learner should be able to use methods of neatening a garment appropriately.	Methods of neatening a garment: <ul style="list-style-type: none"> <li>- seam finishing</li> <li>- hemming</li> <li>- pressing</li> <li>- ironing</li> <li>- trimming unwanted threads</li> </ul>

### Methodology

- Demonstrate the various methods of finishing a garment while the learners observe.
- Through demonstration and task-based learning, guide learners to finish the edges of the garments made using different methods.

### Teaching/Learning Aids

- Fabric
- Threads
- Needles
- Iron
- Ironing board
- Muslin

### Assessment Strategies

- Give learners an assignment to work out various finishing processes and pin in their books.

## Topic 5: Garment Fitting Duration: 8 Periods

### General Overview

Fitting is an important process in garment construction. The process of fitting ensures that garments made give a perfect fit for the figure and enables the learner to make possible alterations where necessary to improve the outlook of the finished garment. Although one may have made major alterations to the paper pattern before cutting out, there are often minor adjustments to be made during the fitting of the garment. This topic highlights the key factors to look for during fitting and the alterations to make. Modelling is a method of displaying and promoting fashion. After constructing a garment, it is important to display the style by modelling so that it can be appreciated. This topic also deals with the different methods of displaying the garment.

### General Objective

By the end of the topic, the learner should be able to make a fitting garment.



## Sub-Topic 1: Fitting Garments

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• identify the qualities of a good fitting garment.</li> <li>• identify appropriate areas of alteration.</li> </ul>	<ul style="list-style-type: none"> <li>• Qualities of a good fitting garment: - right positions for seams, darts and sleeves - crease free - ease of movement</li> <li>• Points to look for when fitting: - contour - drape - silhouette - balance - shoulder</li> </ul>

### Methodology

- Through demonstration, learners try on the garments constructed to ensure a perfect fit and identify the necessary alterations.
- Through demonstration, guide learners to alter garments that do not fit perfectly.
- Through demonstration and audio-visual media, learners model the finished outfits.

### Teaching/Learning Aids

- Made garments
- Mannequin

### Assessment Strategies

- Give learners a written exercise to describe the common fitting faults in garments and qualities of a well-fitting garment.

## Sub-Topic 2: Garment Alterations

Specific Objective	Content
<p>The learner should be able to alter the identified areas in the garments.</p>	<ul style="list-style-type: none"> <li>• Areas of alteration:               <ul style="list-style-type: none"> <li>- neck</li> <li>- bust</li> <li>- waist</li> <li>- hips</li> <li>- crotch</li> <li>- sleeves</li> </ul> </li> </ul>

### Methodology

- Guide learners to brainstorm the areas on garments that need alteration.
- Through demonstration, guide learners to correct the faults identified on the garment.

### Teaching/Learning Aids

- Garment for fitting

### Assessment Strategies

- Give learners an assignment to correct faults in a garment.

## Sub-Topic 3: Modelling Sub-Topic 3: Modelling

Specific Objective	Content
The learner should be able to model the finished garment.	<ul style="list-style-type: none"> <li>• Modelling the finished outfit: - catwalk - pairing - responding to rhythm</li> </ul>

### Methodology

- Through demonstration, guide learners in pairs to select the method of modelling and display their garments before the rest of the class.
- Using role-play, let individuals model in different ways like cat walk, pairing and matching responding to rhythm.

### Teaching/Learning Aids

- Samples of finished garments in different styles and modelling
- Fashion magazines
- Newspapers

### Assessment Strategies

- Give an exercise on fashion modelling and examples of fashion models in Uganda and the world.

## **PART THREE (PROJECT WORK)**

This section deals with project/coursework. It equips the learners with practical skills in garment construction and therefore making them more prepared to accomplish the coursework requirements of Paper P630/3 and the timed practical of Paper P630/2. For this year, the projects to be covered under this topic are a garment to fit oneself, a child's dress, household article, furnishing article as well as the learners' own initiative. The learners should be guided to design, draft and construct articles ranging from outfits to household furnishings. Each learner is expected to construct at least three sets of items for submission. Therefore, this section should be purely practical.

### **Topic 1: Outfit and Household Articles**

#### **General Overview**

This section deals with project/coursework. The learners are expected to display various skills used in garment construction to come up with attractive articles. They should be guided to design, draft and construct articles ranging from outfits to household furnishings. The learners are expected to display various skills used in garment construction to come up with attractive articles. Each learner is expected to construct at least three sets of items for submission. Learners get skills of constructing and neatening garments and also making children's clothes which require a high level of creativity to ensure attractiveness to appeal to both the children and the buyers.

#### **General Objective**

By the end of the topic, the learner should be able to use skills acquired to construct a fitting article and a household item which portrays their creativity and innovativeness.

## Sub-Topic 1: Construction of a Garment to Fit Oneself

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• sketch the right style of the outfit.</li> <li>• take the body measurements according to style.</li> <li>• draft the patterns for the outfit.</li> <li>• choose the right fabric for the style.</li> <li>• determine the amount of fabric needed depending on the style chosen.</li> <li>• prepare the fabric for laying out.</li> <li>• lay out the pattern pieces on to the fabric transfer the pattern markings and cut out the pieces.</li> <li>• follow the correct order when making up a garment.</li> <li>• try on the garment for a perfect fit and make the necessary adjustments.</li> <li>• enhance the garment.</li> </ul>	<ul style="list-style-type: none"> <li>• Sketching the garment styles, that is: - a dress and a jacket or coat - a skirt and a blouse - a shirt and trousers or shorts - a coat and trousers - two or three-piece dress</li> <li>• Taking body measurements according to style</li> <li>• Drafting the patterns</li> <li>• Choice of fabric</li> <li>• Determining the amount of fabric</li> <li>• Preparation of fabric for laying by straightening it and removing creases</li> <li>• Laying out the pattern, transfer of pattern markings and cutting out the pieces</li> <li>• Procedure of assembling up a garment</li> <li>• Fitting and making necessary adjustments</li> <li>• Finishing and enhancing the garment</li> </ul>

### Methodology

- Through demonstration, guide learners to take body measurements.
- Through guided discovery, let learners choose the right style and fabric for the outfit.
- Using project work, guide learners to draft the patterns for the outfit.

- Through demonstration, guide learners to determine the amount of fabric needed for the outfit.
- Through demonstration, guide learners to prepare the fabric, layout and cut out the pieces.
- Through demonstration, guide learners to transfer pattern markings onto the fabrics, tack and stitch out the garment.
- Through task-based learning, let learners try on the garments and make the necessary adjustments for a perfect fit and to enhance them using different finishing techniques.

### Teaching/Learning Aids

- Fashion books
- Textbooks
- Fabric
- Tape measure
- Drafting paper
- Rulers
- Curves
- Tracing wheel
- Carbon paper

## Assessment Strategies

- Give learners an assignment to record the measurements taken and sketch the style chosen for the outfit, record the type and amount of fabric needed for the outfit and list down the various ways of enhancing garments.

## Sub-Topic 2: Making a Child's Dress

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• sketch various styles suitable for children of different ages.</li> <li>• make children's garments showing creativity and good workmanship.</li> </ul>	<ul style="list-style-type: none"> <li>• Sketching different styles of children's clothes</li> <li>• Procedure of constructing a child's garment:               <ul style="list-style-type: none"> <li>- measurements</li> <li>- drafting</li> <li>- laying and cutting out</li> <li>- construction procedure</li> <li>- finishing</li> </ul> </li> </ul>

## Methodology

- Through demonstration and task-based learning, let learners construct a child's garment.
- Guide learners to brainstorm the different styles suitable for making children's clothes.
- Through demonstration, guide the learners to draw sketches of the chosen children's clothes.
- Through demonstration, guide learners to draft, lay out and cut pattern pieces of the chosen children's garments.
- Through task-based learning, let learners tack and stitch the children's garments and also enhance and finish the children's garments.

**Teaching/Learning Aids**

- Textbooks
- Fashion magazines

**Topic 2: Making a Furnishing Article****General Overview**

In this topic, you are expected to guide the learners to design, draft and construct household furnishings. The learners are expected to display various skills used in the construction of articles for furnishing.

**General Objective**

By the end of the topic, the learner should be able to make an attractive article for furnishing.

Specific Objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• choose a suitable furnishing article to be made.</li> <li>• creatively combine different skills in the construction of an article for furnishing.</li> </ul>	<ul style="list-style-type: none"> <li>• Choice of furnishing article</li> <li>• Possible items to make: - loose covers - curtains - table linen - bed linen - cushion cover or throw cushion</li> <li>• Skills in construction of furnishing: - appliqué - quilting - faggoting - bead work - macramé - patch work - lacing - binding - piping - smocking</li> </ul>

## Methodology

- Through whole-class discussion, guide learners to identify different articles for furnishing and choose the article to make.
- Demonstrate the working of different skills of furnishing.
- Using task-based learning, let learners make items using different skills of furnishing. **Teaching/Learning Aids**

- Cotton sheeting
- Form
- Fabric
- Thread

## Topic 3: Learner's Initiative

### General Overview

In this topic, the teacher is expected to guide the learners to design and construct an article of their own initiative, using a variety of skills.

### General Objective

By the end of the topic, the learner should be able to make an attractive article of his/her own initiative.

Specific Objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• select and make one article of his/her choice.</li> <li>• make an article that shows creativity and good workmanship.</li> </ul>	<ul style="list-style-type: none"> <li>• Items to choose from:               <ul style="list-style-type: none"> <li>- pillow cases</li> <li>- cushion covers</li> <li>- curtains</li> <li>- table cloths</li> <li>- bags</li> <li>- wall hanging</li> <li>- garments</li> </ul> </li> <li>• Skills expected to be displayed on the selected article:               <ul style="list-style-type: none"> <li>- neatness</li> <li>- finishing according to fabric</li> <li>- appropriate choice of style</li> <li>- appropriate choice of fabric</li> <li>- value addition</li> </ul> </li> </ul>



- Items to choose from:
  - pillow cases
  - cushion covers
  - curtains
  - table cloths
  - bags
  - wall hanging
  - garments
- Skills expected to be displayed on the selected article:
  - neatness
  - finishing according to fabric
  - appropriate choice of style
  - appropriate choice of fabric
  - value addition

### Methodology

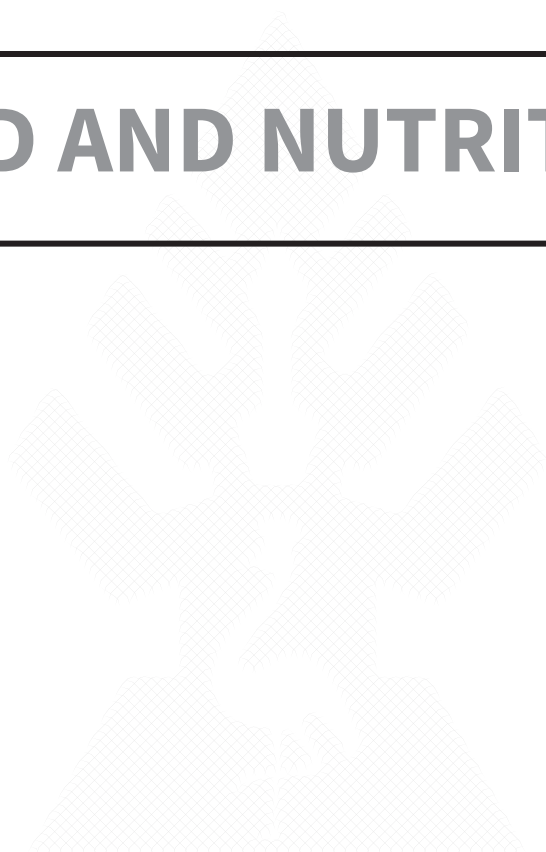
- Through task-based learning, learners select an article.
- Using task-based learning, learners do the following:
  - design the article of their choice.
  - make necessary preparations for the construction of the article, for example, sketching, drafting.
  - construct the article.
  - finish and enhance the article attractively.

### Teaching/Learning Aids

- Fabric
- Thread
- Other materials as desired by the learners depending on what they choose to make



# FOOD AND NUTRITION



## FOODS AND NUTRITION

### Introduction

It is hoped that you were able to cover the introduction to the Foods and Nutrition, proteins, cooking of food, meat and poultry, carbohydrates and lipids while the learners were in senior five. Some of the senior five topics have been brought on board. These include: Fish, eggs, milk and milk products, vitamins, cereals, mineral elements, water and electrolytes, vegetables, energy metabolism, fats and oils, nutrition and the life cycle.

Some of the topics of paper one should be handled while teaching practicals in paper three. The key concepts and principles of these should be brought out during the practical lessons. These include Fruits, leavening agents, starches and flour mixtures, seasonings and flavourings, beverages, rechauffe Cookery, stocks, sauces, soups and desserts.

Other topics like the food path, protecting the food supply and food processing and preservation have been merged, bearing in mind that they all focus on food safety

### CRITICAL CHANGES IN SENIOR S6 PAPER 1 (P640/1)

SN	CRITICAL CHANGE	Justification
1	Left out introduction to Foods and Nutrition	Must have been covered
2	Left out Proteins	Must have been covered
3	Left out The Cooking of food	Must have been covered before lockdown
4	Meat and Poultry	Must have been covered before lockdown
5	Carbohydrates	Must have been covered before lockdown
	Lipids	Must have been covered before lockdown

SN	CRITICAL CHANGE	Justification
	Eggs; Left out egg structure and grading	Students have prior knowledge about these from the lower classes in biology or science in Primary level.
	Left out Leavening /Raising agents.	To be handled in the practical lessons under Baking (Cakes, Cookies, Bread and Pastry)
	Left out Fruits	Will be handled practically in Paper 3
	Left out Digestion, absorption and metabolism of nutrients as an independent topic	Should be covered within individual nutrients
	Left out Nutrition Deficiency diseases	Should be covered under the individual nutrients
	Left out Rechauffe Cookery	Will be handled practically in Paper 3
	Left out Stocks, Sauces, Soups and other Horsd'oeuvres	Will be handled practically in Paper 3
	Left out Desserts	Will be handled practically in Paper 3
	Left out Beverages	Will be handled practically in Paper 3
	Left out Seasonings and Flavourings	Will be handled practically in Paper 3
	The topics of the Food path, protecting the food supply, Food processing and preservation has been merged	All these topics are concerned with food safety from production to consumption

## TERM ONE

### PART ONE (PAPER 1)

#### Topic 1: Fish Duration: 4 Periods

##### General Overview

Fish includes the white, oily and shell fish types. It is obtained from both fresh and salty water bodies. It is rich in high biological value protein and therefore suitable for children, invalids, and the elderly. Fish deteriorates very fast and therefore care must be taken during buying and storage.

##### General Objectives

By the end of the sub-topic, the learner should be able to:

- i) examine the structure, classification and value of fish.
- ii) describe proper ways of food processing and preservation.

#### Sub-Topic 1: Classification, Structure and Composition of Fish

Specific Objectives	Content
The learner should be able to: classify fish. <ul style="list-style-type: none"> <li>• describe the structure of fish.</li> <li>• explain the composition of fish</li> </ul>	<ul style="list-style-type: none"> <li>• Classification of fish according to:               <ul style="list-style-type: none"> <li>- habitat - (fresh water fish, sea water fish)</li> </ul> </li> <li>• composition – (oily fish, white fish, shell fish)</li> <li>• Structure of fish – (muscle, connective tissue and fat)</li> <li>• Composition of fish</li> </ul>

### Methodology

- . Through whole class discussion, guide learners to classify fish, describe

### Teaching/Learning Aids

- . Charts with different types of fish

### Assessment Strategy

- . Give a written test on classification, structure and composition of fish

## Sub-Topic 2: Value of Fish

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. discuss the nutritive value of fish.</li> <li>. discuss dietetic value of fish.</li> <li>. discuss the economic value of fish.</li> </ul>	<ul style="list-style-type: none"> <li>. Nutritive value of fish</li> <li>. Dietetic value of fish</li> <li>. Economic value of fish</li> </ul>

### Methodology

- . Through guided discussions, let learners explain the nutritive, dietetic and economic value of fish.

### Teaching and Learning Aids

- . Charts on different types of fish Assessment Strategy
- . Give an exercise on the value of fish.

## Sub-Topic 3: Fish Processing and Preservation

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. explain the factors to consider when buying fish.</li> <li>. describe the different methods of processing fish.</li> <li>. describe the different methods of preserving fish.</li> <li>. discuss the ways of storing fish. .</li> <li>describe the methods of cooking fish</li> </ul>	<ul style="list-style-type: none"> <li>. Factors to consider when buying fish</li> <li>. Methods of processing fish – (cleaning, filleting, etc)</li> <li>. Methods of preserving fish – (freezing, drying, chemical, etc)</li> <li>. Storage of fish</li> <li>. Methods of cooking fish</li> </ul>

### Methodology

- . Through guided discussions, let the learners explain the points to consider when buying fish and describe the different methods of processing fish.
- . Using brainstorming, guide the learners to discuss the different ways of storing fish and describe suitable methods of cooking fish.

### Teaching/Learning Aids

- . A visit to a fish processing plant

### Assessment Strategy

- . Give an exercise on the methods of processing, preserving and storing



## Topic 2: Eggs Duration: 2 Periods

### General Overview

Eggs are mainly got from domestic birds, for example, turkeys, geese, hens, etc. Eggs are the most versatile of all cookery ingredients providing proteins of high biological value. They also provide some vitamins and mineral salts. They are graded in various ways according to weight and source, and need to be stored well to ensure freshness when used.

### General Objective

By the end of the topic, the learner should be able to examine the composition and value of eggs in the cookery and in the diet.

### Sub-Topic 1: Composition and Value of Eggs

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. describe the structure of an egg.</li> <li>. explain the composition of an egg.</li> <li>. discuss the nutritive value of eggs.</li> </ul>	<ul style="list-style-type: none"> <li>. Composition of an egg</li> <li>. Nutritive value of eggs</li> <li>. Dietetic value of eggs</li> </ul>

### Methodology

- . Guide the learners to describe the structure and composition of an egg.
- . Through group discussion, guide the learners to discuss the nutritive and dietetic value of eggs.

### Teaching/Learning Aids

- . Charts or tables showing the composition of an egg

### Assessment Strategy

- . Give an assignment on the value of eggs.

## Sub-Topic 2: Use, Storage and Effect of Heat on Eggs

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. explain the uses of eggs in cookery.</li> <li>explain how eggs can be graded according to quality and size.</li> <li>. describe the methods of testing for freshness of eggs.</li> <li>. demonstrate safe storage of eggs.</li> <li>. discuss the methods of preserving eggs.</li> <li>. discuss the effects of heat on eggs.</li> </ul>	<ul style="list-style-type: none"> <li>• Uses of eggs in cookery</li> <li>• Grading of eggs - (quality and size) •</li> <li>Testing for freshness of eggs</li> <li>• Safe storage of fresh eggs</li> <li>• Methods of preserving eggs</li> </ul>

### Methodology

- . Through guided discussion, let learners explain the use, grading, testing and storage of eggs.
- . Using group work, let learners discuss the methods of preservation, and the effect of heat on eggs.

### Teaching/Learning Aids

- . Eggs
- . Equipment

### Assessment Strategy

- . Give an exercise on the effects of heat on eggs.

## Topic 3: Milk and Milk Products. Duration: 7 Periods

### General Overview

Milk is a very valuable food at all stages of human life, particularly for children, invalids and expectant and nursing mothers. Milk is obtained from cows, goats, asses and reindeer. All types of milk are very similar but vary slightly in composition and proportion. Milk products can be obtained from

fresh milk or fermented milk. They include cream, yoghurt, butter, cheese, etc. It is important to store milk carefully to avoid growth of harmful bacteria which may cause souring. Milk will also keep longer if treated and processed into other milk products. Milk products vary in their nutritive value, composition and digestibility, and are used in various dishes in cookery.

### General Objectives

By the end of the topic, the learners should be able to:

- i) describe the composition and value of milk.
- ii) examine the types of milk, milk products and their uses in cookery.

### Sub-Topic 1: Composition, Value and Digestion of Milk

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• compare the composition of cow's and human milk.</li> <li>• discuss the nutritive value of cow's milk.</li> <li>• discuss the dietetic value of cow's milk.</li> <li>• discuss the uses of milk in cookery</li> </ul>	<ul style="list-style-type: none"> <li>• Comparison between cow's and human milk</li> <li>• Nutritive value of cow's milk</li> <li>• Dietetic value of cow's</li> <li>• Uses of milk in cookery</li> </ul>

## Methodology

- . Guide learners to discuss the composition of cow's milk and human milk.
- . Using groups, guide learners to discuss the nutritive and the dietetic value of milk.

## Teaching/Learning Aids

- . Charts showing the composition of cow's and human milk.

## Assessment Strategy

- . Written test on nutritive value, dietetic value and digestion of milk.

## Sub-Topic 2: Milk Storage and Processing

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• explain the causes of milk spoilage. explain the ways you can prevent milk spoilage.</li> <li>• discuss the storage of milk at home.</li> <li>• describe the different methods of processing and preserving milk.</li> <li>• discuss the effect of heat on milk</li> </ul>	<ul style="list-style-type: none"> <li>• Spoilage of milk: - causes - prevention of spoilage</li> <li>• Storage of milk at home</li> <li>• Processing of milk - (homogenisation, heat treatment, pasteurisation, sterilised milk (UHT), evaporated, condensed milk, dry milk powders, etc)</li> <li>• Effect of heat on milk</li> </ul>

### Methodology

- . In small groups, guide learners to brainstorm on the causes of milk spoilage and ways to prevent it.
- . Guide learners to discuss the storage of milk and the different methods of processing and preserving milk, and the effect of heat on milk.

### Teaching/Learning Aids

- . Samples of sour milk, some processed milk i.e. dried milk, evaporated and condensed, UHT and pasteurized milk

### Assessment Strategy

- . Give an assignment on types of processed milk.

## Sub-Topic 3: Milk Products

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• identify the different products made from milk.</li> <li>• describe the methods of processing milk products.</li> <li>• discuss the nutritive value of the milk products.</li> <li>• discuss the dietetic value of milk products in the diet.</li> <li>• discuss the effect of heat on milk products.</li> <li>• discuss the uses of milk products</li> </ul>	<ul style="list-style-type: none"> <li>• Milk products (butter milk, butter, ice cream, yoghurt, sour cream, cheese, etc)</li> <li>• For each of the milk products cover the following:               <ul style="list-style-type: none"> <li>• methods of processing the milk product</li> <li>• nutritive value of the milk product</li> <li>• dietetic value of the milk product</li> <li>• effect of heat on the milk product</li> <li>• uses of the milk product in cookery</li> </ul> </li> </ul>

### Methodology

- . Through whole class discussion, guide learners to identify the different milk products and describe their methods of processing.

- . Guide learners to discuss the value of milk products, their digestibility, and effect of heat.
- . Using group discussion, let learners identify the uses of milk products in cookery.

**Teaching/Learning Aids**

- . Food items like cheese, yoghurt, ice cream, etc

**Assessment Strategy**

- . Give an assignment on the value of milk products.

**Topic 4: Vitamins Duration: 9 Periods****General Overview**

Vitamins may be defined as organic compounds required in small amounts and necessary for the growth and maintenance of good health. If vitamins are not sufficiently provided in the body, deficiency diseases may occur. Vitamins may be classified broadly into two groups namely; fat soluble and water soluble vitamins. Each of these vitamins has properties that affect their functions in the body.

**General Objective**

By the end of the topic, the learner should be able to examine the structure, classification and role of both water and fat soluble vitamins in the body.

## Sub-Topic 1: Classification of Vitamins Specific

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• define vitamins.</li> <li>• classify vitamins.</li> <li>• discuss the general characteristics of each of the two groups of vitamins.</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of vitamins</li> <li>• Classification of vitamins</li> <li>• General characteristics of each of the two groups of vitamins (fat soluble and water soluble)</li> </ul>

### Methodology

- . Using guided discovery, let learners define and classify vitamins.
- . In small groups, guide learners to discuss the general characteristics of vitamins.

### Teaching/Learning Aids

- . Charts showing the classification of vitamins

### Assessment Strategy

- . Give an exercise on the general characteristics of each of the two groups of

## Sub-Topic 2: Fat Soluble Vitamins (A, D, E, K)

Specific Objectives	Content
<p>For each of the vitamins, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• identify the chemical names of the vitamins.</li> <li>• describe the chemical structure of the vitamins.</li> <li>• discuss the physical and chemical properties of the vitamins.</li> </ul>	<p>For each of the vitamins (A,D,E,K) give the following:</p> <ul style="list-style-type: none"> <li>• chemical name of the vitamin</li> <li>• chemical structure of the vitamin</li> <li>• physical and chemical properties of the vitamin</li> <li>• functions of the vitamin in the body</li> <li>• factors that influence the absorption and metabolism of the vitamin</li> </ul>

Specific Objectives	Content
<ul style="list-style-type: none"> <li>• discuss the functions of the vitamins in the body.</li> <li>• explain the factors that influence the absorption and metabolism of vitamins.</li> <li>• state the sources of vitamins.</li> <li>• State the RDAs of the vitamins.</li> <li>• describe the effects of deficiency</li> </ul>	<ul style="list-style-type: none"> <li>• sources of the vitamin</li> <li>• recommended dietary allowance of the vitamin</li> <li>• effects of deficiency and excessive</li> </ul>

### Methodology

- . Using guided discussions, let learners draw the structure and describe the chemical nature of the vitamins.
- . Using guided discovery, allow learners to discuss the physical and chemical properties and the functions of each vitamin in the body.
- . Using guided discussions, let learners explain the absorption, metabolism and factors that favour or hinder the absorption and metabolism of each vitamin
- . Let learners brainstorm on the sources, RDAs and effects of deficiency and excessive intake of each vitamin.

### Teaching/Learning Aids

- . Charts showing the chemical structures of vitamins

### Assessment Strategy

- . Give written assignments on structure, functions and properties of fat soluble vitamins.



**Sub-Topic 3: Water Soluble Vitamins (B and C)**

Specific Objectives	Content
<p>For each of the water soluble vitamins, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• identify the chemical name.</li> <li>• describe the chemical structure.</li> <li>• discuss the physical and chemical properties.</li> <li>• discuss its functions in the body.</li> <li>• identify the factors that influence its absorption.</li> <li>• identify its sources.</li> <li>• state its recommended dietary allowance for different categories and age groups of people.</li> <li>• discuss the effects of its</li> </ul>	<p>For each of the vitamins (B1, B2, B3, B5, B6, Folic acid, B12, Vitamin C) give the following:</p> <ul style="list-style-type: none"> <li>• Chemical name of the vitamin</li> <li>• Chemical structure of the vitamin</li> <li>• Physical and chemical properties of the vitamin</li> <li>• Functions of the vitamin in the body</li> <li>• Factors that influence its absorption</li> <li>• Sources of the vitamin</li> <li>• Recommended dietary allowance of the vitamin</li> <li>• Effects of deficiency and excessive intake of vitamins</li> </ul>

**Methodology**

- . Guide learners to identify the chemical name, draw and describe the structure of the vitamins by drawing chemical structures.
- . Guide learners to discuss the physical and chemical properties and functions of each vitamin in the body.
- . Guide learners to discuss the functions, absorption, metabolism and factors that favour and hinder their absorption.
- . Using brainstorming, let learners identify the sources, RDAs and effects of deficiency and excessive intake of water soluble vitamins

**Teaching/Learning Aids**

- . Charts with structures of the different vitamins

## Assessment Strategy

. Give a written assignment on functions and properties of water soluble vitamins

## Topic 5: Cereals Duration: 5 Periods

### General Overview

Cereals are edible seeds or grain of cultivated grasses. They are available all over the world and form staple foods of most communities. They include wheat, maize, rice, rye, oats, barley, millet and sorghum, among others. Cooking of cereals is essential for food to be digested and absorbed. Milling of cereals can be carried out by stone milling, roller milling or fragmentation. The milling process determines the type of flour and its use in cookery. If exposed to damp air, cereals take up moisture and go mouldy.

### General Objective

By the end of the topic, the learner should be able to examine the types, structure, composition, storage, value and use of cereals.

## Sub-Topic 1: Types, Role, Structure and Value of Cereals

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• define cereals.</li> <li>• identify the different types of cereals and cereal products.</li> <li>• discuss the role of cereals in the diet.</li> <li>• describe the structure and composition of cereals in reference to wheat.</li> <li>• discuss the nutritive and dietetic</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of cereals</li> <li>• Types of cereals – (rice, millet, maize, wheat, etc); cereal products (pasta, oats, etc)</li> <li>• The role of cereals in the diet</li> <li>• Structure and composition of wheat cereal</li> <li>• Nutritive and dietetic value of wheat</li> </ul>

### Methodology

- . Guide the learners to define and classify cereals and their products.
- . Through guided discussion, let learners discuss the role of cereals in the diet as well as a structure, composition of wheat and the nutritive value of cereals.
- . Using brainstorming, guide learners to discuss the nutritive and dietetic value of wheat.

### Teaching/Learning Aids

- . A selection of cereal and cereal products
- . Charts with drawing of wheat grain

### Assessment Strategy

- . Give an assignment on the value of cereals in the diet.

## Sub-Topic 2: Milling and Effect of Heat on Cereals

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>describe the milling process of wheat.</li> <li>discuss the effect of heat on cereals.</li> <li>identify the different types of</li> </ul>	<ul style="list-style-type: none"> <li>The process of milling wheat</li> <li>Effect of heat on cereals-(moist and dry heat)</li> <li>Types of flours and their uses in cookery</li> </ul>

### Methodology

- . Guide a discussion on wheat milling process.
- . Guide learners to discuss the effects of heat on cereals.
- . Through guided discussion, let learners identify the uses of different types of flours.

### Teaching/Learning Aids

- . Types of wheat flour
- . Organised visits to milling companies

### Assessment Strategy

- . Give written tests on the wheat milling process.

## Sub-Topic 3: Storage of Cereals and Flours

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>demonstrate the storage of cereals and flours</li> <li>identify other cereal-like foods.</li> <li>describe the origin and uses of cereal-like products in cookery.</li> </ul>	<ul style="list-style-type: none"> <li>Storage of cereals and flours</li> <li>Other cereal-like foods-(tapioca, arrow root and sago)</li> <li>Origin and use cereal-like foods in cookery</li> </ul>

## Methodology

- . Guide learners to discuss the storage of cereals and flours.
- . Using brainstorming, let learners identify other cereal-like foods, describing their origin and use in cookery.
- . Use demonstrations on preparation, cooking and serving of cereal dishes.

## Teaching/Learning Aids

- . Samples of cereal-like foods

## Assessment Strategy

- . Give a test on uses of cereal-like foods in cookery.

## Topic 6: Mineral Elements Duration: 14 Periods

### General Overview

Minerals are inorganic substances which are required in very small amounts (micronutrients). Mineral elements are classified as major or trace elements. These mineral elements have a number of essential functions to perform. Hence, the body must receive a sufficient supply of each of them if it is to remain healthy.

### General Objectives

By the end of the topic, the learner should be able to:

- examine the classification, role and metabolism of mineral elements (both the major and trace elements) in the body.
- examine the effects of deficiency/excessive intake of these mineral elements in the body.

## Sub-Topic 1: Introduction to Mineral Elements

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• define mineral salts.</li> <li>• classify mineral salts.</li> <li>• state the general functions of mineral elements.</li> <li>• state the general properties of mineral elements</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of mineral elements</li> <li>• Classification of mineral elements (major and trace elements give examples in each case)</li> <li>• General functions of mineral elements</li> </ul>

### Methodology

- . Guide learners to define and classify mineral salts.
- . Guide learners to brainstorm on the general functions and properties of mineral salts

### Teaching/Learning Aids

- . Chart on classification of mineral salts

### Assessment Strategy

- . Written test on general functions and properties of mineral salts.

## Sub-Topic 2: Major Elements (Calcium, Phosphorus, Potassium, Sodium, Chlorine, Sulphur and Magnesium)

Specific Objectives	Content
<p>For each of the mineral elements, the learner should be able to:</p> <ul style="list-style-type: none"> <li>. describe its occurrence.</li> <li>. Explain its physiological functions.</li> <li>. explain the effects of deficiency and excessive intake in the body.</li> <li>. discuss factors that influence absorption and metabolism (hindering or facilitating factors) of the mineral element.</li> <li>. state the recommended daily allowances for the mineral element.</li> <li>. state the dietary sources.</li> </ul>	<p>For each of the major mineral elements (Ca, P, K, Na, Cl, S, Mg), discuss the following:</p> <ul style="list-style-type: none"> <li>. occurrence</li> <li>. physiological functions of each mineral</li> <li>. effects of deficiency and excessive intake in the body</li> <li>. factors that influence absorption and metabolism (hindering or facilitating factors) of the mineral element</li> <li>. recommended daily allowances for the mineral element</li> <li>. dietary sources of the mineral element</li> </ul>

### Methodology

- . Guide learners in groups to discuss the occurrence, absorption, transport and metabolism of these nutrients.
- . Guide learners to brainstorm the functions, deficiency, recommended daily intake and sources of each of the mineral salts above.

### Teaching/Learning Aids

- . Chart on classification of major mineral elements

### Assessment Strategy

- . Give an assignment on the factors affecting absorption and metabolism of these mineral salts.

## Sub-Topic 3: Trace Elements (Iron, Iodine, Zinc, Selenium, Manganese, Copper, Fluorine, Silicon) Specific

Specific Objectives	Content
<p>For each of the trace elements, the learner should be able to:</p> <ul style="list-style-type: none"> <li>. describe its occurrence.</li> <li>. explain its physiological functions.</li> <li>. explain the effects of deficiency and excessive intake in the body.</li> <li>. discuss the factors that influence its absorption and metabolism.</li> <li>. state the recommended dietary allowances.</li> <li>. outline the dietary sources.</li> <li>. dietary sources of the</li> </ul>	<p>For each of the Trace elements (Fe, I, Zn, Se, Mn, Cu, Fl, Si), discuss the following:</p> <ul style="list-style-type: none"> <li>. occurrence</li> <li>. physiological functions of each mineral.</li> <li>effects of deficiency and excessive intake in the body</li> <li>. factors that influence its absorption and metabolism (hindering or facilitating factors)</li> <li>. recommended dietary allowances of each mineral element</li> </ul>

### Methodology

- . Guide learners in a group discussion on occurrence, absorption, transport and metabolism of each of these trace mineral elements.
- . Guide learners to state the factors that affect the absorption and metabolism of trace mineral elements.
- . Guide learners to brainstorm on the physiological functions, efficiency, RDAs and dietary sources of the mineral elements.

### Teaching/Learning Aids

- . Table showing trace elements, recommended dietary intake, functions and main food sources



**Assessment Strategy**

. Give an assignment on the factors that affect absorption and metabolism of trace elements.

**Topic 7: Water and Electrolytes. Duration: 7 Periods****General Overview**

The elemental composition of water is two parts hydrogen to one part of oxygen (H<sub>2</sub>O). It is the most remarkable liquid with properties that make it suited for various uses in the body. It is the single largest component of the body composition comprising 50-60% of the total body weight in an average adult. If fluids are withheld, there is a rapid deterioration and death may result within a few days. For optimum health, there must be homeostasis and for this to exist, the body must be in fluid and electrolyte balance. This means the water lost by healthy individuals must be replaced.

