



THE REPUBLIC OF UGANDA  
Ministry of Education and Sports

# SECONDARY SCHOOL ABRIDGED CURRICULUM FOR UGANDA

- HOME MANAGEMENT
- CLOTHING AND TEXTILES
- FOOD AND NUTRITION
- TECHNICAL DRAWING
- METAL WORK
- WOOD WORK

## SENIOR 3



**NCDC**  
NATIONAL CURRICULUM  
DEVELOPMENT CENTRE







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HOME MANAGEMENT  
CLOTHING AND TEXTILES  
FOOD AND NUTRITION  
TECHNICAL DRAWING  
METAL WORK  
WOOD WORK

## SENIOR 3



A product of the National Curriculum Development Centre for the Ministry of Education and Sports with support from the Government of Uganda

**National Curriculum Development Centre**

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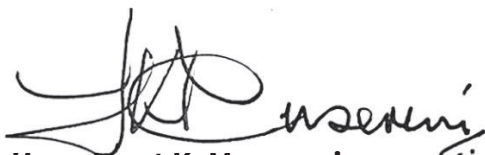
## Foreword

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.

This abridged curriculum was developed with support from The Government of the Republic of Uganda, Save the Children, UNESCO, Uganda National Examinations Board (UNEB), Directorate of Education Standards (DES), Universities, National Teachers Colleges (NTCs) and Primary Teachers Colleges (PTCs).

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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DIRECTOR,

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# HOME MANAGEMENT

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**ABRIDGED CURRICULUM- HOME MANAGEMENT: SENIOR THREE**
**Introduction**

A number of topics which were supposed to be covered at Senior Two have been carried forward and some have been dropped. Others have been merged with other topics as seen in the matrix below:

| SN | TOPIC  | STATUS  | JUSTIFICATION   |
|----|--|---|---|
| 1  | <b>Cooking fuels and Food and kitchen hygiene</b>  | Dropped   | Should have already been covered in the first term before lockdown.   |
| 2  | <b>Meal planning and cooking of basic Meals</b><br><br>Rules to follow when using different methods of cooking   | Whole topic moved just before practicals<br><br>Removed | Will be covered under Basic Nutrition- Cookery of basic meals.<br>Cover the entire topic just before cookery of various foods.<br>To be discovered during practicals on cookery of basic meals. |
| 3  | <b>Water in the home</b><br>Sources of water in the home<br><ul style="list-style-type: none"> <li>• Hardness of water, methods of softening.</li> <li>• Storage of water</li> </ul> | Dropped<br><br>Dropped<br><br>Dropped                   | Can be discovered in Geography and personal experience of the learner.<br>Covered in Chemistry.<br>Discovered in laundry processes and practice.  |
| 4  | <b>Food and Kitchen Hygiene</b><br>Store food correctly<br><br>Explain the importance of food  | Dropped<br><br>Dropped                                  | Discovered when discussing prevention of food contamination.<br>Observed during food  |

|   |  |   |   |
|---|--|---|---|
|   | <p>preservation</p> <p>Effect of preservation on nutrient content</p>  | Dropped                                       | <p>preservation processes.</p> <p>Covered in Nutrition.</p>   |
| 5 | <p><b>Fibres and Fabrics</b></p> <ul style="list-style-type: none"> <li>Identification of the different fibres and fabrics</li> </ul>  | Dropped                                       | They will be identified as the learners discuss the properties of different fibres.   |
| 6 | <p><b>Basic Needle Work</b></p> <p>Needle work equipment</p> <p>Types of seams and stitches</p>  | Dropped                                       | <p>Will be discovered as they work the stitches.</p> <p>Can be discovered while performing stitches.</p>  |
| 7 | <p><b>The House</b></p> <p>Choosing the site for a house</p> <p>Factors to consider when choosing a house</p> <p>Advantages of different types of houses</p> <p>Factors to bear in mind when choosing furniture</p> <p><b>Fixtures</b></p> <ul style="list-style-type: none"> <li>Types and suitable fixtures</li> <li>Types of floors</li> <li>Suitability of use in the different areas</li> </ul> | <p>Dropped</p> <p>Left out</p> <p>Omitted</p> | <p>Learners will discover in the school and community and from their own experience.</p> <p>Will be discovered throughout the use of furniture.</p> <p>To be discovered as learners care and clean fixtures.</p> <p>Self-discovery.</p> <p>Self-discovery.</p> <p>Self-discovery.</p> |

|  |  |  |  |
|--|--|--|--|
|  | <p>for specific function</p> <p><b>Furnishing</b></p> <ul style="list-style-type: none"><li>• Definition of furnishing</li><li>• Types of furnishing</li><li>• Choice of furnishings</li></ul> |  |  |
|--|--|--|--|



## TERM I: (48 PERIODS)

### Topic: Food and Kitchen hygiene (6 periods)

| Objectives<br>The learner should be able to:   | Content   | Teaching and learning strategies   |
|--|---|--|
| <ol style="list-style-type: none"> <li>1. Identify the causes, dangers and prevention of food contamination.</li> <li>2. Use different principles to preserve food correctly.</li> </ol> | <p>Food contamination, its dangers and remedies.</p> <p>Food preservation principles and methods.</p> | <p>Discussions on causes, dangers and prevention of food contamination.</p> <p>Use audio/visual presentation, newspapers and magazines to demonstrate; importance of food preservation and methods of food preservation.</p> |

### Topic: Water in the home (4 periods)

| Objectives<br>The learner should be able to:   | Content  | Teaching and learning strategies  |
|--|--|---|
| <ol style="list-style-type: none"> <li>1. Identify the water sources for the home and use this water efficiently.</li> <li>2. Treat water in the home using different methods to ensure safety.</li> </ol> | <p>Uses of water in the home. Water treatment in the home.</p> | <p>Group discussion of the different uses of water in the home.</p> <p>Research on water treatment methods in the home.</p> <p>Demonstrate water treatment at home.</p> |

### Topic: Fibres and fabrics (8 periods)

| Objectives<br>The learner should be able to:  | Content  | Teaching and learning strategies   |
|---|--|--|
| 1.Explain the properties of different fibres.<br>2.Describe the care of different fabrics . | Properties of different fibres.<br>Caring for different fabrics. | Brainstorm on the properties of different fibres.<br>Demonstrate the care for different fabrics. |

### Topic: Basic sewing processes (10 periods)

| Objectives<br>The learner should be able to:   | Content   | Teaching and learning strategies  |
|--|---|---|
| 1. Identify different stitches and their uses.<br>2. Perform and use the different stitches appropriately. | Making an article using basic stitches and seams.<br>Simple repairs using different stitches. | Demonstrate/visual presentation of the different stitches.<br>Demonstrate the use of different stitches to make simple repairs. |

### Topic: The House (20 periods)

| Objectives<br>The learner should be able to:   | Content  | Teaching and learning strategies  |
|--|--|---|
| 1. Make a Kitchen plan.<br>2. Describe the procedure to follow when using and caring for furniture.<br>3. Use and care for | Kitchen layout and organisation.<br>Care and cleaning of furniture of different surface finishes.<br>Methods of caring and | Demonstrate kitchen layout and organisation.<br>Demonstrate care and cleaning of different finishes of furniture.<br>Demonstrate the care |

|   |   |  |
|---|---|--|
| <p>fixtures.</p> <p>4. Care and clean the floor.</p> <p>5. Care for household furnishings.</p> <p>6. Use colour in furnishing.</p> <p>7. Use and clean surfaces in a home.</p> <p>8. Care for different household appliances.</p> | <p>cleaning fixtures.</p> <p>Care and cleaning of different floors.</p> <p>Care and use of household furnishings.</p> <p>Colour application in furnishing.</p> <p>Care and cleaning of different surfaces in the home.</p> <p>Procedure for care of different household appliances.</p> | <p>and use of fixtures.</p> <p>Demonstrate the care and use of fixtures.</p> <p>Demonstrate the care and use of furnishings.</p> <p>Discuss and demonstrate the colour wheel and its application.</p> <p>Demonstration on care and cleaning different surfaces.</p> <p>Demonstration on care and cleaning of different appliances.</p> |
|---|---|--|

## TERM II 48 PERIODS

### Topic: Mother Craft (48 Periods)

| Objectives<br>The learner should be able to:                                   | Content  | Teaching and learning strategies  |
|--|--|---|
| 1. Identify and manage domestic violence practices.                            | Roles of family members.<br>Causes and dealing with domestic violence.   | Discussion on the different family members' roles.  |
| 2. Describe the appropriate care of pregnancy and identify signs of pregnancy. | Signs of pregnancy and danger signs during pregnancy.<br>Needs of the expectant mother (food, diet, psychological needs, ante-natal clinic). | Discussion on dealing with domestic violence.<br>Discussion on signs of pregnancy and the signs of danger during pregnancy. |
| 3. Prepare for baby's arrival.   | Baby's needs (clothing,  | Discussion on the needs of expectant mother.  |

|  |   |  |
|--|---|--|
| 4. Differentiate between the different ways of feeding a baby (0-6months). | bedding, feeding, post-natal clinic).<br>Differentiating between breast feeding and artificial feeding.<br>Weaning-when it should be introduced, choosing dishes. | Discussion on baby's needs.<br>Discuss the different ways of feeding a baby.<br>Discuss weaning of babies. |
|--|---|--|