**General Objective**

By the end of the topic, the learner should be able to examine the distribution, properties and role of water in the body.

**Sub-Topic 1: Chemical Nature and Distribution of Water in the Body**

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. describe the chemical nature of water.</li> <li>. describe the distribution of water in the body.</li> <li>. examine the forces influencing water distribution.</li> </ul>	<ul style="list-style-type: none"> <li>. Water and its chemical nature (introduction): - as a unified whole</li> <li>- components</li> <li>- the particle</li> <li>. Distribution of water in the body:               <ul style="list-style-type: none"> <li>- body water and compartmentalisation</li> <li>overall water balance</li> <li>. Forces influencing water distribution:                   <ul style="list-style-type: none"> <li>- the solute (electrolyte, plasma protein,</li> </ul> </li> </ul> </li> </ul>

Specific Objectives	Content
	organic compound) - the membranes that separate water components water components - (capillary wall and cell wall) - mechanism for movement of water across the membranes (osmosis, diffusion and active transport, filtration and pinocytosis)

### Methodology

- . Using guided discovery, let learners describe the chemical nature of water and its distribution.
- . Use brainstorming to guide learners to examine the forces influencing water distribution.

### Teaching/Learning Aids

- . Charts showing the chemical nature of water

### Assessment Strategy

- . Give a written test on chemical nature of water and forces influencing its distribution.

## Sub-Topic 2: Properties and Functions of Water in the Body

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. state the physical properties of water.</li> <li>. state the chemical properties of water.</li> <li>. discuss the functions of water in the body.</li> <li>. discuss the effects of deficiency and excessive intake of water.</li> </ul>	<ul style="list-style-type: none"> <li>. Physical properties of water</li> <li>. Chemical properties of water</li> <li>. Functions of water in the body</li> <li>. Effects of deficiency (dehydration) and excessive intake (intoxication) of water in the body</li> </ul>

### Methodology

- . Guide learners to brainstorm the physical and chemical properties of water.
- . Using guided discussion, learners discuss the functions of water in the body and the effects of deficiency and excessive intake of water in the body.

### Teaching/Learning Aids

- . Charts showing properties of water

### Assessment Strategy

- . Give an assignment on the functions of water in the body.

## Sub-Topic 3: Water and Electrolyte Balance

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. identify the electrolytes and their composition within the body.</li> <li>. explain the electrolyte balance mechanisms.</li> <li>. examine the role of the body organs in maintaining water and electrolyte balance.</li> <li>. define acids, bases and buffers.</li> <li>. explain the role of water and electrolytes in acid-base buffer system.</li> </ul> <p>. examine the factors responsible for acidosis and alkalosis.</p>	<ul style="list-style-type: none"> <li>. Composition of electrolytes within the body</li> <li>. Electrolyte balance mechanisms</li> <li>. Body organs that play various roles in water and electrolyte balance: - gastro intestinal tract - kidney - lungs</li> <li>. Definition of acids, bases, buffers</li> <li>. The role of water and electrolytes in acid-base buffer system: - protection against added acid and added base buffer system ratio in extracellular fluid</li> <li>. Factors that bring acidosis and alkalosis</li> </ul>

### **Methodology**

- . Guide learners to identify the electrolytes and their composition within the body.
- . Using guided discussion, let learners explain the electrolyte balance mechanisms and examine the role of the body organs in maintaining water and electrolyte balance.
- . Guide learners to define acids, bases and buffers and explain the role of water and electrolytes in acid-base buffer system.
- . Using brainstorming, let learners examine the factors responsible for acidosis and alkalosis.

### **Teaching/Learning Aids**

- . Charts showing the composition of electrolytes within the body

### **Assessment Strategy**

- . Give an assignment on the factors responsible for acidosis and alkalosis.

## **Topic 8: Vegetables. Duration: 6 Periods**

### **General Overview**

Vegetables are important in diet because of their mineral and vitamin content, colour, flavour and variety they add to the meal. They may be served as hors d'oeuvres, as an accompaniment to meat and fish dishes or as a separate course. A good combination of pulses and nuts can provide the body with good amounts of protein. However, it is important to take care when buying, cooking and serving green vegetables so as to minimise the loss of water soluble vitamins.

### **General Objectives**

By the end of the topic, the learner should be able to:

- i) examine the types and value of vegetables.
- ii) demonstrate the methods of cooking vegetables while conserving nutrients.

## Sub-Topic 1: Classification, Value and Storage of Vegetables

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. Classify vegetables.</li> <li>. discuss the nutritive value of vegetables.</li> <li>. discuss the dietetic value of vegetables.</li> <li>. outline qualities to look for when buying vegetables.</li> <li>. describe the proper storage of vegetables.</li> </ul>	<ul style="list-style-type: none"> <li>. Classification of vegetables with their examples - (green leafy, roots and tubers, pulses and pods, fruits, stems and bulbs, flowers)</li> <li>. Nutritive value of vegetables</li> <li>. Dietetic value of vegetables</li> <li>. Qualities to look for when buying vegetables</li> <li>. Storage of vegetable</li> </ul>

### Methodology

- . Guide learners to brainstorm the classification, nutritive and dietetic value of vegetables.
- . Guide learners to outline the qualities to look for when buying and how to store vegetables.

### Teaching/Learning Aids

- . A selection of each type of vegetable

### Assessment Strategy

- . Give an assignment on the classification and buying of vegetables.

## Sub-Topic 2: Use and Preservation of Vegetables

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. state the uses of vegetables in cookery.</li> <li>. discuss the effect of heat on vegetables.</li> </ul>	<ul style="list-style-type: none"> <li>. Uses of vegetables in cookery</li> <li>. Effect of heat on vegetables</li> <li>. Methods of preparing and cooking vegetables while conserving nutrients - (sautéing, stir frying, etc)</li> </ul>

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>. describe the methods of preparing and cooking vegetables while conserving nutrients.</li> <li>. describe the methods of preserving vegetables.</li> <li>. describe the preparation and service of vegetable salads.</li> </ul> | <ul style="list-style-type: none"> <li>. Methods of preserving vegetables- (pickles, chutney, etc)</li> <li>. Preparation and service of vegetable salads such as: - fresh vegetable salads - cooked salads such as potato salad</li> </ul> |
|---|---|

### **Methodology**

- . Guide learners to brainstorm on the effects of heat on vegetables.
- . Guide learners to describe the methods of preparing and cooking vegetables while conserving nutrients, the methods of preserving vegetables and the preparation and serving of vegetable salads.

### **Teaching/Learning Aids**

- . Selected vegetable items

### **Assessment Strategy**

- . Give an assignment on the methods of cooking and preserving vegetables.

## Sub-Topic 3: Pulses and Nuts

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"><li>. explain the different types of pulses and nuts.</li><li>. discuss the nutritive and dietetic value of pulses and nuts.</li><li>. explain the uses of pulses and nuts in cookery.</li></ul>	<ul style="list-style-type: none"><li>. Types of pulses and nuts</li><li>. Nutritive and dietetic value of pulses and nuts</li><li>. Uses of pulses and nuts in cookery</li></ul>

### Methodology

- . Guide the learners are to explain the different types of pulses and nuts and discuss their nutritive and dietetic value.
- . Using brainstorming, let learners explain the uses of pulses and nuts in cookery.

### Teaching/Learning Aids

- . Selected food items

### Assessment Strategy

- . Give an exercise on the uses of pulses and nuts in cookery.

## Topic 9: Energy Metabolism. Duration: 08 Periods

### General Overview

Metabolism is the sum-total of all chemical reactions that take place within the body cells. Energy metabolism is an important process in which energy is released from the food to enable all body processes to take place. The energy in food is ultimately converted into heat and this helps to maintain the temperature of the body. The basic steps of energy metabolism are glycolysis, Krebs cycle and the Electron Transport Chain (ETC).

### General Objectives

By the end of the topic, the learner should be able to:

- i) describe the processes involved in energy release.
- ii) examine the energy requirements by the body.

### Sub-Topic 1: Energy Cycle

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. define energy and metabolism (catabolism and anabolism).</li> <li>. explain the process of transformation of energy in the human body.</li> </ul>	<ul style="list-style-type: none"> <li>. Definition of terms – energy, metabolism (catabolism, anabolism, glucogenesis, and glycolysis)</li> <li>. Energy transformation (glycolysis, the Kreb’s Cycle and electron transport chain)</li> </ul>

### Methodology

- . Through brainstorming, guide learners to define the terms related to energy and metabolism. For example, catabolism and anabolism, glucogenesis and glycolysis.
- . Guide learners to discuss the processes of glycolysis, Kreb's and the electron transport chain

### Teaching/Learning Aids



- . Charts on basic steps of energy transformation in the body. Assessment Strategy
- . Give a written test on the processes of glycolysis and Krebs' cycle

## Sub-Topic 2: Control of Energy in Human Metabolism

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. explain the mechanisms of energy control in human metabolism.</li> <li>. examine the different types of metabolic reactions.</li> </ul>	<ul style="list-style-type: none"> <li>. Control of energy in human metabolism: - controlled reaction rate – (enzymes, co-enzymes and hormones)</li> <li>. Types of metabolic</li> </ul>

### Methodology

- . Guide the learners to discuss the mechanisms of energy control in human metabolism.
- . Guide learners to brainstorm on the different types of metabolic reactions.

### Teaching/Learning Aids

- . Charts showing the different metabolic reactions

### Assessment Strategy

- . Give a written test on mechanisms of energy control in human metabolism and types of metabolic reactions

## Sub-Topic 3: Requirements and Measurement of Energy

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. explain the factors that determine the total energy requirements of different groups of people.</li> <li>. define basal metabolic rate (BMR).</li> <li>. explain the factors that determine basal metabolic rate . explain the measurement of energy (calories).</li> <li>. describe the methods of measuring basal metabolic rate – calorimeter.</li> <li>. explain the need for energy balance in the body.</li> </ul>	<ul style="list-style-type: none"> <li>. Factors that determine the total energy requirements - (basal metabolic rate, specific dynamic action, physical activity, etc)</li> <li>. Definition of basal metabolic rate (BMR)</li> <li>. Factors that determine basal metabolic rate</li> <li>. Measurement of energy (calories)</li> <li>. Methods of measuring basal metabolic rate – calorimeter</li> <li>. Energy balance:               <ul style="list-style-type: none"> <li>- the concept of energy balance</li> <li>- positive energy balance</li> <li>- obesity negative energy balance                   <ul style="list-style-type: none"> <li>– Negative energy balance</li> <li>– Underweight and starvation</li> </ul> </li> </ul> </li> </ul>

### Methodology

- . Guide learners to brainstorm on the factors that determine the total energy requirements of different groups of people.
- . Using guided discussions, define basal metabolic rate (BMR) and explain the factors that determine it.
- . Using guided discussions, let learners describe the methods of measuring BMR.
- . Guide learners to brainstorm on the need for energy balance in the body.

### Teaching/Learning Aids

- . Charts showing the RDAs of energy

**Assessment Strategy**

- . Give a written exercise on factors that determine the energy needs of individuals.

**Sub-Topic 4: Functions and Recommended Dietary Allowances of Energy**

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. explain the functions of energy in the body.</li> <li>. outline the recommended daily allowances for different categories of people.</li> </ul>	<ul style="list-style-type: none"> <li>. Functions of energy in the body</li> <li>. Recommended dietary allowances (RDAs) for different categories of people</li> </ul>

**Methodology**

- . Guide the learners to discuss the functions of energy in the body.
- . Guide the learners to brainstorm the RDAs for different categories of people.

**Teaching/Learning Aids**

- . Charts showing the RDAs of energy

**Assessment Strategy**

- . Give a written exercise on functions of energy in the body.

## Topic 10: Fats and Oils. Duration: 04 Periods

### General Overview

Edible fats and oils are found stored as food reserves in many animal and plant sources. Fats and oils are of great importance in food science since they are used in home cooking, and as ingredients in many manufactured foods.

### General Objective

By the end of the topic, the learner should be able to examine the manufacture, classification and uses of fats and oils.

### Sub-Topic: Manufacture and Use of Fats and Oils in Cookery

Specific Objectives	Content
Specific Objectives Content The learner should be able to: <ul style="list-style-type: none"> <li>. describe the processing of cooking fats - margarine.</li> <li>. identify the different fats and oils.</li> <li>. differentiate between fats and oils.</li> <li>. state the uses of fats and oils in cookery.</li> <li>. Discuss the dangers of excessive use of fats and oils in the diet</li> </ul>	<ul style="list-style-type: none"> <li>. Processing of cooking fats margarine</li> <li>. Types of fats and oils</li> <li>. Distinction between fats and oils - (visible and invisible fats</li> <li>. Uses of fats and oils in cookery</li> <li>. Dangers of excessive use of fats and oils in the diet</li> </ul>

### Methodology

- . Guide learners to brainstorm the differences between fats and oils and their uses in cookery.
- . Guide learners to explain the processing of margarine and identify other fats and oils used in cooking.

### Teaching/Learning Aids

- . Different of fats and oils

**Assessment Strategy**

. Give an assignment on the types of fats and oils and their uses in cookery.

**Topic 11: Sweetening Agents. Duration: 4 Periods****General Overview**

Sweeteners are substances used in cookery to make food sweet. They may be natural or artificial products. Natural sugar is mainly sucrose which is found in many forms such as granulated sugar, caster sugar, golden syrup, cubed sugar, icing sugar, honey, treacle and brown sugar. The artificial form includes saccharin, sodium saccharin, calcium saccharin, aspartame, mannitol, sorbitol and xylitol. Sugar is a pure carbohydrate, and is used in many foods in cookery.

**General Objective**

By the end of the topic, the learner should be able to examine the types of sugar and their uses in cookery.

**Sub-Topic 1: Forms and Composition of Sweetening Agents**

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. identify the forms of sugar.</li> <li>. examine the composition of sugar.</li> </ul>	<ul style="list-style-type: none"> <li>. Forms of sugar - (brown sugar, granulated sugar, castor sugar, icing sugar, cubed sugar, golden syrup and treacle)</li> <li>. Composition of sugar</li> </ul>

**Methodology**

. Guide learners to brainstorm on the forms and composition of sugar.

**Teaching/Learning Aids**

. Forms of sugar: granulated sugar, icing sugar, golden syrup, etc

- . Charts of artificial sweeteners.

### Activities of Assessment

- . Give an assignment on the forms and composition of sugar.

## Sub-Topic 2: Value of Sugar in Cookery Specific

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. discuss the nutritive value of sugar.</li> <li>. discuss the dietetic value of sugar.</li> <li>. explain the uses of sugar in cookery.</li> <li>. explain the reasons for choosing sweeteners other than sugar.</li> <li>. explain the advantages and disadvantages of these sweeteners.</li> </ul>	<ul style="list-style-type: none"> <li>. Nutritive value of sugar</li> <li>. Dietetic value of sugar</li> <li>. Uses of sugar in cookery</li> <li>. Reasons for choosing other sweeteners - (glucose, honey, sorbitol, saccharin, aspartame, etc) other than sugar</li> <li>. Advantages and disadvantages</li> </ul>

### Methodology

- . Guide learners to discuss the value (nutritive value and dietetic value) and uses of sugar in cookery.
- . Guide learners to explain the reasons for choosing other sweeteners other than sugar and to explain the advantages and disadvantages of using sweeteners.

### Teaching/Learning Aids

- . Different forms of sugar

### Assessment Strategy

- . Give a test on the nutritional value and uses of sugar.

## Topic 12: Nutrition at Different Stages in Life.

### Duration: 16 Periods

#### General Overview

Each stage of a person's life cycle is affected by his or her diet right from the prenatal period to old age. Poor nutrition in any of these stages may create health problems, shorten the life span, or both. Diet during pregnancy affects both the mother and the foetus, or developing baby. Therefore, good nutrition is especially important during pregnancy. Nutritional needs vary with age and specific needs of an individual.

#### General Objective

By the end of the topic, the learner should be able to examine the nutritional requirements at various stages in the life cycle.

### Sub-Topic 1: Pregnancy and Lactation

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. explain the normal physical growth pattern challenges during pregnancy.</li> <li>. explain the nutrient requirements during lactation.</li> </ul>	<p>? Pregnancy:</p> <ul style="list-style-type: none"> <li>- the relationship between nutrition and pregnancy weight gain in pregnancy - composition</li> <li>- nutritional needs in pregnancy</li> <li>- general dietary problems in pregnancy - complications in pregnancy, control and management</li> <li>. Nutrient requirements during lactation</li> </ul>

### Methodology

- . Through whole class discussion, guide learners to explain the normal physical growth pattern during pregnancy.
- . Using guided discussion, let learners explain the nutritional requirements of a pregnant and lactating mother.

### Teaching/Learning Aids

- . Chart showing the nutritional needs during pregnancy and lactation.

### Assessment Strategy

- . Give an assignment on the nutritional complications during pregnancy, their control and management.

## Sub-Topic 2: Nutrition in the Life Cycle

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. identify the nutritional needs for normal growth and development at various stages of life cycle.</li> <li>. describe the nutritional challenges of the stages of life cycle.</li> <li>. analyse the growth pattern in children in a normal life cycle.</li> <li>. describe the use of growth monitoring curves.</li> <li>. explain the importance of breastfeeding.</li> <li>. explain the points to consider when using alternative feeding.</li> <li>. explain the important points to consider when weaning a child.</li> </ul>	<ul style="list-style-type: none"> <li>. Nutritional requirements for normal growth and development at various stages - (infancy, childhood, adolescence, adulthood and ageing)</li> <li>. Nutritional challenges of the various stages of life cycle</li> <li>. Measurement of physical growth - growth pattern in a normal life cycle: - infancy - latent period of childhood</li> <li>. Use of growth monitoring curves</li> <li>. Importance of breastfeeding</li> <li>. Points to consider when using alternative feeding</li> <li>. Points to consider when weaning a child</li> </ul>

### Methodology



- . Guide learners to discuss the nutritional needs for growth and development at various stages, nutritional challenges of the various categories and physical growth pattern in children in a normal life cycle.
- . Guide learners to demonstrate the use of growth monitoring curves.
- . Guide learners to brainstorm on the importance of breastfeeding and points to consider when using alternative feeding and weaning a child.

### **Teaching/ Learning Aids**

- . Growth monitoring charts

### **Assessment Strategy**

- . Give a written assignment on the nutritional requirements of the different stages of development.

## **Topic 13: Meal Planning. Duration: 06 Periods**

### **General Overview**

Food is a vital part of our lives and much of our time is spent on its preparation. Planning a meal involves making decisions about what foods to include and how to prepare them. This helps to ensure that individuals get the right kind of food and resources are utilised effectively. It is important to carry out wise shopping as it helps to cut down the cost of a meal without affecting the food value.

### **General Objectives**

By the end of the topic, the learner should be able to:

- i) plan adequate meals for the different categories of people in the community.
- ii) demonstrate good shopping skills.

## Sub-Topic 1: Shopping for Food

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. discuss the importance of wise food selection and purchasing.</li> <li>. explain the factors that affect food availability and choice.</li> <li>. outline the guidelines for shopping.</li> <li>. outline the different shopping outlets.</li> <li>. explain the advantages and disadvantages of the different</li> <li>. describe the importance of consumer information</li> </ul>	<ul style="list-style-type: none"> <li>. Importance of wise food selection and purchasing</li> <li>. Factors affecting food availability and choice</li> <li>. Guidelines for shopping</li> <li>. Shopping outlets:               <ul style="list-style-type: none"> <li>- open markets</li> <li>- specialist shops</li> <li>- supermarket/self-service shops</li> <li>- online shopping, etc</li> </ul> </li> <li>. Advantages and disadvantages of each of the shopping outlets.</li> <li>. Consumer information:               <ul style="list-style-type: none"> <li>- nutrition information</li> <li>- bar coding etc</li> </ul> </li> </ul>

### Methodology

- . Using guided discussion, guide learners to discuss the importance of wise food selection and purchasing, explain the factors that affect food availability and choice and outline the guidelines for shopping.
- . Guide learners to brainstorm on the different shopping outlets, their advantages and disadvantages and the importance of consumer information.

### Teaching/Learning Aids

- . Labelled items, newspaper adverts and flyers
- . Organise for trips to markets and shopping centres

### Assessment Strategy

- . Give an assignment on how to make a food budget.

## Sub-Topic 2: Rules for Meal Planning

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. explain the terms commonly used in meal planning.</li> <li>. outline the general rules to consider when planning meals.</li> <li>. identify the different meals in a day and meals for special occasions.</li> <li>plan meals for the different groups of people and special occasions.</li> <li>. plan special diets for specific conditions.</li> <li>. plan special diets for specific conditions</li> <li>. Plan special diets for specific conditions.</li> </ul>	<p>Terms commonly used in meal planning- (meal, menu, main meal, course, diet, balanced diet, high tea, snack, meal pattern, etc)</p> <ul style="list-style-type: none"> <li>. General rules to consider when planning meals</li> <li>. Meals in a day - (breakfast, lunch, supper, dinner); meals for special occasions - (buffets, packed meals, cocktail, barbecue, meals for festivities e.g. weddings, birthdays, graduation, mobile food services e.g. ice cream, hot snack etc)</li> <li>. Meals for the different groups of people include: <ul style="list-style-type: none"> <li>- invalids and convalescents - vegetarians</li> <li>- expectant mothers</li> <li>- children, etc</li> </ul> </li> <li>. Meals for specific conditions include: <ul style="list-style-type: none"> <li>- low cholesterol diet</li> <li>- gluten free diet</li> <li>- diabetic diet</li> <li>- ulcer diet</li> <li>- anaemia</li> <li>- renal/ low salt diet</li> <li>- high fibre diet/ slimmer's</li> </ul> </li> </ul>

## **Methodology**

- . Guide learners to explain the terms commonly used in meal planning; outline the general rules/points to consider when planning meals; identify the different meals in a day and the meals for special occasions.
- . Using groups, guide learners to plan the different meals in a day for the different groups of people and meals for special conditions.
- . Using brainstorming, guide learners to plan special diets for specific conditions.

## **Teaching/Learning Aids**

- . A chart showing the terms commonly used in meal planning

## **Assessment Strategy**

- . Give an exercise to learners to compile menus for special diets, occasions and different groups of people.

## Topic 14: Nutrition in Rehabilitation. Duration: 5 Periods

### General Overview

Nutritional disorders are caused by imbalances in specific food nutrients in the body. These can be due to over nutrition or under nutrition. Different disorders manifest differently and care should be taken to give the right diagnosis. The primary goal of diet therapy in diseases is to bring healing and prevent occurrence of complications and diseases. This is accomplished through nutritional management by increasing or reducing the use of certain foods while following recommended dietary guidelines.

### General Objective

By the end of the topic, the learner should be able to examine the principles of nutritional care, causes and management of various metabolic disorders.

### Sub-Topic 1: Principles of Nutritional Care for Metabolic Disorders

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. outline the common metabolic disorders.</li> <li>. discuss the principles of nutritional care in different metabolic disorders.</li> </ul>	<ul style="list-style-type: none"> <li>. Metabolic disorders:               <ul style="list-style-type: none"> <li>- obesity</li> <li>- diabetes mellitus</li> <li>- peptic ulcers</li> <li>- intestinal diseases</li> <li>- liver diseases (cirrhosis)</li> <li>- coronary disorders</li> </ul> </li> <li>. Principles of nutritional care in different metabolic disorders.</li> </ul>

### Methodology

- . Through brainstorming, let learners outline the common metabolic
- . Through guided discussion, let learners explain the principles for nutritional care in different metabolic disorders.
- . Through group work, guide learners to discuss the nutritional care of people with different disease conditions.

### Teaching/Learning Aids

- . Charts
- . Pictures from textbooks and photographs

### Assessment Strategy

- . Give a written test on identification of the common metabolic disorders.

## Sub-Topic 2: Causes and Symptoms of Metabolic Disorders

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. explain the causes of each of the above metabolic disorder.</li> <li>. describe the symptoms of each of the above metabolic disorder.</li> </ul>	<ul style="list-style-type: none"> <li>. Causes of each of the above metabolic disorder</li> <li>. Symptoms of each of the above metabolic disorders</li> </ul>

### Methodology

- . Through whole class discussion, guide learners to identify the causes of and describe the symptoms of each metabolic disorder.

### Teaching/Learning Aids

- . Charts showing different nutritional disorders
- . Pictures from textbooks and photographs

### Assessment Strategy

- . Written test on the causes and symptoms of metabolic disorders.

### Sub-Topic 3: Care and Management of Metabolic Disorders

Specific Objectives	Content
. The learner should be able to discuss the care and management of each of the disorders.	. Care and management of each of the metabolic disorders: - Diabetes - Obesity - Hypertension - Stroke - Micro-nutrient disorders

### Methodology

- . Using group work, guide learners to discuss the care and management of each metabolic disorder.

### Teaching/Learning Aids

- . A section of foods recommended for school disorders
- . Learners visit a hospitals and rehabilitation centres

### Assessment Strategy

- . Give a written test on the care and management of the various metabolic

## Topic 15: Food Misinformation. Duration: 6 Periods

### General Overview

Food misinformation refers to misconceptions concerning food. It takes the forms of food fads, myths, and many others which occur in communities. Food misinformation occurs as a result of many factors and they can be dangerous to the nutritional status of the people who believe and follow them. The youth are easily prone to food misinformation since they are easily influenced by advertisements encouraging them to try new products.

### General Objective

By the end of the topic, the learner should be able to examine the types of food misinformation, their dangers in relation to nutrition and how they can be avoided.

### Sub-Topic 1: Existence and Dangers of Food Misinformation

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. explain the basic food misinformation concepts.</li> <li>. distinguish between myths and scientific facts.</li> <li>. explain the dangers of food misinformation.</li> <li>. explain the causes of food misinformation.</li> <li>. explain the reasons for existence of food misinformation.</li> </ul>	<ul style="list-style-type: none"> <li>. Explanation of basic food misinformation concepts:               <ul style="list-style-type: none"> <li>- food fads</li> <li>- food myths</li> <li>- food quacks</li> <li>- food taboos</li> <li>- food superstitions</li> <li>- food fallacy</li> </ul> </li> <li>. Differences between myths and scientific facts</li> <li>. Dangers of food misinformation: - dangers to health               <ul style="list-style-type: none"> <li>- needless mon</li> </ul> </li> <li>. Causes of food misinformation:               <ul style="list-style-type: none"> <li>- distrust of food market</li> <li>- lack of knowledge of scientific advances</li> <li>- persuasive advertisement, etc</li> </ul> </li> <li>. Reasons for existence of food misinformation:               <ul style="list-style-type: none"> <li>- scientific advances</li> </ul> </li> </ul>



Specific Objectives	Content
. identify common food fads, fallacies and idiosyncrasies in Uganda.	<ul style="list-style-type: none"> <li>- food technology advancement</li> <li>- economic growth mass communication media</li> <li>- emotional needs, etc</li> <li>. Food fads, fallacies and idiosyncrasies in Uganda</li> </ul>

### Methodology

- . Guide learners in groups to explain the various concepts of food misinformation.
- . Using whole class discussion, guide learners to distinguish between myths and scientific facts.
- . Guide learners to brainstorm the dangers of food misinformation. . Guide learners to identify the causes of food misinformation and to explain the reasons for their existence
- . Using brainstorming, guide learners to identify the common food fads, fallacies and idiosyncrasies in Uganda.

### Teaching/Learning Aids

- . Textbooks, magazines and newspapers

### Assessment Strategy

- . Give an assignment on the dangers of food misinformation.

## Sub-Topic 2: Vulnerable Groups to Food Misinformation

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. identify the vulnerable groups of people to food misinformation.</li> <li>. examine the remedial measures to food misinformation.</li> </ul>	<ul style="list-style-type: none"> <li>. Vulnerable groups to food misinformation:               <ul style="list-style-type: none"> <li>- middle aged</li> <li>- the elderly</li> <li>- adolescents</li> <li>- obese and diabetic</li> </ul> </li> <li>. Remedial measures to food misinformation</li> </ul>

### Methodology

- . Through whole class discussion, guide learners to identify the groups of people that are vulnerable to food misinformation.
- . Guide learners to discuss the remedial measures to food misinformation.

### Teaching/Learning Aids

- . Food package, magazines with food advertisements

### Assessment Strategy

- . Give an exercise on remedial measures to food misinformation.

## TERM TWO

### **Topic 16: Food Spoilage, Contamination and Poisoning. Duration: 6 Periods**

#### **General Overview**

Food spoilage is when food loses its natural appearance, texture, and taste as a result of chemical reactions involved in the process of ageing, decay or through the action of micro-organisms. Contamination of food is the existence of foreign material in the food. Food poisoning on the other hand, is an illness that develops as a result of consuming contaminated food. It occurs if food containing poison of chemical or biological origin is ingested. Food borne diseases are got through consumption of food that contains bacteria responsible for the spread of diseases. These diseases are infectious and can be passed on from one person to another through faeces, unwashed hands and flies, among others.

#### **General Objectives**

By the end of the topic, the learner should be able to:

- i) examine the agents responsible for food spoilage, contamination and poisoning of food.
- ii) describe the symptoms of food borne diseases, their causes to the body and safety measures to prevent them.

## Sub-Topic 1: Food Contamination

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>explain the terms: food spoilage, food poisoning and food contamination.</li> <li>classify agents of food spoilage, poisoning and contamination.</li> </ul>	<ul style="list-style-type: none"> <li>Explanation of the following terms:           <ul style="list-style-type: none"> <li>food spoilage</li> <li>food poisoning</li> <li>food contamination</li> </ul> </li> <li>Classification of agents of food spoilage and contamination</li> </ul>

### Methodology

Using group discussions, guide learners to explain the terms food spoilage, food poisoning and food contamination and classify the agents that cause food spoilage.

### Teaching/Learning Aids

Charts showing agents of food spoilage and contamination

### Assessment Strategy

Give an assignment on agents that cause food spoilage and food contamination.

## Sub-Topic 2: Food Poisoning

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• explain the types of food poisoning.</li> <li>• explain the causes of food poisoning.</li> <li>• state the symptoms of food poisoning.</li> <li>• discuss the measures to ensure food safety and hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>• Types of food poisoning <ul style="list-style-type: none"> <li>- Bacterial</li> <li>- Chemical</li> <li>- Biological, etc</li> </ul> </li> <li>• Causes of food poisoning</li> <li>• Symptoms of food poisoning</li> <li>• Measures to ensure food safety - (kitchen, food and personal hygiene)</li> </ul>

### Methodology

- . Using whole class discussions, guide learners to explain the types of food poisoning, their causes and symptoms.
- . Using group discussions, let learners discuss the measures to ensure food safety and hygiene.

### Teaching/Learning Aids

- . Kitchen
- . Equipment
- . Contaminated foods

### Assessment Strategy

- . Give a test on types of food poisoning and their symptoms.

## Sub-Topic 3: Food Borne Diseases

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• identify food borne diseases.</li> <li>• identify the agents/sources of food borne diseases.</li> <li>• identify symptoms of food borne diseases.</li> <li>• explain the causes of food borne diseases.</li> <li>• explain the measures to prevent food borne diseases.</li> </ul>	<ul style="list-style-type: none"> <li>• For each of the food borne diseases (cholera, typhoid dysentery, etc) give the: - agents/sources of the disease</li> <li>• symptoms of the food borne disease</li> <li>• causes of the food borne disease</li> <li>• preventive measures of the food borne disease</li> </ul>

### Methodology

- . Using group discussions, guide learners to identify food borne diseases, their sources/agents and symptoms.
- . Using guided discussion, let learners explain the causes of food borne diseases and their preventive measures.

### Teaching/Learning Aids

- . Charts on causes of food borne diseases

### Activities of Assessment

- . Give a test on sources/agents, causes, symptoms and preventive measures of food borne diseases.

## Topic 17: The Food Path. Duration: 17 Periods

### General Overview

The food path describes the various stages the food goes through from its source to the table. It may be from urban or rural, a short or long, or simple or complicated path. Anything that interferes with the food along the way is said to be a food block and may lead to malnutrition in an individual or community.

Consumers face many dangers at the various stages from food production to consumption. There is therefore need to constantly check and provide safety measures to ensure the consumer obtains quality products. Food harvesting/slaughter of animals, transportation and storage, processing/preservation and advertising, labelling and marketing are protected by a wide range of laws.

The complex organic components of food are broken down by micro organisms and enzymes which cause changes in the flavour, colour, taste, and food texture. For effective food preservation, enzymes and microbial growth must be prevented. Foods are preserved to prolong their 'shelf life'. This is done by dehydration, addition of chemicals, heat treatment, freezing, etc. The different preservation methods may have different effects on the value of food.

### General Objective

By the end of the topic, the learner should be able to examine the means of protecting food from the point of production to consumption.

## Sub-Topic 1: Urban and Rural Food Paths

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. define the food path.</li> <li>. describe the urban and rural food paths.</li> </ul>	<ul style="list-style-type: none"> <li>. Definition of the food path</li> <li>. Urban and rural food paths</li> </ul>

### Methodology

- . Guide learners to brainstorm on the definition of the food path.
- . Guide learners to describe the urban and rural food paths.

### Teaching/Learning Aids

- . Flow chart showing urban and rural food path

### Assessment Strategy

- . Give a test on the rural and urban food paths.

## Sub-Topic 2: Food Blocks along the Food Path

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. identify the food blocks along the food paths.</li> <li>. explain how the food blocks can cause malnutrition.</li> <li>. explain ways in which to prevent the malnutrition caused by food blocks.</li> </ul>	<ul style="list-style-type: none"> <li>. Food blocks along the food paths</li> <li>. Relationship between food blocks and malnutrition (causes)</li> <li>. Remedies to malnutrition caused by food blocks</li> </ul>



**Methodology**

- . Guide learners to identify the different blocks along the food paths.
- . Through group discussion, let learners explain the relationship between food blocks and malnutrition, and remedies to this form of malnutrition.

**Teaching/Learning Aids**

- . Chart showing the food blocks along the food path.

**Assessment Strategy**

- . Give a written assignment on how food blocks cause malnutrition.

**Sub-Topic 3: Harvesting and Slaughter of Animals**

Specific Objectives	Content
. discuss the means of protecting food during the harvesting and slaughter of animals.	. Protection of food during harvesting/slaughtering animals

**Methodology**

- . Through group discussion, guide learners to discuss the means of protecting food during harvesting and slaughter of animals.

**Teaching/Learning Aids**

- . Trip to the abattoir

**Assessment Strategy**

- . Give an exercise on the means of protecting food during harvesting and slaughter of animals

## Sub-Topic 4: Transportation and Storage of Food

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. describe the ways of protecting food during transportation.</li> <li>. describe the ways of protecting food during storage.</li> </ul>	<ul style="list-style-type: none"> <li>. Ways of protecting food during transportation from the farmer to the consumer</li> <li>. Ways of protecting food during storage to ensure safety and</li> </ul>

### Methodology

- . Through group discussion, guide learners to describe the ways of protecting food during transportation.
- . Through brainstorming, guide learners to describe the ways of protecting food during storage.

### Teaching/Learning Aids

- . Charts showing ways to ensure quality food during storage

### Assessment Strategy

- . Give an assignment on the ways of protecting food during transportation and storage.