## TERM III 48 PERIODS

### Topic: Meal planning and cookery of basic meals (48 periods)

| <b>Objectives</b><br><b>The learner should be able to:</b>  | <b>Content</b>   | <b>Teaching and learning strategies</b>   |
|---|--|---|
| 1. Distinguish between moist and dry methods of cooking.<br><br>2. Plan meals for different people.<br><br>3. Identify the different meals and groups of people and the dishes suitable for | Moist methods of cooking (Steaming, stewing, boiling).<br>Dry methods of cooking (Frying, baking, roasting, grilling).<br>Planning meals for different people.<br>Preparing dishes for different meals such as breakfast, snacks and main meal. Using the different methods of cooking.<br>Hot and cold beverages such as the different types of tea/coffee, fruit drinks milk shakes and smoothies.<br>Snacks such as muffins, rock | Brainstorming, discussion on dry and moist methods of cooking.<br>Observation and recording key points in the audio/visual/resource presentation on planning meals for different people.<br>Identifying the different groups of people and the dishes suitable for them.<br>Discuss the dishes suitable for the |



|   |   |   |
|---|---|---|
| <p>them.</p> <p>4. Prepare, cook and serve different foods.</p> | <p>buns, fried dough (mandazi).<br/>Pastry such as rolls, samosa, short pastry, etc.<br/>iii. Egg cookery, simple pastry dishes such as chapati, samosa, rolls and short pastry.<br/>Preparing weaning dishes<br/>Preparing dishes suitable for a main meal; protein dishes such as stews, carbohydrate, drinks and vegetable dishes such as salads and sautés.</p> | <p>different meals such as breakfast, snacks and main meal.</p> |
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# CLOTHING AND TEXTILES

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### Introduction:

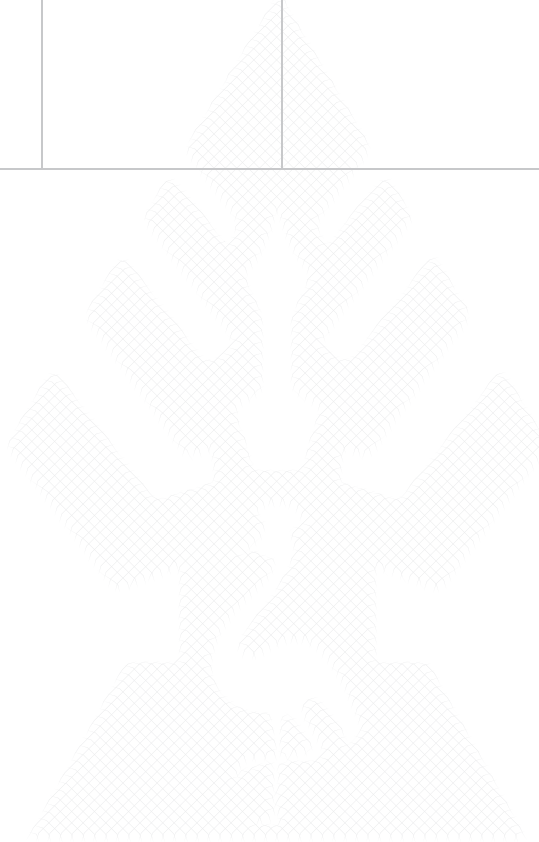
The Senior Three learners lost time due to covid19 and so could not cover all the work for Senior Two. Therefore, part of the topics they were supposed to cover at Senior Two has been merged with the Senior Three work to enable them get the crucial skills. Much of the time has been concentrated on practical skills to redeem the time. During the teaching of practical skills, you are expected to discuss the principles behind the processes.

| SN | CRITICAL CHANGES  | JUSTIFICATION  |
|----|---|--|
| 1  | Topic Three <b>fibres</b> ; we have only considered viscose rayon, polyester and acrylic.                     | The concepts are the same with the rest of the fibres.   |
| 2  | Topic Ten on <b>fabric construction</b> ; we have chosen weaving, knitting, crocheting, braiding and macramé. | These are common methods of fabric construction in Uganda and the concepts are the same with the other fibres. |
| 4  | Under the <b>fabric finishes</b> ; we have considered seven finishes.   | The concepts are the same, the practicals can easily be carried out in class.                                  |

## TERM I 48 PERIODS

|   | Topic  | Objectives<br>The learner should:  | Key Concepts  | Activities  |
|---|--|--|---|---|
| 1 | <b>Controlling Fullness (15 Periods)</b>     | State the uses of controlling fullness in garments.  | Methods of controlling fullness<br>Gathers<br>Darts<br>Tucks<br>Pleats<br>Smocking<br>Shirring.                                   | Demonstrate and practice the construction of the different methods of controlling fullness.   |
| 2 | <b>Fibres: Cotton Linen Silk (9 Periods)</b> | Outline the steps followed in production of linen and silk fibers to fabrics.<br>State the characteristics of linen and silk fibres.<br>Care for the fibres when sewing. | Fibres<br>Cotton and Linen<br>Silk<br>Origin, outline of manufacture from fiber to fabric<br>Properties of linen and silk fibres. | Teacher and learner discussion, identification tests on cotton, linen and silk fibres e.g. strength test on wet and dry yarns, creasing, and burning. |
| 3 | <b>Choice of clothes (12 Periods)</b>        | Identify styles for different figure types, occasions, colour fabrics and season.  | Figure types<br>Styles<br>Occasions<br>Colour<br>Fabrics and season (wet  | Drawing of the figure types on charts.<br>Cutting out styles of different   |

|  |  |  |                       |   |
|--|--|--|-----------------------|---|
|  |  |  | or dry, hot or cold). | occasions from magazines and displaying them in the laboratory on charts.<br>Practice on figure and style drawing in the learners' books. |
|--|--|--|-----------------------|---|



## TERM II 48 PERIODS

|   | <b>Topic</b>   | <b>Objectives</b><br>The learner should:  | <b>Key Concepts</b>   | <b>Activities</b>  |
|---|--|---|---|--|
| 4 | <b>Pattern use in garment constructions (15 Periods)</b>   | Use different patterns in garment construction.   | Pattern drafting, preparation and alteration. Lay out and cutting. Transferring pattern markings.                 | Use of patterns in garment construction.   |
| 5 | <b>Fibres</b><br>Manmade -<br>Viscose rayon<br>Synthetic<br>Polyester<br>Acrylic<br>Fabric blends and mixtures.<br><b>(12 Periods)</b> | Outline steps followed in production of viscose rayon polyester and acrylic fibres to fabric.<br>State the properties, uses and points to consider when sewing rayon polyester and acrylic.<br>Differentiate between blends and mixtures.<br>State the advantages of blends and | Outline of the manufacture and properties of viscose rayon, polyester and acrylic.<br>Fabric mixtures and blends. | Discussion on rayon, polyester and acrylic fibres. Identification tests.<br>Discuss the advantages of fabric finishes.<br>Discuss the difference between blends, advantages and list blends. |

|   |  |  |  |  |
|---|--|--|--|--|
|   |  | <p>mixtures.<br/>List examples of blended fabrics.</p>   |  |  |
| 6 | <p><b>Fabric construction and fabric finishes (21 Periods)</b></p> | <p>State the different methods of fabric construction. Apply the different construction methods. State the different types of finishes. Make appropriate choices of fabrics according to their finishes.</p> | <p>the of</p> <p>Methods of making fabrics</p> <p>Weaving</p> <p>Knitting</p> <p>Crocheting</p> <p>Braiding</p> <p>Macramé</p> <p>Mercerisation</p> <p>Bleaching</p> <p>Scouring</p> <p>De-gumming</p> <p>Sizing</p> <p>Abrasion</p> <p>Sanforisation</p> <p>Dyeing.</p> | <p>Demonstrate the making of articles using the different methods.</p> |



## TERM III 48 PERIODS

|   | Topic  | Objectives<br>The learner should:   | Key Concepts   | Activities  |
|---|--|---|--|---|
| 7 | <b>Use of different openings and fastenings (12 periods)</b> | Choose and work on different openings and fastenings.   | -Openings:<br>Faced openings<br>Bound openings<br>Zipped openings<br>-Fastenings<br>Ribbons<br>Hooks and eyes<br>Press studs<br>Buttons and button holes/ loops<br>Zips  | Demonstration and practice on the child's garment.<br>Practice on making and drawing the openings and attaching fastenings. |
| 8 | <b>Decorative Processes (15 Periods)</b>                     | Identify materials and tools used in decorating garments.<br>Categorise embroidery processes.<br>Apply different types of decoration appropriately in garment construction. | Trimmings<br>Ribbons<br>Scalloping<br>Faggoting<br>Appliqué<br>Shell edging<br>Laces<br>Tapes<br>Ribbons<br>Selected design<br>Choice of fabric article<br>Choice of threads, stitches and colours<br>Lay out of design. | Demonstration of decorative processes.<br>Practice on decorating the garment.   |
| 9 | <b>Design in</b>   | Acquire skills in   | -Ways of dyeing  | Demonstration   |

|   |  |   |   |
|---|--|---|---|
| <p><b>Cloth Repair, Renovations, Maintenance and Care of Personal Clothing (21 Periods)</b></p> | <p>the different methods of introducing colour and decoration to fabrics. Identify different methods of repairing and renovating garments. Develop skills in the various processes of care of clothes. Repair and renovate garments.</p> | <p>fabrics<br/>Tie and dye<br/>Screen printing<br/>Block printing<br/>Resist printing<br/>-Repair, renovation and maintenance of clothing.<br/>-Methods of repairing and renovations:<br/>Patching<br/>Stitching<br/>Darning<br/>Binding or facing<br/>Appliqué<br/>Stain removal</p> | <p>on tie and dye, block printing and screen printing. Visits to the textile factory.</p> |
|---|--|---|---|

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# FOOD AND NUTRITION

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## ABRIDGED CURRICULUM FOR 2022

### Introduction

Some of the crucial content that was supposed to be covered in senior two has been merged with the senior three content. Topics brought on board from senior two include: methods of cooking, Nutrients – proteins, carbohydrates, Lipids, Mineral salts, vitamins and water.