## Sub-Topic 5: Aims and Methods of Food Preservation

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>. explain the meaning of food preservation.</li> <li>. state the aims of food preservation.</li> <li>. explain the principle governing each food preservation method.</li> <li>. describe the different methods of food preservation.</li> <li>. identify the foods preserved by the different methods of preservation.</li> <li>. explain the effects of the methods of preservation on the value of food.</li> </ul>	<ul style="list-style-type: none"> <li>. Meaning of food preservation</li> <li>. Aims of food preservation</li> <li>. Principles governing each food preservation</li> </ul> <p>Methods of food preservation:</p> <ul style="list-style-type: none"> <li>- heat treatment (sterilisation, pasteurisation, canning and bottling)</li> <li>- dehydration (sun drying, roller drying, spray drying, accelerated freeze drying) - freezing and refrigeration</li> <li>- removal of air</li> <li>- irradiation</li> <li>- chemical preservation (salting, smoking, etc)</li> <li>- biological preservation (fermentation) used in the making of wine, cheese and yoghurt</li> </ul> <ul style="list-style-type: none"> <li>. Foods preserved using the different preservation methods (fruits, vegetables, meat, milk, fish, pulses, nuts, etc)</li> <li>. Effects of the methods of preservation on the value of food.</li> </ul>

### Methodology

- . Guide learners to brainstorm the meaning and aims of food preservation.
- . Guide learners to discuss the principles governing each method of food preservation.
- . With the aid of examples, guide learners to brainstorm the methods of food preservation.
- . Using group work, guide learners to identify the foods preserved by the different methods.

. Using guided discussions, learners explain the effects of the methods of preservation on the value of food.

### Teaching/Learning Aids

. Charts showing the principles and methods of food preservation methods

### Assessment Strategy

. Give a written test on principles and aims of preservation. Let learners describe the effects of each of the methods of preservation on the nutritive value of food

## Sub-Topic 6: Processing and Preservation of Food

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. describe ways to protect food during processing to ensure safety and quality.</li> <li>. describe ways to protect food during preservation to ensure safety and quality.</li> </ul>	<ul style="list-style-type: none"> <li>. Ways of protecting food during processing to ensure safety and quality</li> <li>. Ways of protecting food during preservation to ensure</li> </ul>

### Methodology

. Guide learners to describe the ways of protecting food during processing and preservation to ensure quality.

### Teaching and Learning Aids

. Real food materials packed, with labels.

### Assessment Strategy

. Give an exercise on the ways of protecting food during processing and preservation to ensure quality.

## Sub-Topic 7: Advertising, Labelling and Marketing of Food

Specific Objectives	Content
The learner should be able to explain the importance of advertising, labelling and marketing of foods	. Importance of advertising, labelling and marketing food

### Methodology

. Through group discussions, guide learners to explain the importance of advertising, labelling, and marketing of foods.

### Teaching and Learning Aids

- . Real food materials in packages
- . Pictures of food containers

### Assessment Strategy

. Give an assignment on the importance of advertising, labelling, and marketing foods

## Topic 18: Convenience Foods. Duration: 4 Periods

### General Overview

Convenience foods are foods that are partially or totally processed by food manufacturers so that they are either ready to eat on purchase or require minimum cooking. Their popularity today has been contributed by the following factors:

- . The changing patterns of life, mainly the fact that many women go out to work as well as running a home.
- . An increase in foreign travel, modern advertising, colourful displays in supermarkets and a higher standard of living.

. Lack of time and the desire to reduce manual work has increased the demand for a wide variety of foods easily obtained, stored and prepared.

### General Objective

By the end of the topic, the learner should be able to examine the value and use of convenience foods.

### Sub-Topic 1: Use of Convenience Foods

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. define the concept of “convenience” foods.</li> <li>. explain the reasons for the increased intake of convenience foods.</li> <li>. state the different types of convenience foods with examples in each case.</li> <li>. discuss the advantages of using convenience foods.</li> <li>. discuss the disadvantages of using convenience foods.</li> <li>. demonstrate the use of convenience foods in cookery.</li> </ul>	<ul style="list-style-type: none"> <li>. Definition of “convenience” foods</li> <li>. Reasons for the increased intake of convenience foods</li> <li>. Types and examples of convenience foods</li> <li>. Advantages of using convenience foods</li> <li>. Disadvantages of using convenience foods</li> <li>. Use of convenience foods in cookery</li> </ul>

### Methodology

. Guide learners to brainstorm the definition, reasons for the increased consumption, types and examples of convenience foods.

. In groups, let learners discuss the advantages and disadvantages of using convenience foods.

. In groups, guide learners to demonstrate the use of convenience

### Teaching/Learning Aids

. Samples of convenience foods

### Assessment Strategy

- . Give an exercise on the advantages and disadvantages of using convenience foods.

## Sub-Topic 2: Value of Convenience Foods

Specific Objectives	Content
The learner should be able to: . discuss the nutritive value of convenience foods. . discuss the dietetic value of convenience foods.	. Nutritive value of convenience foods . Dietetic value of convenience foods

### Methodology

- . Guide learners to discuss the nutritive value of convenience foods.
- . Through brainstorming, guide learners to discuss the dietetic value of convenience foods.

### Teaching/Learning Aids

- . A chart showing the value of convenience foods

### Assessment Strategy

- . Give a written exercise on the value of convenience foods.

## Topic 19: Food Additives. Duration: 4 Periods

### General Overview

There are natural or artificial substances that are added to food for one or a combination of the following purposes: - to make it more palatable. - improve the nutritive value. - increase shelf life. - to improve cooking properties. - for easy processing. Some of these additives are beneficial to health while others if taken in large amounts are harmful and as such, they should be used with care.

### General Objective

By the end of the topic, the learner should be able to examine the types and value of food additives used in food preparation/processing.

### Sub-Topic 1: Classification of Food Additives

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>. define food additives.</li> <li>. classify food additives.</li> </ul>	? Definition of food additive ? Classification of the following food additives: <ul style="list-style-type: none"> <li>- colouring</li> <li>- flavourings</li> <li>- preservatives</li> <li>- nutritional additives</li> <li>- improvers</li> <li>- emulsifiers etc</li> </ul>

### Methodology

- . Guide learners to brainstorm the definition of food additives.
- . Through discussions, guide learners to classify food additives used in food preservation/processing.

### Teaching/Learning Aids

- . Samples of food additives



**Assessment Strategy**

- . Give an exercise on the classification of food additives.

**Sub-Topic 2: Advantages and Disadvantages of Food Additives**

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"><li>. explain the advantages of using food additives.</li><li>. explain the disadvantages of using food additives.</li></ul>	<ul style="list-style-type: none"><li>. Advantages of using food additives</li><li>. Disadvantages of using food</li></ul>

**Methodology**

- . In groups, guide learners to explain the advantages and disadvantages of food additives.

**Teaching/Learning Aids**

- . Samples of food additives

**Assessment Strategy**

- . Give an exercise on the advantages and disadvantages of using food

## SCIENCE IN THE HOME (PAPER TWO P640/2)

### SCIENCE IN THE HOME: JUSTIFICATION

NO.	TOPIC	JUSTIFICATION
1.	Term 1 topics <ul style="list-style-type: none"> <li>• The kitchen</li> <li>• Materials in the home</li> </ul> Were dropped	Should have been covered in first term
2	FORCES was dropped Definition of forces	Should have been covered in O'Level physics Application be done under individual topics Properties of matter covered in O'level including experiments Expound on application of the properties
3	Matter	Emphasis on the applications of the properties of matter. The rest of the subtopics should have been covered in O'level.
5	Relative density	Put emphasis on the measurement and application of the law of relative density
6	Simple machines was dropped	They will discover during practical lessons while using simple machines like blender, food processor, hand mixer, whiskers, squeezers
7		
8	Definition of heat and Temperature, types of thermometers	Covered at O'Level and will continue to be discovered along the coursed
9	Evaporation and Cooling	Definitions of evaporation and cooling should have been discovered in O'Level physics
10	Heat Capacity and Latent Heat	Discovered and covered at the Ordinary level and through the

NO.	TOPIC	JUSTIFICATION
		course
11	Fuels	Will be discovered in the practical paper and personal experience
12	Electricity draw different signs and symbols used in electricity (cell, switch, circuit breaker).	Done in physics at O'Level
13	Static electricity	Done in physics at O'Level
14	<p><b>Chemical Electric Energy</b></p> <ul style="list-style-type: none"> <li>• Construction and operation of a simple cell</li> </ul> <p><b>Current Electricity</b></p> <ul style="list-style-type: none"> <li>• Diagrams of the different circuits in the home (old type and modern ring circuit installations)</li> <li>• Calculation of internal resistance</li> <li>• Experiment to determine the wattage of an electric appliance</li> <li>• Experiment to show the heating effect of an electric current</li> <li>• Factors affecting the heating effect of an electric current.</li> <li>• Applications of electrical heating.</li> </ul> <p><b>Other Forms of Generating Electricity</b></p> <ul style="list-style-type: none"> <li>• Generating electricity on a large scale using coal, wind and gas</li> <li>• Diagram of a quartz crystal spark generator and a photo electric cell</li> </ul>	<p>Done in physics at O'Level</p> <p>Some of the content is not very applicable in this country</p>

NO.	TOPIC	JUSTIFICATION
	Magnetism and its applications in the home <ul style="list-style-type: none"> <li>• Definition of magnetism</li> <li>• Laws of magnetism</li> <li>• Methods of magnetisation and demagnetisation</li> </ul>	Assumed to be covered on ordinary level
	<b>Sources, Importance and Methods of Lighting Rooms</b>	From personal experience and walk other discussions
	<b>Colour</b> <ul style="list-style-type: none"> <li>• Properties of colour and elements of art and design in colour (i.e. colour, light, line, texture and form)</li> </ul>	<ul style="list-style-type: none"> <li>• Already discovered</li> </ul>
	<b>Water</b>  Sources, uses  Types of water: soft water and hard water (temporary hardness and permanent hardness)  Advantages and disadvantages of the soft and hard water	Already discovered
	<b>Sewage disposal</b>	Already discovered from the school life
	<b>Soap and soapless soap</b> Advantages and disadvantages of soap and soapless detergents	Already discovered
	<b>Locally Obtained Detergents</b>	Already obtained from personal lids
	<b>Application of simple chemistry</b> -Reduction	Picked from chemistry

# TERM 1

## TOPIC 1: FORCES. DURATION: 26 PERIODS

### General Overview

We encounter several forces in our daily lives and these include gravitational, centripetal and centrifugal forces. The application of these forces is of importance in the operation of household equipment for example vacuum cleaners, spin dryers, washing machines, etc. Household appliances use different forces to do work but learners should be knowledgeable on the safety precautions to be taken when using these appliances.

### General Objective

By the end of this topic, the learner should be able to explain the different types of forces, their effects and applications in various appliances in the home.

### Sub-Topic 1: Types of Forces

Specific objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>Apply the effect of different forces in various appliances in the home</li> </ul>	Applying gravitational, centripetal, centrifugal, frictional, in various appliances

### Methodology

- Through guided discussion, let learners identify the different types of forces.
- Demonstrate to the learners the use of each force-driven appliance.

### Teaching/Learning Aids

- Textbooks

### Assessment Strategy

- Give a written test on application of different forces in equipment and safety precautions while using various appliances.

## TOPIC 2: MATTER. DURATION: 12 Periods

### General Overview

Matter exists in three states i.e. solids, liquids and gases. Matter is made up of tiny particles which are arranged differently according to the state. All materials in the home are formed differently either as solids, liquids or gases basing on the arrangement of their tiny particles. This topic enables learners to know the role of the properties of matter in our day-to-day life for example diffusion, surface tension, osmosis, capillarity and absorption. The topic also gives learners a scientific knowledge of measuring various quantities such as length, volume and weight which are very vital in food preparation and other preparations in the home. Good knowledge of the applications of principles of relative density cannot be ignored as it can be used in simple household experiments like finding out if eggs are stale and if milk has been adulterated.

### General Objective:

By the end of this topic, the learner should be able to outline the states of matter, its properties and application in the home for example in measurements of weights and density.

### Sub topic 1: Properties of Matter and their Applications

Specific objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>explain the application of the properties of matter in daily life.</li> </ul>	<ul style="list-style-type: none"> <li>Application of the properties of matter in daily life:               <ul style="list-style-type: none"> <li>- diffusion</li> <li>- surface tension (detergent action, water proofing, release agents and polishes)</li> <li>- adhesion and cohesion</li> <li>- osmosis</li> <li>- absorption and adsorption</li> <li>- capillarity (raising damp, sweating of concrete floors, colour migration, etc)</li> </ul> </li> </ul>

**Teaching/Learning Aids**

- Textbooks
- Charts

**Methodology**

- Through discussions, guide learners on the different properties of matter.

**Sub-Topic 3: Relative Density**

Specific Objectives	Content
<ul style="list-style-type: none"><li>• The learner should be able to:</li><li>• define relative density and give its measurement.</li><li>• explain the application of hydrometers.</li><li>• explain the applications of relative density.</li></ul>	<ul style="list-style-type: none"><li>• relative density measurement</li><li>• Application of hydrometers (lactometers, saccharometers and salinometers)</li><li>• Applications of relative density</li></ul>

**Methodology**

- Let learners brainstorm on the measurement of relative density.
- Through group discussions, guide learners to identify the applications of relative density.

## TOPIC 3: SIMPLE MACHINES. DURATION: 4 Periods

### General Overview

A machine is a device that makes work easier. However, when using them, we should consider the working principles and safety precautions that would enable us to use less energy and avoid accidents. There are different groups of simple machines classified according to their working mechanisms and these include levers, pulleys, wedges, wheel and axle, etc.

### General Objective

By the end of the topic, the learner should be able to comprehend the types, application and use of simple machines in relation to mechanical advantage, velocity ratio and efficiency.

### Relationship between Mechanical Advantage, Velocity Ratio and Efficiency

Specific content	Content
<ul style="list-style-type: none"> <li>The learner should be able to:</li> <li>Explain the relationship between mechanical advantage, velocity ratio and efficiency of simple machines.</li> </ul>	<ul style="list-style-type: none"> <li>Relationship between mechanical advantage, velocity ratio and efficiency of simple machines</li> </ul>

### Methodology

- Use talk and chalk method to illustrate the relationship between mechanical advantage, velocity ratio and efficiency.

### Teaching and Learning Aids

- Textbooks (pictures)
- Charts with illustrations



**TOPIC 4: PRESSURE. DURATION: Duration: 12 Periods****General Overview**

Pressure is very useful in our day to day activities. It is important to know the types of pressure and how they can be applied in the home to improve efficiency of work and to reduce accidents. The types of pressure include liquid pressure, gas pressure, steam pressure and solid pressure. It is important for one to identify the importance of these types of pressure so as to make work easier and efficient. Good knowledge of the measurement of pressure is important because excess of it can have a number of negative effects.

**General Objective**

By the end of this topic, the learner should measure and apply pressure in a home for example in water pumps, taps, syringes, sprays, bicycle tyres, etc.

**Sub-Topic 1: Types of Pressure and their Applications**

Specific objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>Identify the types of pressure.</li> <li>Explain the applications of different types of pressure.</li> </ul>	<ul style="list-style-type: none"> <li>Types of pressure and their applications:           <ul style="list-style-type: none"> <li>liquid pressure (lift and force pumps, water taps, syringe, siphon, lavatory flush, ball valve, domestic water supply, drinking straws, rubber sucker)</li> <li>gas pressure (gas governor, pressure gauge, aerosol sprays)</li> <li>steam pressure (coffee maker)</li> <li>solid pressure (furniture stands, stilettos, cutting equipment, sewing needles, injection, bicycle/car tyres)</li> </ul> </li> </ul>

## Methodology

- Guide learners to brainstorm the different types of pressure and equipment that use them.
- Demonstrate the application of different types of pressure using real objects like siphons, pressure cookers, water taps, aerosol sprays, bicycle tyres, etc.

## TOPIC 5: HEAT AND THERMODYNAMICS. Duration: 16

### Periods

#### General Overview

Different objects react differently to temperature changes under different conditions. It is therefore important that learners understand the effects of heat and their applications in daily life. Heat effects like condensation can bring about moisture and dampness which have various effects on surfaces, materials and food.

When matter is heated, it expands and when cooled it contracts. If changes are resisted, large forces are created which are sometimes useful but sometimes a nuisance. Therefore, it is essential for students to understand the application of expansion in solids and fluids, and liquids and gases.

Melting refers to the change of state from solids to liquids while boiling is the change from liquids to gas. It is important for the learner to identify the application of melting in the home (rendering, automatic sprinkler systems and melting in sugar confectionery).

Evaporation is a process by which a liquid turns to vapour. Evaporation and cooling have very many applications in the home hence this unit helps the learner to know these applications like drying of clothes, spray drying of milk and the factors that affect this process.

Humidity means the presence of water vapour in the atmosphere. It is important to study humidity because excess of it has effects on the body and surfaces in the home hence it has to be controlled.

Refrigerators operate on the principle of evaporation on cooling. When liquids evaporate, they draw heat from the surrounding and produce a cooling effect that is used in refrigeration. Refrigerators use liquids called refrigerants.

Specific heat capacity refers to the heat required to produce a unit temperature rise in unit mass, while latent heat refers to hidden energy which does not cause a temperature change but causes a change in state of matter.

When a solid is heated, it may melt and change its state from solid

### General Objectives

By the end of this topic, the learner should be able to:

- i) apply the effects of heat changes on the various states of matter. ii) apply the effects of thermal expansion for example in thermometers, thermostats and refrigerators.
- ii) apply the effects of thermodynamics in maintaining a conducive living atmosphere in the home.

### Subtopic 1: Expansion in Solids and Fluids

Subspecific objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• Define expansion and contraction.</li> <li>• Explain the operation of a bimetallic strip and equipment which use it.</li> <li>• Identify the applications of expansion in solids and fluids in the home.</li> </ul>	<p>Definition of expansion and contraction and its causes</p> <ul style="list-style-type: none"> <li>• Operation of a bimetallic strip and equipment like thermometers, fire alarms, automatic flashing lights and room thermostats that use a bimetallic strip</li> <li>• Applications of expansion in solids and fluids (liquids and gases) in the home</li> </ul>

### Methodology

- Guide learners to brainstorm on the definition of expansion and its causes.

### Teaching/Learning Aids

- Real objects like a pressure cooker
- Textbooks
- Charts with illustrations like automatic sprinkler systems and pressure cookers

### Assessment Strategy

- Give a group assignment on the application of boiling and melting, and the principle behind the operation of a pressure cooker.

## Sub-Topic 2: Evaporation and Cooling

Specific objective	Content
<ul style="list-style-type: none"> <li>• The learner should be able to:</li> <li>• discuss the factors that affect the rate of evaporation.</li> <li>• explain the applications of evaporation and cooling in the home.</li> <li>• differentiate between boiling and evaporation.</li> </ul>	<ul style="list-style-type: none"> <li>• Factors that affect the rate of evaporation</li> <li>• Applications of evaporation and cooling in the home e.g., drying of clothes etc</li> <li>• Differences between boiling and evaporation</li> </ul>

- **Methodology**

- Guide learners to discuss the factors affecting the rate of evaporation.
- Illustrate evaporation using real objects like covered boiling water.

- **Teaching/Learning Aids**

- Real objects like covered boiling water, drying clothes
- Textbooks

## Sub-Topic 3: Humidity and Damp

Specific objective	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• define humidity and outline its sources and effects.</li> <li>• explain and illustrate measurement of water vapour in the atmosphere.</li> <li>• discuss the applications of humidity in the home.</li> <li>• explain the different types of damp, their causes and control.</li> </ul>	<p>Definition of humidity, its sources and effects</p> <ul style="list-style-type: none"> <li>• Measurement of water vapour in the atmosphere using the interior of a hair hygrometer</li> <li>• Applications of humidity e.g., air conditioners, humectants, humidistat and steaming</li> <li>• The different types of damp, their causes and control (penetrating damp, rising damp and condensation damp)</li> </ul>

### Methodology

- Guide learners to brainstorm the definition of humidity.
- Through question and answer method, let learners identify the sources and effects of humidity.
- Guide learners to discuss the types, causes and control of damp.
- Illustrate types of damp using drawings on charts.

### Teaching/Learning Aids

- Textbooks
- Realia e.g., observation of damp on windows and wall plaster
- Charts illustrating air conditioners

### Assessment Strategy

- Give a written test on definition of humidity, its sources, effects and applications of humidity e.g. air conditioners.

## Sub-Topic 4: Forms of Heat Transfer

Specific objective	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• define conduction, convection and radiation.</li> <li>• discuss the different forms of heat transfer in solids, liquids and gases.</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of the 3 forms of heat transfer i.e. conduction, convection and radiation</li> <li>• Different forms of heat transfer in solids, liquids and gas</li> </ul>

### Methodology

Illustrate heat transfer using real objects like flasks, ovens, etc.

- Demonstrate convection currents using boiling water.
- **Teaching/Learning Aids**
- Real objects like vacuum flasks, radiant heaters, etc.
- Charts
- Textbooks
- **Assessment Strategy**
- Give a group assignment on the applications of conduction, convection and radiation.

## TERM TWO

### TOPIC 6: ELECTRICITY DURATION: 42 PERIODS

#### General Overview

Electricity is a form of energy which can be used for heating, lighting and powering homes and industries. It can be generated in many forms including static electricity, chemical electricity, photo electricity and current electricity.

Electricity can be produced from water, coal, oil, atomic energy or wind in turbine generators. It is essential for learners to know other different forms of generating electricity like photo electricity and their applications like in burglar alarms, calorimeters, boiler fires, etc.

Electricity has made work easier in houses through powering machines but it can cause severe burns, shock and in extreme cases death, if not well handled hence being important for learners to understand the electric terms, signs and symbols, costing and operation of electrically driven equipment to ensure safety and economy when using electricity.

Meters record the number of units in Kilo Watt hours of electricity used. It is very important for learners to know how to read meters as it can help them to check on how much electricity a particular appliance uses. Domestic wiring helps learners to know the different colour codes to ensure electric safety.

Magnets are used in many appliances of an electric current that produce magnetism or electromagnetism. They are used in cycle dynamos, electric bells, lifts or electromagnetic brakes

Transformers are apparatus for changing the voltage of an alternating current from one value to another; they either step it up or step it down. Electric motors form a whole host of many electrical devices ranging from domestic appliances such as vacuum cleaners, washing machines, dryers, blenders, etc, to electro locomotives and lifts.

## General Objective

By the end of this topic, the learner should be able to: 317 i) read and interpret electric symbols and calculate family electric bills. ii) make simple electric connections and repairs in the home. iii) use electric equipment skillfully and consciously to ensure safety in the home.

## Sub-Topic 1: Terms and Symbols Used in Electricity

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>define electricity.</li> <li>define the terms used in electricity.</li> </ul>	<ul style="list-style-type: none"> <li>Definition of electricity</li> <li>Terms used in electricity (coulomb, volt, resistance electric circuit)</li> </ul>

## Methodology

- Using question and answer method, guide learners on different electric symbols and signs.
- Illustrate the different signs and symbols used in electricity using charts and real symbols on electric equipment.
- Through group discussions, guide learners on the different terms used in electricity.

## Teaching/Learning Aids

- Textbooks
- Real objectives (signs and meters, etc.).
- Charts

## Assessment Strategy

- Give an oral exercise on the definition of different terms used in electricity.



## Sub-Topic 3: Chemical Electric Energy

Specific Objectives	Content
<p>The learners should be able to:</p> <ul style="list-style-type: none"><li>• explain the construction and operation of a simple cell.</li><li>• explain the applications of a simple cell (dry cells, accumulators).</li><li>• outline the care and maintenance of lead acid accumulators.</li></ul>	<ul style="list-style-type: none"><li>• Applications of a simple cell (dry cells, accumulators) diagram of a dry cell</li><li>• Care and maintenance of lead acid accumulators</li></ul>

### Methodology

- Guide learners to discuss the construction and operation of a simple cell.
- Illustrate the construction of a dry cell using a real object.

### Teaching/Learning Aids

- Real objects e.g. dry cells
- Charts
- Textbooks

### Assessment Strategy

Give an assignment on the construction and applications of a simple cell.

## Sub-Topic 4: Current Electricity

Specific Objectives	Content
<p>The learners should be able to:</p> <ul style="list-style-type: none"> <li>define conductors and insulators of electricity and give their applications in the home.</li> <li>explain the application of series and parallel connections in the home.</li> <li>draw the different circuits in the home.</li> <li>calculate electromotive force (emf), internal resistance, external resistance and electrical power, wattage and cost of electricity used in the home (monthly bills).</li> <li>describe an experiment to determine the wattage of an electric current.</li> </ul>	<ul style="list-style-type: none"> <li>Definition of conductors and insulators of electricity and their applications in the home</li> <li>Application of series and parallel connections in the home</li> <li>Calculation of electromotive force (emf), external resistance and electrical power, wattage and cost of electricity used in the home (monthly bills)</li> </ul>

### Methodology

- Through question and answer method, guide learners to identify the different electric conductors and insulators used in the home and to give their applications in the home.
- Through talk and chalk, guide learners to calculate the cost of electricity in the home and calculation of fuse sizes.
- Carry out an experiment to determine the wattage of an electric appliance.

### Teaching/Learning Aids

- Textbooks
- Charts for ring circuits

### Assessment Strategy

- Give learners a written test on definition of conductors and insulators, the application of the series and parallel connection, calculation of emf, external resistance and internal resistance and the cost of electricity in the home.

## Sub-Topic 5: Heating Effect of Electricity

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• outline the factors affecting the heating effect of an electric current.</li> <li>• describe an experiment to show the heating effect of an electric current.</li> <li>• explain the applications of electrical heating.</li> <li>• illustrate and explain the principles of operation of various equipment that use electricity for heating.</li> </ul>	<ul style="list-style-type: none"> <li>• Factors affecting the heating effect of an electric current</li> <li>• Applications of electrical heating and principles of operation: <ul style="list-style-type: none"> <li>○ food preparation equipment: electric cookers (principle of operation, components, modern features e.g. rotisseries, glass doors and autotimers), care and cleaning –</li> <li>○ microwave ovens - automatic rice cookers</li> <li>○ toasters - rotisseries - food/plate warmers - electric baine maries - electric kettles - water heaters (electrical immersion heaters, instantaneous water heaters) - laundry and cleaning equipment: o washing machines (washing actions for</li> </ul> </li> </ul>

Specific Objectives	Content
	example tumble, pulsator and agitator) o dryers (wringler, spin dryer, tumbler o electric irons (dry irons and steam irons) o dish washers o others: of flexible heating elements. The choice, care and cleaning of the above electrically operated equipment

### Methodology

- Through question and answer method, guide learners to identify and classify electrically driven equipment.
- Through group discussions, guide learners to identify the factors affecting the heating effect of electricity and the application of electric heating (water heaters, washing machines, electric irons, electric cookers, etc)
- Carry out an experiment to determine the heating effect of an electric current in the physics laboratory.
- Study tours to electronic shops and industries.

### Teaching/Learning Aids

- Real objects (cookers, electric irons, etc)
- Charts with illustrations (washing machines, electric baine maries, etc)

**Assessment Strategy**

Give learners a group assignment on the factors affecting the heating effect of an electric current, an experiment to determine the heating effect of an electric current, application of electrical heating and diagrams of electrically driven equipment that apply the heating effect.

**Sub-Topic 6: Meter Reading, Domestic Wiring Electrical Safety**

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>determine the number of units used.</li> <li>explain the colour codes of the live, neutral and earth wires.</li> <li>outline the various ways of ensuring electrical safety.</li> <li>describe the role of the various electric safety devices.</li> </ul>	<p>Determination of the number of units used</p> <ul style="list-style-type: none"> <li>Explanation of the colour codes of the live, neutral and earth wires and plugs</li> <li>Ensuring safety when using electricity</li> <li>Electric safety devices (fuses, circuit breakers): - fuses (types of fuses, reasons why fuses blow and replacing a re-wirable fuse, testing a cartridge fuse and calculation of fuse size.) - circuit breakers - time switches and two-way switches</li> </ul>

**Methodology**

- Using question and answer method, get the learners' prior knowledge on colour codes.
- Through discussions, guide learners on electric safety devices in the home.
- Demonstrate using plugs, fuses (practically wiring a 3-pin plug and replacing blown fuse wires).
- Carry out an experiment to replace a blown fuse wire.
- Use talk and chalk method to show learners the calculations on fuse size and give them an exercise.

### Teaching/Learning Aids

- Real objects (meter box, fuses and plugs)
- Charts
- Textbooks with diagrams of fuses

### Assessment Strategy

Give an assignment on determination of the number of units used on electric meters, new and old colour codes of electric wires and ways of ensuring electric safety.

## Sub-Topic 7: Heating Effects of Electricity

Specific Objectives	Content move up on equipment
The learner should be able to: <ul style="list-style-type: none"> <li>• explain the applications of electrical heating.</li> <li>• illustrate and explain the principles of operation of various equipment that use electricity for heating.</li> </ul>	<ul style="list-style-type: none"> <li>• Principles of operation of various equipment that use electricity for heating.</li> </ul>

### Methodology

- Guide learners to brainstorm the factors affecting the heating effect of an electric current.
- Through discussions, guide learners on the applications of electrical heating.
- Through guided discussion, learners explain the principles of operation of various equipment that use electricity for heating.

### Teaching/Learning Aids

- Textbooks
- Charts
- Electrical appliances

**Assessment Strategy**

Give an assignment on operation and application of electrical appliances.

**Sub-Topic 8: Other Forms of Generating Electricity**

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>explain the different ways of generating electricity on a large scale.</li> <li>draw the diagram of a quartz crystal spark generator and a photo electric cell.</li> <li>explain the applications of photo electricity.</li> </ul>	<ul style="list-style-type: none"> <li>Applications of photo electricity: - automatic door openers - fire alarms and burglar - colorimeters</li> </ul>

**Methodology**

- Let learners brainstorm the large scale generation of electricity.
- Through discussions, guide learners on the applications of photo electricity (automatic door openers, colorimeters, fire alarms, burglar alarms).
- Use charts to illustrate the diagrams of fire alarms, colorimeters, etc.

**Teaching/Learning Aids**

- Textbooks
- Charts
- Educational visits to power plants

**Assessment Strategy**

Give an assignment on operation and application of a photo electric cell.

## Sub-Topic 9: Magnetism and its Applications in the Home

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>explain the applications of electromagnetism.</li> </ul>	<ul style="list-style-type: none"> <li>Applications of electromagnetism: - electric bell - circuit breakers - bicycle dynamo -- lift or electromagnetic brakes</li> </ul>

### Methodology

- Through group discussions, guide learners on magnetism, demagnetisation, and applications of electro magnetism.
- Illustrate the action of bicycle dynamos and magnets using real objects and charts.

### Teaching/Learning Aids

- Real objects (electric bells, magnets) bicycle dynamos
- Charts

### Assessment Strategy

- Give an oral exercise on definition of magnetism, methods of magnetisation and demagnetisation and application of electro magnetism.

## Sub-Topic 10: Transformers, Motors and Motor Driven Appliances

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>differentiate between a step up and step-down transformer.</li> <li>describe the operation of an electric motor.</li> </ul>	<ul style="list-style-type: none"> <li>Differences between a step up and step-down transformer</li> <li>Operation of an electric motor</li> <li>Construction, choice, principle of operation and care of various motor</li> </ul>



- explain the construction, choice, principle of operation and care of motor driven equipment.

driven equipment: - hair dryers and hair shavers - vacuum cleaners, carpet sweepers and floor polishers - food mixers, blenders, food processors

### Methodology

- Through discussions, guide learners on the differences between a step up and step down transformers and the appliances which use motors.
- Using question and answer method, let learners identify the equipment that use motors.
- Illustrate the operation of electrical devices like a blender.
- Through guided group discussion, let learners identify the care of motor driven equipment.

### Teaching/Learning Aids

- Real objects [blenders, vacuum cleaners, hair dryers]
- Charts
- Textbooks

### Assessment Strategy

- Give a written test on the differences between a step up and step-down transformer, operation of an electric motor and diagrams of motor driven equipment (blender, food processor, hair dryer and vacuum cleaner).

## TERM THREE

### TOPIC 7: VENTILATION AND ILLUMINATION. DURATION: 18 PERIODS

#### General Overview:

Good ventilation and lighting is very essential for healthy and comfortable life. Good ventilation in homes and work places helps to get rid of undesirable gases which is essential for health living. Good light makes vision possible and prevents straining of eyes. It also makes a room bright, cheerful and free from pests and accidents. Different equipment give off light in different ways and intensities. Precautions have to be taken while using them to ensure safety and economy.

Sound, just like light, can be reflected, refracted and absorbed and if not controlled, it causes discomfort, deafness, headache and other side effects. It is hence essential to control noise from entering rooms during house construction for comfortable and healthy living.

Selecting colours for a home is an enjoyable adventure. Careful choice of colours can make a very interesting effect in the home. Basic principles about colour help in formation of an excellent architectural finishing.

#### General Objectives

By the end of this topic, the learner should be able to:

- i) discuss the importance of good ventilation and lighting in the home and how these can be achieved and maintained.
- ii) identify the different types of colour schemes and how they are used to decorate or correct faults of given rooms of the home.
- iii) explain the use of acoustics for a comfortable home environment.

## Sub-Topic 1: Ventilation

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• explain the principles and purpose of ventilation.</li> <li>• explain the causes and effects of poor ventilation.</li> <li>• discuss the methods of ventilation.</li> </ul>	<ul style="list-style-type: none"> <li>• Causes and effects of poor ventilation</li> <li>• principle and purpose of ventilation</li> </ul> <p>Methods of ventilation: - natural ventilation (doors and windows and how they can be located for ventilation) - artificial or mechanical ( electric fans , coopers disc, extractor fans, air conditioners and cooker hoods)</p>

### Methodology

- Using question and answer method, guide learners to define ventilation and give its purpose.
- Through discussions, guide learners on the principles of ventilation.
- Guide learners to brainstorm the methods of ventilation.
- Demonstrate the methods of locating windows for ventilation using the classroom.

### Teaching/Learning Aids

- Real objects e.g. ventilators
- Textbooks
- Charts

### Assessment Strategy

Give an oral exercise on the importance and principle of good ventilation.

## Sub-Topic 2: Colour

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• identify the properties of colour and elements of design.</li> <li>• discuss the types of colour schemes using the colour wheel.</li> <li>• discuss the factors to consider when choosing a colour scheme.</li> <li>• explain how colour is used to correct faults in the home.</li> </ul>	<ul style="list-style-type: none"> <li>• Diagram of the colour wheel and colour schemes: (monochromatic, analogous, complementary and triad colour scheme)</li> <li>• Factors to consider when choosing a colour scheme</li> <li>• The use of colour to correct faults in the home</li> </ul>

### Methodology

- Using charts illustrate the colour wheel and use it to explain the different colour schemes.
- Through question and answer method, guide learners to identify the factors to consider when choosing a colour scheme.
- Demonstrate the use of colour in correction of faults in the home.

### Teaching/Learning Aids

- Various colours
- Colour charts
- Textbooks

### Assessment Strategy

Give an exercise on the colour wheel and discuss the different types of colour schemes.

## Sub-Topic 3: Sound and Acoustics

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• discuss the properties of sound and their applications in the home.</li> <li>• identify the effects of noise.</li> <li>• explain the use of acoustics in house construction.</li> </ul>	<ul style="list-style-type: none"> <li>• Properties of sound and their applications in the home</li> <li>• Effects of noise in a room and the difference between sound and noise</li> <li>• How to prevent loud noise (use of acoustics in house construction)</li> </ul>

### Methodology

- Through discussions, guide learners on the properties of sound.
- Through question and answer method, guide learners to define noise and identify its effects.
- Organise study visits to buildings in busy and noisy towns for learners to identify the use of acoustics in house construction.

### Teaching/Learning Aids

- Textbooks
- Charts
- School buildings

### Assessment Strategy

Give an oral exercise on the properties of sound and effects of noise

## TOPIC 8: WATER. DURATION: 10 PERIODS

### General Overview

Water is very essential in our lives and it is an important medium of many household activities. There are very many sources of water used in the home such as wells, springs, lakes, etc. Contaminated water causes real or potential harm to human health. Therefore, it is very essential to purify drinking water to remove harmful micro organisms. It is also important to treat waste water before it is deposited into lakes for safety reasons.

### General Objectives

By the end of this topic, the learner should be able to: i) discuss the sources of water, its types, uses, ways of purification and storage. ii) purify and store water for use at home. iii) illustrate the procedure of sewage disposal and treatment.

### Sub-Topic 1: Types of Water

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>distinguish the types of water (soft &amp; hard water).</li> <li>discuss the various ways of removing hardness from water and measuring water hardness.</li> <li>explain the advantages and disadvantages of the soft and hard water.</li> </ul>	<ul style="list-style-type: none"> <li>Removal of hardness and measurement of water hardness (total hardness, permanent hardness and temporary hardness)</li> </ul>

### Methodology

- Guide learners to brainstorm the types of water.
- Guide discussions on the removal of water hardness.
- Experiment on disadvantages of hard water to see time taken for lather formation and amount of detergent used.

- Carry out an experiment to measure hardness of water (total and permanent).
- Through question and answer method, guide learners to identify the advantages and disadvantages of hard water.

### Teaching/Learning Aids

- Textbooks
- Charts showing removal of water hardness
- Real objects (detergents, water, etc)

### Assessment Strategy

- Give a written exercise on the advantages and demerits of each of the types of water and measurement of water hardness.

## Sub-Topic 2: Water Purification

Specific Objectives	Content
The learner should be able to: • illustrate the ways of purifying water. • describe the supply and storage of household water.	• Water purification (commercial): - alum dosing, chlorination, coagulation fluoridation • Supply and storage (direct and indirect water systems of water heating)

Methodology • Guide learners to brainstorm the methods of water purification at home. • Illustrate local water treatment like the use of sand filters. • Through discussions, guide learners on commercial treatment of water. • Organise educational visits to water treatment plants.

Teaching/Learning Aids • Textbooks • Charts showing water purification • Real objects seen on field trips

Assessment Strategy • Give an assignment on the methods of water treatment.

## TOPIC 9: DETERGENTS. DURATION: 12 PERIODS

### General Overview

Water is not able to break down dirt from surfaces unless aided because it is affected by surface tension, water hardness and inability to dissolve grease. Detergents break down the surface tension of water aiding the removal of dirt from clothes and surfaces. Soaps are made from fats and oils while synthetic (soapless) detergents are made from fatty alcohols and petroleum by-products. Cleaning agents can be obtained locally or commercially. It is essential for learners to know the manufacture, properties and use of a variety of detergents to ensure efficient cleaning of the surfaces without damaging them.

### General Objectives

By the end of the topic, the learner should be able to:

- i) classify detergents giving their uses and properties.
- ii) identify locally available detergents/cleaning agents like salt, sand, emery, charcoal, ash, pawpaw leaves, etc.

### Sub-Topic 1: Choice, Classification and Use of Detergents

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• identify the factors to consider when choosing detergents.</li> <li>• classify detergents.</li> <li>• explain the use of different detergents.</li> <li>• illustrate the cleaning action of detergents.</li> </ul>	<ul style="list-style-type: none"> <li>• Choice of detergents</li> <li>• Classification of detergents (soap, soapless, enzyme, alkalis, acids, grease solvents, water solvents, abrasives, bleaches, polishes)</li> <li>• Use of different detergents</li> <li>• Cleaning action of detergents</li> </ul>



**Methodology**

- Use question and answer method to get choice and use of detergents from students.
- Guide learners to brainstorm the definition and classification of detergents.
- Through discussions, guide learners on classification of detergents.
- Through talk and chalk, illustrate the cleaning action of detergents.

**Teaching/Learning Aids**

- Real objects e.g. Nomi, Omo, Sunlight, Aerial, etc.
- Textbooks

**Assessment Strategy**

- Give an oral exercise on definition, classification, choice and use of detergents.

**Sub-Topic 2: Soap and Soapless Detergents**

Specific Objectives	Content
The learner should be able to: <ul style="list-style-type: none"> <li>• describe the manufacture of soap and soapless detergents.</li> <li>• discuss the advantages and disadvantages of soap and soapless detergents.</li> </ul>	<ul style="list-style-type: none"> <li>• Manufacture of soap and soapless detergents</li> </ul>

**Methodology**

- Guide learners to brainstorm the differences between soaps and soapless detergents.
- Guide group discussion on the properties and manufacture of soap and soapless detergents.
- Organise field trips to soap manufacturing industries.

**Teaching/Learning Aids**

- Charts

- Video tapes with soap manufacturing process

**Assessment Strategy**

- Give an assignment on the manufacture of soap and soapless detergents.

**TOPIC 10: APPLICATION OF SIMPLE CHEMISTRY IN THE HOME. DURATION: 8 PERIODS****General Overview**

Cookery requires a good knowledge of chemistry. This is evident from the variety of cooked products and food additives available like cooking oils, fats, colourings, sweeteners and preservatives. It is therefore essential for learners to understand chemical science in order to appreciate the chemical nature of foods and the changes achieved on cooking. Home makers should also understand the response of the effects of heat, light and water on cleaning agents and textiles used in the home.

Oxidation is the process of addition of oxygen to an element or compound. There are some important oxidation processes which are useful in a home e.g. combustion, explosion, aerobic respiration, bleaching and rusting. Reduction is the removal of oxygen from a compound or the addition of hydrogen to a compound. Neutralisation consists of interaction of an acid and a base or an alkali to form a salt and water. The symbol pH describes the number of hydrogen ions present in a solution or the acidity or alkalinity of a solution.

**General Objective**

By the end of the topic, the learner should be able to explain the properties of different substances and processes used in cookery and laundry.

## Sub-Topic 1: Oxidation

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>define oxidation.</li> <li>discuss the processes of oxidation.</li> <li>explain the applications of oxidation.</li> </ul>	<ul style="list-style-type: none"> <li>Definition of oxidation</li> <li>Processes of oxidation i.e. combustion, aerobic respiration, bleaching, rusting</li> <li>Applications of oxidation e.g. food packaging, food preservation, enzymatic browning of foods, oxidative bleaching, disinfectants and antiseptics</li> </ul>

### Methodology

- Guide learners to brainstorm the definition of oxidation and its processes.
- Guide discussions on the applications of oxidation.

### Teaching/Learning Aids

- Real objects (packed foods)
- Textbooks

### Assessment Strategy

Give an assignment on the definition and applications of oxidation.

## Sub-Topic 3: Neutralization and pH

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>define neutralisation and pH.</li> <li>explain the measurement of pH.</li> <li>discuss the applications of neutralisation and pH.</li> </ul>	<ul style="list-style-type: none"> <li>Definition of pH</li> <li>Measurement of pH.</li> <li>Applications of neutralisation e.g. water purification and applications of pH e.g. cake making, jam making, cooking vegetables and laundry</li> </ul>

### Methodology

- Guide learners to brainstorm the definition of neutralisation and pH.

- Carry out an experiment on the measurement of pH using litmus paper.
- Guide learners to discuss the applications of neutralisation and pH.

### Teaching/Learning Aids

- Real objects like litmus paper
- Textbooks

### Assessment Strategy

Give a written test on the definition of pH, its measurement and applications.

## PART THREE (PRACTICAL)

### PAPER THREE CHANGES

NO.	TOPIC (TERM ONE)	JUSTIFICATION
1	Cookery of eggs Sub topic 1	Concept carried on from previous work in “o”- level.
2	Sub- topic 2(Uses of milk in cookery/ culinary uses.	Merged with milk dishes. Learners will use self discovery from the practical work on milk dishes.
3	Cheese cookery Sub-topics: -Uses of cheese in cookery -Methods of cooking food	Merged learners will discover the methods of cooking of the cheese dishes from the recipes given in the practical lessons.
4.	Carbohydrate cookery	Merged serving and garnishing carbohydrate dishes together with cookery of carbohydrates.
5	Soups, stock, and sauces Sub- topics:- Differentiate a soup and stock. -Classify stock and soups -Cooked egg sauces	Already handled in “O” level.  Catered for under egg cookery
6.	Traditional dishes	This will cater for all the traditional dishes (carbohydrates, proteins, vegetables and drinks) to get a balanced

NO.	TOPIC (TERM ONE)	JUSTIFICATION
		meal.
7.	Groundnuts cookery	Merged with traditional meals and bakery.
8.	Beans/ peas cookery	Merged with traditional meals (stews, firinda) and pastry ( as a filling in the pastry case e.g sambusas, Cornish pasties, pies)
9.	Cooked fruits and vegetables	Handled under traditional dishes.
10.	Cake making Creaming and rubbing –in methods Melting, whisking and all in one	Merged together under cake making.
11.	Hors’D’oueveres	Merged with vegetables salads.

## TERM: ONE

### Topic 1: Eggs. Duration: 8 Periods

#### General Overview

Eggs are an important source of high biological value protein in the diet. They contain minerals, vitamins and fats. The fats in eggs are emulsified making eggs easily digested and absorbed. Eggs are very useful in cookery. Birds that provide eggs for human consumption include hens, ducks, turkeys, ostrich, and guinea fowls. Eggs may be cooked using various methods.

They provide quick and tasty meals. They are very valuable cooking ingredients because of the many uses they have in cookery. Eggs are versatile, reasonably cheap, quick and easy to prepare.

#### General Objectives

By the end of this topic, the learner should be able to:

1) demonstrate the uses of eggs in cookery.

Sub-Topic 1: Egg Cookery

Specific objectives	contents
The learner should be able to: <ul style="list-style-type: none"> <li>Identify the functions of eggs in cookery.</li> <li>Demonstrate the use of eggs in cookery.</li> </ul>	Use of eggs in cookery: <ul style="list-style-type: none"> <li>- enriching – e.g. cakes</li> <li>- binding – e.g. meat balls, chaps, kebabs</li> <li>- coating – e.g. coated chicken, fish fillets, French toast</li> <li>- glazing – e.g. bread rolls, pies, sausage rolls</li> <li>- emulsifying – e.g. cakes, mayonnaise ,aerating – e.g. whisked mixtures</li> <li>- thickening – e.g. custards, sauces, soups cheese flan, quinche lorraine</li> <li>- garnishing- e.g. vegetable salads</li> <li>- clarifying e.g. broths, wines</li> </ul>

Specific objectives	contents
	- main dish e.g. omelettes, scrambled eggs

### Methodology

- Guide students to discuss the different uses of eggs in cookery e.g. binding, coating, etc.
- demonstrate the different ways of using eggs in cookery.
- In groups, guide learners to carry out practical work on different ways of using eggs in cookery.

### Teaching/Learning Aids

- Recipe book

### Assessment Strategy

- Observe and comment on the students work.
- Let the learners write down the recipes in a particular book.

Hint: Remember to emphasize the effects of heat on protein as you handle the protein foods and the other uses of the dishes prepared e.g packed meal, left over dish etc.

## Topic 2: Milk. Duration: 6 Periods

### General Overview

Milk is the most complete food known and because of this, it is of high biological value. It is easy to prepare, cook and digest. Therefore, it is ideal for babies, children, the elderly, invalids and adults. There are a variety of dishes made from milk which may be served in different ways. Milk is used to enrich, improve texture and appearance of dishes. Milk has many uses in food preparation and cooking. It can be used as a main ingredient in making some dishes e.g. sauces such as white sauce, custards, beverages, and soufflé. It can also be used for glazing, binding, improving the texture and enriching other dishes.

## General Objective

By the end of this topic, the learner should be able to prepare, cook and serve milk dishes.

## Sub-Topic 1: Milk Dishes

Specific objectives	Content
<p>The learner should be able to:</p> <p>Identify milk dishes.</p> <p>Prepare and cook some milk dishes</p> <p>Serve milk dishes attractively.</p>	<p>Milk dishes:</p> <ul style="list-style-type: none"> <li>- rice pudding</li> <li>- bread and butter pudding</li> <li>- queen of puddings</li> <li>- semolina puddings</li> <li>- corn flour mould</li> <li>- banana custard mould</li> <li>- milk shake</li> <li>- egg custard</li> <li>- ice cream</li> <li>- yoghurt</li> <li>- tea/coffee/cocoa/ with milk etc</li> </ul> <p>Methods of cooking i.e. baking, boiling, steaming</p> <p>Ways of serving i.e. decorating using cherries, mint, jam, lemon and garnishing using parsley, cheese, mint</p>

## Methodology

Demonstrate to the learners the preparation, cooking and serving of some milk dishes.

In groups guide learners should carry out practical work on the preparation,



cooking  
and serving of milk dishes.

Discuss with the whole class to help learners discover the different uses of milk in cookery.

### **Teaching/Learning Aids**

- Recipe book

### **Assessment Strategy**

Give practical work on preparation, cooking and serving of milk dishes.

Observe students and give comments on their practical lesson.

## **Topic 3: Cheese Dishes. Duration: 6 Periods**

### **General Overview**

Cheese is a means of preserving the food value of milk in a condensed form which can be stored long after the milk itself. It is a very valuable food because it provides high biological value proteins, vitamins, mineral salts, fat and unique flavour. Cheese should be reduced in size and cooked to ease its digestibility. Care should be taken to prevent over cooking because it renders the cheese tough and indigestible. Cheese is an important food item in the diet which can be used in the preparation of various dishes.

### **General Objectives**

By the end of this topic, the learner should be able to:

- i) prepare, cook and serve cheese dishes.
- ii) Demonstrate the uses of cheese in cookery.

## Sub-Topic 1: Methods of Cooking Cheese

Specific objectives	Content
<p>The learner should be able to:</p> <p>Identify methods of cooking cheese.</p> <p>Use cheese in preparing different dishes.</p> <p>Serve dishes that have been cooked with cheese</p> <p>identify uses of cheese in cookery</p>	<p>Methods of cooking cheese:</p> <ul style="list-style-type: none"> <li>- grilling e.g. cheese on bread toast, cheese rarebit</li> <li>- frying e.g. cheese balls, cheese cutlets, cheese cassava, cheese omelette</li> <li>- baking with cheese e.g. quiche' lorraine, cheese pie,</li> </ul> <p>cheese pastry, pizza, cheese scones, cheese biscuits, cassava au gratin, cauliflower au gratin, spaghetti au gratin</p> <p>Carbohydrates dishes with cheese e.g. au gratin, bread sandwich cheese pastry dish(savoury flans), sandwiches.</p> <p>Serving cheese dishes with other dishes attractively garnished</p>

### Methodology

- Guide learners to discuss the different methods of cooking cheese.
- Demonstrate the procedure of preparing, cooking and serving cheese dishes.
- In groups, guide learners to carry out practical work on preparing, cooking and serving some cheese dishes.

Guide the learners in identifying the different uses of cheese in cookery.

### Teaching/Learning Aids

- Recipe cards, charts illustrating dishes made using different methods of cooking.
- Cuttings from magazines and newspapers showing well served cheese dishes.
- Electronic learning

### Assessment Strategy

- Give a practical exercise on preparing, cooking and serving cheese dishes.
  - Observe learners and give comments on their practical.
- Hint: Moderate temperatures should be used especially when using dry heat because high temperatures denature protein in cheese.

### Topic 4: Carbohydrate Food Cookery .Duration: 4 Periods

#### General Overview

Carbohydrates are the cheapest and most abundant foods which provide plenty of calories to the body. They should be served with other dishes to provide a balanced diet. They also add variety to the meal. Carbohydrate foods can be cooked in various ways e.g. steaming, boiling, frying, grilling, roasting, etc. Various carbohydrate foods react differently to different forms of heat e.g. roasted carbohydrates dextrinize when dry heat is applied; boiled or steamed foods absorb water, swell and gelatinise. After preparing the carbohydrate dishes, they have to be served attractively. Carbohydrate dishes are served with other nutrients to complete a meal.

#### General Objective

By the end of this topic, the learner should be able to cook and serve various carbohydrate dishes.

## Sub-Topic 1: Cooking Carbohydrate Dishes (Starches, Sugars)

Specific Objective	Content
<p>The learner should be able to</p> <p>Prepare and cook various carbohydrate dishes.</p> <p>Serve and garnish carbohydrate dishes.</p>	<p>Carbohydrate dishes (starches and sugars):</p> <ul style="list-style-type: none"> <li>- rice dishes e.g. fried rice, vegetable rice, pilau rice, risotto</li> <li>- maize meal dishes e.g. posho, porridge</li> <li>- millet/sorghum dishes e.g. millet bread, porridge, “bushera” beverage</li> <li>- cassava dishes e.g. cassava balls, scotch egg, steamed cassava</li> <li>- plantain e.g. steamed/boiled matooke, “kivuvu” and “gonja”</li> <li>- potato cookery e.g. potato balls, scotch egg, steamed potato, potato chips</li> <li>- carbohydrates cooked with other foods like beans/peas/offals/meats for “katogo”</li> <li>- pasta e.g. macaroni, spaghetti boiled or made into augratins</li> <li>- dishes with wheat flour e.g. chapatti, pastry, cakes, scones, biscuits, yeast mixtures, mandazi,</li> <li>- sugar e.g. caramel, beverages, cakes, biscuits, custards</li> </ul> <p>Serve and garnish carbohydrate foods attractively e.g. by use of parsley, carrots</p>

### Methodology

- Guide learners to discuss the different carbohydrate foods and dishes and the methods of cooking them.

- Demonstrate the methods of preparing and cooking different carbohydrate dishes.
- Guide the learners to form groups and carry out practical work on preparing and cooking carbohydrate dishes.

**Teaching/Learning Aids**

- Charts of different foods and dishes on carbohydrates
- Cuttings from magazines and newspapers
- Electronic learning

**Assessment Strategy**

- Observe and comment on the preparation, cooking and serving various carbohydrate dishes.

**Topic 5: Stocks and Soups. Duration: 4 Periods****General Overview**

Soups play an important role in a nourishing balanced meal. Because of their good flavour, they act as stimulants at the beginning of meals. They are used in invalid cookery as a form of liquid food which is easily digested. The various types of soups include thin, thickened and purees. A stock is a well flavoured liquid which is obtained by simmering a food in water for some time in order to extract flavour from it. They have very little food value on their own and therefore are used as a basis of soups, sauces and gravies.

**General Objective**

By the end of the topic, the learner should be able to identify, cook and serve different types of stock and soups.

## Sub-Topic 1: Stocks and Soups

Specific objectives	Contents
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• Prepare, cook and use the stock in making some soups.</li> </ul> <p>Serve soups attractively.</p> <ul style="list-style-type: none"> <li>• Prepare accompaniments and garnish soups attractively.</li> <li>• Identify flavorings that may be used in the preparation of stock.</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation, cooking and using the stock for soups for example:           <ul style="list-style-type: none"> <li>-Thin soups:               <ul style="list-style-type: none"> <li>- clear soups (rich bone stock clarified with eggs)</li> <li>- broths (meats and vegetables, thickened)</li> </ul> </li> <li>Thickened soups:               <ul style="list-style-type: none"> <li>- meat and vegetable</li> </ul> </li> </ul> </li> <li>Soups           <ul style="list-style-type: none"> <li>- tomato soup (using fresh tomatoes)</li> <li>- tomato soup (using tomato puree)</li> <li>- cream of tomato soup</li> <li>- avocado soup,</li> <li>-cucumber soup</li> <li>- brown onion soup</li> <li>- French onion soup</li> <li>- Purees</li> <li>- carrot soup</li> <li>- pea soup</li> <li>- mushroom soup</li> <li>- potato soup</li> <li>- bean soup</li> </ul> </li> <li>• Serving of different types of soups attractively and correctly e.g. serve using right equipment prepare, cook and serve soups with their accompaniments and garnish them attractively.</li> <li>• Accompaniments for soups are:</li> </ul>

Specific objectives	Contents
	croutons, dinner rolls, brown or white bread, slices of bread with grilled cheese

### Methodology

- Demonstrate the particular procedure of preparing and cooking stock.
- Organize learners into groups to carry out the practical on preparing, cooking and garnishing different soups.

### Teaching/Learning Aids

- Recipe cards
- Charts with diagrams showing the different flavourings
- recipe books.

### Assessment Strategy

- Guide learners in groups in the preparation and cooking different types of stocks and soups.

Observe and comment on their practical work.

## Topic 6: Traditional Dishes. Duration: 10 Periods

### General Overview

Traditional dishes are foods which are readily available within a given community. They are reasonably cheap. Most of them provide a staple variety within their communities. They are also nourishing and help to complete a balanced diet. Traditional dishes are grouped in different ways i.e. traditional protein dishes, traditional carbohydrate dishes and traditional vegetable dishes. Traditional protein dishes are a main dish of a meal.

They are usually served with other nutrients to form a balanced meal. In this topic, we shall identify, prepare, cook and serve traditional dishes. Traditional carbohydrate dishes are staple foods within the locality that provide carbohydrates and add variety to the diet. They are readily available throughout the year and are easy to prepare, cook and serve. Traditional vegetable dishes provide a variety of texture, flavour and colour in the diet. There is a wide variety of vegetables which may be served as accompaniments to meals. Vegetables are classified according to the part of the plant which is edible. Vegetables include cauliflower, cabbage, nakati, etc. Vegetables provide a variety of nutrients including vitamins, mineral salts and also add fibre (cellulose) and water in the diet.

### General Objective

By the end of the topic, the learner should be able to prepare, cook and serve a variety of traditional dishes.

## Sub-Topic 1: Traditional Protein Dishes

Specific objective	Contacts
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• identify traditional protein, carbohydrate and vegetable dishes from different parts of the country.</li> </ul> <p>Prepare, cook and serve some traditional protein, carbohydrate and vegetable dishes from different parts of the country.</p>	<p>Traditional protein dishes:</p> <ul style="list-style-type: none"> <li>- “luwombo” of chicken/beef/groundnuts/fish</li> <li>- pasted fish/beef/chicken/mushroom etc</li> <li>- “malewa” (bamboo shoots) in groundnuts</li> <li>- “mishebebe” (pumpkin leaves) in groundnuts</li> <li>- likote/pasted “ggobe”/pasted cow pea leaves</li> <li>- magila”</li> <li>- “firinda”</li> <li>- “eshabwe”</li> <li>- okra and meat stew/okra and bean stew</li> <li>- “boo” (okra and ggobe with groundnuts)</li> </ul>



Specific objective	Contacts
<p>Conserve nutrients, colour and texture of the fruits and vegetables.</p>	<ul style="list-style-type: none"> <li>- ntula in groundnuts</li> <li>- malakwang</li> <li>- “ekyadoi” (Jobyo in milk or groundnuts)</li> <li>- “ggobe” in milk</li> <li>- “molokoni” (animal hooves and lower legs)</li> <li>• Serving traditional protein dishes:               <ul style="list-style-type: none"> <li>- serve according to the part of the country</li> <li>- serve attractively</li> <li>- garnish the traditional protein dishes</li> </ul> </li> <li>Traditional carbohydrate dishes:               <ul style="list-style-type: none"> <li>- millet bread</li> <li>- potato flour bread</li> <li>- cassava flour bread</li> <li>- maize flour bread (posho)</li> <li>- steamed matooke/cassava/potatoes /gonja/yams/pumpkin/kivuvu</li> <li>- katogo</li> <li>- amukeke</li> <li>- stuffed pumpkin</li> <li>- Mugoyo</li> </ul> </li> <li>• Serving traditional carbohydrate dishes:               <ul style="list-style-type: none"> <li>- serve correctly</li> <li>- use right and clean equipment</li> </ul> </li> <li>• Serving traditional carbohydrate dishes:               <ul style="list-style-type: none"> <li>- use correct equipment</li> <li>- use clean equipment</li> <li>- serve attractively</li> </ul> </li> <li>Traditional vegetable dishes:               <ul style="list-style-type: none"> <li>- steamed nakati, doodo, jobyo, ggobe,</li> </ul> </li> </ul>

Specific objective	Contacts
	pumpkin leaves, bean leaves, cassava leaves, potato leaves - boiled mixed vegetables - ntula, egg plants etc

### Methodology

- Brainstorm the different traditional dishes from different parts of the country, their preparation, cooking and serving.
- Demonstrate the preparation, cooking and serving of traditional dishes to make a meal.
- Let learners break into groups and carry out the practical on preparing, cooking and serving traditional protein, carbohydrates, and vegetable dishes to make a meal.

### Assessment Strategy

- Guide learners in groups in preparing, cooking and serving traditional dishes.
- Observe and comment on the learner's practical work.

## Topic 7: Fruits and Vegetables. Duration: 2 Periods

### General Overview

Fruits and vegetables are important for the essential vitamins and mineral elements they contain. They also add texture, roughage, flavour and colour to the diet. Fruits and vegetables can be served as an accompaniment to a dinner, or as a separate course. They may be used as a substitute for meat in the diet especially the pulses. Because of their bright colour and texture, they may be used for decorating and garnishing. Fresh fruits and vegetables are mainly served as accompaniments to main dishes in a meal.

A lot of care should be taken when handling them to avoid contamination and conserve the nutrients in them. A dressing may be used to avoid oxidation, improve taste, moisten and sterilize the fruits and vegetables. Fresh fruits and vegetables may be bulky and difficult to digest due to the cellulose present. To soften the fibre and make it more digestible, fruits and vegetables should be cooked. This also preserves colour and flavour. Care should be taken when cooking fruits and vegetables to minimise the loss of vitamins, minerals and extractives.

### General Objective

By the end of this topic, the learner should be able to prepare, cook and serve various dishes of fruits and vegetables while avoiding nutrient loss.

Specific Objectives	Content
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• Prepare and serve fresh vegetables and fruits attractively (by dressing and decorating them) in different forms.</li> <li>• Conserve nutrients utilizing the proper handling methods of fruits and</li> </ul>	<p>Fresh fruits and vegetables (salads):</p> <ul style="list-style-type: none"> <li>- fruit salads and vegetable salads</li> <li>- fruit salad dressings: yoghurt, thick syrup, custard sauce</li> <li>- vegetable salad dressings: vinaigrette/French dressing, mayonnaise, yoghurt, salad cream, 1000 island sauce</li> <li>- fruits juices and drinks i.e.</li> <li>- mixture of 3-4 fruits like: mango,</li> </ul>

vegetables.	pineapple, pawpaw, passion, melon, orange, lemon and tangerine - “mubisi” (banana juice)
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### **Methodology**

- Guide learners to discuss the preparation and serving of dishes made from fruits and vegetables.
- Demonstrate the particular procedures of preparing and serving fresh fruit and vegetable dishes and salad dressings.
- In groups, guide learners to carry out the practical on the preparation and serving of fruit and vegetable dishes with dressings.

### **Teaching/Learning Aids**

- Recipe card
- Textbook

### **Assessment Strategy**

- Give practical exercises on preparing and serving fresh fruits and vegetable dishes with their dressings
- Let learners formulate their own salad recipes and write them in their books.

**Topic 8: Cakes. Duration: 16 Periods****General Overview**

Cakes are sweet dishes that can be served as accompaniments to hot or cold beverages or may be used as desserts. The proportion of fat to flour will influence the method of mixing any given cake mixture. Cakes may be made by rubbing-in, creaming, and whisking, melting or all-in-one method. The main methods of cooking cakes are baking and steaming. Cakes can be iced to improve their appearance and make them attractive. Icing and fillings will add flavour and give variety to an otherwise plain cake. Examples of functions where decorated cakes can be used include: weddings, birthday parties, Christmas, introductions, anniversaries, etc. Creamed cakes are those made by the creaming method. Cakes made by this method should be light and even textured. The higher the proportion of fat, sugar and eggs to flour, the richer the cake will be. If equal quantities of fat, sugar, eggs and flour are used, no extra liquid or baking powder should be required. Rubbed in cakes are those made by the rubbing-in method. Cakes made by this method are quick to prepare but are rather dry and will not keep long. The proportion of fat to flour and sugar should be half or less than half fat to flour. The mixture might become sticky and difficult to handle if those proportions are exceeded. Whisked cakes are those made using the whisking method. The eggs are beaten with the sugar and flour is folded in. The eggs should be fresh as these will whisk more readily and hold more air. This method is used for making sponge cakes. A true sponge cake does not contain any fat in the mixture and because of this; the cake will not keep for a long time. Melted cakes are those made using the melting method. Fat is usually melted with sugar and syrup and added to the flour in liquid form. It is important to cool the syrup mixture to avoid formation of lumps and hardening of the gluten. All-in-one method is a quick method of preparing cakes. Major ingredients like sugar, flour, margarine and eggs are used in equal quantities. All ingredients are put in a large mixing bowl at once and beaten well using a wooden spoon or an electric mixer.

## General Objective

By the end of this topic, the learner should be able to prepare, cook and serve different types of cakes.

## Sub-Topic 1: Creamed and Rubbed -in Cakes

Specific objectives	Contents
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>Prepare, cook and serve cakes using creamed mixtures.</li> <li>Produce fine textured creamed cake products and biscuits</li> <li>Prepare, cook and serve cakes and biscuits using rubbing-in method.</li> <li>Produce crumbled textured rubbed in cake products.</li> </ul>	<p>Creamed cakes e.g.</p> <ul style="list-style-type: none"> <li>- queen cakes</li> <li>- butterfly cakes</li> <li>- fruit cakes</li> <li>- birthday cakes</li> <li>- Victoria sandwich</li> <li>- marble cakes</li> <li>- banana cakes</li> <li>- plain cakes</li> <li>- chocolate cakes and other variations</li> </ul> <p>Biscuits made by creaming method e.g.</p> <ul style="list-style-type: none"> <li>- Hungarian biscuits</li> <li>- Belgium biscuits</li> <li>- Shrewsbury biscuits</li> <li>- Simsim/coconut/groundnut biscuits</li> <li>- piped biscuits</li> </ul> <p>Rubbed-in cakes e.g.</p> <ul style="list-style-type: none"> <li>- rock buns</li> <li>- raspberry buns</li> <li>- plain cakes</li> <li>- banana cake</li> <li>- scones</li> <li>- plain cakes</li> <li>- jam buns</li> </ul>

- |  |  |
|--|--|
|  | <ul style="list-style-type: none"><li>• Biscuits made by rubbing-in method e.g.<ul style="list-style-type: none"><li>- shortbread biscuits</li></ul></li></ul> |
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**Methodology**

- Demonstrate the procedure of the creaming and rubbed- in methods of cake and biscuit making.
- In groups, guide learners to carry out a practical on creaming and rubbing-in method of cake and biscuit making.

**Teaching/Learning Aids**

- Recipe cards

**Assessment Strategy**

- Observe learners and comment on the preparation, cooking and serving creamed and rubbed-in cakes and biscuits.
- Let learners write the recipes in their recipe book.

## TERM TWO

### TOPIC 9: CAKES CONTINUED. DURATION: 6 PERIODS

#### Sub-Topic 2: Whisked Cakes

Specific objective	Contents
<p>The learner should be able to:</p> <p>Prepare, cook and serve cakes using whisking method.</p> <p>Produce spongy cake products.</p> <p>Prepare, cook and serve cakes using melting method.</p> <p>Prepare, cook and serve cakes using the all – in – one method.</p> <p>Produce open fine textured cake products.</p>	<p>Whisked cakes</p> <ul style="list-style-type: none"> <li>- sponge cakes and their variations.</li> <li>- Swiss roll</li> <li>- fruit flans</li> <li>- vanilla drops</li> <li>- chocolate, etc</li> </ul> <p>Melted cakes e.g.</p> <ul style="list-style-type: none"> <li>- ginger bread</li> <li>- parkins</li> <li>- flap jacks</li> <li>- muffins</li> </ul> <p>Biscuits made by melting method</p> <ul style="list-style-type: none"> <li>- ginger snaps</li> <li>- ginger nuts</li> <li>- brandy snaps</li> <li>- sponge fingers</li> </ul> <p>All-in-one cakes e.g.</p> <ul style="list-style-type: none"> <li>- plain cakes</li> <li>- rich cakes</li> <li>chocolate pinwheels</li> <li>- cheese straws</li> <li>- simsim/coconut/groundnut biscuits</li> </ul>

#### Methodology

- Guide the learners to discuss the whisking, all-in one and melting method of



cake making and biscuit making.

- Demonstrate the procedure of the whisking, all-in one and melting method of cake and biscuit making.
- In groups, let the learners carry out practical work on preparing, cooking and serving whisked, all-in one and melted cake and biscuit mixtures.

**Teaching/Learning Aids**

- Recipe cards

**Assessment Strategy**

- Observe and comment on the preparation, cooking and serving of whisked, all-in one, and creamed cakes and biscuit mixtures.
- Let learners write down the recipes in their recipe books.

**Sub-Topic 3: Decorating Cakes**

Specific objective	Contents
The learner should be able to: Acquire various manipulative skills of icing cakes. Attractively decorate cakes using Different types of icing and decorations.	Types of cake icings: - butter icing - royal icing - glaze icing - fondant icing/ sugar paste, etc. - frosting - lemon curd

**Methodology**

- Guide the learners to discuss the various methods of decorating cakes.
- Demonstrate the procedure of the cake decorating types.
- In groups, let the learners carry out practical work on cake decorations.

**Teaching/Learning Aids**

- Recipe card
- Cuttings from magazines of various cake decorations
- Textbooks on cake decoration
- Photographs of decorated cakes

**Assessment Strategy**

- Observe and give comments on preparing and using decorative materials on the functional cakes.
- Let learners write down recipes in their recipe books.

**TOPIC 10: PASTRY. DURATION: 10 PERIODS****General Overview**

Pastry is a mixture of flour, fat, water and salt. The proportion and method of mixing these will determine the variety and texture of finished pastry. Richer pastries may have sugar, eggs or cheese added. Well made pastry should be light, flaky, crispy and not hard and should crumble easily. A mixture of half lard and half margarine is the best. The fat must be cold and fresh. There are various types of pastry which may be used together with other foods to prepare different dishes. The raising agent used is usually air incorporated by sieving the flour, rubbing-in the fat and rolling and folding the dough. Pastry may be served alone e.g. in chapatti or may be filled with other foods to make pies, ice cream cones, flans, etc.

**General Objective**

By the end of the topic, the learner should be able to prepare, cook and serve pastry dishes.