The reasons for cooking food, aims of food preparation and Heat transfer have been left out. These should be made mention of during the actual cooking when learners are carrying out practicals. The cereals have been left out and should be discussed using them like during baking or making breakfast dishes. Sauces and gravy have also been dropped but should be done practically during the preparation of dry protein foods and desserts. Horsd’oeuvres and savouries should be handled when appetizers, egg dishes and salads.

### CRITICAL CHANGES IN SENIOR THREE SYLLABUS

| SN | CRITICAL CHANGE   | Justification   |
|----|---|---|
| 1  | Left out Reasons for cooking food, aims of food preparation and Heat transfer | -Self-discovery during the practical lessons<br>-Methods of heat transfer can be adopted from physics |
| 2  | Left out Egg structure, nutritive value, and choice of eggs.                  | Concept to be picked from Biology.<br>Nutritive value can be given under the different nutrients.     |
| 3  | Left out Cereals  | These will be mentioned in a number of baked items. E.g cakes, bread, biscuits.                       |
| 4  | Left out Sauces and gravy   | Taken care of when preparing and serving dry protein foods and  |

| SN | CRITICAL CHANGE  | Justification   |
|----|--|---|
|    |  | desserts.   |
| 5  | Left out Horsd'oeuvres and savories  | Handled under different topics e.g appetizers, milk products, egg dishes and salad making.      |
| 6  | Left out parts of Meal planning (definition, general rules for meal planning, choice of dishes/ foods) and A balanced diet | To be handled when planning meals for various groups.<br><br>Already handled in earlier classes |
| 7  | Merged Raising agents and Baking   | Explanations can be given during practical lessons on the raising agents used.                  |

# TERM 1

## Topic 1: METHODS OF COOKING DURATION 10 Periods

**General objective:** To enable students use different methods of cooking

|   | Sub-Topic                       | Specific Objectives the learner should:  | Content   | Teaching and learning Strategies   |
|---|---------------------------------|--|---|--|
| 1 | Methods of cooking (10 periods) | a) Distinguish between food preparation and cooking.<br>b) Discover the reasons for cooking.<br>c) Describe the mode of heat transfer during cooking | <ul style="list-style-type: none"> <li>• Difference between food preparation and cooking</li> <li>• Reasons for cooking food</li> <li>• Methods of heat transfer</li> <li>• Methods of cooking food               <ul style="list-style-type: none"> <li>- moist methods, dry methods</li> <li>- principle behind each method of cooking</li> </ul> </li> </ul> Sample items cooked with the different methods of cooking | Task learners to research on the reasons for cooking food and methods of heat transfer and present<br><br>Demonstration of the different methods of cooking (Moist and Dry)<br>Students write the rules to follow when using each of the methods of cooking. |

## Topic 2: NUTRIENTS DURATION: 38 Periods

**GENERAL OBJECTIVE:** To enable students acquire knowledge on the nutritional components; Proteins, Carbohydrates, Lipids, Vitamins, Mineral salts and Water.

|   | Sub-Topic                 | Specific Objectives the learner should:  | Content   | Teaching and learning Strategies  |
|---|---------------------------|--|---|---|
| 2 | Proteins (8 periods)      | state the chemical composition of proteins.<br>Classify proteins<br>Explain the functions and effects of deficiency of proteins.<br>Describe the properties of protein | state chemical composition.<br>Classification of amino acids e.g. essential and non-essential<br>Properties of protein.                                     | Discussion on composition, classification and functions of protein.<br>Demonstration of the effects of heat and acids on protein.   |
| 3 | Carbohydrates (8 periods) | State the basic chemical composition of carbohydrates<br>Classify carbohydrates<br>Explain the effects of carbohydrates deficiency and excess carbohydrates            | The basic chemical composition<br>Classification of carbohydrates; mono and disaccharides, starch and cellulose.<br>The sources for each group<br>functions | Task learners to research about chemical composition, classification and functions of carbohydrates<br>Discussion<br>Demonstrate the effects of heat (moist and dry) carbohydrate |

|   | <b>Sub-Topic</b>      | <b>Specific Objectives the learner should:</b>   | <b>Content</b>   | <b>Teaching and learning Strategies</b>  |
|---|-----------------------|--|--|--|
|   |                       | in the body.<br>Explain ways of controlling obesity<br>Explain the basal metabolism<br>Analyse the factors that determine energy needs of the body.<br>Describe the effects of heat on CHO<br>Define roughage<br>List the dietary sources of roughage<br>Explain the functions and effects of deficiency for roughage. | Results of deficiency<br>Obesity and control<br>Calorific value<br>Factors that determine energy needs of the body.<br>Energy needs; sex occupation, age activity etc.<br>Basal metabolism and the variables<br>Roughage;<br>Definition,<br>Dietary sources<br>Functions in the body<br>Result of deficiency | foods during the preparation of some dishes to show;<br>Gelatinization<br>Caramelization<br>Carbonization<br>Demonstration and class participation in the preparation of dishes rich in roughage |
| 4 | LIPIDS<br>(6 periods) | State chemical composition of lipids<br>Describe the classification of fats and oil  | Chemical composition of fats and classification of fats and oil.<br>Result of  | Teacher leads discussion on chemical composition and effects of imbalanced intake  |



|   | <b>Sub-Topic</b>          | <b>Specific Objectives the learner should:</b>   | <b>Content</b>  | <b>Teaching and learning Strategies</b>  |
|---|---------------------------|--|---|--|
|   |                           | <p>Name types of fats and oil sources.</p> <p>effects of deficiency in the body and excess of fats in the body.</p> <p>Describe the properties of fats and oil.</p> <p>State the uses of fat in cookery</p>  | <p>deficiency and excess of fats in the body.</p> <p>properties of fats and oils</p> <p>Cookery uses of fats and oils</p>   | <p>of lipids.</p> <p>Teacher guides the students to demonstrate the properties of fats</p> <p>Students make notes.</p>   |
| 5 | MINERAL SALTS (6 periods) | <p>List and classify minerals into macro and micro mineral elements.</p> <p>Explain how minerals are lost during food preparation.</p> <p>Explain the functions of calcium phosphorus and iron in the body.</p> <p>State effects of deficiency for each mineral.</p> | <p>Functions, sources, results of deficiency</p> <p>Classification of minerals</p> <p>Loss of mineral salts during cooking</p> <p>Functions of calcium, phosphorous, iron in the body.</p> <p>Effects of deficiency and sources of calcium, phosphorous and iron.</p> | <p>Task learners to research about the sources, functions and loss of mineral salts during food preparation and present in a plenary</p> <p>Teacher guides learners in preparing dishes rich in the mineral.</p> <p>Discussion</p> <p>Making dishes rich in the mineral salts; potassium, sodium and</p> |

|   | <b>Sub-Topic</b>     | <b>Specific Objectives the learner should:</b>   | <b>Content</b>  | <b>Teaching and learning Strategies</b>   |
|---|----------------------|--|---|---|
|   |                      | List the dietary sources of each mineral.<br>Explain the functions of potassium, sodium and chloride in the body.<br>Effects of deficiency in the body.<br>List the sources of sodium.<br>Potassium and chloride<br>Explain the function of iodine, Sulphur, fluoride and trace elements<br>List the sources in foods. | Potassium, sodium, chloride (functions and result of deficiency of each)<br>Sources of potassium and sodium and chloride in foods.<br>Iodine, Sulphur, fluoride and trace elements (function, sources, result of deficiency of each)<br>Sources in food | chloride.<br>Making dishes rich in the mineral salts mentioned above  |
| 6 | VITAMINS (8 Periods) | Define and classify vitamins.<br>Explain the functions of each vitamin in the body.<br>State the   | Classification of vitamins<br>Fat soluble; A, D, E and K and water soluble; Band C (functions and result of   | Task learners to make chart showing classification of vitamins (fat soluble and water-soluble vitamins)<br>Task learners to |

|   | <b>Sub-Topic</b>  | <b>Specific Objectives the learner should:</b>   | <b>Content</b>  | <b>Teaching and learning Strategies</b>  |
|---|-------------------|--|---|--|
|   |                   | <p>effects of deficiency for each of the vitamins.</p> <p>List the source of each of the vitamins.</p> <p>Conservation of vitamins during food preparation and cooking</p> | <p>deficiency) Sources of vitamins.</p>   | <p>research on the functions, effects of deficiency and sources of vitamins and present in a plenary</p> <p>Demonstration on dishes rich in vitamins</p> |
| 7 | Water (2 Periods) | <p>State the functions of water as a nutrient</p> <p>State the effects of water deficiency</p> <p>List the dietary sources of water</p>                                    | <p>Functions of water in the body</p> <p>Results of deficiency (Dehydration)</p> <p>Dietary sources</p> | <p>Teacher leads discussion on the functions and effects of deficiency of water in the body and the dietary sources</p>                                  |

## CLASS: SENIOR THREE: TERM 2

### TOPIC 3: FOODS DURATION: 48 PERIODS

**GENERAL OBJECTIVE:** To examine foods available in the community as regards to the sources, structure, properties, nutritive value and their uses in cookery and make use of the available foods in the community to prepare good balanced meals.