## Sub-Topic 1: Types of Pastry

Specific objectives	Contents
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• Identify the different types of pastry.</li> <li>• Prepare and cook various dishes from the given types of pastry.</li> <li>• Serve the pastry dishes attractively.</li> <li>• Differentiate the various pastries by texture of the cooked product.</li> </ul>	<p>Preparation of different types of pastry:</p> <ul style="list-style-type: none"> <li>- short crust e.g. Cornish pasties, sausages rolls, pies, tarts</li> <li>- flaky e.g. Russian fish pie, sausage rolls, pies, tarts</li> <li>- rough puff e.g. sausage rolls, pies</li> <li>- puff pastry e.g. Éccles cakes, vol-an-vents vanilla slices, cheese pies hot water e.g. veal and ham pie, porkpie</li> <li>- suet pastry e.g. steak and kidney pie, jam rolypoly</li> <li>- choux e.g. dumplings, roly-poly, layer pudding, E'ccles</li> <li>- fried pastry e.g. chapatti, samosas, sweet pastry, rissoles</li> </ul> <p>Note: The above types of pastry can be sweet or savoury</p>

### Methodology

- Guide learners to discuss the preparation, cooking and serving the dishes that use the different types of pastry.
- Demonstrate to the learners the preparing, cooking and serving of the different types of pastry.
- In groups, let the learners practice the preparing, cooking and serving the different types of pastry.

**Teaching/Learning Aids**

- Recipe cards
- Textbooks

**Assessment Strategy**

- Observe and comment on preparation, cooking and serving dishes using different types of pastry.
- Let the learners write down recipes in a particular book.

**Topic 11: Yeast Mixtures. Duration: 8 Periods****General Overview**

Yeast is a natural raising agent which has the power of producing carbon dioxide by fermentation. It is the carbon dioxide gas which is of importance to the baker. Yeast should be fresh and in good condition so that its activity is sufficient to raise the dough. The conditions necessary for fermentation of yeast are sugar, warmth, and moisture and usually water or milk at lukewarm temperature. Sweet bread is made from dough where sugar has been added. Sugar is usually added to act as an activator for the yeast. A high percentage of the sucrose is hydrolysed to form invert sugar which remains in the dough contributing to the final colour and flavour of the baked products. Savoury bread on the other hand is made from dough in which salt has been added. Salt is added to influence the rate of fermentation, strengthen the gluten and to improve the flavour of bread.

**General Objective**

By the end of the topic, the learner should be able to prepare, cook and serve various yeast products.

**Sub-Topic 1: White and Brown Bread**

Specific objectives	Contents
<ul style="list-style-type: none"> <li>The learner should be able to:               <ul style="list-style-type: none"> <li>make sweet white bread.</li> <li>make savoury white bread</li> <li>make brown bread (whole meal bread).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>-Sweet bread: fancy bread rolls, Chelsea buns. doughnuts, tea rings, cottage loaves.</li> <li>-Savoury bread: savoury buns, pizzas ,savoury doughnuts, simsim bread</li> <li>Preparation of brown bread (whole meal bread): savoury brown loaves, savoury brown buns, sweet brown loaves, sweet brown buns.</li> </ul>

**Methodology**

- Guide learners to discuss the different types of sweet, brown bread and savoury bread.
- Demonstrate the method of preparing, cooking and serving sweet and savoury bread.
- Using group work, guide learners to carry out the practical work on the use of instant yeast and making sweet and savoury bread

**Teaching/Learning Aids**

- Recipe cards
- Computer where possible

**Assessment Strategy**

- Observe and comment on the preparation, cooking and serving sweet bread, brown bread and savoury bread.
- Write down recipes in their recipe books.

## Topic 12: Desserts. Duration: 08 Periods

### General Overview

Desserts are sweet dishes that are usually eaten at the end of a main meal. They are important in the diet because they seal or wind up the appetite after eating a main meal. The nutritive value includes carbohydrates, vitamins, water and fibre. They may be served cooked or raw. Puddings must be chosen carefully as they are an important part of a meal. They should balance or round off the meal. Texture, colour, flavour and nutritive value should be considered. A jelly is a soft, glutinous food made from fruit syrup or meat juice. Jellies should have a bright colour, be clear, and well set but not too stiff and should have a good fruit flavour. It is easy to do and is refreshing. Jellies are usually set in well designed containers so that they assume that shape.

### General Objective

By the end of the topic, the learner should be able to prepare, cook and serve desserts.

### Sub-Topic 1: Puddings

Specific objectives	Contents
The learner should be able to: <ul style="list-style-type: none"> <li>Identify the different types of puddings.</li> <li>Prepare and cook the different types of puddings.</li> <li>Serve the different types of puddings.</li> </ul>	Types of puddings: <ul style="list-style-type: none"> <li>Hot puddings: Milk puddings e.g. custard, rice puddings, arrowroot pudding, semolina pudding, custard pudding.</li> <li>Baked pudding e.g. queen of puddings, bread and butter puddings, soufflés, fruit crumble, chocolate, castle, sultana sponge, pineapple upside down.</li> <li>Steamed puddings e.g. fruit pudding,</li> </ul>

Specific objectives	Contents
	<p>chocolate pudding, jam pudding, roly-poly, raisin pudding, Christmas pudding, steamed sponge pudding, syrup ,lemon sponge, lemon pudding, steamed ginger ,pudding, custard.</p> <p>- Cold puddings: Fruit salads , Fruit fools e.g. banana fool Chocolate mouse , Ice cream , Pastry flans , Sponge flans. Mixed fruit in custard ,</p> <p>-Cold souffles e.g. orange, lemon, coffee soufflés Trifle</p>

### Methodology

- Guide learners to discuss the different types of puddings.
- Demonstrate the procedure of preparing, cooking and serving puddings.
- In groups, guide learners to carry out practical work on preparing, cooking and serving puddings.

### Teaching/Learning Aids

- Recipe cards
- Electronic learning
- Textbooks

## Topic 13: Beverages. Duration: 4 Periods

### General Overview

Beverages are flavoured drinks which may be served hot or cold depending on the weather. Some are stimulants while some drinks contribute to the energy value of the diet e.g. fresh fruit drinks provide vitamin C, water, and sugar. Beverages play various roles in the diet such as stimulating, refreshing and nourishing. Beverages should be handled carefully to prevent deterioration due to fermentation or growth of micro-organisms.

### General Objective

By the end of the topic, the learner should be able to prepare, cook and serve beverages.

### Sub-Topic 1: Types of Beverages

Specific objectives	Contents
The learner should be able to: <ul style="list-style-type: none"> <li>• identify the different types of beverages.</li> <li>• prepare cook and serve different beverages.</li> </ul>	Different types of beverages: <ul style="list-style-type: none"> <li>- stimulating e.g. tea, coffee, cocoa, alcoholic drinks</li> <li>- refreshing beverages e.g. fresh fruit drinks, fresh fruit punch, fruit wines</li> <li>- nourishing beverages e.g. milk, milkshake, porridge, cold cereal drinks like 'bushera'</li> <li>• Serving beverages attractively e.g. with: a slice of lemon on the glass/jar</li> <li>- a strawberry mounted on straw</li> </ul>

- Guide learners to discuss the types of beverages.
- Demonstrate the procedures of preparing, cooking and serving beverages.



- In groups, let learners carry out practical work on preparing, cooking, serving and decorating beverages.

### Teaching/Learning Aids

- Recipe cards
- Cut outs from magazines or newspapers

### Assessment Strategy

- Observe and comment on preparation, cooking, serving and decorating beverages.

## Topic 14: Rechauffé Dishes. Duration: 8 Periods

### General Overview

Rechauffe dishes are made from leftover foods in order to avoid waste in the kitchen. Leftover foods should be carefully handled to avoid contamination which may cause food poisoning to the consumer. Leftover dishes should be seasoned, garnished and served attractively to enhance their food value and appearance. Rechauffe dishes are made from various foods such as meat, fish, vegetables, etc. Care should be taken to minimise nutrient loss in these dishes.

### General Objective

By the end of this topic, the learner should be able to prepare, cook and serve rechauffe dishes.

### Sub-Topic 1: Leftover/Reheated Dishes

Specific objectives	Contents
<p>The learner should be able to:</p> <p>Identify different leftover foods and dishes and their uses.</p> <p>Prepare and cook different</p>	<p>Uses for different foods are:</p> <p>- Fish leftover dishes: fish curry, Russian fish pie, fish cakes , kedgeree , fish pasties, etc</p> <p>- Meat leftover dishes: meat curry,</p>

Specific objectives	Contents
leftover foods. Use different methods of cooking rechauffe dishes. • serve left over dishes	shepherd's pie, rissoles, burgers, fritters, pasties, croquettes, pies, samosas - Bread leftover dishes; bread & butter pudding, queen of puddings, bread sauce - Vegetable leftover dishes, omelettes, salads, potato croquettes, potato scones, potato cakes, bean curry, pea curry - Stale cakes: , puddings, trifle • Methods of cooking reheated dishes: - frying e.g. fritters, burgers, meat, rissoles, fried  vegetables - Baking e.g. meat pies, fish  pies, pastry covered dishes - stewing e.g. curries • Serving left-over dishes: garnish the dishes attractively with vegetables and herbs

### Methodology

- Guide learners to discuss the preparation, cooking and serving of different leftover dishes.
- Demonstrate the procedure of preparing, cooking and serving different leftover dishes.
- Let the learners carry out practical work on preparing, cooking and serving leftover dishes.

### Teaching/Learning Aids

- Recipe card
- Electronic-learning

### Assessment Strategy

- Give practical exercises on preparing, cooking and serving rechauffe dishes. Observe and make comments.

## Topic 15: Convenience Foods. Duration: 6 Periods

### General Overview

These are foods that are partially or completely processed so that they are either ready or require minimum preparation by the consumer. The food value of convenience foods is often equal to that of fresh food. The use of convenience foods helps to cut out time spent in frequent shopping expeditions and preparation of ingredients. A stock of these foods is particularly valuable for emergencies, for example, in case of illness, bad weather or unexpected visitors. Convenience foods will give standard results provided the user follows carefully the maker's directions for storage and use especially the storage of frozen foods.

### General Objective

By the end of this topic, the learner should be able to prepare, cook and serve convenience foods.

### Sub-Topic 1: Preparing, Cooking and Serving Convenience Foods

Specific objectives	contents
The learner should be able to:	Different types of convenience foods:
Identify different types of convenience foods.	- custard and blancmange powders, cold desserts, coffee, porridge, cake mixtures, TVP foods
prepare, cook and serve convenience foods.	- instant pie fillings, coffee, porridge and cake mixtures,  TVP foods, etc. - ready to eat dishes e.g. biscuits, cakes,

Specific objectives	contents
	puddings, pies, tarts, cheese spreads - canned foods e.g. beans, peas, stews, soups, baby food, sausages, fish, beef, vegetable, fruits - frozen foods e.g. ice cream, sausage rolls, and burgers - packets of jelly cubes or crystals, glaze for flans, packets of sauces, fillings for pastries, stock cubes - cooked and chilled foods e.g. fresh pasta, sea food, cold meats, fruits - commercial sauces e.g. Worcester, Soy sauce,  barbecue sauce, tomato sauce, salad cream - instant desserts • Serving convenience food: - use garnishes attractively - use decorations creatively

### Methodology

- Guide learners to discuss the preparation, cooking and serving of different convenience foods.
- Demonstrate the procedure of preparing, cooking and serving dishes using convenience foods.
- In groups, let learners carry out practical work on the preparation, cooking and serving of some convenience foods.

### Teaching/Learning Aids

- Recipe cards
- Electronic-learning

**Assessment Strategy**

- Give practical lesson on cooking and serving different convenience foods. Observe and comment on the practical lesson.



WORLD OF FOOD AND NUTRITION

## TERM THREE

### Topic 16: Packed Meals. Duration: 4 period

#### General Overview

People take packed meals to work, schools or picnics in preference to buying meals in canteens or restaurants. Such meals should be well planned and prepared to provide a balanced diet and also to avoid contamination. The packed meals should also include a drink and easy to cook foods. Packed meals should be substantial and should supply one third of the daily intake of the nutrients and energy required by the body. Garnishing should be emphasised when serving to improve on the appearance of the food. Packed meals should be carefully packed so that they are not crushed or damaged in transit. Delicate items should be packed above more robust foods. Food should be wrapped individually before packing.

#### General Objective

By the end of the topic, the learner should be able to prepare, cook and pack meals.

#### Sub-Topic 1: Cooking Packed Meals

Specific objectives	Contents
The learner should be able to: <ul style="list-style-type: none"> <li>• identify suitable dishes for packing.</li> </ul>	Dishes suitable for packing: <ul style="list-style-type: none"> <li>- sandwiches and rolls e.g. meat</li> <li>- pastries, cakes, biscuits, scones</li> <li>- egg and cheese flan, whole eggs</li> <li>- soups</li> </ul>
Prepare and cook dishes to be packed.	<ul style="list-style-type: none"> <li>- whole fruits</li> <li>- cold beverages like fruit drinks, drinking water</li> <li>- hot beverages like milk, tea, coffee</li> </ul>
Use packing equipment and materials appropriately and pack the food	Packing equipment and materials: <ul style="list-style-type: none"> <li>- flasks</li> </ul>

Specific objectives	Contents
correctly.	<ul style="list-style-type: none"> <li>- plastic containers (cutlery, cups, plates, bottles) disposable plates, cutlery, cups)</li> <li>- aluminium packs</li> <li>- napkins and serviettes</li> <li>• Pack the food in the order of eating and correct presentation (all foods should be well decorated or garnished)</li> </ul>

**Methodology**

- Guide learners to follow procedures to carry out practical work on the preparation and cooking of packed meals. Let them use prior knowledge and follow the methods of cooking given in procedures. Learners should pack appropriately the prepared food.

**Teaching/Learning Aids**

- Recipe cards
- Electronic learning

**Assessment Strategy**

- Give practical lesson on preparing, cooking packed meals and packing.

## Topic 17: Batters. Duration: 6 periods

### General Overview

Batters are made with plain flour, milk or water. They usually contain more fluid than ordinary flour mixtures. They are beaten thoroughly to entrap air which when heated expand. They vary in consistency according to their use in a recipe. Batters may be used to introduce moisture and air in dishes, as coating batters or fritter batter. Batter dishes may be fried or baked.

### General Objective

By the end of the topic, the learner should be able to prepare, cook and serve batters.

### Sub-Topic 1: Batters

Specific objectives	contents
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• identify the different types of batters.</li> <li>• prepare, cook and serve dishes using the different types of batters.</li> </ul>	<p>Types of batters:</p> <ul style="list-style-type: none"> <li>- Thin (pouring) batter– used for: toad-in the hole, Yorkshire pudding , pancakes</li> <li>- Coating batter used for: deep fried fish, poultry joints</li> <li>- Fritter batter used for: banana, apple, pineapple fritters, corned beef sausage fritters , fish fritters chicken fritters</li> </ul> <p>• Serving batters:</p> <ul style="list-style-type: none"> <li>- correct and clean equipment</li> <li>- garnish or decorate the dishes attractively using parsley, mint, cherries, lemon, orange, etc</li> <li>- excess fat should be drained off before serving the foods</li> </ul>



**Methodology**

- Guide learners to prepare, cook and serve different types of batter dishes.
- Demonstrate the preparation, cooking and serving of different types of batters.
- Let learners get into groups to do the practical work on the preparation, cooking and serving of different types of batters.

**Teaching/Learning Aids**

- Recipe cards
- Recipe books
- Electronic learning

**Assessment Strategy**

- Give a practical lesson on preparing, cooking and serving dishes made with different types of batters.

**Topic 18: Food Preservation. Duration: 10 Periods****General Overview**

This is a form of processing food in order to prolong its shelf life and to be used later when not available. Examples of methods of preserving foods include chemical methods (use of salt in pickles, sugar in jams) and traditional methods (smoking fish/beef, sun drying fruits, grains).

**General Objectives**

By the end of the topic, the learner should be able to preserve and pack various types of foods.

## Sub-Topic 1: Preserving Food

Specific objectives	Contents
<p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• identify the different methods of preserving food.</li> <li>• Preserve and process different foods.</li> </ul> <p>Pack the preserved foods correctly.</p>	<p>Methods of preserving foods:</p> <ul style="list-style-type: none"> <li>- refrigeration</li> <li>- freezing</li> <li>- drying</li> <li>- heat treatment</li> <li>- chemical treatment</li> <li>- smoking</li> <li>- fermentation</li> <li>- irradiation</li> </ul> <ul style="list-style-type: none"> <li>• Preserving and processing different foods:               <ul style="list-style-type: none"> <li>- jam (uses sugar, lemon juice and heat) e.g. apricot, pineapples, pawpaw, mangoes, berries, plums, cherries, etc</li> <li>- chutney (uses sugar, vinegar salt and heat) e.g. mango, tomato chutney marmalade (uses sugar, lemon juice and heat) e.g. orange, and lemon</li> <li>- pickles (uses spiced vinegar and heat to blanch) e.g. onion, cabbage, cucumber</li> </ul> </li> <li>• Packing preserved and processed foods:               <ul style="list-style-type: none"> <li>- jam jars or bottles</li> <li>- plastic containers</li> <li>- cans</li> </ul> </li> </ul>

### Methodology

- Guide learners to discuss the different methods of preserving food.
- Demonstrate the different methods of preserving food.
- Guide learners to carry out practical work on the preservation of different foods e.g. jam, chutney, pickles, jellies, ketchup, marmalade and yoghurt.
- Through demonstration and practical work, guide learners to pack different

preserved foods e.g. jam, chutney, etc.

**Teaching/Learning Aids**

- Local foods like fruits, vegetable, etc
- Equipment for preparation and heating
- Preserved foods
- Packing equipment

**Assessment Strategy**

- Give a practical lesson on preserving various types of foods. Observe and make comments



FOOD AND NUTRITION SENIOR 6





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# MUSIC

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## S6 Music

The **senior six abridged Music syllabus** is not a new syllabus but a compressed one from the current. It is written to provide an opportunity for senior six learners to catch up and transition back into the learning process. It is also intended to speed up the curriculum, and allow learners to complete their previous academic year in a shortened timeframe. This requires interactive pedagogical strategies, increased and more effective time on task. Teachers are encouraged to organise more performance related lessons that allow learners to discover ideas, explain concepts, analyse information and apply knowledge. The matrix below shows the areas that have been removed and merged and reasons why.

	CRITICAL CHANGES	JUSTIFICATION
1.	Sub Topic 1.1 of term 3 S5 ( Minor scale ) has been removed	There is too much content for the class
2.	Sub Topic 1.2 of term 3 S5 (Rhythm in compound time) has been removed	There was a need to reduce the content.
3.	Sub Topic 1.3 of term 3 S5 (Composing modulating melodies) has been removed	There was a need to reduce the content.
4.	Sub Topic 1.1 of term 1 S6 (Minor scale in flat keys) has been removed	There was a need to reduce the content.
5.	Sub Topic 1.2 of term 1 S6 (Rhythm in compound time) has been removed	There was a need to reduce the content.
6.	Sub Topic 1.3 of term 1 S6 (Composing melodies) has been removed	There was a need to reduce the content.
7.	Sub Topic 1.5 of term1 S6 (Composing melodies to poems) has been removed	Most of the content is a repetition
8.	Sub Topic 3.4 of term 1 S6 (Music in business) has been removed	There was a need to reduce the content.

9.	Sub Topic 1.4 of term 2 S6 (Composing to given poems) has been removed	There was a need to reduce the content.
10.	Sub Topic 1.6 of term 3 S6 (Two-part writing) has been removed	There was a need to reduce the content.
11.	Topic 2 Music practical skills, Subtopic 2.1 ( Performing western and African solo) Has been removed	There was a need to reduce the content.
12.	All the topics of senior six term three have been merged in the previous terms	ALL these topics were a continuation and repetition of the previous terms
13.	Syncopating rhythms  or  have been removed from the syllabus	Time is not enough for learners to pick the concepts

## UNIT 1: MUSIC PRACTICAL SKILLS

### 1: PERFORMING MUSIC.

- Candidates will perform **three** items in appropriate Western and African styles.
- A candidate may choose to perform either **two** western and **one** African piece or **two** African and **one** Western piece.
- A candidate **may** present his pieces on different instruments.
- Candidates will sight sing **or** play a passage of music. This will be in a major key and in simple quadruple time  $4_4$  or compound duple time  $6_8$ . It will be limited to four bars. It may not necessarily start on the first beat of the bar. The following rhythms will be used;

a) Simple time: 

b) Compound time: 

## UNIT 2: AURAL TESTS (1 HOUR)

This assessment will be conducted by playing pre-recorded tests.

### 1: Ugandan Ethnic Drum Styles

- Candidates will be required to recognise and write down the names of three Ugandan ethnic drum styles listened to. A list of drum styles for study will be prescribed by NCDC from time to time.
- The passage will be played three times with pauses of 30 seconds in between.
- The candidate will name them in the order they are played.

### 2: Drum Rhythm

- Candidates will write down from dictation a sixteen crotchet beat drum rhythm in simple time. It will be restricted to the following rhythm groups.



- The passage will be played four times.
- The passage will have a crotchet rest in the middle to define the phrases.

### 3: African Music Instrumental Timbre

- An ensemble of Ugandan traditional instruments will be played.
- Candidates will be required to name and classify three of these instruments and finally describe how sound is produced from each.
- Candidates will write the answer in the order of: **the name, classification and method of producing sound.**
- The passage will be played four times with pauses of 30 seconds in between.

### 4: Pentatonic Melody Writing

- Candidates will write from dictation a short pentatonic melody.
- It will be in either simple or compound time.
- It may begin on anacrusis beat.
- The speed will be indicated, the key named, and the key note sounded.



- It will be played four times.

**5: Diatonic Melody Writing**

- Candidates will write from dictation a short diatonic melody.
- The melody will be in either major or minor key.
- It will be in either simple or compound time.
- It may begin on anacrusis beat.
- The speed will be indicated, the key named, and the tonic chord and key note sounded.
- It will be played four times.

**6: Two Part Melody Writing**

- Candidates will write from dictation a two-part melody of two bars.
- It will be in simple quadruple time.
- It will begin on the first beat of the bar.
- It will be in a major key.
- The speed will be indicated, the key named, and the key note and chord sounded.
- The passage will be played through once, then each half played through twice and finally the whole passage will be played through twice.

**7: Chords**

- Candidates will recognise and name chords I, IV, V, VI and their inversions.
- The passage will have six chords, to be named in the order they sound. .
- The tonic chord will be sounded, followed by the six chords to be described.
- The passage will be played four times.

**8: Harmonic Intervals**

- Candidates will describe, name and write down harmonic intervals in the treble clef.
- They will be two intervals; one in a major key and another in a minor key.
- The key of each interval will be named and the key note sounded.
- Each interval will be played twice.

## UNIT 3: HARMONY AND COMPOSITION (3 HOURS)

### 1: Composing Melodies

- a) Candidates will write a diatonic melody of eight bars, the opening of which will be given (either in simple or compound time). It may be in a major or minor key.
- b) Candidates will write an African pentatonic melody of eight bars, the opening of which will be given. (either in simple or compound time.

### 2: Composing Music to a Poem

- Candidates will write a melody to a short four-line poem adding appropriate performance directions.
- It will be either in simple or compound time.
- It will be in either major or minor key

### 3: TWO PART WRITING.

- Candidates will add a lower part to a given treble melody up to a length of eight bars.
- It may be in a major or minor key.
- The lower part may be on the treble or bass stave.

### 4: FOUR PART HARMONY

- Candidates will add three lower parts to a given melody in a major or minor key.
- Knowledge of rudiments of harmony as stipulated in this syllabus will be required.

## UNIT 4 MUSIC LITERATURE AND ENTREPRENEURIAL SKILLS (3 HOURS)

Ten questions will be set and candidates will answer **five** questions as follows.

### Section A: Analysis of set works

- Candidates will answer **THREE** questions in this section.
- Candidates will answer **ONE** out of two questions on two Western music set works.
- Candidates will answer **ONE** out of two questions on an African music set work.
- Candidates will answer **ONE** out of two questions (One western and one African) on the history of the composers or on the history of the set works.

### Section B: Traditional Music Studies

- In this section **TWO** questions will be set on selected topics.
- Candidates will answer **ONE** question.

### Section C: Music entrepreneurial skills

- **TWO** questions will be set in this section.
- Candidates will be required to answer **ONE** question.





## TERM 1

### TOPIC 1: RUDIMENTS OF HARMONY AND COMPOSITION.


#### Music Scales


Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• sing/play a known song/ piece of music in a major key</li> <li>• sing/play a major scale</li> <li>• construct major scales in keys not beyond three sharps or flats on the G and F staves;               <ol style="list-style-type: none"> <li>a) without key signature</li> <li>b) with key signature</li> </ol> </li> <li>• sight read short melodies in major keys</li> </ul>	<ul style="list-style-type: none"> <li>• major scales: C, D, F, G, A, B flat and E flat.</li> <li>• major scales in staff notation</li> <li>• sight reading melodies in staff notation</li> </ul>


## Simple time rhythm


Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• sing/play a known song in simple time</li> <li>• identify the rhythms in the song</li> <li>• identify dictated simple time rhythm passages</li> <li>• sight read rhythm passages in simple time</li> <li>• sight reads melodies in simple time</li> </ul>	<ul style="list-style-type: none"> <li>• Simple time rhythm:               <ul style="list-style-type: none"> <li><input type="checkbox"/> </li> <li><input type="checkbox"/> </li> <li><input type="checkbox"/> </li> </ul> </li> <li>• Eight beat rhythm passages               <p>(The basic beat is a quarter note i.e. )</p> </li> </ul>


Sight read the following rhythm passages.

a) 

b) 

c) 

d) 

e) 

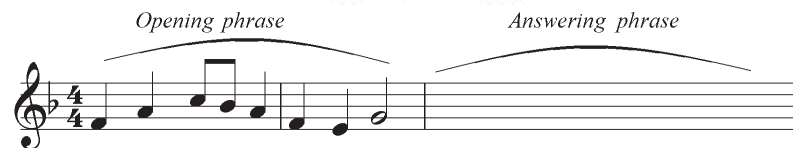
## Composing Melodies

Specific Objectives	Content
By the end of this sub- topic, the learner should be able to: <ul style="list-style-type: none"> <li>• sight read two bar questioning phrases</li> <li>• add answering phrases to given questioning phrases</li> <li>• sight read own melodies</li> </ul>	<ul style="list-style-type: none"> <li>• Compositional techniques               <ul style="list-style-type: none"> <li><input type="checkbox"/> Frontwards (repetition)</li> <li><input type="checkbox"/> Backwards (retrograde)</li> <li><input type="checkbox"/> Upside down (inversion)</li> <li><input type="checkbox"/> Upside down and backwards (retrograde inversion)</li> </ul> </li> </ul>

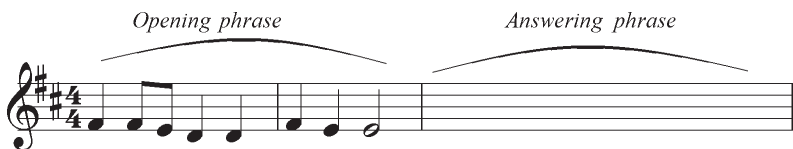
1. Add answering phrases to the given opening phrases using frontward technique (i.e. add a similar melodic phrase but end with the tonic)  
 e.g.



a)



b)



2. Add answering phrases to the given opening phrases using the backward (retrograde) compositional techniques.  
 e.g.

*Opening phrase* *Answering phrase*

a)

*Opening phrase* *Answering phrase*

b)

*Opening phrase* *Answering phrase*

3. Add answering phrases to the given opening phrases using the backward (retrograde) compositional techniques.

.e.g.

*Opening phrase* *Answering phrase*

a)

*Opening phrase* *Answering phrase*

b)

*Opening phrase* *Answering phrase*

Musical notation for exercise b) in 4/4 time, key of B-flat major. The opening phrase consists of a half note B-flat, followed by quarter notes C, D, E, F, G, A, and a half note B-flat. The answering phrase is represented by an empty staff.

4. Add answering phrases to the given opening phrases using the upside down and backwards (retrograde inversion) compositional technique .e.g.

*Opening phrase* *Answering phrase*

Musical notation for exercise 4 example 1 in 4/4 time, key of D major. The opening phrase consists of quarter notes D, E, F, G, A, B, C, and a half note D. The answering phrase is its retrograde inversion: quarter notes C, B, A, G, F, E, D, and a half note C.

*Opening phrase* *Answering phrase*

Musical notation for exercise 4 example 2 in 4/4 time, key of D major. The opening phrase consists of quarter notes D, E, F, G, A, B, C, and a half note D. The answering phrase is its retrograde inversion: quarter notes C, B, A, G, F, E, D, and a half note C.

• attempt exercises similar to the ones below.

a)

*Opening phrase* *Answering phrase*

Musical notation for exercise a) in 4/4 time, key of B-flat major. The opening phrase consists of a half note B-flat, followed by quarter notes C, D, E, F, G, A, and a half note B-flat. The answering phrase is represented by an empty staff.

b)

*Opening phrase* *Answering phrase*

Musical notation for exercise b) in 4/4 time, key of B-flat major. The opening phrase consists of a half note B-flat, followed by quarter notes C, D, E, F, G, A, and a half note B-flat. The answering phrase is represented by an empty staff.

c)



*Opening phrase* *Answering phrase*

A musical staff in treble clef with a key signature of one sharp (F#) and a 4/4 time signature. The first phrase, labeled 'Opening phrase', consists of four measures: G4 quarter, A4 quarter, B4 quarter, and C5 quarter. The second phrase, labeled 'Answering phrase', consists of four measures: B4 quarter, A4 quarter, G4 quarter, and F#4 quarter.

d)

*Opening phrase* *Answering phrase*

A musical staff in treble clef with a key signature of one flat (Bb) and a 4/4 time signature. The first phrase, labeled 'Opening phrase', consists of four measures: G4 quarter, A4 quarter, B4 quarter, and C5 quarter. The second phrase, labeled 'Answering phrase', consists of four measures: B4 quarter, A4 quarter, G4 quarter, and F#4 quarter.

e)

*Opening phrase* *Answering phrase*

A musical staff in treble clef with a key signature of two sharps (F# and C#) and a 4/4 time signature. The first phrase, labeled 'Opening phrase', consists of four measures: G4 quarter, A4 quarter, B4 quarter, and C5 quarter. The second phrase, labeled 'Answering phrase', consists of four measures: B4 quarter, A4 quarter, G4 quarter, and F#4 quarter.

f)

*Opening phrase* *Answering phrase*

A musical staff in treble clef with a key signature of one sharp (F#) and a 4/4 time signature. The first phrase, labeled 'Opening phrase', consists of four measures: G4 quarter, A4 quarter, B4 quarter, and C5 quarter. The second phrase, labeled 'Answering phrase', consists of four measures: B4 quarter, A4 quarter, G4 quarter, and F#4 quarter.

## Western Music Performance Skills

Specific Objectives	Content
<p>By the end of this topic, the learner should be able to show control over the chosen instrument (s) /voice by:</p> <ul style="list-style-type: none"> <li>• exhibiting technical ability, co-ordination and accurate intonation through the use of appropriate technical drills such as melodies of limited range, scales, arpeggios and vocalisations</li> <li>• demonstrate and explain how sound is produced on own instrument/s or voice referring to:               <ul style="list-style-type: none"> <li><input type="checkbox"/> how pitch is altered on the instrument/voice</li> </ul> </li> </ul>	

### The candidate should:

- produce sound out of the chosen instrument/voice appropriately
- play /sing short drills
- play/ sing melodies of limited range
- play/sing given scales
- play/sing the arpeggios where applicable or vocalisations
- play/sing other songs in different keys
- demonstrate the sound production technique on his/her instrument/voice
- brainstorm how to care for instruments/voice
- demonstrate a correct posture of playing a chosen instrument/voice

### Practicing and performing with voice;

- keep body relaxed but backbone straight
- stretch your back bending over and slowly roll your back upward until you are standing straight again (do it several times.)
- hold your rib cage high but keep your shoulders low and relaxed
- face front, keeping your head level and imagining you're suspended by a string attached to the very top of your head
- when you stand, keep your knees relaxed and do not "lock" them up pushing them all the way back" (keep your feet slightly apart)

- when you sit, keep both feet flat on the floor and sit forward in your chair

### Practicing breathing mechanism for voice:

- expand the lungs out and down pushing the diaphragm muscle down
- inhale silently without gasping or making any other noise
- imagine taking a cool sip of air through a straw
- expand your entire waist line keeping the shoulders low and relaxed
- for breath control, hold one finger about six inches from your mouth imagining that your finger is a candle, now blow out a steady stream of air to blow out the flame of a candle

### Two part melody writing:

*Ntubiro Godfrey 2021*

Mam - mals and birds and all the fish plus the rep - tiles are ver - teb - rates

- identify the key of the song
- sight read the melody aloud several times
- listen to the melody played/sung
- improvise the lower part to the melody orally (*thinking harmonically*)
- write the improvised part beneath the given melody on the same treble stave
- sing the improvised lower part along with the upper melody
- draw a table of triads in relation to the scale
- benchmark the improvised part to the basic intervals in two part writing i.e. the unison, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup>
- use unison, perfect 5<sup>th</sup> or octave to begin the two part piece
- employ voice leading principles appropriately e.g.
  - avoiding the use of two major 3<sup>rds</sup> which between them encompass a triton (*a triton is an interval of three whole tones*)
  - avoiding use of more than three consecutive 3<sup>rds</sup> or 6<sup>th</sup>

- iii. effectively using the 4<sup>th</sup> in the middle of the piece especially where two parts are inverted
- iv. effectively using the 5<sup>th</sup> in the middle of a piece i.e. where the upper part moves up the scale with the lower part forming the sequence 6<sup>th</sup>, 5<sup>th</sup> or 3<sup>rd</sup> below it
- v. effectively using the 2<sup>nd</sup> and 7<sup>th</sup> as passing tones (dissonancy)
- vi. ending the piece with the tonic chord
- vii. understanding that contrary motion of the two parts is more effective than similar motion

### Four Part Harmony

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to: <ul style="list-style-type: none"> <li>• sing a song in harmony</li> <li>• use root and first inversion chords appropriately</li> <li>• identify cadential points in harmony</li> </ul>	<ul style="list-style-type: none"> <li>• harmonised singing</li> <li>• chords I, II, IV, V and VI of major keys in root and first inversions</li> <li>• cadences:               <ul style="list-style-type: none"> <li><input type="checkbox"/> Perfect (V- I)</li> <li><input type="checkbox"/> Imperfect (I- V)</li> <li><input type="checkbox"/> Interrupted (V- VI)</li> <li><input type="checkbox"/> Plagal (IV-I)</li> </ul> </li> </ul>

### Suggested Teaching/Learning Strategies

Guide the learners to:

- listen to a piece of music performed in western harmony
- sing songs in parts to experience the feel of harmony
- listen to performed songs in parts to experience the feel of harmony
- name the keys in which the songs are written
- write key signatures of given major keys
- define a chord

- sing/ play pitch notes which form triads i.e.

G	A	B	C	D	E	F	G
E	F	G	A	B	C	D	E
C	D	E	F	G	A	B	C

- define a triad (*A triad is a chord with 3 notes namely the 'root', the '3<sup>rd</sup>' and the '5<sup>th</sup>' above*)
- Identify the qualities of triads i.e.

**Primary Triads:** (*These are triads which have a root, major 3<sup>rd</sup> and a perfect 5<sup>th</sup>*).

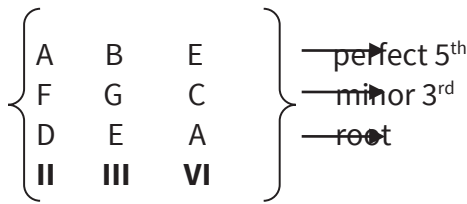
{	G	C	D	}	— perfect 5 <sup>th</sup>
	E	A	B		— major 3 <sup>rd</sup>
	C	F	G		— root
	<b>I</b>	<b>IV</b>	<b>V</b>		

- write primary triads of major keys on the treble stave e.g.

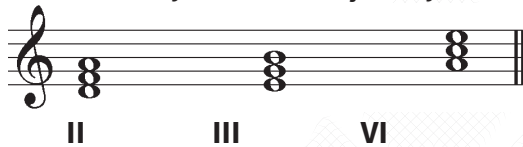
C major

G major

**Secondary triads:** (*These are triads which have a root, minor 3<sup>rd</sup> and a perfect 5<sup>th</sup>*).

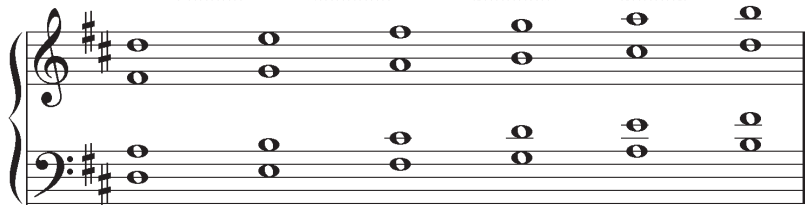


- write secondary triads in major keys on the treble staff e.g. C major

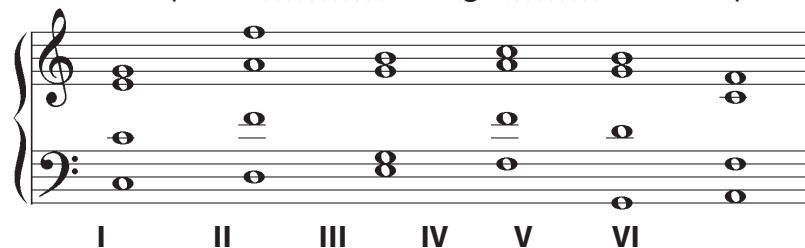


- distribute root position triads on the grand staff in **open position** e.g.

Key of D major.



- distribute root position triads on the grand staff in close position e.g.

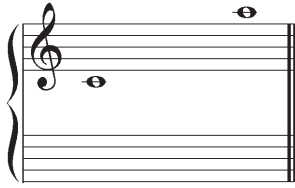


In the above illustration, ‘C’ which is the ‘tonic’ has been doubled in I, ‘F’ which is the ‘subdominant’ has been doubled in II, etc...

In close position, the 3 upper parts are as close as possible.

- harmonise pieces while respecting the voice ranges i.e.

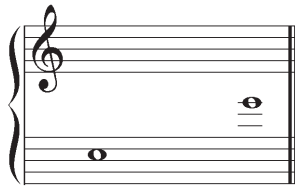
- Soprano range.



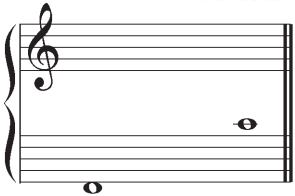
- Alto range.



- Tenor range.



- Bass range.



- harmonise a short melody using the basic rules of harmonic progression in root position

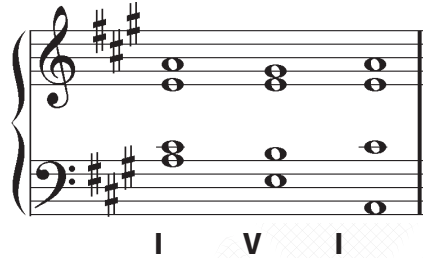
Make use of a chart together with voice leading principle to guide the learners spell out the basic rules of harmonic chord progression in root position.

### Chord progression chart:

- I progresses to IV, V, sometimes to VI.
- II progresses to IV, VI, sometimes to V.
- IV progresses to I, V, sometimes to II and VI.
- V progresses to I, IV, sometimes to VI.
- VI progresses to II, IV, sometimes to V.

**Note:** Chords III and VII will be handled at a later stage.

Voice leading principles aim at achieving smoothness between consecutive chords. A note which is common to two consecutive chords is best kept in the same part e.g.



The note E is common to both I and V. Here it has been kept in alto.

- When doubling, double only the tonal degrees as was stated before.
- When joining two neighbouring chords a step e.g. **IV - V**, let the upper voices move in contrary motion to the bass line. This rule has an exception for instance when progressing from chord **V** to **VI** by practice the common note is not repeated in the same part. Instead, it goes to the nearest available position to allow the 3<sup>rd</sup> of chord **VI** to be doubled.
- use first inversion chords in short melodies using the basic rules of harmonic progression. (*when the 3<sup>rd</sup> is in bass, the chord is said to be in first inversion*)
- listen to songs that contain the four cadences i.e. imperfect, interrupted, Plagal and perfect e.g. *how sweet the name of Jesus sounds*.
- locate the bars/measures where these points occur
- describe the given cadences

### Instructional materials

- Charts
- Boards
- Music instruments
- Voice
- Music scores
- Flash cards



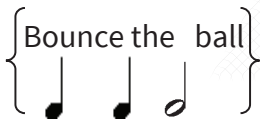
## Composing Melodies to Poems.

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• align staff rhythms to word syllables</li> <li>• add bar lines to the phrases</li> <li>• choose an appropriate time signature</li> <li>• add melody to suggested rhythm phrases</li> </ul>	<ul style="list-style-type: none"> <li>• Rhythm and words.</li> <li>• Rhythm and melody.</li> </ul>

### Suggested Teaching/Learning and Assessment Procedures

Select a four line stanza in English and guide the learners to:

- pronounce the words in the poem appropriately. e.g.
- separate the word syllables
- identify long and short syllables
- attach or distribute rhythm notes to the syllables while paying attention to short and long syllables e.g. bounce the ball



- add bar lines to the phrases
- choose an appropriate time signature
- add melody to suggested rhythm phrases

## Sub-Topic 1.6: Two Part writing (8 periods)

It should be noted that two part writing is about the succession of suitable intervals between two parts. Each part should be interesting on its own. You will now use the following basic intervals in two part writing: Unison, 3<sup>rd</sup>, 5<sup>th</sup> and 6<sup>th</sup>. In two part writing, the learners supply the lower part to the given upper part. Two approaches are required for this syllabus. Either both parts are written on the treble stave or on a grand stave. The learners should not alter the given part.

### Specific Objectives

By the end of this sub-topic, the learner should be able to:

- establish the key of the piece to be harmonised
- use the octave and 4<sup>th</sup> in the middle of the piece appropriately
- end a piece with the tonic chord in root position
- write two parts on the treble stave

### Content

- Voice leading principles in two part writing
- Effective use of a 4<sup>th</sup>

### Suggested Teaching/Learning and Assessment Strategies

Have learners:

- listen to a short melody of 8 crotchet beats long e.g.



- establish the tonic key of the melody
- hum the played melody
- listen to the melody again while improvising a lower part mentally
- hum the improvised melody in accompaniment to the given melody
- write the improvised melody in accompaniment to the given melody

- benchmark the basic rules of two part harmony to ensure they have been followed e.g.

The image shows two musical staves in G major (one sharp) and 4/4 time. The top staff is a treble clef with a melody: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter). The bottom staff is a bass clef with a bass line: G3 (quarter), A3 (quarter), B3 (quarter), C4 (quarter), B3 (quarter), A3 (quarter), G3 (quarter). Below each staff, intervals are labeled: Unison, 3<sup>rd</sup>, 3<sup>rd</sup>, 6<sup>th</sup>, 6<sup>th</sup>, 3<sup>rd</sup>, 6<sup>th</sup> for the top staff; and Unison, 3<sup>rd</sup>, 3<sup>rd</sup>, 6<sup>th</sup>, 6<sup>th</sup>, 3<sup>rd</sup>, Unison for the bottom staff.

### Some rules of two part harmony:F

- in case a 3<sup>rd</sup> is absent, it must be included in context
  - avoid the use of parallel perfect 5<sup>ths</sup> and octaves
  - the 4<sup>th</sup> may be approached in contrary motion
  - the intervals commonly employed are; the 3<sup>rd</sup> and the 6<sup>th</sup>
  - the 5<sup>th</sup> and the octave should be approached in similar motion when the upper voice is moving by step as the lower voice makes a skip
  - contrary motion is more effective than similar motion
  - contrary motion helps to avoid parallel movements which may not sound good
- compose own melodies and later add lower parts
  - employ 4<sup>ths</sup> only in inversions

### Suggested instructional materials

- Manuscript papers
- Writing boards
- Prepared charts
- Poetry books

## Two-part Writing

### Overview

In this topic, the learners will sing or play a variety of songs/melodies and perform western and African music. He/she will interpret, rehearse, perform, and present musical works that represent music from a variety of African and world cultural and historical contexts. He/she will also learn to sight read a passage of African instrumental or vocal music. The African instrumental passage will be written in the idiom of the particular instrument.

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to: <ul style="list-style-type: none"> <li>• establish the key of the piece to be harmonised</li> <li>• use the octave and 4<sup>th</sup> in the middle of the piece appropriately</li> <li>• end a piece with the tonic chord in root position</li> <li>• write two parts on the treble stave</li> </ul>	<ul style="list-style-type: none"> <li>• Voice leading principles in two-part writing. e.g. avoiding:               <ul style="list-style-type: none"> <li><input type="checkbox"/> Using two major 3<sup>rd</sup>s which between them encompass a triton.</li> <li><input type="checkbox"/> Using more than three consecutive 3<sup>rd</sup>s and 6<sup>th</sup>s</li> </ul> </li> <li>• Effective use of a 4<sup>th</sup> e.g. where two parts are inverted.</li> </ul>

### Suggested Teaching/Learning and Assessment Strategies

Have learners:

- listen to a short melody of 8 crotchet beats long e.g.



- establish the tonic key of the melody
- hum the played melody
- listen to the melody again while improvising a lower part mentally
- hum the improvised melody in accompaniment to the given melody
- write the improvised melody in accompaniment to the given melody

- benchmark the basic rules of two part harmony to ensure they have been followed e.g.

The image shows two musical staves in 4/4 time, key of D major. The top staff is a treble clef and the bottom staff is a bass clef. The top staff has a melody with intervals labeled below: Unison, 3<sup>rd</sup>, 3<sup>rd</sup>, 6<sup>th</sup>, 6<sup>th</sup>, 3<sup>rd</sup>, 6<sup>th</sup>. The bottom staff has a bass line with intervals labeled below: Unison, 3<sup>rd</sup>, 3<sup>rd</sup>, 6<sup>th</sup>, 6<sup>th</sup>, 3<sup>rd</sup>, Unison.

### Some rules of two part harmony:

- in case a 3<sup>rd</sup> is absent, it must be included in context
  - avoid the use of parallel perfect 5<sup>ths</sup> and octaves
  - the 4<sup>th</sup> may be approached in contrary motion
  - the intervals commonly employed are; the 3<sup>rd</sup> and the 6<sup>th</sup>
  - the 5<sup>th</sup> and the octave should be approached in similar motion when the upper voice is moving by step as the lower voice makes a skip
  - contrary motion is more effective than similar motion
  - contrary motion helps to avoid parallel movements which may not sound good
- compose own melodies and later add lower parts
  - employ 4<sup>ths</sup> only in inversions

## TOPIC 2: MUSIC PRACTICAL SKILLS

### Overview

In this topic, the learners will sing or play a variety of songs/melodies and perform western and African music. He/she will interpret, rehearse, perform, and present musical works that represent music from a variety of African and world cultural and historical contexts. He/she will also learn to sight read a passage of African instrumental or vocal music. The African instrumental passage will be written in the idiom of the particular instrument.

### Sub-topic 1: Performing Music.

Specific Objectives	Content
<p>By the end of this topic the learner shows control over the chosen instrument (s) /voice by:</p> <ul style="list-style-type: none"> <li>sight reading in major and minor keys, diatonic and pentatonic scales, in both simple and compound times</li> <li>playing/singing short unprepared western and African pieces that test reading skills</li> </ul>	<ul style="list-style-type: none"> <li>Major and minor scales</li> <li>Arpeggios</li> <li>Vocalizations</li> <li>Notated pieces of music</li> </ul>

### Suggested teaching/learning and assessment strategies:

Guide the learners to:

- play/sing arpeggios/vocal exercises
- play/ sing chosen western music
- sight read in major and minor keys
- play/sing short unprepared western pieces
- play/sing short unprepared African pieces
- sight read in both simple and compound times

## TOPIC 3: MUSIC LITERATURE AND ENTREPRENEURIAL SKILLS

### Music Literature

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• listen to a western set work</li> <li>• study a western set work in regard to orchestration</li> </ul>	<ul style="list-style-type: none"> <li>• Orchastration</li> <li>• Music Form</li> </ul>

### Suggested teaching/learning procedure

Guide the learners to:

- listen to one of the western set works
- analyse the set work in regard to;
  - Orchestration.
  - Music form.

### Instructional materials

- Western Music scores
- Writing boards
- Appraisal form

## African Traditional Music Analysis.

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to: <ul style="list-style-type: none"> <li>• show knowledge of analysis of an African piece of music</li> <li>• discuss the back ground information about the work in regard to historical and cultural setting</li> </ul>	<ul style="list-style-type: none"> <li>• African traditional music</li> <li>• Characteristics of african traditional music</li> <li>• Historical background to the composition and its composer or performer</li> </ul>

### Suggested teaching/learning procedure.

Guide the learners to:

- listen to an African music set work
- brainstorm the characteristics of traditional music it obtains
- discus the historical background of the piece
- brainstorm the background of the composer

### Instructional materials

- African music scores
- Writing boards
- Audio/video Recordings of African music
- Appraisal form
- A stage
- Musical instruments
- Costumes



**Music in Business.**

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• write a management plan for a music event</li> <li>• organise an appropriate venue and equipment for a music event</li> </ul>	Coordinating a music event.

**Suggested teaching/learning and assessment procedure:**

Identify any music related event in the school, e.g. inter house music competitions, end of year party e. t. c... and guide the learners to:

- compile a programme for the event
- participate in organizing the venue for the event
- participate in organizing performers and other human resources for the music event
- watch a music performance
- study the performing group using the observation guidelines below
  - probe methods of booking a performance venue
  - gate collection
  - publicity method used
  - time and duration of the performance
  - brainstorm the importance of timing and duration of the performance
  - discuss the impact of seasons on performance
  - brainstorm materials used on stage
  - discuss how the stage materials are procured
  - probe organisation structure of the performing group e.g.
    - ✓ Board of trustees.
    - ✓ Executive Directors.
    - ✓ Stage managers.
    - ✓ Artistic Directors.
    - ✓ Costume designer.
    - ✓ Costume manager.
    - ✓ Props manager.
    - ✓ Lights man.

- ✓ Sound Technician.
- ✓ Group conductor.
- ✓ Music director.
- ✓ Drama director.
- ✓ Dance director.
- ✓ Performing artists.
- ✓ Support staff.
  - Drivers
  - Catering staff
  - Accountants
  - Security personnel
  - Cashier
  - Marketers
  - Equipment maintenance department.
- probe factors that keep the group in business
- investigate other ways the group earns rather than the performance
- explore the benefits of the performers in the group
- probe the training programme
- query the choice of the performance style and music genre
- probe other businesses that gain from the performance e.g. canteens, foyer bar

**Assessment strategies:**

Let the learners essay their findings and:

- a) brainstorm their findings in the class as you award marks;
- b) hand in written works from their group discussions for you to award marks





You may also develop other test items according to your discretion.

**Instructional materials**

- Writing boards
- Appraisal form
- A stage
- Musical instruments
- Costumes

## TOPIC 1: RUDIMENTS OF HARMONY AND COMPOSITION

### Rhythm

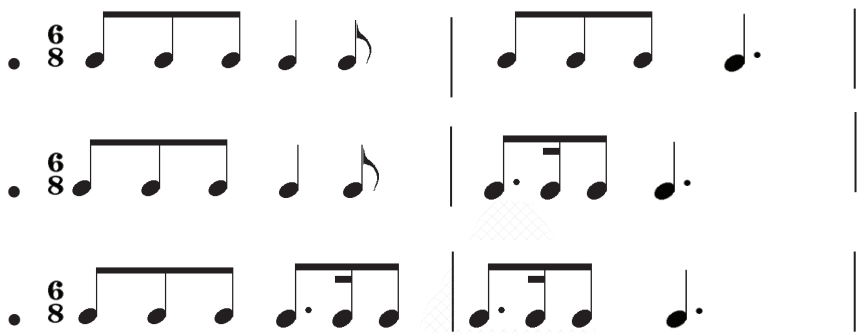
Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• sing/play a piece of music in compound time</li> <li>• identify the rhythms in the piece</li> <li>• identify dictated rhythm passages in compound time</li> <li>• sight read melodies in compound</li> </ul>	<ul style="list-style-type: none"> <li>• Compound time rhythm: </li> <li></li> <li></li> <li>• 4 beat rhythm passages (The basic beat is a dotted quarter note i.e. )</li> </ul>

### Suggested teaching/learning and assessment strategies

Guide the learners to:

- sing/play pieces of music in compound time
- sing the song to syllables like wa, ku, la ta ba
- sing the rhythm of performed pieces to french rhythm names
- clap hands according to the rhythm of performed pieces
- stamp feet according to the rhythm of performed pieces
- write the rhythm of the song to french rhythm names
- match the staff rhythm notes to the written french rhythm names
- sight read rhythm passages such as below by:
  - saying their french rhythm names
  - clapping
  - humming

### Exercise1



### Exercise 2: Listening to played compound time rhythms.

Use a drum or a piano to play the rhythm passages above or any others of your choice and have the learners

- Say them to french rhythm names
- Play back played rhythms by clapping, stamping or humming
- Write the played rhythms in  $\frac{6}{8}$  time

You may divide the class into groups and assign them different roles to be performed at ago e.g. one group claps the rhythm while another says the french rhythm names, etc...

### Instructional materials

- Charts
- Boards
- Music instruments
- Voice
- Music scores
- Flash cards

## Composing Modulating Melodies

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• show knowledge of the meaning of modulation</li> <li>• apply a pivot chord in modulating to the dominant</li> <li>• write melodies beginning on anacrusis rhythms</li> <li>• use repetitions to achieve unity in melodies</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning of modulation</li> <li>• Modulation to Dominant</li> <li>• Unity in a melody</li> <li>• Variety in a melody</li> <li>• Sight reading.</li> </ul>

### Suggested teaching/learning and assessment procedures:

Guide the learners to:

- listen to short music passages containing perfect cadences
- sing short music passages in parts
- recognize phrases ending with perfect cadences (v- i) e.g.

I IV V I

- adds alto, tenor and bass to short melodies ending with perfect cadences. E.g.

I IV V I

- recognize phrase endings that may require cadential formulae II – V – I

IV II V I

- recognize phrase endings that may require cadential formulae VI – V- I

IV V I

- recognize phrase endings that may require cadential formulae VI – II<sup>6</sup>- I<sup>6</sup><sub>4</sub> - V- I

VI II<sup>6</sup> I<sup>6</sup><sub>4</sub> V I

- listen to short music passages containing imperfect cadences
- sing short music passages in parts
- recognize phrases ending with imperfect cadences (any chord progressing to chord V at a cadence) e.g.

I IV I V

- adds alto, tenor and bass to short melodies ending with imperfect cadences e.g.

IV I V

- recognize phrase endings that prepare an imperfect cadence e.g.
  - i. II – V.
  - ii. IV – V.
  - iii. VI – V.
  - iv. IV – II – V.
  - v. IV – VI – V.
  - vi. I – IV – V.
  - vii. IV – I – V.

### Instructional materials

- Charts
- Writing Boards
- Music instruments
- Voice
- Music scores.
- Flash cards

## Harmony

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>identify cadential points in a given melody</li> <li>identify cadential points requiring perfect cadences</li> <li>use the perfect cadence appropriately</li> <li>use cadential formulae to prepare perfect cadences appropriately</li> <li>identify cadential points requiring imperfect cadences</li> <li>use the imperfect cadences appropriately</li> <li>use cadential formulae to prepare imperfect cadences appropriately</li> <li>use the cadential six-four chords</li> <li>apply passing six four (<math>{}^6_4</math>) chords</li> </ul>	<ul style="list-style-type: none"> <li>Cadential formulae:           <ol style="list-style-type: none"> <li>Perfect               <ol style="list-style-type: none"> <li>V-I</li> <li>II - V - I.</li> <li>V I - II<sup>6</sup> - I<sup>6</sup><sub>4</sub> - V - I.</li> <li>V I - IV - I<sup>6</sup><sub>4</sub> - V - I.</li> </ol> </li> <li>Imperfect               <ol style="list-style-type: none"> <li>I-V</li> <li>II - V.</li> <li>IV- V.</li> <li>VI- V.</li> <li>IV - II - V.</li> <li>IV- VI - V.</li> <li>I- IV - V.</li> <li>IV - I - V.</li> </ol> </li> </ol> </li> <li><math>{}^6_4</math> chords.</li> </ul>

### Suggested teaching/learning and assessment procedures:

Guide the learners to:

- listen to short music passages containing perfect cadences
- sing short music passages in parts
- recognize phrases ending with perfect cadences (v- i) e.g.



I            IV            V            I



- adds alto, tenor and bass to short melodies ending with perfect cadences.  
E.g.

I IV V I

- recognize phrase endings that may require cadential formulae II – V- I

IV II V I

- recognize phrase endings that may require cadential formulae VI – V- I

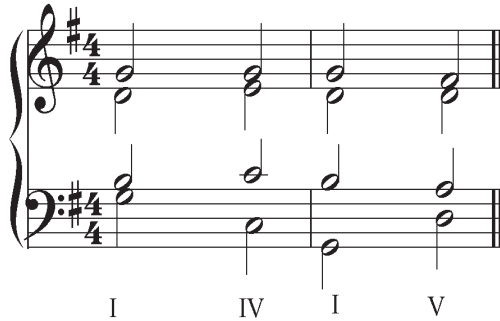
IV V I

- recognize phrase endings that may require cadential formulae VI – II<sup>6</sup>- I<sub>4</sub><sup>6</sup> - V- I

VI II<sup>6</sup> I<sub>4</sub><sup>6</sup> V I

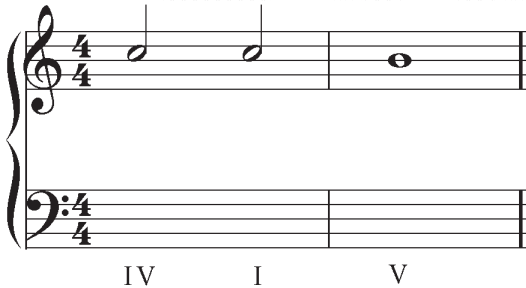
Guide the learners to:

- listen to short music passages containing imperfect cadences
- sing short music passages in parts
- Recognize phrases ending with imperfect cadences (any chord progressing to chord V at a cadence) e.g.



I            IV            I            V

- adds alto, tenor and bass to short melodies ending with imperfect cadences e.g.



IV            I            V

- recognize phrase endings that prepare an imperfect cadence e.g.

viii. II – V.

ix. IV – V.

x. VI – V.

xi. IV – II – V.

xii. IV – VI – V.

xiii. I – IV – V.

xiv. IV – I – V.

### Instructional materials

- Radio
- CD/tape
- Writing Boards

- Charts
- Text books

### Composing Melodies to Poems.

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• choose appropriate keys to the songs</li> <li>• employ various four line schemes e.g. AABA, ABBA, ABAB, AAAA or ABCD</li> <li>• notate music on the treble stave.</li> <li>• align words below the stave appropriately</li> </ul>	<ul style="list-style-type: none"> <li>• Four line poems</li> <li>• Music forms e.g. Binary, Ternary</li> <li>• Word alignment</li> <li>• Repetition and contrast</li> </ul>

**The suggested teaching/learning and assessment procedures are as follows:**

Display a four line poem on a chart and guide the learners to:

- read the words aloud and appropriately
- articulate the words clearly
- intonate the syllables according to their natural intonation
- accent the words correctly
- separate word syllables appropriately
- compose staff rhythms to syllables
- choose appropriate time signatures for the melody
- add pitch to composed rhythms

#### **Instructional materials**

- Music manuscript paper
- Writing boards
- Audio devices

### Two part Writing

Specific Objectives	Content

By the end of this sub-topic, the learner should be able to:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• establish the key of the piece to be harmonised</li> <li>• use the 5<sup>th</sup> in the middle of the piece appropriately</li> <li>• arrange discords on strong beats and resolves them effectively</li> <li>• end the piece with the tonic chord in root position</li> <li>• write two parts on the grand staff</li> </ul> | <ul style="list-style-type: none"> <li>• Voice leading principles in two part writing. e.g. avoiding:           <ul style="list-style-type: none"> <li><input type="checkbox"/> Doubling the 3rd.</li> <li><input type="checkbox"/> Using more than three consecutive 3rds and 6ths</li> </ul> </li> <li>• Effective use of a 5<sup>th</sup> e.g. where the upper part moves up the scale with the lower part forming the sequence 6<sup>th</sup>, 5<sup>th</sup> or 3<sup>rd</sup> below it</li> </ul> |
|---|---|

### Suggested teaching/learning and assessment procedure

Write a short melody on the board and have the learners:

- establish the key of the melody
- sight sing the melody aloud
- listen to the melody
- improvise a lower part to the melody by humming
- write the improvised lower part to the given melody
- sing the improvised lower part along with the upper melody
- apply cadential formulae in two part writing
- use voice leading principles appropriately e.g. avoiding:
  - doubling the 3rds and leading tones
  - parallel octaves and 5<sup>th</sup>
- effectively use the 4<sup>th</sup> in the middle of the piece especially where two parts are inverted
- effectively use the 5<sup>th</sup> in the middle of a piece i.e. where the upper part moves up the scale with the lower part forming the sequence 6<sup>th</sup>, 5<sup>th</sup> or 3<sup>rd</sup> below it
- effectively use the 2<sup>nd</sup> and 7<sup>th</sup> as passing tones. (dissonancy)

#### Note:

- root position chords bring about the intervals of 3rds
- first inversion chords bring about intervals of 6<sup>th</sup>
- second inversion chords lead to intervals of 4<sup>th</sup>

#### Instructional materials

- Voice
- Music scores
- Music instruments

## TOPIC 2: MUSIC PRACTICAL SKILLS

### Performing Solo Pieces.

Specific Objectives	Content
<p>By the end of this topic, the learner should be able to perform a variety of solo pieces on one or more chosen instruments/voice demonstrating:</p> <ul style="list-style-type: none"> <li>• awareness of style, tone quality, rhythmic precision, articulation and phrasing</li> <li>• a sense of stylistic and imaginative interpretation of music pieces,</li> </ul>	<ul style="list-style-type: none"> <li>• Graded western solo pieces.</li> <li>• Written and unwritten African solo pieces.</li> </ul>

### Suggested teaching/learning and assessment procedure:

Guide the learners to:

- perform solo pieces on a chosen instruments/voice demonstrating;
  - awareness of style
  - tone quality
  - rhythmic precision,
  - articulation
  - phrasing and
  - a sense of stylistic and imaginative interpretation of pieces

Compose sight reading exercises that suit the learners' chosen instrument or voice and guide him/her to:

- sight read music passages in major and minor keys, in diatonic and pentatonic scales, in both simple and compound time

### Instructional materials

- Music instruments
- Voice

## TOPIC 3: MUSIC LITERATURE AND ENTREPRENEURIAL SKILLS

### Music Literature

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>analyse a western set work in regard to style and texture</li> </ul>	<ul style="list-style-type: none"> <li>Music style.           <ul style="list-style-type: none"> <li>Cantabile</li> <li>Legato.</li> <li>Staccato.</li> <li>Recitative. ( stromentato and secco)</li> <li>Aria</li> <li>Chorus.</li> </ul> </li> <li>Texture           <ul style="list-style-type: none"> <li>Light/thin/ transparent.</li> <li>Heavy/thick.</li> </ul> </li> </ul>

#### Suggested teaching/learning and assessment strategies

Guide the learners:

- open a music score of a set work
- listen to the music of the piece played
- explain the historical background of the piece
- study the set work in regard to music style
- study the set work in regard to music style
- briefly explain the historical back ground of the composer of the set work

#### Instructional materials

- Music scores
- Music records
- Writing boards
- Charts

## African Traditional Music Analysis

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>analyse one set African traditional work in regard to progression</li> <li>discuss the background information about the work in regard to historical and cultural setting</li> <li>tell the background information about the composer/performer</li> </ul>	<ul style="list-style-type: none"> <li>African traditional music</li> <li>Progression ( the orchestral journey of a composition)</li> </ul>

### Suggested teaching/learning and assessment procedure

Have the learners:

- brainstorm the meaning of progression in music
- discuss the orchestral journey of an African set work
- explain the historical background of the composer/performer of the set work

### Instructional materials

- African music scores
- Writing boards

## African Traditional Music Studies

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>show knowledge of conserving the Ugandan ethnic music</li> <li>make a write up on a selected topic on Ugandan ethnic music</li> </ul>	<ul style="list-style-type: none"> <li>Ugandan ethnic music; <b>either;</b> <ul style="list-style-type: none"> <li>music instruments <b>or</b></li> <li>folk singing <b>or</b></li> <li>folk dance</li> </ul> </li> </ul> <p>study areas include:</p> <ul style="list-style-type: none"> <li>Classification.</li> <li>Making (where applicable.)</li> <li>Role to society.</li> </ul>

### Suggested teaching/learning and assessment procedure.

Guide the learners to:

- make a write up on a selected topic on ugandan ethnic music

The selected topic **may** be **either** on:

- music instruments **or**
- folk songs **or**
- folk dances

Emphasis should be put on;

- classification
- making ( where applicable)
- role of the selected ethnic music to society
- any other important information

#### Instructional materials

- Recorded music
- Voice
- Musical instruments

## Music in Business. (Coordinating a music event)

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to assist in the planning of performances by: <ul style="list-style-type: none"> <li>• compiling a programme for a music event</li> <li>• organising performers and other human resources for a music event</li> </ul>	<ul style="list-style-type: none"> <li>• Program for a music event.</li> <li>• Human resources for a music event.</li> </ul>

### Suggested teaching/learning and assessment procedure

Guide the learners to:

- compile a program for any school or community music event
- participate in organizing performers in this music event
- share with you or the class the strenghs or challenges encountered

You may require the learner to essay the program or the entire process for assessment purporces.

#### Instructional materials

- Writing boards
- Resource persons.



## TOPIC 1: RUDIMENTS OF HARMONY AND COMPOSITION.

### Composing Melodies to chord progressions

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>Write melodies to given chord progressions e.g. I-V- II-V-I</li> </ul>	<ul style="list-style-type: none"> <li>Chord progression.</li> </ul>

### The suggested teaching/learning and assessment procedure is as follows:

Have the learners:

- listen to various melodies built on chords
- brainstorm what they have heard
- name the chords used in the different units, sections or phrases
- write melodies beginning on anacrusis rhythms

### Harmony

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>identify and use cadential formulae</li> <li>identify and use the cadential six-four chords</li> <li>applies passing six four (<math>{}^6_4</math>) chords</li> </ul>	<ul style="list-style-type: none"> <li>Cadential formulae:               <ol style="list-style-type: none"> <li>Interrupted:                   <ol style="list-style-type: none"> <li>V-VI</li> <li>II - V -VI</li> <li>.VI - II<sup>6</sup> - I<sup>6</sup><sub>4</sub> -V -VI.</li> </ol> </li> <li>Plagal                   <ol style="list-style-type: none"> <li>IV- I.</li> <li>V - I - IV - I.</li> <li>V - VI - IV - I.</li> </ol> </li> </ol> </li> <li><math>{}^6_4</math> chords</li> </ul>

### Suggested teaching/learning and assessment procedures:

Guide the learners to:

- listen to short music passages containing interrupted cadences

- sing short music passages in parts
- recognize phrases ending with interrupted cadences (V-VI) e.g.
- adds alto, tenor and bass to short melodies ending with interrupted cadences e.g.
- recognize phrase endings that may require cadential formulae IV–V–VI
- recognize phrase endings that may require cadential formulae IV–V–VI
- recognize phrase endings that may require cadential formulae IV– II<sup>6</sup>- I<sup>6</sup><sub>4</sub> - V–VI
- listen to short music passages containing Plagal cadences
- sing short music passages in parts
- recognize phrases ending with Plagal cadences (chord IV progressing to chord I at a cadence)
- add alto, tenor and bass to short melodies ending with Plagal cadences
- recognize phrase endings that may prepare a Plagal cadence e.g.
  - i. V – I – IV – I.
  - ii. V – VI – IV – I

### Composing melodies to poems.

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to: <ul style="list-style-type: none"> <li>• compose four line poems in English</li> <li>• write melodies to composed poems</li> <li>• choose appropriate keys to melodies of four line verses</li> <li>• employ various four line schemes e.g. AABA, ABBA, ABAB, AAAA OR ABCD</li> <li>• notate music on the treble stave</li> <li>• align words below the stave appropriately</li> <li>• write singable melodies</li> <li>• use repetitions to achieve unity in songs</li> <li>• use contrasts to achieve variety in songs</li> <li>• perform songs composed by him/her self</li> </ul>	<ul style="list-style-type: none"> <li>• Four line poems</li> <li>• Music forms e.g. Binary, Ternary,</li> <li>• Word alignment</li> <li>• Repetition and contrast</li> </ul>

Display a four line poem on a chart/ board or have learners compose four line poems in English and guide them to:

- identify words with prefixes and suffixes as done before
- identify strong and weak syllables in the poem
- compose suitable staff rhythm notes below the words
- choose suitable key to the melody
- plot suitable pitch notes on the treble stave
- mark out the phrase ends by providing suitable cadences
- align words appropriately below the stave
- write melodies in definite forms.
- perform the composed song

Exercise: compose music to the poem given below.