|   | Sub-topic                           | Objectives   | Content   | Teaching and learning strategies   |
|---|-------------------------------------|--|---|--|
| 1 | Eggs (8 Periods)                    | a) Demonstrate the different uses of eggs in cooking<br>b) Practice the different methods of cooking eggs  | <ul style="list-style-type: none"> <li>• Uses of eggs in cookery</li> <li>• Cooking eggs</li> <li>• Testing eggs for freshness</li> </ul> | Group learners to follow recipe in the preparation of dishes showing the uses of eggs in cookery<br>Preparing egg dishes |
| 2 | Milk and milk products (12 Periods) | b) Give the uses of milk in cookery and examples of dishes made using milk<br>c) Name the various types of milk and milk products.<br>d) Describe effects of | Uses in cookery, Types of milk and milk products  | Discussion demonstration on milk and its products.<br>Practice on preparation of dishes using milk and milk              |

|   | Sub-topic  | Objectives  | Content   | Teaching and learning strategies   |
|---|--|---|---|--|
|   |  | heat  |   | products include sweet sauces that use milk in their preparation.  |
| 3 | Fleshy Protein Foods (Fish, Meat and Poultry) (14 Periods) | <p>a) Discover the effects of heat on these protein foods.</p> <p>b) Factors that affect the tenderness of these protein foods and how tough flesh can be tenderized.</p> <p>c) Make different dishes from these foods using different methods or ways of cooking.</p> <p>d) Practice the serving of the dry dishes made from these protein foods accompanied by some savory sauces</p> <p>e) State the different uses of these protein foods in the diet</p> | <ul style="list-style-type: none"> <li>• effects of heat on the protein foods.</li> <li>• Tender ness of flesh protein foods, factors and ways of tenderizing them.</li> <li>• Making different dishes using the flesh protein</li> </ul> | <p>Task learners to research and present on the effects of heat on the three fleshy protein foods.</p> <p>Teacher guided discussion on the factors that affect tenderness and ways of tenderizing these protein foods</p> <p>. Group learners and make dishes using the moist methods of cooking these protein foods and serving them.</p> <p>. Conduct a practical on making various dishes using the dry methods of cooking from</p> |

|   | <b>Sub-topic</b>           | <b>Objectives</b>   | <b>Content</b>   | <b>Teaching and learning strategies</b>                                      |
|---|----------------------------|---|--|--|
|   |                            |   | foods using different ways or methods of cooking. <ul style="list-style-type: none"> <li>• Making savory sauces to accompany dry protein dishes.</li> <li>• Uses of the fleshy protein foods in the diet.</li> </ul> | these protein foods by and also make savory sauces to accompany these dishes |
| 4 | STOCKS, SOUPS AND APPETIZE | Students should be able to;<br>State the rules for preparing stock. | Rules for preparing stock<br>Uses of   | Discussion and demonstration on the preparation of                           |

|   | <b>Sub-topic</b>                      | <b>Objectives</b>  | <b>Content</b>   | <b>Teaching and learning strategies</b>  |
|---|---------------------------------------|--|--|--|
|   | RS<br>(6<br>Periods)                  | <p>Explain the uses of stock in cookery</p> <p>List the four types of soups</p> <p>Explain the general procedure of making two types of soups with their accompaniment.</p> <p>Explain the importance of appetizers in the diet.</p> | <p>stock in the diet</p> <p>Making of stock and using it in various dishes like stews.</p> <p>Procedure of making four appetizers.</p> | <p>some types of stock, and appetizers like soups, horsd'oeuvres, savouries and salads.</p>  |
| 5 | Sweets and puddings<br>(6<br>Periods) | <p>Explain the importance of soups and puddings and how they are used in the diet</p>  | <p>Importance of sweets and pudding in the diet.</p> <p>Making sweets and pudding with their accompaniment.</p>                        | <p>Group learners and task them to follow recipe given to prepare different sweets and puddings with their accompanying sweet sauces</p> |

## SENIOR 3 Duration 48 Periods

### TOPIC 4: MEAL PLANNING 18 Periods

**GENERAL OBJECTIVE:** To enable students plan balanced meals for various groups of people.

|  | Sub-topic   | Objectives   | Content  | Teaching and learning strategies   |
|--|---|--|--|--|
|  | <b>PLANNING DIFFERENT TYPES OF MEALS AND COURSES (4 PERIODS)</b>              | Outline the factors to consider when planning meals for the different categories of people   | Types of meals<br>Courses in a meal<br>Choice of dishes/food<br>Costing of meals<br>Factors considered when planning meals | Discussion on preparation of a balanced meal, courses in a meal and choice of dishes.<br>Identification of cutlery<br>Task learners to research and discuss the factors for meal planning types of meals and courses in a meal |
|  | <b>PLANNING MEALS FOR VARIOUS GROUPS OF PEOPLE AND OCCASIONS (14 PERIODS)</b> | Plan and prepare suitable meals for various groups of people e.g expectant and nursing mothers, babies, manual workers, adolescents. | Points to consider when planning meals for the following;<br>Invalid-the three stages                                      | Discussion of suitable meals for the groups.<br>Group learners and task each group to plan and prepare a meal suitable for a specific category   |



|  | Sub-topic | Objectives                           | Content  | Teaching and learning strategies                   |
|--|-----------|--------------------------------------|--|--|
|  |           | vegetarians<br>Be able to cost meals | Expectant and nursing mothers<br>Manual workers<br>Babies / children<br>Vegetarians<br>Adolescents<br>Obese persons<br>Slimming diets<br>Elderly | of people<br>Teacher demonstration on table laying |

## TOPIC 5: BAKING 40 Periods

**GENERAL OBJECTIVE;** To enable learners gain skills in making of cakes, biscuits, bread and pastry while using different raising agents on flour mixtures.

|  | Sub-topic                                    | Objectives   | Content   | Teaching and learning strategies   |
|--|--|--|---|--|
|  | <b>MECHANICAL RAISING AGENTS (8 PERIODS)</b> | State the mechanical ways of introducing air into flour mixtures e.g. sieving, | Sieving, whisking, rubbing in and creaming<br>Making of sponge cake | Teacher discussion on the use of mechanical raising agents<br>Group learners to follow the |

|  | Sub-topic                                   | Objectives   | Content  | Teaching and learning strategies  |
|--|---|--|--|---|
|  |   | whisking, rubbing in, creaming<br>Explain how they work.<br>Describe their action on flour mixtures.   | Sieving<br>Whisking<br>Rubbing in<br>Creaming<br>Rolling<br>Making sponge cake   | recipe given on making a sponge cake  |
|  | <b>CHEMICAL RAISING AGENTS (14 Periods)</b> | Describe the action of the chemical raising agents and give examples of chemical raising agents and the products made from the raising agents. | Action of chemical raising agents and examples of chemical raising agents and the products made from the raising agents<br>Making of cakes using creaming, rubbing and melting methods | Teacher explains on the action of chemical raising agents and gives examples of chemical raising agents and the products made from the raising agents<br><br>Learners in groups follow procedures of cake making using creaming, rubbing and melting<br>Learners practice the making of cakes eg rock buns, queen cake, ginger bread, |

|  | Sub-topic | Objectives | Content | Teaching and learning strategies |
|--|-----------|------------|---------|----------------------------------|
|  |           |            |         | sponge cake.                     |

## Topic 6: PASTRY; SHORT CRUST PASTRY (8 Periods)

**GENERAL OBJECTIVE:** To enable learners to make interesting and marketable dishes using short crust pastry.

|  | Sub-topic          | Objectives  | Content   | Teaching and learning strategies                                  |
|--|--------------------|---|---|---|
|  | Short Crust Pastry | <p>Making of short-crust pastry state.</p> <p>Rules for making pastry</p> <p>State the different ways of incorporating air into the pastry.</p> <p>List faults in pastry making</p> | <p>Types of pastry</p> <p>Short crust, rough puff, flaky.</p> <p>Rules for pastry making</p> <p>Ways of incorporating fat into the mixture for the different types of pastries.</p> <p>Faults in pastry making.</p> | <p>Discussion and demonstration of making short crust pastry.</p> |



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# TECHNICAL DRAWING

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## ABRIDGED CURRICULUM FOR TECHNICAL DRAWING S3

### GUIDELINES

Technology Drawing abridged curriculum for Senior Three has been written following the syllabus. Some topics and concepts have been merged and others compressed to the one-year content.

Therefore, this abridged curriculum will be able to guide the teacher to cover the content of Senior two and three in one year. You are required to use the teacher's guides for both senior two and three to implement this curriculum. After this abridged curriculum the teacher will be required to go back to the normal curriculum.

### CRITICAL CHANGES IN THE SYLLABUS FOR TECHNICAL DRAWING

| SN | CRITICAL CHANGES   | JUSTIFICATION  |
|----|--|--|
| 1  | Only geometry to be taught in term one and term two.<br>Building and mechanical options to be introduced in term three | Learner development not ready to take on the options because the basics for their teaching is not yet covered by term one and two. |

- Topic on cross sectioning has been removed because the concepts are to be covered under orthographic projection.
- Term one and two has been left for only geometrical drawing. Other specialized drawing for Building and Mechanical options to be introduced in term three because the development is not ready to take on these options because the basics have not yet been covered.

### Building Drawing Option

- Sub topic on paper layout is removed. The concept is covered in geometrical drawing.
- Topics on foundations and floors are removed and the content will be covered when drawing the cross sections.

## TERM 1 48 PERIODS

### TOPIC: FREEHAND SKETCHING

**GENERAL OBJECTIVE:**

The learner should be able to draw a proportional freehand sketch.

| SUBTOPIC                     | SPECIFIC OBJECTIVES                                 | CONTENT   | TEACHING/ LEARNING ACTIVITIES                            | PERIODS |
|------------------------------|---|---|--|---------|
| Pictorial freehand sketching | The learner should be able to sketch using freehand | <ul style="list-style-type: none"> <li>• Hardness of pencils</li> <li>• Pencils and lines used</li> <li>• Estimating proportions</li> <li>• Sketching simple solid objects in pictorial projection</li> <li>• Single view sketches</li> </ul> | Discussion and illustration<br>Demonstration<br>Practice | 4       |

### TOPIC: CONSTRUCTION OF ELLIPSE

**GENERAL OBJECTIVE:** The learner should be able to construct an Ellipse using different methods.

| SUBTOPIC    | SPECIFIC OBJECTIVES  | CONTENT  | TEACHING/ LEARNING ACTIVITIES                             | PERIODS |
|-------------|--|--|---|---------|
| The Ellipse | The learner should be able to construct an Ellipse by different methods based on its properties. | <ul style="list-style-type: none"> <li>• Concentric Circle Method</li> <li>• Rectangular method</li> <li>• Tangent and Normal to a given Ellipse.</li> </ul> | Demonstration and practice on construction of an Ellipse. | 6       |

## TOPIC: ENLARGEMENT AND REDUCTION

### GENERAL OBJECTIVE:

The learner should be able to enlarge and reduce figures

| SUBTOPIC                             | SPECIFIC OBJECTIVES   | CONTENT  | TEACHING/ LEARNING ACTIVITIES                            | PERIODS |
|--------------------------------------|---|--|--|---------|
| Enlargement and Reduction of figures | The learner should be able to: <ul style="list-style-type: none"> <li>- Enlarge figures</li> <li>- Reduce figures.</li> </ul> | <ul style="list-style-type: none"> <li>- Linear enlargement/reduction</li> <li>- Area enlargement/reduction</li> </ul> | Demonstration and practice on Enlargement and Reduction. | 4       |

## TOPIC: TRANSFORMATION OF FIGURES

### GENERAL OBJECTIVE:

The learner should be able to transform one figure to another of equal areas.

| SUBTOPIC                  | SPECIFIC OBJECTIVES  | CONTENT                            | TEACHING/ LEARNING ACTIVITIES                         | PERIOD |
|---------------------------|--|------------------------------------|---|--------|
| Transformation of figures | The learner should be able to transform one figure to another. | Quadrilaterals and Simple Polygons | Guided discovery on the principles of transformation. | 4      |



## TOPIC: INTRODUCTION TO PICTORIAL DRAWINGS

### GENERAL OBJECTIVE:

The learner should be able to draw and construct pictorial drawings

| SUBTOPIC   | SPECIFIC OBJECTIVES   | CONTENT   | TEACHING/ LEARNING ACTIVITIES                             | PERIODS |
|--|---|---|---|---------|
| Isometric Projections<br>Simple rectangular blocks.<br>Blocks with some oblique/slanting faces | The learner should be able to draw and construct isometric projections. | <ul style="list-style-type: none"> <li>• Isometric drawing of various regular solids</li> <li>• Isometric drawing of figures with some faces slanting.</li> <li>• 'Dimensioning' of isometric figures.</li> </ul> | Demonstration and practical work on Isometric projection. | 6       |

## TOPIC: ORTHOGRAPHIC PROJECTION

### GENERAL OBJECTIVE:

The learner should be able to draw and construct in orthographic projection

| SUBTOPIC                          | SPECIFIC OBJECTIVES  | CONTENT  | TEACHING/ LEARNING ACTIVITIES  | PERIODS |
|-----------------------------------|--|--|--|---------|
| Orthographic Projection of solids | The learner should be able to draw orthographic views of solids. | <ul style="list-style-type: none"> <li>• Three view drawing of regular solids in first angle projection.</li> <li>• Simple blocks</li> <li>• Cut blocks</li> </ul> | Illustration and demonstration of orthographic projections of solids | 8       |

## TERM 2 48 PERIODS

### TOPIC: SCALES

**GENERAL OBJECTIVE:** The learner should be able to apply metric units to construct and use scales.

| SUBTOPIC            | SPECIFIC OBJECTIVES   | CONTENT  | TEACHING/ LEARNING ACTIVITIES  | PERIODS |
|---------------------|---|--|--|---------|
| Constructing scales | The learner should be able; <ul style="list-style-type: none"> <li>- Interpret and construct scales</li> <li>- Identify and use metric units</li> </ul> | <ul style="list-style-type: none"> <li>• Metric units</li> <li>• Plain</li> <li>• Diagonal</li> <li>• Application</li> </ul> | Discussion, Illustration and demonstration on use of scales. Practice on constructing scales | 8       |

### TOPIC: SURFACE DEVELOPMENT

**GENERAL OBJECTIVE:** The learner should be able to develop surfaces.

| SUBTOPIC                | SPECIFIC OBJECTIVES                            | CONTENT  | TEACHING/ LEARNING ACTIVITIES  | PERIODS |
|-------------------------|--|--|--|---------|
| Development of surfaces | The learner should be able to develop surfaces | <ul style="list-style-type: none"> <li>• Surface development of various solids like funnels, watering cans, and roofs</li> <li>• Development of cut solid surfaces.</li> </ul> | - Discussion, illustration and demonstration of development of surfaces. | 8       |

## TOPIC: ORTHOGRAPHIC PROJECTION

### GENERAL OBJECTIVE:

The learner should be able to draw and construct in orthographic projection

| SUBTOPIC                                   | SPECIFIC OBJECTIVES  | CONTENT   | TEACHING/<br>LEARNING<br>ACTIVITIES  | PERIODS |
|--|--|---|--|---------|
| Orthographic projection (horizontal plane) | The learner should be able to:<br>- draw and construct using 1 <sup>st</sup> angle orthographic projection.<br><br>- draw and construct using 3 <sup>rd</sup> angle orthographic projection. | - Simple tools, machines parts, and woodworking joints<br><br>- Comparison of 1 <sup>st</sup> and 3 <sup>rd</sup> angle projection methods                                      | - Brainstorming on representation of views<br><br>- Illustration and demonstration on orthographic projection<br><br>- Practice on orthographic projection | 6       |
| Orthographic projection (inclined planes)  | - Draw and construct orthographic projection of solids using 1 <sup>st</sup> angle.  | - Inclined solids using 1 <sup>st</sup> angle projection of solids like prisms, pyramids, cylinders, right cone and sphere.<br><br>- Repeat in 3 <sup>rd</sup> angle projection | - Illustration and demonstration on orthographic projection<br><br>- Guided discovery on the principles of orthographic projection.                        | 4       |

# TERM 48 PERIODS

## TOPIC: Conic sections and their properties

**GENERAL OBJECTIVE:** The learner should be able to cross section parts of a cone

| SUBTOPIC       | SPECIFIC OBJECTIVES  | CONTENT  | TEACHING/ LEARNING ACTIVITIES   | PERIODS |
|----------------|--|--|---|---------|
| Conic sections | - The learner should be able to identify and construct the different shapes which are a result of sectioning a cone. | <ul style="list-style-type: none"> <li>- Construction of conic sections; circle, ellipse, parabola, hyperbola</li> <li>- Elevation, plan and true shape of cut section</li> <li>- Construction of tangent and normal</li> <li>- Determination of focal points of conical curves</li> </ul> | <ul style="list-style-type: none"> <li>- Discussion of conic sections</li> <li>- Observation of conic sections to identify different shapes</li> <li>- Demonstration and practice on constructing different shapes</li> </ul> | 6       |

## OPTION 1 - TERM 3 48 PERIODS

### TOPIC: CONVENTIONAL REPRESENTATION

#### GENERAL OBJECTIVE:

The learner should be able to draw, interpret and use conventions

| SUBTOPIC                            | SPECIFIC OBJECTIVES  | CONTENT  | TEACHING/ LEARNING ACTIVITIES   | PERIODS |
|-------------------------------------|--|--|---|---------|
| Materials                           | The learner should be able to draw and interpret various cross sectioned materials | - Hatching of various cross sectioned materials, ferrous, non-ferrous metals, wood, rubber, concrete, plastics and glass | - Class discussion of different materials<br>- Illustration of section of materials<br>- Guided discovery on the principles of sectioning | 4       |
| External and internal screw threads | The learner should be able to interpret and draw internal and external threads     | - Shafts and their convention for breaks<br>- Types of threads<br>- Applications<br>• Dimensioning                       | - Illustration of screw threads<br>- Demonstration of drawing internal and external threads<br>- Practise                                 | 6       |
| Fasteners                           | The learner should be able to identify and draw                                    | - Using conventions to construct bolts, studs, nuts and screw shafts<br>- Webs, ribs, rivets,                            | - Illustration of fasteners<br>- Demonstration on drawing fasteners and other simple  | 12      |

|  |   |  |
|--|---|--|
| fasteners and other simple holding devices | cotters, pins, washers, keys and key ways | holding devices<br>- Guided discovery on the convention of drawing threads |
|--|---|--|

## TOPIC: ASSEMBLY DRAWINGS

### GENERAL OBJECTIVE:

The learner should be able to identify and assemble parts of the drawing

| SUBTOPIC                           | SPECIFIC OBJECTIVES  | CONTENT   | TEACHING/ LEARNING ACTIVITIES  | PERIODS |
|------------------------------------|--|---|--|---------|
| Simple assembly drawings           | The learner should be able to interpret and draw orthographic assembly from pictorial representation | - Orthographic assembly drawing made from pictorial representation of machine parts or tools like mechanical vice, four-way tool post, adjustable spanner | - Illustration and demonstration of assembly drawing<br>- Guided discovery on principles of assembly drawing<br>- Assignment | 20      |
| Lay out of conventional data block | The learner should be able to interpret and draw layout of data block for assembly drawing           | - Layout of data block for assembly drawing including listing of component parts  | - Class discussion of simple assembly drawings<br>- Illustration<br>- Assignment   | 6       |

## OPTION 2 - TERM 3 32 PERIODS

### TOPIC: WORKING DRAWINGS

**GENERAL OBJECTIVE:**

The learner should be able to understand how to draw and interpret working drawings.

| SUBTOPIC         | SPECIFIC OBJECTIVES  | CONTENT   | TEACHING/ LEARNING ACTIVITIES                | PERIODS |
|------------------|--|---|--|---------|
| Ground plan      | The learner should be able to interpret and draw plans             | <ul style="list-style-type: none"> <li>- Scaled drawings</li> <li>- Symbols</li> <li>- Dimensions</li> <li>- Compass direction</li> </ul>                                   | Demonstration and practice on drawing plans. | 20      |
| Building drawing | The learner should be able to identify and make building drawings. | <ul style="list-style-type: none"> <li>- Proportional free hand sketching.</li> <li>- Drawing of windows and doors</li> <li>- Pitched Roofing (gable and hipped)</li> </ul> | Illustration of building drawing             | 12      |





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# METAL WORK

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## ABRIDGED CURRICULUM FOR SENIOR THREE METAL WORK

### INTRODUCTION

The Metalwork Abridged Curriculum for Senior Three has been written following the syllabus. Some topics and concepts have been merged and others compressed to the one-year content.