Where the hazel bank is steepest,  
Where the shadow falls the deepest,  
Where the clustering nuts fall free –  
That's the way for Billy and me. (Hogg)

### **Instructional materials**

- Music manuscript paper
- Writing boards

## Two part writing

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• apply prepared cadences in two part writing</li> <li>• apply the principles of stems appropriately</li> <li>• use chords in their root and first inversions</li> <li>• use passing and auxiliary notes appropriately</li> <li>• end the piece with the tonic chord</li> </ul>	<ul style="list-style-type: none"> <li>• Voice leading principles in two part writing. e.g. avoiding:           <ul style="list-style-type: none"> <li><input type="checkbox"/> Doubling the third and leading tones.</li> <li><input type="checkbox"/> Parallel octaves and 5<sup>th</sup>.</li> </ul> </li> <li>• Cadences and cadential formulae</li> <li>• Passing and auxiliary</li> <li>• Effective use of a 5<sup>th</sup> e.g. Where the upper part moves up the scale with the lower part forming the sequence 6<sup>th</sup>, 5<sup>th</sup> or 3<sup>rd</sup> below it.</li> </ul>

## Suggested teaching/learning and assessment procedure

Display scores of melodies and guide the learners to:

- listen to the melodies played/sung
- identify different phrases in the melody
- take note of different cadences
- improvise the lower part orally
- write the improvised part beneath the given part on the bass staff
- draw a table of triads in relation to the scale
- identify and name the positions of the applied chords in the melody beneath the staff i.e. root position, and first inversion
- show knowledge of non-harmonic tones i.e. passing and auxiliary
- apply non-harmonic tones on non-metromonical beats where applicable

## Instructional materials

- Voice
- Music scores
- Music instruments

# Music manuscript paper

## TOPIC 2: MUSIC PRACTICAL

### Performing Western and African Solo Pieces.

Specific Objectives	Content
<p>By the end of this topic, the learner should be able to perform a variety of solo pieces on one or more chosen instruments/voice demonstrating:</p> <ul style="list-style-type: none"> <li>• a sense of performance including the ability to communicate with the audience, conveying thought, feeling and/or character using non-verbal communication skills appropriately.</li> <li>• a developed sense of stylistic performance within a variety of contexts</li> <li>• musical response including imaginative interpretation of pieces</li> </ul>	<ul style="list-style-type: none"> <li>• Solo performance</li> </ul>

### Suggested teaching/learning and assessment procedure:

Guide the learners to:

- identify western and African solo pieces comparable to UACE practical
- play /sing short drills to make ready the voice/instrument
- play/ sing solo pieces communicating with the audience, conveying thought, feeling and/or character using non-verbal communication skills appropriately
- play/sing solo pieces exhibiting style in a variety of contexts
- play/sing solo pieces exhibiting imaginative interpretation of pieces

### Instructional materials

- Audio devices

### Visual devices

## TOPIC 3: MUSIC LITERATURE AND ENTREPRENEURIAL SKILLS

### Music Literature

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to: <ul style="list-style-type: none"> <li>show knowledge of analysis of western pieces in regard to music form</li> </ul>	<ul style="list-style-type: none"> <li>Music Form.               <ul style="list-style-type: none"> <li>Binary</li> <li>Ternary</li> <li>Rondo</li> <li>Sonata</li> </ul> </li> </ul>

#### Suggested teaching/learning and assessment procedure:

Guide the learners to:

- Study and make a write up on a western set work in regard to the music forms below (where applicable.)
  - Binary
  - Ternary
  - Rondo
  - Sonata

#### Instructional materials

- Audio devices
- Music scores

### African Traditional Music Analysis

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to: <ul style="list-style-type: none"> <li>show knowledge of analysis of African traditional pieces in regard to music form</li> </ul>	<ul style="list-style-type: none"> <li>Music Form.               <ul style="list-style-type: none"> <li>Call and Response (responsorial)</li> <li>Solo.</li> <li>Chorus.</li> </ul> </li> </ul>

### Suggested teaching/learning and assessment procedure

Guide the learners to:

- Study and make a write up on an African music set work in regard to the music forms below (if applicable.)
  - Call and Response (responsorial)
  - Solo.
  - Chorus.

### Instructional materials

- Audio devices
- Music scores

## African Traditional Music Studies

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• show knowledge of Ugandan ethnic music from precolonial times to date</li> <li>• make a write up on a selected outstanding contributor to Ugandan ethnic music</li> </ul>	<ul style="list-style-type: none"> <li>• History of Ugandan ethnic music from pre – colonial times to date.           <ul style="list-style-type: none"> <li>- The status of Ugandan ethnic music in precolonial times</li> <li>- Foreign influence on ugandan ethnic music.</li> </ul> </li> <li>• Out standing Contributors to ugandan ethnic music. (these will be selected from time to time.)</li> </ul>

### Suggested teaching/learning and assessment procedure

Guide the learners to:

- describe the status of ugandan ethnic music in precolonial times
- brain storm the effect of foreign influence on ugandan ethnic music
- discuss one selected outstanding contributor to ugandan ethnic music

### Instructional materials

- Resource persons
- Writing boards

## Music in Business

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to co-ordinate a music event by:</p> <ul style="list-style-type: none"> <li>• writing a management plan for a music event</li> <li>• organising an appropriate venue and equipment for a music event</li> <li>• compiling a programme for a music event</li> <li>• organising performers and other human resources for a music event</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinating a music event</li> </ul>

### Suggested teaching/learning and assessment procedure:

Have the learners:

- draw a management plan including a budget for any music event in the school
- compile a program for the music event
- draw a time line for the event
- participate in organizing a venue and music equipment for the music event
- organise performers and other human resources for a music event

#### Instructional materials

- Music instruments
- Dance costumes
- Stage props and makeup.
- Audio devices



## TERM II

### TOPIC 1: RUDIMENTS OF HARMONY AND COMPOSITION

#### Major Scales

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>show knowledge of Construction of all major scales on the G and F staves;</li> <li>a) without key signature</li> <li>b) with key signature</li> <li>sight reads melodies in major keys</li> </ul>	<ul style="list-style-type: none"> <li>Songs in major keys.</li> <li>Major scales: ( Sharp keys) C, G, D, A, E,</li> <li>Major scales: ( Flat keys) F, B<sup>b</sup>, E<sup>b</sup>, A<sup>b</sup>, D<sup>b</sup></li> </ul>

#### Suggested teaching/learning and assessment procedure:

##### Guide the learners to:



- listen to pieces of music in various major keys
- sing / play pieces of music in major scales
- explore the effect of transposition on a given instrument/ voice
- sight read given melodies in major keys
- change minor melodies into major mode

##### Instructional materials

- Charts
- Flash cards
- Radio.
- CD/ Tape
- Boards
- Text books

##### Music manuscript paper

## Rhythm

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• sing/play a known song in compound time</li> <li>• identify the rhythms in the song</li> <li>• identify dictated compound time rhythm passages</li> <li>• sight read melodies in compound time</li> </ul>	<ul style="list-style-type: none"> <li>• Compound time rhythm:           <div style="text-align: center;">  </div> </li> <li>• 8 beat rhythm passages.            (The basic beat is a dotted quarter note i.e. )</li> </ul>

### Suggested teaching/learning and assessment procedure

Guide the learners to:

- sing/play pieces of music in compound time rhythm
- sing the song to syllables like wa, ku, la ta ba
- sing the rhythm of performed pieces to french rhythm names
- clap hands according to the rhythm of performed pieces
- stamp feet according to the rhythm of performed pieces
- write the rhythm of the song to french rhythm names
- match the staff rhythm notes to the written french rhythm names
- sight read rhythm passages such as below by:
  - saying french rhythm names
  - clapping
  - humming

### Exercise 1

The image shows four systems of musical notation for Exercise 1. Each system consists of two staves. The notation is primarily rhythmic, using various note values including quarter notes, eighth notes, and sixteenth notes, along with rests and bar lines to indicate the timing and structure of the rhythms.

### Exercise 2: Listening to played Compound time rhythms

Use a drum or a piano to play the rhythms above or any others of your choice and have the learners :

- say them to french rhythm names
- play back played rhythms by clapping, stamping or humming
- stamp the played rhythms
- write the played rhythms

You may divide the class into groups and assign them different roles to be performed at ago e.g. one group claps the rhythm while another says the french rhythm names, etc...

#### Instructional materials

- Charts
- Boards
- Music instruments
- Voice
- Music scores
- Flash cards

## Composing Diatonic and Pentatonic Melodies

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to: <ul style="list-style-type: none"> <li>• compose four phrase melodies</li> <li>• employ various four line schemes e.g. AABA, ABBA, ABAB, AAAA or ABCD</li> </ul>	<ul style="list-style-type: none"> <li>• Four phrase melodies</li> <li>• Music form               <ul style="list-style-type: none"> <li>- Binary</li> <li>- Ternary</li> </ul> </li> </ul>

Suggested teaching/learning and assessment procedure:

Display units or sections of melodies and have the learners adapt any compositional techniques to:

- complete given diatonic major or minor melodies up to a length of eight bars
- complete given pentatonic melodies up to a length of eight bars

### Instructional materials

- Charts
- Boards
- Music instruments
- Voice
- Music scores
- Flash cards

## Harmony

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• identify and use cadential formulae in major keys</li> <li>• identify and use the cadential six-four chords</li> <li>• apply passing six four (<math>{}^6_4</math>) chords</li> </ul>	<ul style="list-style-type: none"> <li>• Cadential formulae:           <ol style="list-style-type: none"> <li>a) Interrupted cadence V-VI. VI – II<sup>6</sup> – I<sup>6</sup><sub>4</sub> – V – VI.</li> <li>b) Plagal cadence IV- I.               <ol style="list-style-type: none"> <li>iii. V – I – IV – I.</li> <li>iv. V – VI – IV – I.</li> </ol> </li> </ol> </li> </ul>

### Instructional materials

- Radio
- CD/tape
- Boards
- Charts

### Composing Melodies to Poems

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• choose appropriate keys to the songs composed</li> <li>• employ various four line schemes e.g. AABA, ABBA, ABAB, AAAA or ABCD in composing melodies</li> <li>• notate music on the treble stave</li> <li>• align words below the stave appropriately</li> <li>• write singable melodies</li> <li>• use repetitions to achieve unity in songs</li> <li>• use contrasts to achieve variety in songs</li> <li>• perform songs composed by him/her self</li> </ul>	<ul style="list-style-type: none"> <li>• Four line poems</li> <li>• Music forms e.g. Binary, Ternary,</li> <li>• Word alignment</li> <li>• Repetition and contrast.</li> </ul>

### Suggested teaching/learning and assessment procedure:

Display four line poems on a chart and guide the learners to:

- compose songs
- choose appropriate keys to melodies aligned to poems
- notate music on the treble stave appropriately.

- align words with separated syllables below the stave appropriately
- perform the composed songs

### Instructional materials

- Music manuscript paper
- Writing boards

### Two part Writing

Audio devices	Specific Objectives	Content
	<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• use cadential formulae in two part writing</li> <li>• apply the principles of stems appropriately</li> <li>• use chords in their root, first and second inversions</li> <li>• write two parts on the grand stave</li> </ul>	<ul style="list-style-type: none"> <li>• Voice leading principles in two part writing e.g. avoiding doubling the third and leading notes</li> <li>• Cadential formulae in two part writing.</li> </ul>

### Suggested teaching/learning and assessment procedure:

Display two phrase melodies and guide the learners to:

- identify the key of the melody
- sight read the melody aloud several times
- listen to the melody played/sung
- improvise the lower part orally (*thinking harmonically*)
- check the basic intervals for two part writing against the improvised part
- write the improvised part beneath the given part on the bass stave
- apply the principles of stems appropriately
- use cadential formulae in two part writing
- use chords in their root, first and second inversions

### Instructional materials

- Music instruments
- Audio devices

## TOPIC 2: MUSIC PRACTICAL SKILLS

### Performing Western and African Solo Pieces

Specific Objectives	Content
<p>By the end of this topic, the learner should be able to perform a variety of solo pieces on one or more chosen instruments/voice demonstrating:</p> <ul style="list-style-type: none"> <li>• ability to play at the same tempo as the group.( where applicable)</li> <li>• the ability to start and end at the right time</li> <li>• the ability to cope technically with the requirements of the work performed.</li> <li>• the ability to participate in a group.</li> <li>• the ability to take a supportive or leading role within the context of the music performed</li> <li>• the ability to adapt tone balance and production</li> <li>• contribute positively towards a group performance</li> </ul>	<ul style="list-style-type: none"> <li>• Elements of solo performance.               <ul style="list-style-type: none"> <li>- Tone.</li> <li>- Diction</li> <li>- Accuracy</li> <li>- Rhythm</li> <li>- Phrasing</li> <li>- Interpretation and presentation</li> </ul> </li> </ul>

#### **Suggested teaching/learning and assessment procedures:**

Let the learners perform a variety of solo pieces on one or more chosen instruments/voice demonstrating

Precision in:

- Tone.
- Diction
- Accuracy.
- Rhythm
- Phrasing.
- Interpretation and presentation.

#### **Instructional materials**

- Music pieces
- Musical instruments

#### **Audio devices**

## TOPIC 3: MUSIC LITERATURE AND ENTREPRENEURIAL SKILLS

### Music Literature

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to show knowledge of analysis of western pieces in regard to music form	<ul style="list-style-type: none"> <li>• Music Form.               <ul style="list-style-type: none"> <li>- Air and Variations</li> <li>- Strophic</li> <li>- Through composed</li> </ul> </li> </ul>

#### **Suggested teaching/learning and assessment procedure:**

Guide the learners to:

- Study and make a write up on a western set work in regard to the music forms below (if applicable.)
  - Air and Variation.
  - Strophic
  - Through composed.

#### **Instructional materials**

- Audio devices.
- Writing boards
- Music scores

### African Traditional Music Analysis

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to show knowledge of analysis of African traditional pieces in regard to music form	<ul style="list-style-type: none"> <li>• Music Form.               <ul style="list-style-type: none"> <li>- Chorus.</li> <li>- Strophic</li> <li>- Through composed</li> </ul> </li> </ul>



### Suggested teaching/learning and assessment procedure

Guide the learners to:

- study and make a write up on an African music set work in regard to the music forms below (if applicable)
  - Chorus.
  - Strophic.
  - Through composed.

### Instructional materials

- Audio devices.
- Writing boards
- Music scores

### Music in Business

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to assist in the planning of performances demonstrating:</p> <ul style="list-style-type: none"> <li>• marketing and publicity skills</li> <li>• knowledge of acoustic principles as applied to performance</li> <li>• ability to set instruments for solo and ensemble performances</li> <li>• ability to assess the practicality and relevance of a venue for a specific performance</li> <li>• well-timed preparation of venue and equipment</li> <li>• skill to identify appropriate marketing and publicity materials and methods</li> </ul>	<ul style="list-style-type: none"> <li>• planning a music performance</li> <li>• how to capture music consumers</li> <li>• principles of sound control and management</li> <li>• roles of music instruments in performance</li> <li>• organizing a venue for a music performance</li> <li>• time management of a music performance</li> <li>• publicity materials for music events</li> </ul>

### Suggested teaching/learning and assessment:

By the end of this Sub-Topic the learners should be able to show ability to plan music performances by:

- brainstorming methods of marketing and making publicity in the music industry

- discussing how acoustic principles are applied during indoor and outdoor performances
- demonstrating knowledge of setting instruments/voice for solo and ensemble/group performances
- making a write up on the practicality and relevance of a venue for a specific performance
- brainstorming appropriate marketing and publicity materials and methods

### **Instructional materials**

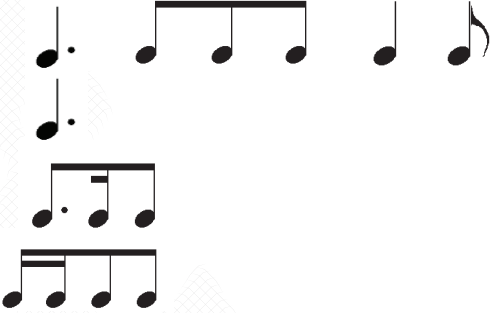

- Resource persons
- Stage
- Instruments
- Audio devices **SENIOR SIX**



## TERM III

### TOPIC 1: RUDIMENTS OF HARMONY AND COMPOSITION.

#### Sub-topic1.2: Rhythm

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• sing/play a known song in compound time</li> <li>• identify the rhythms in the song</li> <li>• identify dictated compound time rhythm passages</li> <li>• sight read melodies in staff notation</li> </ul>	<ul style="list-style-type: none"> <li>• Compound time rhythm:            </li> <li>• Eight beat rhythm passages (The basic beat is a dotted quarter note )</li> </ul>

#### Suggested teaching/learning and assessment procedure:

Guide the learners to:

- sing/play pieces of music in compound time
- sing the song to syllables like wa, ku, la ta ba
- sing the rhythm of performed pieces to french rhythm names
- clap hands according to the rhythm of performed pieces
- stamp feet according to the rhythm of performed pieces
- write the rhythm of the song to french rhythm names
- match the staff rhythm notes to the written french rhythm names
- sight read rhythm passages such as below by:
  - saying french rhythm names
  - clapping
  - Humming

**Exercise 1**

a) 

b) 

c) 

**Exercise 2:** Listening to played compound time rhythms.

Use music instruments to play melodies with rhythms similar to the above or any others of your choice and have the learners:

- say them to french rhythm names
- play back played rhythms by clapping, stamping or humming
- write the played rhythms on a mono tone in  $\frac{6}{8}$  time

**Instructional materials**

- Charts
- Boards
- Music instruments
- Voice
- Music scores
- Flash cards

## Composing Melodies Major keys

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• adapt tunes by using various compositional techniques</li> <li>• use dotted notes to give melodies rhythmical shapes</li> <li>• show points of climax by using either pauses, high or low notes</li> </ul>	<ul style="list-style-type: none"> <li>• Dotted notes</li> <li>• Rhythmical shape</li> <li>• Climax in songs</li> <li>• Pauses/rests</li> </ul>

### Suggested teaching/learning and assessment procedure:

Present melodies for the learners to:

- adapt in various ways using melodic and rhythmic variations
- create points of climax by use of either pauses, high or low notes
- sight read the adapted melodies

### Instructional materials

Music manuscript papers

Boards

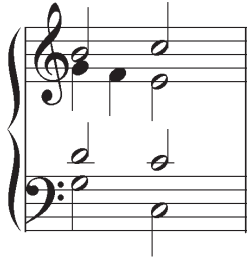
## Harmony

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• apply the subdominant seventh appropriately</li> <li>• use non chordal tones appropriately</li> <li>• harmonise own compositions following all voice leading principles</li> </ul>	<ul style="list-style-type: none"> <li>• The subdominant seventh.</li> <li>• Non chordal tones. <ul style="list-style-type: none"> <li><input type="checkbox"/> Passing notes</li> <li><input type="checkbox"/> Auxiliary notes.</li> </ul> </li> <li>• Voice leading principles.</li> </ul>

**Suggested teaching/learning and assessment procedure:**

Guide the learners to:

- listen to a piece of music performed in western harmony
- apply passing tones in four part harmony
  - a passing tone is a note appearing between two chords
  - it does not belong to either of the two chords
  - it comes between two notes a third apart. e.g.



**Instructional materials**

- Radio
- CD/tape
- Writing boards
- Charts
- Text books
- Musical instruments

**Composing Melodies to Poems**

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to: <ul style="list-style-type: none"> <li>• write singable songs</li> <li>• use repetitions to achieve unity in songs</li> <li>• use contrasts to achieve variety in songs</li> <li>• add speed, volume and expressions</li> <li>• perform songs composed by him/her self</li> </ul>	<ul style="list-style-type: none"> <li>• Speed</li> <li>• Volume</li> <li>• Expressions</li> </ul>

**Suggested teaching/learning and assessment procedure:**

Display a four line poem on a chart and guide the learners to:

- interpret meaning of the poem in regard to;
  - Mood.
  - Tone.
  - Tempo.
  - Punctuations.
  - Style of the writer.
  - Choice of the words.
- observe repeats in the text which may dictate the dynamics of the song
- observe the intonation of the text to determine the dynamics to employ
- observe the fact that when the melody progresses upwards the tendency is to raise the volume and vice versa
- compose a melody to the poem
- add dynamics and speed directions to the composed melody

**Instructional materials**

- Musical instruments
- Audio devices

**Two part Writing**

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to:</p> <ul style="list-style-type: none"> <li>• apply prepared cadences in two part writing</li> <li>• apply the principles of stems appropriately</li> <li>• use chords in their root, first and second inversions</li> <li>• employ passing and auxiliary tones</li> <li>• write two parts on the grand staff</li> </ul>	<ul style="list-style-type: none"> <li>• Voice leading principles in two part writing. e.g. avoiding:           <ul style="list-style-type: none"> <li><input type="checkbox"/> Doubling the 3rd.</li> <li><input type="checkbox"/> Doubling the third and leading notes</li> </ul> </li> <li>• Cadences and cadential formulae</li> <li>• Auxiliary notes</li> <li>• Passing notes</li> <li>• Effective use of a 5<sup>th</sup> e.g. Where the upper part moves up the scale with the lower part forming the sequence 6<sup>th</sup>, 5<sup>th</sup> or 3<sup>rd</sup> below it</li> </ul>

**The suggested teaching/learning and assessment procedure:**

Display short melodies probably two bars in length and guide the learners to:

- identify the key of the melody
- sight read the melody aloud several times
- listen to the melody played/sung
- improvise the lower part orally (*thinking harmonically*)
- write the improvised part beneath the given part on the same treble stave
- draw a table of triads in relation to the scale
- check the basic intervals for two part writing against the improvised part; these include the unison, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup>
- use unison, perfect 5<sup>th</sup> or octave to begin the two part piece
- employ voice leading principles like avoiding the use of more than two major thirds consecutively which between them encompass a tritone (*a tritone is an interval of three whole tones*), use of more than three consecutive 3rds and 6ths
- using the grand stave to end the piece with the tonic chord in root position
- listen to the harmonised melody
- sing or play through the supplied part while the given part is being sung or played by another person and vice versa

**Instructional materials** Voice

- Music scores
- Music instruments



## TOPIC 2: MUSIC PRACTICAL SKILLS

### Performing Solo Pieces

Specific Objectives	Content
<p>By the end of this topic, the learner should be able to perform a variety of solo pieces on one or more chosen instruments/voice demonstrating:</p> <ul style="list-style-type: none"><li>• awareness of style, tone quality, rhythmic precision, articulation and phrasing</li><li>• a sense of stylistic and imaginative interpretation of pieces</li></ul>	<ul style="list-style-type: none"><li>• Solo performance</li></ul>

#### **Suggested teaching/learning and assessment procedure:**

Guide the learners to:

- play/sing music scales
- play/sing to perfection a solo piece, with awareness of style, tone quality, rhythmic precision and phrasing
- demonstrate a sense of stylistic and imaginative interpretation of pieces

#### **Instructional materials**

- Music instruments
- Voice
- Audio devices

## TOPIC 3: MUSIC LITERATURE AND ENTREPRENEURIAL SKILLS

### Music Literature

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to show knowledge of analysis of a western set work in regard to harmonic structure, style and texture.	<ul style="list-style-type: none"> <li>• Harmonic structure.               <ul style="list-style-type: none"> <li>- Chord structure. ( Chords I, II, IV, V and VI with their inversions)</li> <li>- Chord progression.</li> </ul> </li> </ul>

### The suggested teaching/learning and assessment procedure:

Guide the learners to:

- listen to the western set work
- brainstorm the life history of the composer of the work
- analyse the work in regard to:
  - Harmonic structure.
  - Style
  - Texture.

### Instructional materials

- Resource persons
- Audio devices
- Music scores

### African Traditional Music Analysis

Specific Objectives	Content
By the end of this sub-topic, the learner should be able to show knowledge of analysis of African traditional pieces in regard to music form.	Music Form. <ul style="list-style-type: none"> <li>- Chorus</li> <li>- Strophic</li> <li>- Through composed</li> </ul>

**Suggested teaching/learning and assessment procedure:**

Guide the learners to:

- study the score of the set work
- brainstorm the suitability of the title of the work
- interpret the text of the work
- talk about the composer of the work
- identify the region in Uganda where the work belongs
- discuss the classification of the work
- discuss the social context of the work
- brainstorm the musical form or design of the work
- talk about the performance style of the work in regard to whether it is:
  - Strophic
  - Call and response (responsorial)
  - Chorus
  - Solo
  - Recitation
  - Speech
- identify the dimension and range of the work
- name the music scale of the work
- identify the tempo of the work
- brainstorm the rhythmic structure of the work
- brainstorm the instrumentation of the work
- discuss the various vocal characteristics employed in the work
- talk about the various tone colours prominent in the work
- describe the texture of the work
- brainstorm the life history of the composer
- explain the factors that influenced the composer's music career
- discuss the composer's contribution to the music world
- explain the history of the set work

**Instructional materials**

- Audio devices.
- Music scores.

## Music in Business

Specific Objectives	Content
<p>By the end of this sub-topic, the learner should be able to assist in the planning of performances demonstrating:</p> <ul style="list-style-type: none"> <li>• marketing and publicity skills</li> <li>• knowledge of acoustic principles as applied to performance</li> <li>• setting instruments for solo and ensemble performances</li> <li>• ability to assess the practicality and relevance of a venue for a specific performance</li> <li>• well-timed preparation of venue and equipment</li> <li>• skills to identify appropriate marketing and publicity materials and methods</li> </ul>	<ul style="list-style-type: none"> <li>• planning a music performance</li> <li>• how to capture music consumers</li> <li>• principles of sound control and management</li> <li>• roles of music instruments in performance</li> <li>• organizing a venue for a music performance</li> <li>• time management of a music performance</li> <li>• making publicity materials for a music event</li> </ul>

### Suggested teaching/learning and assessment procedure:

Have the learners:

- brainstorm ways of attracting music consumers
- discuss methods of sound control and management during performance
- make a write up on organizing a venue for a music event
- discuss time management of a music performance

### Instructional materials

- Resource persons
- Stage
- Instruments
- Audio devices

## Appendices

### Appendix 1: Definitions of musical terms and expressions.

Term	Definition
<b>A cappella</b>	One or more vocalists performing without an accompaniment.
<b>Accelerando</b>	Gradually quicken tempo.
<b>Adagio</b>	A tempo having slow movement; restful at ease.
<b>Allegro</b>	A direction to play lively and fast.
<b>Atonal</b>	Music that is written and performed without regard to any specific key.
<b>Beat</b>	The unit of musical rhythm.
<b>Cadence</b>	A sequence of chords that brings an end to a phrase, either in the middle or the end of a composition.
<b>Cantabile</b>	Singly
<b>Cantata</b>	Music written for chorus and orchestra. Most often religious in nature.
<b>Carol</b>	A joyful religious song or hymn, especially a Christian song celebrating Christmas.
<b>Chant</b>	Singing in unison, texts in a free rhythm. Similar to the rhythm of speech.
<b>Choir</b>	Group of singers in a chorus.
<b>Chorale</b>	A hymn sung by the choir and congregation often in unison.
<b>Chord</b>	2 or more notes played simultaneously in harmony.
<b>Chorus -</b>	A group singing in unison.
<b>Chromatic scale</b>	Includes all twelve notes of an octave.
<b>Coda</b>	Closing section of a movement.
<b>Concerto</b>	A composition written for a solo instrument. The soloist plays the melody while the orchestra plays the accompaniment.
<b>Da Capo</b>	In sheet music, an instruction to repeat the beginning of the piece before stopping on the final chord.
<b>Development</b>	Where the musical themes and melodies are developed, written in sonata form.
<b>Duet</b>	A piece of music written for two vocalists or instrumentalists.
<b>Dynamics</b>	Pertaining to the loudness or softness of a musical composition. Also the symbols in sheet music indicating volume.

<b>Espressivo</b>	A direction to play expressively.
<b>Exposition</b>	The first section of a movement written in sonata form, introducing the melodies and themes.
<b>Fermata</b>	To hold a tone or rest held beyond the written value at the discretion of the performer.
<b>Form</b>	The structure of a piece of music.
<b>Forte</b>	A symbol indicating to play <b>loud</b> .
<b>Fugue</b>	A composition written for three to six voices. Beginning with the exposition, each voice enters at different times, creating counterpoint with one another.
<b>Glissando</b>	Sliding between two notes.
<b>Grave</b>	Word to indicate the movement or entire composition is to be played very slow and serious.
<b>Grazioso</b>	Word to indicate the movement or entire composition is to be played gracefully.
<b>Gregorian Chant</b>	Singing or chanting in unison without strict rhythm. Collected during the Reign of Pope Gregory VIII for psalms and other parts of the church service.
<b>Harmony</b>	Pleasing combination of two or three tones played together in the background while a melody is being played. Harmony also refers to the study of chord progressions.
<b>Homophony</b>	Music written to be sung or played in unison.
<b>Hymn</b>	A song of praise and glorification. Most often to honor God.
<b>Instrumentation</b>	Arrangement of music for a combined number of instruments.
<b>Interlude</b>	Piece of instrumental music played between scenes in a play or opera.
<b>Interval</b>	The distance in pitch between two notes.
<b>In tonation</b>	The manner in which tones are produced with regard to pitch.
<b>Introduction</b>	The opening section of a piece of music or movement.
<b>Key</b>	System of notes or tones based on and named after the key note.
<b>Key signature</b>	The flats and sharps at the beginning of each staff line indicating the key of music the piece is to be played.
<b>Legato</b>	Word to indicate that the movement or entire composition is to be played smoothly.
<b>Madrigal</b>	A contrapuntal song written for at least three voices, usually without accompaniment.
<b>Minuet</b>	Slow and stately dance music written in triple time.
<b>Modulation</b>	To shift to another key.

<b>Monotone</b>	Repetition of a single tone.
<b>Motif</b>	Primary theme or subject that is developed.
<b>Movement</b>	A separate section of a larger composition.
<b>Notation</b>	First developed in the 8th century, methods of writing music.
<b>Octave</b>	Eight full tones above the key note where the scale begins and ends.
<b>Octet</b>	A composition written for eight instruments.
<b>Opera</b>	A drama where the words are sung instead of spoken.
<b>Opus</b>	Convenient method of numbering a composer's works where a number follows the word "opus". For example, Opus 28, No. 4.
<b>Oratorio</b>	An extended cantata on a sacred subject.
<b>Orchestra</b>	A large group of instrumentalists playing together.
<b>Orchestration</b>	Arranging a piece of music for an orchestra. Also, the study of music.
<b>Ornaments</b>	Tones used to embellish the principal melodic tone.
<b>Ostinato</b>	A repeated phrase.
<b>Overture</b>	Introduction to an opera or other large musical work.
<b>Pentatonic Scale</b>	A musical scale having five notes. For example: the five black keys of a keyboard make up a pentatonic scale.
<b>Phrase</b>	A single line of music played or sung. A musical sentence.
<b>Piano</b>	An instruction in sheet music to play softly. Abbreviated by a "p".
<b>Pitch</b>	The frequency of a note determining how high or low it sounds.
<b>Pizzicato</b>	String instruments that are picked instead of bowed.
<b>Polyphony</b>	Combining a number of individual but harmonizing melodies. Also known as counterpoint.
<b>Polytonality</b>	Combination of two or more keys being played at the same time.
<b>Prelude</b>	A short piece originally preceded by a more substantial work, also an orchestral introduction to opera, however not lengthy enough to be considered an overture.
<b>Presto</b>	A direction in sheet music indicating the tempo is to be <b>very fast</b> .
<b>Quartet</b>	A set of four musicians who perform a composition written for four parts.
<b>Quintet</b>	A set of five musicians who perform a composition written for five parts.
<b>Recapitulation</b>	A reprise.

<b>Recital</b>	A solo concert with or without accompaniment.
<b>Recitative</b>	A form of writing for vocals that is close to the manner of speech and is rhythmically free.
<b>Refrain</b>	A repeating phrase that is played at the end of each verse in the song.
<b>Register</b>	A portion of the range of the instrument or voice.
<b>Relative major and minor</b>	The major and minor keys that share the same notes in that key. For example: A minor shares the same note as C major.
<b>Relative pitch</b>	Ability to determine the pitch of a note as it relates to the notes that precede and follow it.
<b>Renaissance</b>	A period in history dating from the 14th to 16th centuries. This period signified the rebirth of music, art, and literature.
<b>Requiem</b>	A dirge, hymn, or musical service for the repose of the dead.
<b>Resonance</b>	When several strings are tuned to harmonically related pitches, all strings vibrate when only one of the strings is struck.
<b>Rhythm</b>	The element of music pertaining to time, played as <b>a grouping of notes into accented and unaccented beats.</b>
<b>Romantic</b>	A period in history during the 18th and early 19th centuries where the focus shifted from the neoclassical style to an emotional, expressive, and imaginative style.
<b>Rondo</b>	A musical form where the principal theme is repeated several times. The rondo was often used for the final movements of classical sonata form works.
<b>Root</b>	The principal note of a triad.
<b>Round</b>	A canon where the melody is sung in two or more voices. After the first voice begins, the next voice starts singing after a couple of measures are played in the preceding voice. All parts repeat continuously.
<b>Scale</b>	Successive notes of a key or mode either ascending or descending.
<b>Scherzo</b>	Pertaining to the sonata form, a fast movement in triple time.
<b>Septet</b>	A set of seven musicians who perform a composition written for seven parts.
<b>Sequence</b>	A successive transposition and repetition of a phrase at different pitches.
<b>Sextet</b>	A set of six musicians who perform a composition written for six parts.
<b>Slur</b>	A curve over notes to indicate that a phrase is to be played



	legato.
<b>Sonata</b>	Music of a particular form consisting of four movements. Each of the movements differ in tempo, rhythm, and melody; but are held together by subject and style.
<b>Sonata form</b>	A complex piece of music. Usually the first movement of the piece serving as the exposition, a development, or recapitulation.
<b>Song cycle</b>	A sequence of songs, perhaps on a single theme, or with texts by one poet, or having continuous narrative.
<b>Soprano</b>	The highest female voice.
<b>Staccato</b>	Short detached notes, as opposed to legato.
<b>Staff</b>	Made up of five horizontal parallel lines and the spaces between them on which musical notation is written.
<b>String Quartet</b>	A group of 4 instruments, two violins, a viola, and cello.
<b>Symphony</b>	Three to four movement orchestral piece, generally in sonata form.
<b>System</b>	A combination of two or more staves on which all the notes are vertically aligned and performed simultaneously in differing registers and instruments.
<b>Temperament</b>	Refers to the tuning of an instrument.
<b>Tempo</b>	Indicating speed.
<b>Tessitura</b>	The range of an instrumental or a vocal part.
<b>Theme</b>	A melodic or, sometimes a harmonic idea presented in a musical form.
<b>Timbre</b>	Tone colour, quality of sound that distinguishes one verse or instrument to another. It is determined by the harmonies of sound.
<b>Time Signature</b>	A numeric symbol in sheet music determining the number of beats to a measure.
<b>Tonality</b>	The tonal characteristics determined by the relationship of the notes to the tone.
<b>Tone</b>	The intonation, pitch, and modulation of a composition expressing the meaning, feeling, or attitude of the music.
<b>Tonic</b>	The first tone of a scale also known as a keynote.
<b>Treble</b>	The playing or singing the upper half of the vocal range. Also the highest voice in choral singing.
<b>Tremolo</b>	Quick repetition of the same note or the rapid alternation between two notes.
<b>Triad</b>	Three note chords consisting of a root, third, and fifth.