At the beginning of senior two you had covered the introductory topics, these you may not need to repeat rather you are expected to recap the previous topics in order to link learners to the new concepts in this curriculum.

This abridged curriculum will guide you to cover the content of senior two and three in one year. You are required to use the teacher's guides for both senior two and three to implement this curriculum. Where necessary you may need to further combine more other concepts in the curriculum, during your lesson presentations as are related provided you are achieving the aims of studying metalwork at ordinary level.

After this abridged curriculum the teacher will be required to go back to the normal curriculum.

### CRITICAL CHANGES IN THE METALWORK SYLLABUS

| S/N                        | CRITICAL CHANGES   | JUSTIFICATION  |
|----------------------------|--|--|
| <b>SENIOR THREE - 2022</b> |  |  |
| 1.                         | Topics on joining metals, machine tools and forge work are to be taught in term 1. | The concepts can appropriately be covered in the available time. |
| 2.                         | Topics on materials and Threads and thread cutting are to be taught in term 2.     | The concepts ably fit in the available time.                     |
| 3.                         | Heat treatment of plain carbon steels will be handled in term 3.                   | The concepts can well be taught in the available time.           |

# SENIOR THERE TERM 1 DURATION: 48 PERIODS

## TOPIC: JOINING METALS

**GENERAL OBJECTIVE:** By the end of the topic, the learner should be able to prepare and join metals.

| SUB-TOPIC | SPECIFIC OBJECTIVES   | KEY CONCEPTS  | TEACHING/LEARNING ACTIVITIES  | PERIODS |
|-----------|---|---|---|---------|
| Soldering | The learner should be able to identify tools/equipment, material and use them in soldering. | <ul style="list-style-type: none"> <li>• Tools, equipment and materials used in soldering</li> <li>• Types of soldering</li> <li>• Safety precautions during soldering</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion of tools, equipment and materials used in soldering</li> <li>• Identification of types of soldering</li> <li>• Discussion of the safety precautions during soldering</li> </ul> | 12      |

## TOPIC: MACHINE TOOLS

**GENERAL OBJECTIVE:** By the end of the topic the learner should be able to use machine tools.

| SUB-TOPIC                            | SPECIFIC OBJECTIVES  | KEY CONCEPTS  | TEACHING/LEARNING ACTIVITIES  | PERIODS |
|--------------------------------------|--|---|---|---------|
| Portable Machine tools (Power tools) | The learner should be able to identify and use portable machine tools. | <ul style="list-style-type: none"> <li>• Portable tools: hand drills, angle grinders</li> <li>• Safety, care and maintenance of machine tools</li> </ul>  | <ul style="list-style-type: none"> <li>• Demonstration of the use of portable machine tools</li> <li>• Discussion on the safety, care and maintenance of machine tools</li> </ul>   | 08      |
| Drilling Machines                    | The learner should be able to identify and use drilling machines.      | <ul style="list-style-type: none"> <li>• Features of drilling machines</li> <li>• Types of drilling machines: pedestal and radial</li> <li>• Types of drills and their uses: twist drill and countersink</li> <li>• Drilling processes: Work and tool holding, coolants</li> <li>• Safety, care and maintenance of drilling machines</li> </ul> | <ul style="list-style-type: none"> <li>• Illustration of the types of drilling machines</li> <li>• Demonstration of drilling operations</li> <li>• Discussion of safety, care and maintenance of drilling machines</li> </ul> | 08      |

## TOPIC: FORGE WORK

**GENERAL OBJECTIVE:** By the end of the topic, the learner should be able to carry out forging operations.

| SUB-TOPIC | SPECIFIC OBJECTIVES   | KEY CONCEPTS  | TEACHING/LEARNING ACTIVITIES  | PERIODS |
|-----------|---|---|---|---------|
| Forging   | The learner should be able to identify and use forging tools and equipment. | <ul style="list-style-type: none"> <li>• Meaning and advantages of forging.</li> <li>• Forging basic tools/equipment</li> <li>• Basic forging operation</li> <li>• Safety, care and maintenance of forging tools/equipment</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion on meaning and advantages of forging</li> <li>• Identification of basic forging tools/equipment</li> <li>• Demonstration of the basic forging operation</li> <li>• Discussion of the safety, care and maintenance of forging tools/equipment</li> </ul> | 08      |

## TOPIC: METALWORK PRACTICAL

**GENERAL OBJECTIVE:** By the end of the topic, the learner should be able to prepare material lists and cutting lists, cost the finished product, and acquire knowledge and skills in metalwork.

| SUB-TOPIC                         | SPECIFIC OBJECTIVES  | KEY CONCEPTS  | TEACHING/LEARNING ACTIVITIES  | PERIODS |
|-----------------------------------|--|---|---|---------|
| Making a hinge or scoop or square | <ul style="list-style-type: none"> <li>The learner should be able to follow the procedures of preparing pieces for making a hinge or scoop or a square.</li> </ul> | <ul style="list-style-type: none"> <li>Planning</li> <li>Square to datum</li> <li>Marking the pieces</li> <li>Drilling</li> <li>Cutting to size</li> <li>Filing the edges to size</li> <li>Finishing</li> </ul> | <ul style="list-style-type: none"> <li>Discussion on a hinge or a scoop</li> <li>Illustration of a hinge or scoop or a square</li> <li>Guided discovery on making a hinge or a scoop or a square</li> </ul> | 12      |
| Making a spanner                  | <ul style="list-style-type: none"> <li>The learner should be able to follow the procedures of preparing pieces for making a spanner</li> </ul>                     |   | <ul style="list-style-type: none"> <li>Discussion on a spanner</li> <li>Illustration of a spanner</li> <li>Guided discovery on making a spanner</li> </ul>  |         |

## TERM DURATION: 48 PERIODS

### TOPIC: THREADS AND THREAD CUTTING BY HAND

**GENERAL OBJECTIVE:** By the end of the topic, the learner should be able to identify and cut threads.

| SUB-TOPIC      | SPECIFIC OBJECTIVES  | KEY CONCEPTS  | TEACHING/LEARNING ACTIVITIES   | PERIODS |
|----------------|--|---|--|---------|
| Thread cutting | <ul style="list-style-type: none"> <li>The learner should be able to identify and cut different threads</li> </ul> | <ul style="list-style-type: none"> <li>Thread cutting tools: taps and dies</li> <li>Procedure of thread cutting by taps and dies</li> <li>Safety, care and maintenance of thread cutting tools</li> </ul> | <ul style="list-style-type: none"> <li>Guided discovery of thread cutting tools</li> <li>Demonstration and practice on procedure of thread cutting by taps and dies</li> <li>Discussion of the safety, care and maintenance of thread cutting tools</li> </ul> | 06      |

## TOPIC: MATERIALS

**GENERAL OBJECTIVE:** By the end of the topic, the learner should be able to identify and use various materials

| SUB-TOPIC                     | SPECIFIC OBJECTIVES  | KEY CONCEPTS   | TEACHING/LEARNING ACTIVITIES   | PERIODS |
|-------------------------------|--|--|--|---------|
| Raw materials                 | The learner should be able to identify raw materials and their classification.                     | <ul style="list-style-type: none"> <li>• Classification of materials</li> </ul>  | Illustration on the classification of materials  | 06      |
| Production of metals          | The learner should be able to identify the methods of production of metals                         | <ul style="list-style-type: none"> <li>• Basics of the extraction of iron ore</li> <li>• Basic process of production of steel</li> </ul>   | <ul style="list-style-type: none"> <li>• Illustration on extraction of iron ore and production of steel</li> </ul>   | 06      |
| Ferrous and nonferrous metals | The learner should be able to identify Ferrous and Nonferrous metals, their properties and alloys. | <ul style="list-style-type: none"> <li>• Physical properties of metals</li> <li>• Basic testing of metals: grinding, colour, sound, bending, filing</li> <li>• Types of ferrous metals: cast iron (white and grey),</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion on the Physical properties of metals</li> <li>• Demonstration and practices on the basic testing of metals</li> <li>• Discussion of the types of ferrous and nonferrous metals</li> <li>• Identification of nonferrous alloys</li> </ul> | 06      |



| SUB-TOPIC | SPECIFIC OBJECTIVES | KEY CONCEPTS  | TEACHING/LEARNING ACTIVITIES | PERIODS |
|-----------|---------------------|---|------------------------------|---------|
|           |                     | wrought iron, plain carbon steels, alloy steels<br>• Types of nonferrous metals: aluminium, copper, zinc, tin<br>• Nonferrous alloys: brass, bronze, solder |                              |         |

## TOPIC: DESIGN AND DRAWING

**GENERAL OBJECTIVE:** The learner should be able to interpret drawings and draw machine components.

| SUB TOPIC            | SPECIFIC OBJECTIVES  | KEY CONCEPTS   | TEACHING/LEARNING ACTIVITIES  | PERIODS |
|----------------------|--|--|---|---------|
| Basic drawing skills | The learner should be able to: <ul style="list-style-type: none"> <li>- acquire basic drawing skills.</li> <li>- use the acquired skills in design and drawing.</li> </ul> | Basic skills of: <ul style="list-style-type: none"> <li>-Tools and equipment used in drawing</li> <li>-Drawing of lines and their uses</li> <li>-Drawing in isometric projections</li> <li>-Drawing orthographic projections (first and third angle projections)</li> <li>-Sectional views</li> <li>-Assembly views</li> <li>-Free hand sketching</li> </ul> | <ul style="list-style-type: none"> <li>•Brain storming on basic drawing skills</li> <li>•Practice on basic drawing skills</li> <li>•Assignment on basic drawing skills</li> </ul> | 12      |