<b>Trill</b>	Rapid alternation between notes that are a half tone or whole tone apart.
<b>Trio</b>	A composition written for three voices and instruments performed by three persons.
<b>Triple time</b>	Time signature with three beats to the measure.
<b>Triplet</b>	Three notes played in the same amount of time as one or two beats.
<b>Tritone</b>	A chord comprised of three whole tones resulting in an augmented fourth or diminished fifth.
<b>Tune</b>	A rhythmic succession of musical tones, a melody for instruments and voices.
<b>Tuning</b>	The raising and lowering a pitch of an instrument to produce the correct tone of a note.
<b>Tutti</b>	Passage for the entire ensemble or orchestra without a soloist.
<b>Unison</b>	Two or more voices or instruments playing the same note simultaneously.
<b>Vibrato</b>	Creating variation pitch in a note by quickly alternating between notes.
<b>Virtuoso</b>	A person with notable technical skill in the performance of music.
<b>Vivace</b>	Direction to performer to play a composition in a brisk, lively, and spirited manner.
<b>Voice</b>	One of two or more parts in polyphonic music. Voice refers to instrumental parts as well as the singing voice.
<b>Whole note</b>	A whole note is equal to 2 half notes, 4 quarter notes, 8 sixteenth notes, etc.
<b>Whole-tone scale</b>	A scale consisting of only whole-tone notes. Such a scale consists of only 6 notes.

## Appendix 2: Music Forms

### 1. Binary Form

When a piece of music is divided into two sections, it is said to be in a Binary form. The form of Binary is **AB or I II or A:||B:|| or I:||II:||**. These two sections are **not** necessarily equal in length. Usually the second section is longer than the first one. The two sections also do not have different **themes**, but the second section is mainly built on the first one. The **first section A/I** normally ends with an **imperfect cadence** and the **second section B/II** continues with the ideas of the first one ending with a **perfect cadence**. Usually the section does not go beyond 8 bars.

### 2. Ternary Form

When a piece of music is divided into three sections, it is said to be in a Ternary form. The form of Ternary is **ABA or I II I**.

The first section **A** is referred to as the **statement** this is now the **theme**. The second section **B** is the new material (**episode**-a section which appears only once in a piece of music) The third section **A** is referred to as the restatement or a repetition of the first section now this section becomes the (**subject** – when a theme is repeated again, it becomes a subject. This section carries similar musical ideas as those in the first section though with slight variations.

### 3. Minuet Form

This is a developed form of both binary and ternary form. The form of a Minuet is **A:||BA:|| or I:|| II I:||**.

### 4. Minuet and Trio Form

Before the Classical period (1750-1820), a number of musical structures like binary and ternary looked too short and brief to be called complete movements for serious musician listeners who could appreciate serious music.

An effort by several outstanding composers especially those of the classical period started to **develop the minuet form** by adding it to several other forms.

In this case the Minuet was added to a trio (**in a minuet form**) to make it become a **Minuet and Trio form** thus making it become a longer and serious work. The Trio is mainly for three performers.

The form of a Minuet and Trio is **A::|:BA:|:C:|:DC:|:A:|:BA:|:**.

**MINUET**  
**TRIO**  
**MINUET**

### 5. Rondo Form

When a theme or a subject keeps alternating with episodic forms in terms of

progression, a rondo form is said to be formed. The form of Rondo is **ABACADA.....**

### 6. Air (Theme) and Variation Form

When a short form of theme is frequently made into a longer piece by repetitions, with variations, ornamentations and decorations added, it is said to be in Air

(Theme) and Variation. The form of Air and Variation is **A AI AII AIII AIV AV**

### 7. Sonata Form

A sonata is a musical form that is a complete movement divided into three sections namely:

- **Exposition:**

This section comprises of two subjects. It begins with the first subject in a tonic key. It is then followed with the second subject in a related key thus there is usually a modulation either to the; sub-dominant, dominant or a relative minor key. Usually there is a short link between the first and second subjects and at times a short introduction at the beginning of the Exposition. Also the mood of the second subject tends to differ from that of the first subject. A codetta may be added to at the end the end of the Exposition in order to round off this section and then the Development section begins.

- **Development:**

The themes in the Exposition are then developed by adding several treatments to them in this section. The treatments may be in terms of key changes, variations, ornamentations, decorations, style and tempo.

- **Recapitulation:**

This is a repetition of the Exposition section. This section comprises of two subjects. Both subjects begin and end in a tonic key. Usually there is a short link between the first and second subjects. The mood of the second subject may differ from that of the first subject. A coda may be added at the end the end of the Recapitulation section in order to round off the whole Movement. This coda usually sounds in a tonic key.

### 8. **Modified (Bridged) Sonata Form**

Since a sonata form is a very long work, it is frequently used for quick and fast music. In a case where the work was long, a number of composers tended to leave out the development section thus replacing it with a short link or a bridge.

The form then would be **Exposition – Bridge - Recapitulation.**

### 9. **Sonata Rondo Form**

This is a combination of a **Sonata** and a **Rondo** form. It is divided into three sections:

- **Exposition:**

This subject begins with the first subject in the tonic key. It is then followed by a transition to the second subject which is usually in a related key i.e. modulation either to the; sub-dominant, dominant or a relative minor key. It is then followed by a transition and back to the first subject, which is in a tonic. Usually there is a short link between the first and second subjects and at times a short **introduction** at the beginning of the Exposition. Also the mood of the second subject tends to differ from that of the first subject. A **codetta** may be added at the end of the Exposition in order to round off this section and then the Middle section begins.

- **Middle section:**

This section is totally a new material carrying no ideas of the Exposition. It is usually in a new key and does contain several treatments. The treatments may be in terms of key changes, variations, ornamentations, decorations, style and tempo.

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# Sub ICT

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## ABRIDGED VERSION OF ICT SYLLABUS S.6, 2022

### Introduction

The abridged version of the syllabus covers content that was not covered in S.5 and content of S.6. There has been re-arrangement and/or merging of relevant content. Four topics were considered per term for Term one and Term two. Two topics are considered for Term three.

The time allocated in the syllabus (6 periods) has not changed in this abridged version. Time per topic has been adjusted relative to content allocated. Term one and Term two have got more teaching time on the normal S.6 syllabus. That is, 72 periods for each term. While Term three only has 24 periods.

### Teaching Sequence

The teaching sequence should follow the order in which the topics have been arranged in this teaching syllabus as follows.

Term One		
TOPIC	Number of Periods	SUBTOPIC
<b>COMPUTER WORD PROCESSING</b>	24	• Working with Word Processing Software
		• Page Layout
		• Data Tabulation
		• Use of Software Objects
		• Document Accuracy
		• Mail Merge, Document Referencing, and Printing
<b>COMPUTER HARDWARE</b>	16	• Input devices
		• Output devices
		• Storage devices
		• Processor Components
<b>SOFTWARE</b>	8	• System Software
		• Application Software

<b>SPREADSHEET</b>	24	• Managing Worksheets
		• Formulae and Functions
		• Working with Charts
		• Worksheet Page Layout
<b>TOTAL</b>	<b>72</b>	
<b>TERM 2</b>		
<b>INTERNET WWW</b>	12	• Introduction to the Internet
		• Internet Services
<b>ELECTRONIC PRESENTATION</b>	18	• Developing a Presentation
		• Charts
		• Working with Graphical Objects
		• Presentation Output
<b>DATABASE</b>	24	• Introduction to Database
		• Database Objects
<b>DATA COMMUNICATION</b>	18	• Introduction to Data Communication
		• Introduction to Computer Networks
<b>TOTAL</b>	<b>72</b>	
<b>TERM 3</b>		
<b>ELECTRONIC PUBLICATION</b>	28	• Publishing Basics
		• Document Layout
		• Advanced Features
<b>SYSTEM SECURITY, ICT ETHICAL ISSUES AND EMERGING TECHNOLOGIES</b>	17	• Computer System Security
		• Privacy and ICT Ethical Issues
		• Emerging Technologies
		• ICT Industry
<b>TOTAL</b>	<b>45</b>	

The table below guides the teacher on the critical adjustments made per topic and their justification. This will enable the teacher to plan lessons systematically and appropriately.

Note: Ensure that learners get enough practical time and access to the computer lab as this enhances their theory and practical aspects in one go.

<b>S.6 Term One 2022</b>		
<b>Topic/Consideration</b>	<b>Critical change</b>	<b>Justification</b>
<b>Topic 1: Computer Word Processing</b>	<ul style="list-style-type: none"> <li>● Topic 4: Word Processing I and Topic 9: Word Processing II have been merged and placed in Term I.</li> <li>● Sub-topic one of Word Processing I dropped. (Introduction to Word processing)</li> </ul>	<ul style="list-style-type: none"> <li>● The topic was not covered in senior five.</li> <li>● The content in these two topics is interrelated.</li> <li>● Skills and knowledge for sub-topic one of Word Processing I, can easily be acquired from other sub-units.</li> </ul>
<b>Topic 2: Computer Hardware</b>	<ul style="list-style-type: none"> <li>● Placed in S.6 Term one</li> </ul>	<ul style="list-style-type: none"> <li>● Topic was not covered in S.5.</li> </ul>
<b>Topic 3: Computer Software</b>	<ul style="list-style-type: none"> <li>● Placed in S.6 Term one</li> </ul>	<ul style="list-style-type: none"> <li>● Topic was not covered in S.5.</li> </ul>
<b>Topic 4: Electronic Spreadsheets I</b>	<ul style="list-style-type: none"> <li>● Spreadsheets I &amp; II are merged</li> <li>● Sub-units (Introduction to spreadsheets and managing spreadsheets) are dropped.</li> </ul>	<ul style="list-style-type: none"> <li>● The content in these two topics is interrelated.</li> <li>● Skills and knowledge are covered under other subtopics.</li> </ul>
<b>S.6 Term Two 2022</b>		
<b>Topic 5: Internet and World Wide Web</b>	<ul style="list-style-type: none"> <li>● Sub-unit 3 (The www) is dropped</li> </ul>	<ul style="list-style-type: none"> <li>● Is covered under other subtopics of: "Introduction to Internet" and "Internet</li> </ul>

		services”
<b>Topic 6: Electronic Presentation</b>	<ul style="list-style-type: none"> <li>● Dropped from Term three to Term two.</li> <li>● Sub-topics 1, 2, &amp; 7 dropped.</li> </ul>	<ul style="list-style-type: none"> <li>● To provide more time for practice and contact sessions.</li> <li>● Competences from sub-topics 1, 2, &amp; 7 can be acquired as learners cover the remaining areas.</li> </ul>
<b>Topic 7: Databases</b>	<ul style="list-style-type: none"> <li>● Shifted from Term III to Term II.</li> </ul>	<ul style="list-style-type: none"> <li>● To provide for more time for practice</li> </ul>
<b>Topic 8: Data Communication and Networking</b>	<ul style="list-style-type: none"> <li>● Shifted from S.6 Term one.</li> <li>● Subtopic 2 (Introduction to Computer Networks is focused on Setting up and configuring a simple computer network.</li> </ul>	<ul style="list-style-type: none"> <li>● To provide for the little available time.</li> <li>● To enable students to gain more relevant practical skills in networking.</li> </ul>
<b>S.6 Term Three 2022</b>		
<b>Topic 9: Electronic Publication</b>	<ul style="list-style-type: none"> <li>● The topic is shifted to Term 3.</li> <li>● Sub-topics 1, &amp; 5 are dropped.</li> </ul>	<ul style="list-style-type: none"> <li>● Their competences can be acquired as they go through the remaining sub-topics.</li> </ul>
<b>Topic 10: System Security, ICT Ethical Issues and Emerging Technologies</b>	<ul style="list-style-type: none"> <li>● Sub-topic one (Computer Security) dropped.</li> <li>● Time allocation reduced to 10 periods</li> </ul>	<ul style="list-style-type: none"> <li>● Lots of system security competences were handled in <b>Topic 2 (Computer Management)</b> - Common Utilities, and <b>Topic 3 (Computer Laboratory Care and Maintenance)</b>.</li> </ul>

Detailed Syllabus

**TERM ONE 72 PERIODS**

**Topic 1: Computer Word Processing (24 Periods)**

Sub Topic	Competences	Content	Teaching/Learning Strategies
<p>1. <b>Working with Word Processing Software</b></p>	<p>The learner:</p> <ul style="list-style-type: none"> <li>● creates a new document</li> <li>● identifies different word document templates</li> <li>● shows knowledge of using inbuilt word document templates.</li> <li>● uses inbuilt word document templates</li> <li>● names and saves a file in a given location</li> <li>● identifies features of word processor interface</li> <li>● typesets content in a new document.</li> <li>● shows basic skills of using word processor edit features</li> <li>● formats a document</li> <li>● imports text and clips and other images from digital sources, files or websites.</li> </ul>	<ul style="list-style-type: none"> <li>● New word document</li> <li>● Word processor interface features</li> <li>● Document creation</li> <li>● Document editing</li> <li>● Document formatting</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating the creation of a word document</li> <li>● Demonstrating the opening and closing of a word document</li> <li>● Demonstrating the formatting of word processing</li> <li>● Demonstrating the importation of external data into a word processor</li> </ul>

	<ul style="list-style-type: none"> <li>manipulates imported text, and images by resizing, cropping and maintaining aspect ratio.</li> </ul>		
<b>2. Page Layout</b>	<p>The learner:</p> <ul style="list-style-type: none"> <li>adjusts document page setup for margins, orientation and columns.</li> <li>uses different document view features.</li> <li>inserts page numbers, page and section breaks, themes and effects.</li> </ul>	<ul style="list-style-type: none"> <li>Page setup</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrating how to prepare page setup</li> </ul>
<b>3. Data Tabulation</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>demonstrates, inserts drawing a table in a document.</li> <li>formats table cells by cell merging, resizing and splitting.</li> <li>inserts rows and columns.</li> <li>navigates table cells, enters and manipulates text in the table.</li> </ul>	<ul style="list-style-type: none"> <li>Tables</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrating table creation methods and approaches.</li> </ul>
<b>4. Use of Software Objects</b>	<p>The learner:</p> <ul style="list-style-type: none"> <li>inserts and manipulates text box, lines and colour</li> </ul>	<ul style="list-style-type: none"> <li>Text box</li> <li>Word processor objects</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrating the use of software objects.</li> </ul>

	<p>fill.</p> <ul style="list-style-type: none"> <li>● uses the character map.</li> <li>● uses basic lines, shapes, arrows and flow charts.</li> <li>● groups and ungroups objects.</li> </ul>		<ul style="list-style-type: none"> <li>● Demonstrating the formatting of software objects</li> </ul>
<b>5. Document Accuracy</b>	<p>The learner:</p> <ul style="list-style-type: none"> <li>● uses extra document edit features (spell checker, insert comment, track changes, Thesaurus, and synonyms).</li> </ul>	<ul style="list-style-type: none"> <li>● Text editing</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating the use of document edit features</li> </ul>
<b>6. Mail Merge, Document Referencing, and Printing</b>	<p>The learner:</p> <ul style="list-style-type: none"> <li>● links content through mail merge, table of contents and hyperlink.</li> <li>● uses document and text referencing through footnotes and end notes.</li> <li>● prints out typeset text and documents.</li> </ul>	<ul style="list-style-type: none"> <li>● Mail merge</li> <li>● Document and content referencing</li> <li>● Printing</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating the use of mail merge, document referencing and printing options</li> </ul>
<b>Topic 2: Computer Hardware (16 Periods)</b>			
<b>1. Input Devices</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● identifies the basic input devices.</li> <li>● distinguishes</li> </ul>	<ul style="list-style-type: none"> <li>● Input devices such as digital cameras, barcode readers, Keyboards,</li> </ul>	<ul style="list-style-type: none"> <li>● Brainstorming and identifying/naming available input devices</li> </ul>

	<p>between input devices by their characteristics and functionality.</p>	<p>mouse, microphones, scanners, touchpad and joysticks</p> <ul style="list-style-type: none"> <li>• Characteristics and functionality of input devices.</li> </ul>	<ul style="list-style-type: none"> <li>• Hands-on activities on how to use various input devices and determine their characteristics</li> <li>• Teacher guided research on the characteristics and functionalities of input devices</li> </ul>
<b>2. Output Devices</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>• identifies different output devices</li> <li>• distinguishes between output devices by their characteristics and functionality</li> <li>• identifies the different peripheral device interfaces</li> </ul>	<ul style="list-style-type: none"> <li>• Output devices such as visual display units, printers, Analog devices for speech generation and speakers</li> <li>• peripheral device interfaces           <ul style="list-style-type: none"> <li>- universal serial bus (USB)</li> <li>- serial</li> <li>- parallel</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Brainstorming and identifying/naming available output devices</li> <li>• Hands-on activities on how to use various output devices, and determining their characteristics</li> <li>• Teacher guided research on the characteristics and functionalities of output devices</li> </ul>
<b>3. Storage Devices</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>• Categorizes secondary storage devices.</li> <li>• uses secondary storage devices.</li> <li>• explains the characteristics of storage devices.</li> </ul>	<ul style="list-style-type: none"> <li>• Types of secondary storage devices           <ul style="list-style-type: none"> <li>- magnetic</li> <li>- solid state and</li> <li>- optical devices</li> </ul> </li> <li>• Characteristics of storage devices           <ul style="list-style-type: none"> <li>- storage capacity</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Brainstorming and identifying/naming available secondary storage devices</li> <li>• Hands-on activities, on how to use storage devices</li> </ul>



	identifies the primary storage devices.	(Speed, bits, bytes...) - transfer rate - access time - methods of access ● Primary storage devices ---- memory Chips	<ul style="list-style-type: none"> <li>● Teacher guided research on the characteristics and functionalities of the storage devices</li> <li>● Teacher exposition, on the primary storage, its use and devices used for primary storage</li> </ul>
<b>4. Processor Components</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● appreciates the parts of the central processing unit (CPU) and their functions.</li> <li>● describes the types of processors in computers and other electronic devices</li> </ul>	<ul style="list-style-type: none"> <li>● Control unit</li> <li>● Arithmetic logic unit</li> <li>● (ALU)</li> <li>● Registers</li> <li>● Processors</li> </ul>	<ul style="list-style-type: none"> <li>● Teacher exposition, on the parts of the CPU and their functions</li> <li>● Teacher guided research on the types of processors</li> </ul>

### Topic 3: Computer Software (8 Periods)

<b>1. System Software</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● identifies different types of system software.</li> <li>● describes the functions of operating systems.</li> </ul>	<ul style="list-style-type: none"> <li>● Types of software e.g. operating systems, utilities and programming languages</li> <li>● Functions of operating systems</li> </ul>	<ul style="list-style-type: none"> <li>● Brainstorming on the system software</li> <li>● Teacher exposition on the types and functions of software</li> <li>● Teacher guided research and peer presentations on other system software</li> </ul>
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**2. Application Software**
**The learner:**

- identifies different types of Application Software.
- explains the uses of different Application software.

- Types of Application software
- Uses of Application software

- Brain storming on Application software
- Teacher exposition on the types and function of Application software
- Teacher guided research and Peer presentations on other Application software

**Topic 4: Electronic Spreadsheets (24 Periods)**
**1. Managing Worksheets**
**The learner:**

- enters data in a worksheet.
- inserts rows, columns, and cells in a worksheet.
- edits cell content.
- selects adjacent or non-adjacent range of cells or the entire worksheet.
- copies and moves cell contents.
- uses the auto fill tool/ copy handle tool.
- freezes/unfreezes panes.
- formats a worksheet

- Inserting rows, columns and cells
- Editing contents of a cell
- Selecting cells
- Copying the contents of a cell range, or worksheet
- Selecting between worksheets or workbooks
- Auto fill/ copy handle tool
- Freezing panes

- Demonstrating how to insert, edit, select, copy and move cell content in a worksheet
- Demonstrating how to copy and paste cell contents
- Demonstrating how to use copy handle tool
- Demonstrating how to freeze/unfreeze panes
- Demonstrating how to format worksheets in a variety of ways

	(adjusting column widths, row heights, applying borders and formatting cell content).	<ul style="list-style-type: none"> <li>● Formatting a worksheet</li> </ul>	
<b>2. Formulae and Functions</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● identifies operators used in spreadsheets.</li> <li>● identifies different types of cell references.</li> <li>● uses formulas to manipulate data.</li> <li>● uses functions to manipulate data.</li> <li>● identifies standard error values associated with using formulae.</li> </ul>	<ul style="list-style-type: none"> <li>● Types of operators</li> <li>● Types of cell referencing</li> <li>● Formula</li> <li>● Functions (sum, average, Max, Min, Lookup,</li> <li>● Count, Mode, Median,</li> <li>● Frequency and Var)</li> <li>● Error alerts</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating how to</li> <li>● use operators to form</li> <li>● basic formulae (addition, subtraction, division, multiplication)</li> <li>● Demonstrating how to</li> <li>● write formulae and to use</li> <li>● functions</li> <li>● Demonstrating how to</li> <li>● use operators, cell references, formulae and functions</li> <li>● Discussing the error</li> <li>● alerts associated with use</li> <li>● of formulae</li> </ul>
<b>3. Working with Charts</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● creates a chart.</li> <li>● inserts chart titles.</li> <li>● inserts legends.</li> <li>● inserts backgrounds.</li> </ul>	<ul style="list-style-type: none"> <li>● Charts</li> <li>● Data types</li> <li>● (trends, linear, composite)</li> <li>●</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating how to create different charts</li> <li>● Demonstrating how to</li> </ul>

	<ul style="list-style-type: none"> <li>● inserts segment labels.</li> <li>● resizes the chart.</li> <li>● edit the data range.</li> <li>● selects the appropriate chart for a given set of data.</li> </ul>	<ul style="list-style-type: none"> <li>● Chart selection</li> <li>● criteria</li> </ul>	<ul style="list-style-type: none"> <li>● insert legends,</li> <li>● backgrounds and segment labels</li> <li>● Demonstrating how to edit charts</li> <li>Exploring chart types visà-vis data</li> </ul>
<b>4. Worksheet Page Layout</b>	<b>The learner:</b> <ul style="list-style-type: none"> <li>● adjusts margins</li> <li>● inserts headers.</li> <li>● inserts footers.</li> <li>● inserts page numbers.</li> <li>● inserts, date and time.</li> <li>● selects the appropriate paper size.</li> </ul>	<ul style="list-style-type: none"> <li>● Page Setup</li> <li>● Preview a Worksheet</li> <li>● Printing a worksheet</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstration of how to adjust and change a worksheet Page layout</li> <li>● Guided discovery on page orientation and use of headers and footers</li> </ul>

## TERM TWO 72 PERIODS

### Topic 5: Internet and World Wide Web (12 Periods)

Sub Topic	Competences	Content	Teaching/Learning Strategies
1. Introduction to the Internet	<b>The learner:</b> <ul style="list-style-type: none"> <li>● explains the Internet.</li> </ul>	<ul style="list-style-type: none"> <li>● Meaning of the Internet</li> <li>● Implications of the Internet</li> </ul>	<ul style="list-style-type: none"> <li>● Explaining the meaning of the Internet</li> </ul>

	<ul style="list-style-type: none"> <li>states the advantages and disadvantages of using the Internet.</li> </ul>		<ul style="list-style-type: none"> <li>Discussing the advantages and disadvantages of using the Internet</li> </ul>
2. Internet Services	<p>The learner:</p> <ul style="list-style-type: none"> <li>identifies the different internet Communication services.</li> <li>uses email to communicate</li> <li>uses internet facilities for research.</li> <li>explains the concept of Netiquette</li> </ul>	<ul style="list-style-type: none"> <li>Internet communication services</li> <li>Email Services</li> <li>Research</li> <li>Web services, etc.</li> <li>Netiquette</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrating Internet services</li> <li>Discussing the concept of Netiquette</li> </ul>

### Topic 6: Electronic Presentation - (18 Periods)

1. Developing a Presentation	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>uses different presentation views: <ul style="list-style-type: none"> <li>normal view</li> <li>slide sorter view</li> <li>slide show view</li> </ul> </li> <li>changes between presentation views.</li> <li>inserts slides in a presentation.</li> <li>chooses the</li> </ul>	<ul style="list-style-type: none"> <li>Slide creation</li> <li>Slide layouts</li> <li>Presentation views</li> <li>Slides design</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrating different views of a presentation</li> <li>Discussing the best practices in creating a presentation</li> <li>Demonstrating formatting of a slide</li> </ul>
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	<p>most appropriate slide layout.</p> <ul style="list-style-type: none"> <li>● changes background on specific/ all slides.</li> <li>● copies, moves slide(s) within presentation or between presentations.</li> <li>● deletes slides.</li> <li>● inserts footer on specific slides, all slides in presentation</li> <li>● edits slides through slide master.</li> <li>● sets automatic slide numbering, dates, non-updating dates into footer of slide master.</li> </ul>	<ul style="list-style-type: none"> <li>● Slide master</li> </ul>	
<p><b>2. Charts</b></p>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● creates a chart from data entered within a slide in a presentation.</li> <li>● imports data from other</li> </ul>	<ul style="list-style-type: none"> <li>● Charts</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating the creation of charts using different methods in a presentation</li> <li>● Discussing the chart types in a presentation</li> </ul>

	<p>applications such as spreadsheets to create charts.</p> <ul style="list-style-type: none"> <li>● imports charts from some applications.</li> <li>● identifies chart types of a presentation software. inserts an organisation chart.</li> <li>● modifies an organisation chart.</li> </ul>	<ul style="list-style-type: none"> <li>● Chart types</li> <li>● Organisation charts</li> </ul>	<ul style="list-style-type: none"> <li>● Collecting data on the organisation structure of a school</li> <li>● Adding an organisation chart in a slide of a presentation using the data collected</li> </ul>
<p><b>3. Working with Graphical Objects</b></p>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● identifies different types of graphics (ClipArt, picture, autoshapes) that can be used in presentation software.</li> <li>● inserts the different types of graphics on a slide.</li> <li>● manipulates the position and size of the graphic to requirements.</li> <li>● applies shape effects on</li> </ul>	<ul style="list-style-type: none"> <li>● Graphical Objects from different themes.</li> </ul>	<ul style="list-style-type: none"> <li>● Making a collection of the different types of graphics</li> <li>● Describing the different types of graphics that can be used in a presentation</li> <li>● Demonstrating how to insert a graphic on a slide</li> <li>● Demonstrating how to manipulate graphics on the slide</li> </ul>

	<p>graphics on the slide.</p> <ul style="list-style-type: none"> <li>● inserts text box on a slide.</li> <li>● organises graphics on a slide.</li> </ul>		
<b>4. Presentation Output</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● defines transitional effects.</li> <li>● shows knowledge of using transitional effects.</li> <li>● shows knowledge of using animation effects.</li> <li>● adds presenter notes on a slide.</li> <li>● creates links between slides and other files.</li> <li>● re-arrange slides.</li> <li>● identifies output formats of a presentation.</li> </ul>	<ul style="list-style-type: none"> <li>● Transitional effects</li> <li>● Animation effects</li> <li>● Presenter notes</li> <li>● Navigation</li> <li>● Output format of a presentation</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating transitional effects</li> <li>● Demonstrating various animation schemes</li> <li>● Discussing the purpose of transitional and animation effects</li> <li>● Demonstrating how to add presenter notes</li> <li>● Discussing different output formats of a presentation</li> <li>● Demonstrating use of links between slides</li> <li>● Demonstrating proofreading for spell check and grammar</li> </ul>



## Topic 7: Databases - 24 Periods

<p><b>1.Introduction to Databases</b></p>	<p>The learner:</p> <ul style="list-style-type: none"> <li>● defines a database.</li> <li>● identifies examples of Database Management Systems.</li> <li>● describes features of Database Management System interface.</li> <li>● creates a database.</li> <li>● saves and prints database objects.</li> </ul>	<ul style="list-style-type: none"> <li>● Meaning of a database</li> <li>● Examples of Database Management Systems</li> <li>● Features of Database Management System interface</li> <li>● Database</li> </ul>	<ul style="list-style-type: none"> <li>● Describing the concept of a database</li> <li>● Demonstrating the concept of a database</li> </ul>
<p><b>2. Database Objects</b></p>	<p>The learner:</p> <ul style="list-style-type: none"> <li>● Identifies softwares used in database</li> </ul> <p>Uses Access to create a table modifies a table in a database.</p> <ul style="list-style-type: none"> <li>● creates forms in a database.</li> <li>● uses forms to insert records.</li> <li>● uses forms to</li> </ul>	<ul style="list-style-type: none"> <li>● Tables in database</li> <li>● Forms in database</li> <li>● Queries in database</li> <li>● Database reports</li> <li>● Printing a</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating the creation of a database table</li> <li>● Discussing the structure of the created database tables</li> <li>● Making a database project</li> </ul>

	modify <ul style="list-style-type: none"> <li>● records.</li> </ul> generates queries in a database. <ul style="list-style-type: none"> <li>● creates database reports.</li> <li>● modifies database reports.</li> <li>● prints database reports.</li> </ul>	database report	
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## Topic 8: Data Communication and Networking (18 Periods)

<b>1. Introduction to Data Communication</b>	<b>The learner:</b> <ul style="list-style-type: none"> <li>● defines data communication.</li> <li>● explains the elements of data communication (sender, receiver, messages, transmission media and protocol).</li> <li>● describes types of electronic data communication tools like computers, mobile phones, internet among</li> </ul>	<ul style="list-style-type: none"> <li>● Data communication</li> <li>● Elements of data communication</li> <li>● Data communication tools</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating data communication</li> <li>● Discussing the concept of data communication</li> </ul>
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	<p>others.</p> <ul style="list-style-type: none"> <li>● compares electronic and manual data communication tools (manual drums, bells and messengers).</li> <li>● defines data transmission media.</li> <li>● differentiates between physical transmission media and wireless transmission media (Bluetooth and broadcast radio transmission media).</li> <li>● describes services offered by data Communication tools like E-mail, Skype, News groups, and instant messaging.</li> <li>● explains the implications of using data</li> </ul>	<ul style="list-style-type: none"> <li>● Data transmission media</li> <li>● Data communication services</li> </ul>	
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	communication services.		
<b>2. Introduction to Computer Networks</b>	<p>The learner:</p> <ul style="list-style-type: none"> <li>identifies the basic requirements for setting up a computer network (Routers, transmission media, modems and network software like windows internet explorer.</li> <li>sets up and configures a simple computer network</li> <li>explains the implications of computer networks.</li> </ul>	<ul style="list-style-type: none"> <li>Computer networks</li> <li>Wifi, hotspots, LANs</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrating computer network</li> <li>Discussing the concept of computer networks</li> </ul>

## TERM THREE 24 PERIODS

Sub Topic	Competences	Content	Teaching/Learning Strategies
<b>Topic 9: Electronic Publication (28 periods)</b>			
<b>1. Publishing Basics</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● creates a new document.</li> <li>● adjusts measurement units (inches, pixels, points, centimeters).</li> <li>● manages templates.</li> <li>● manages auto Shapes.</li> <li>● understands use of background colours, finishing, and use of graphics.</li> <li>● saves and prints a publication.</li> <li>● typesets text.</li> </ul>	<ul style="list-style-type: none"> <li>● Publications (certificates, brochures, flyers, menus and so on).</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating the creation of a new document</li> <li>● Typesetting text in a document</li> <li>● Presenting a document to peers</li> </ul>
<b>2. Document Layout</b>	<p><b>The learner:</b></p> <ul style="list-style-type: none"> <li>● aligns a publication.</li> <li>● distributes Graphics in a publication.</li> <li>● organizes text along objects.</li> <li>● customizes page</li> </ul>	<ul style="list-style-type: none"> <li>● Publication Layout</li> </ul>	<ul style="list-style-type: none"> <li>● Developing a sample publication like a certificate</li> <li>● Presenting to peers the document</li> </ul>

	size.		
<b>3. Advanced Features</b>	The learner: <ul style="list-style-type: none"> <li>● customises templates.</li> <li>● uses templates.</li> <li>● uses Auto Shapes.</li> <li>● completes document (certificates, brochures, flyers, menus and so on).</li> </ul>	<ul style="list-style-type: none"> <li>● Templates</li> <li>● Auto shapes</li> <li>● Designs</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrating application of templates in electronic publishing</li> <li>● Designing a complete publication project</li> <li>● Presenting the project to peers</li> </ul>

## Topic 10: System Security, ICT Ethical Issues and Emerging Technologies (17 Periods)

<b>1. Computer System Security</b>	The learner: <ul style="list-style-type: none"> <li>● explains the various forms of Computer security (data and physical security).</li> <li>● describes the concepts of Breach, Threat and Vulnerability, Disaster and Recovery</li> <li>● identifies security threats (hardware and software).</li> <li>● explains the meaning of a computer virus.</li> <li>● explains how viruses are spread</li> </ul>	<ul style="list-style-type: none"> <li>● Computer security</li> <li>● Internet and Network attacks crime</li> <li>● Data protection in computer systems</li> </ul>	<ul style="list-style-type: none"> <li>● Describing the concept of computer system security</li> <li>● Discussing the possible threats to computer systems</li> <li>● Discussing the available control measures to computer system attacks</li> <li>● Describing the concept of computer crime</li> </ul>
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	<p>on standalone and networked computers.</p> <ul style="list-style-type: none"> <li>● explains the concept of hacking.</li> <li>● explains how denial of service occurs</li> </ul>		
<p><b>2. Privacy and ICT Ethical Issues</b></p>	<p>The Learner:</p> <ul style="list-style-type: none"> <li>● defines ethical issues in ICT.</li> <li>● describes ethical issues in ICT.</li> <li>● describes information accuracy.</li> <li>● explains the concept of Intellectual property rights.</li> <li>● explains the concept of green computing.</li> <li>● explains the <b>concept of information privacy</b></li> <li>● explains the different aspects of Information privacy and violation.</li> </ul>	<p>ICT Ethics and society (ICT Policies)</p> <ul style="list-style-type: none"> <li>● Intellectual property</li> <li>● Information privacy</li> </ul>	<ul style="list-style-type: none"> <li>● Describing the concept of privacy and ICT ethical issues</li> <li>● Describing the concept of information privacy and violation</li> </ul>
<p><b>3. Emerging Technologies</b></p>	<p>The learner:</p> <ul style="list-style-type: none"> <li>● explains the concept of Emerging</li> </ul>	<ul style="list-style-type: none"> <li>● Emerging technologies</li> </ul>	<ul style="list-style-type: none"> <li>● Describing the concept of emerging technologies</li> <li>● Discussing the</li> </ul>

	<p>technologies (Artificial Intelligence, Digital forensics among others).</p> <ul style="list-style-type: none"> <li>explains how specific technologies are applied in problem solving in society.</li> <li>explains advantages and disadvantages.</li> </ul>	<ul style="list-style-type: none"> <li>Application areas of specific emerging technologies</li> <li>Implications of emerging technologies</li> </ul>	<p>application areas of emerging technologies in society</p> <ul style="list-style-type: none"> <li>Discussing the implications of the emerging technologies</li> </ul>
<b>4. ICT Industry</b>	<p>The learner:</p> <ul style="list-style-type: none"> <li>explains the meaning of careers in the ICT industry.</li> <li>appreciates careers in the ICT industry.</li> <li>identifies the potential of ICTs for earning.</li> </ul>	<ul style="list-style-type: none"> <li>Careers in the ICT industry</li> <li>ICT in SMEs</li> </ul>	<ul style="list-style-type: none"> <li>Discussing careers in the ICT industry</li> <li>Brainstorming on opportunities on earning with ICTs</li> </ul>







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