## TOPIC: METALWORK PRACTICAL

**GENERAL OBJECTIVE:** By the end of the topic, the learner should be able to prepare material lists and cutting lists, cost the finished product, and acquire knowledge and skills in metalwork.

| SUB TOPIC                            | SPECIFIC OBJECTIVES  | KEY CONCEPTS  | TEACHING/ LEARNING ACTIVITIES  | PERIODS |
|--------------------------------------|--|---|--|---------|
| Making a plumb bob or chisel or both | <ul style="list-style-type: none"> <li>The learner should be able to follow the procedures of preparing pieces for making a plumb bob or chisel or both</li> </ul> | <ul style="list-style-type: none"> <li>Planning</li> <li>Square to datum</li> <li>Marking the pieces</li> <li>Drilling</li> <li>Cutting to size</li> <li>Filing the edges to size</li> <li>Finishing</li> </ul> | <ul style="list-style-type: none"> <li>Discussion on a plumb bob or chisel</li> <li>Illustration of a plumb bob or chisel</li> <li>Guided discovery on making a plumb bob or chisel</li> </ul> | 12      |

## TERM 3 DURATION: 48 PERIODS

### TOPIC: HEAT TREATMENT OF PLAIN CARBON STEELS

**GENERAL OBJECTIVE:** By the end of the topic, the learner should be able to carry out heat treatment.

| SUB-TOPIC                                       | SPECIFIC OBJECTIVES   | KEY CONCEPTS  | TEACHING/ LEARNING ACTIVITIES  | PERIODS |
|---|---|---|--|---------|
| Heat treatment processes of plain carbon steels | The learner should be able to identify and carry out heat treatment of plain carbon steels. | <ul style="list-style-type: none"> <li>• Meaning of heat treatment</li> <li>• Basics of heat treatment processes: Hardening, Annealing, Normalising, Tempering</li> <li>• Safety precautions during heat treatment</li> </ul> | <ul style="list-style-type: none"> <li>• Brainstorming on the meaning of heat treatment</li> <li>• Demonstrations on the basic heat treatment processes</li> <li>• Discussion on the safety precautions during heat treatment</li> </ul> | 08      |

## TOPIC: MACHINE TOOLS

**GENERAL OBJECTIVE:** By the end of the topic, the learner should be able to use machine tools.

| SUB-TOPIC        | SPECIFIC OBJECTIVES   | KEY CONCEPTS  | TEACHING/LEARNING ACTIVITIES  | PERIODS |
|------------------|---|---|---|---------|
| The centre lathe | The learner should be able to identify and use the lathe machine. | <ul style="list-style-type: none"> <li>• Basic features of the centre lathe</li> <li>• Basic lathe operations: turning, drilling, thread cutting</li> <li>• Work and tool holding on the lathe: limited to three and four jaw chuck, tool post</li> <li>• Safety precautions when using the lathe machine</li> <li>• Care and maintenance of lathe machine</li> </ul> | <ul style="list-style-type: none"> <li>• Identification of basic features of the centre lathe</li> <li>• Demonstration and practice of lathe operations</li> <li>• Demonstration and practice of work and tool holding on the lathe</li> <li>• Discussion on the safety precautions, care and maintenance of lathe</li> </ul> | 08      |

## TOPIC: DESIGN AND PROJECT

**GENERAL OBJECTIVE:** By the end of the topic, the learner should be able to design and carry out projects.

| SUB-TOPIC                | SPECIFIC OBJECTIVES   | KEY CONCEPTS   | TEACHING/ LEARNING ACTIVITIES  | PERIODS |
|--------------------------|---|--|--|---------|
| Basic elements of design | The learner should be able to:<br>-Identify the basic elements of design.<br>-Apply basic elements in design drawing.   | <ul style="list-style-type: none"> <li>• Definition of design</li> <li>• Elements of design</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion on basic elements of design</li> <li>• Demonstration and practise on basic elements of design</li> </ul>   | 06      |
| Problem solving          | The learner should be able to:<br>-identify a need to solve an unidentified problem.<br>-analyse a problem to come up with a design brief.<br>-think through the possible ideas to come up with a possible solution.<br>-make preliminary sketches.<br>-make final working. | <ul style="list-style-type: none"> <li>• Design process</li> </ul>                                     | <ul style="list-style-type: none"> <li>• Brain storm on problem solving</li> <li>• Demonstration and guided discovery on systematic approach on solving a problem which demands a tangible product solution</li> </ul> | 06      |

| SUB-TOPIC | SPECIFIC OBJECTIVES                                     | KEY CONCEPTS  | TEACHING/ LEARNING ACTIVITIES | PERIODS |
|-----------|---|---|-------------------------------|---------|
| Project   | The learner should be able to design and make articles. | <ul style="list-style-type: none"> <li>• Design projects involving bench work, machine work, foundry work, fabrication</li> <li>• Suggested projects among others that may be affordable: vice, tool rack, cast iron door handle</li> </ul> |                               | 12      |

## TOPIC: METALWORK PRACTICAL

**GENERAL OBJECTIVE:** By the end of this topic, the learner should be able to prepare material lists and cutting lists, cost the finished product, acquire skills and knowledge in metalwork.

| SUBTOPIC                            | SPECIFIC OBJECTIVES   | KEY CONCEPTS   | TEACHING/ LEARNING ACTIVITIES   | PERIODS |
|-------------------------------------|---|--|---|---------|
| Making a bolt and nut or screw jack | <ul style="list-style-type: none"> <li>• The learner should be able to follow the procedures of preparing pieces for</li> </ul> | <ul style="list-style-type: none"> <li>• Planning</li> <li>• Square to datum</li> <li>• Marking the pieces</li> <li>• Drilling</li> <li>• Cutting to size</li> <li>• Filing the</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion of a chisel or bolt and nut or screw jack</li> <li>• Illustration of a chisel or bolt and nut or screw jack</li> <li>• Guided discovery on making a chisel</li> </ul> | 08      |

| SUBTOPIC | SPECIFIC OBJECTIVES                            | KEY CONCEPTS                 | TEACHING/ LEARNING ACTIVITIES | PERIODS |
|----------|--|------------------------------|-------------------------------|---------|
|          | making a chisel or bolt and nut or screw jack. | edges to size<br>• Finishing | or bolt and nut or screw jack |         |



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# WOODWORK

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## WOOD WORK ABRIDGED CURRICULUM FOR SENIOR THREE

### Guidelines

The Woodwork Abridged Curriculum for Senior Three has been written following the syllabus. Some topics and concepts have been merged and others compressed to one year content.

This abridged curriculum will guide the teacher to cover the content of senior two and three in one year. You are required to use the teacher's guides for both senior two and three to implement this curriculum. After this abridged curriculum the teacher will be required to go back to the normal curriculum.

### Critical Changes In The Woodwork Syllabus

- i) The sub-topic on doors in buildings and cabinet door construction and fitting have been merged. These carry the same concept which is simply used in different situations.
- ii) The sub-topic on securing table tops has been removed. The teacher can teach this concept in the practical construction of the occasional table in term 2.
- iii) The sub-topic of problem solving has been removed. This concept can be taught during the practical sessions of tea tray, occasional table.

|    | <b>CRITICAL CHANGE</b>   | <b>JUSTIFICATION</b>  |
|----|--|---|
| 1. | The sub-topics on doors in buildings and cabinet door construction and fitting have been merged. | These carry the same concept which is simply used in different situations.                            |
| 2. | The sub topic on securing table tops has been removed.   | The teacher can teach this concept in the practical construction of the occasional table in term 2.   |
| 3. | Sub topic of problem solving has been removed.   | This concept can be taught during the practical sessions of making the tea tray and occasional table. |
| 4. | Cabinet door construction and fitting has been merged with doors in buildings.                   | They both follow the same theme of door construction.   |

# TERM 1 DURATION: 48 PERIODS

## TOPIC: Tools And Equipment

**GENERAL OBJECTIVE:** The learner should be able to understand the need to classify, identify and use wood working tools and equipment.

| SUB-TOPIC                                | SPECIFIC OBJECTIVES  | CONTENT   | TEACHING/L EARNING ACTIVITIES  | TIME |
|--|--|---|--|------|
| Marking out, measuring and testing tools | The learner should be able to identify marking out, measuring and testing tools.   | <ul style="list-style-type: none"> <li>•Tape measure</li> <li>•Folding rules</li> <li>•Foot rules</li> <li>•Try square</li> <li>•Marking gauge</li> <li>•Mortise gauge</li> <li>•Cutting gauge</li> <li>•Marking knife</li> <li>•Pencil</li> <li>•Straight edge</li> <li>•Calipers</li> </ul> | Identification and demonstration on the use of marking out, measuring and testing tools  | 4    |
| Cutting tools                            | The learner should be able to: <ul style="list-style-type: none"> <li>•Classify cutting tools</li> <li>•Care for and maintain cutting tools</li> </ul> | <ul style="list-style-type: none"> <li>•Hand saws, cross cut saw, rip saw, panel saw</li> <li>•Common hand planes: trying plane, jack plane, smoothing plane</li> <li>•Chisels: Firmer, paring, mortise</li> </ul>  | <ul style="list-style-type: none"> <li>•Discussion on classification of hand tools</li> <li>•Demonstration of hand saws and common hand planes</li> <li>•Demonstration of chisels</li> </ul> | 8    |
| Holding and                              | The learner should be able   | <ul style="list-style-type: none"> <li>• Bench vice</li> <li>• G-clamps</li> </ul>  | Demonstrate and practice   | 4    |

|  |   |  |   |   |
|--|---|--|---|---|
| supporting tools                         | to identify and use holding and supporting tools.                               | <ul style="list-style-type: none"> <li>Sash clamps</li> </ul>                        | use of holding and supporting tools                         |   |
| Percussion and impelling/s triking tools | The learner should be able to identify and use percussions and impelling tools. | <ul style="list-style-type: none"> <li>Hammers: Claw, Warrington, Mallets</li> </ul> | Demonstrate on the use of the different hammers and mallets | 4 |

## TOPIC: Classification and Construction of Woodwork joints

**GENERAL OBJECTIVE:** The learner should be able to understand how to make various joints.

| SUB-TOPIC            | SPECIFIC OBJECTIVES   | CONTENT   | TEACHING/LEARNING ACTIVITIES                                 | TIME |
|----------------------|---|---|--|------|
| Widening joints      | The learner should be able to identify and make widening joints.    | Types of widening joints: butt, dowelled and rebate   | Demonstrate and practice the use of widening joints          | 2    |
| Angle/framing joints | The learner should be able to identify and make framing joints.     | <ul style="list-style-type: none"> <li>Mortise and tenon joints</li> </ul>                  | Demonstrate and practice the use of mortise and tenon joints | 4    |
| Lengthening joints   | The learner should be able to identify and make lengthening joints. | <ul style="list-style-type: none"> <li>Types of joints: end lap, butt and finger</li> </ul> | Demonstrate and practice the use of lengthening joints       | 2    |

## TOPIC: Woodwork Practical

**GENERAL OBJECTIVE:** The learner should be able to make a shoe rack or book shelf.

| SUB-TOPIC                        | SPECIFIC OBJECTIVES   | CONTENT   | TEACHING/LEARNING ACTIVITIES                                       | TIME |
|----------------------------------|---|---|--|------|
| Making a shoe rack or book shelf | <p>The learner should be able to:</p> <ul style="list-style-type: none"> <li>• Prepare the pieces.</li> <li>• Mark the appropriate joints.</li> <li>• Cut the joints.</li> <li>• Assemble the shoe rack or book shelf.</li> <li>• Prepare the shoe rack or book shelf for finishing.</li> </ul> | <ul style="list-style-type: none"> <li>• Preparation of pieces</li> <li>• Marking joints</li> <li>• Cutting joints</li> <li>• Shaping ends</li> <li>• Assembling the shoe rack or book shelf</li> <li>• Cleaning shoe rack or book shelf for finishing</li> </ul> | Demonstrating the use of tools to make the shoe rack or book shelf | 20   |

## TERM 2 DURATION: 48 PERIODS

### TOPIC: Edge Treatment of Manufactured Boards

**GENERAL OBJECTIVE:** The learner should be able to identify and apply methods of protecting edges of manufactured boards.

| SUB-TOPIC | SPECIFIC OBJECTIVES   | CONTENT   | TEACHING/LEARNING ACTIVITIES   | TIME |
|-----------|---|---|--|------|
| Lipping   | The learner should be able to: <ul style="list-style-type: none"> <li>Identify types of lipping to be used on manufactured boards.</li> <li>Identify joints suitable for manufactured board lipping.</li> </ul> | <ul style="list-style-type: none"> <li>Butt</li> <li>Tongue and groove</li> <li>Loose tongue and groove</li> <li>Bevel</li> </ul> | <ul style="list-style-type: none"> <li>Discussion and illustration of manufactured boards and joints applied</li> <li>Practice using edge treatment of manufactured boards and applied joints</li> </ul> | 4    |

### TOPIC: Door Construction and Fitting

**GENERAL OBJECTIVE:** The learner should be able to construct a door.

| SUB-TOPIC  | SPECIFIC OBJECTIVES   | CONTENT   | TEACHING/LEARNING ACTIVITIES   | TIME |
|--|---|---|--|------|
| <ul style="list-style-type: none"> <li>Cabinet doors</li> <li>Doors in building</li> <li>Door fitting</li> </ul> | The learner should be able to: <ul style="list-style-type: none"> <li>Identify the joints for the door construction.</li> </ul> | <ul style="list-style-type: none"> <li>Through mortise and tenon, bridge, dowelling, barefaced, stub mortise and tenon</li> </ul> | <ul style="list-style-type: none"> <li>Discussion and illustration on door construction</li> <li>Demonstration of door fitting</li> <li>Practise using cabinet door</li> </ul> | 12   |

|  |  |  |                                 |  |
|--|--|--|---------------------------------|--|
|  | <ul style="list-style-type: none"> <li>• Sketch the door joints.</li> <li>• Prepare pieces and mark the joints.</li> <li>• Construct the door.</li> <li>• Fit the door.</li> </ul> |  | <p>construction and fitting</p> |  |
|--|--|--|---------------------------------|--|

## TOPIC: Design and Drawing

**GENERAL OBJECTIVE:** The learner should be able to design and draw pieces of furniture or other wooden constructions.

| SUB-TOPIC                | SPECIFIC OBJECTIVES   | CONTENT   | TEACHING/LEARNING ACTIVITIES  | TIME |
|--------------------------|---|---|---|------|
| Basic drawing techniques | The learner should be able to use the basic drawing techniques in design and drawing. | <ul style="list-style-type: none"> <li>• Types of lines and their uses</li> <li>• Isometric projection</li> <li>• Orthographic projection</li> <li>• Free hand sketching</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion on the types of lines and their uses</li> <li>• Practice freehand sketching, isometric and orthographic projection</li> </ul> | 12   |

## TOPIC: Woodwork Practical

**GENERAL OBJECTIVE:** The learner should be able to make an occasional table without lower rails.

| SUB-TOPIC        | SPECIFIC OBJECTIVES   | CONTENT  | TEACHING /LEARNING ACTIVITIES   | TIME |
|------------------|---|--|---|------|
| Occasional Table | The learner should be able to: <ul style="list-style-type: none"> <li>• Prepare the pieces.</li> <li>• Mark the appropriate joints.</li> <li>• Cut the joints.</li> <li>• Assemble the table.</li> <li>• Prepare the table for finishing.</li> <li>• Apply appropriate finish.</li> </ul> | <ul style="list-style-type: none"> <li>• Piece preparation</li> <li>• Marking joints</li> <li>• Cutting joints</li> <li>• Assembly</li> <li>• Clean table for finishing</li> <li>• Apply appropriate finish</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion and illustration on occasional table</li> <li>• Demonstration and practise making occasional table</li> </ul> | 20   |



## TERM 3 DURATION: 48 PERIODS

### TOPIC: IRONMONGERY, ADHESIVES AND FINISHES

**GENERAL OBJECTIVE:** The learner should be able to use ironmongery, adhesives and finishes.

| SUB-TOPIC   | SPECIFIC OBJECTIVES  | CONTENT   | TEACHING/LEARNING ACTIVITIES                                   | TIME |
|-------------|--|---|--|------|
| Ironmongery | The learner should be able to identify and use ironmongery.  | Types of ironmongery:<br><ul style="list-style-type: none"> <li>• Fixing devices</li> <li>• Fittings for movement</li> <li>• Fittings for security</li> </ul> | Demonstrate the use of different ironmongery                   | 6    |
| Adhesives   | The learner should be able to identify and use adhesives.  | Types of adhesives:<br><ul style="list-style-type: none"> <li>• Animal</li> <li>• Polyvinyl Acetate (PVA)</li> <li>• Contact adhesives</li> </ul>             | Demonstrate the application of different adhesives             | 6    |
| Finishes    | The learner should be able to:<br><ul style="list-style-type: none"> <li>• Prepare surfaces for finishes application.</li> <li>• Identify and use finishes.</li> </ul> | <ul style="list-style-type: none"> <li>• Stains</li> <li>• Varnishes</li> </ul>   | Demonstrate and practise the application of different finishes | 6    |

## TOPIC: DESIGN AND DRAWING

**GENERAL OBJECTIVE:** The learner should be able to design and draw pieces of furniture or other wooden constructions.

| SUB-TOPIC                | SPECIFIC OBJECTIVES   | CONTENT  | TEACHING/LEARNING ACTIVITIES  | TIME |
|--------------------------|---|--|---|------|
| Basic drawing techniques | The learner should be able to use the basic drawing techniques in design and drawing. | <ul style="list-style-type: none"> <li>• Isometric projection</li> <li>• Orthographic projection</li> <li>• Free hand sketching</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion on the types of lines and their uses</li> <li>• Practise freehand sketching, isometric and orthographic projection</li> </ul> | 12   |

## TOPIC: TEA TRAY

**GENERAL OBJECTIVE:** The learner should be able to make a tea tray.

| SUB-TOPIC         | SPECIFIC OBJECTIVES   | CONTENT   | TEACHING/LEARNING ACTIVITIES  | TIME |
|-------------------|---|---|---|------|
| Making a tea tray | The learner should be able to: <ul style="list-style-type: none"> <li>• Prepare the pieces.</li> <li>• Mark the appropriate joints.</li> <li>• Cut the joints.</li> <li>• Assemble the tray.</li> <li>• Prepare the tray for finishing.</li> <li>• Apply appropriate finish.</li> </ul> | <ul style="list-style-type: none"> <li>• Piece preparation</li> <li>• Marking joints</li> <li>• Cutting joints</li> <li>• Assembly</li> <li>• Clean tray for finishing</li> <li>• Apply appropriate finish</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion and illustration on the tea tray</li> <li>• Demonstration and practise making tea tray</li> </ul> | 18   |



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