

**PROTOTYPE**



**NCDC**

NATIONAL CURRICULUM  
DEVELOPMENT CENTRE

**PHYSICAL  
EDUCATION  
TEXTBOOK**

**SENIOR ONE**



**LOWER SECONDARY  
CURRICULUM**





# PHYSICAL EDUCATION TEXTBOOK

SENIOR ONE



LOWER SECONDARY  
CURRICULUM



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This material has been developed as a prototype for implementation of the revised Lower Secondary Curriculum and as a support for other textbook development interests.

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## **Preface**

This Learner's Textbook has been written in line with the revised Physical Education syllabus. The knowledge and skills which have been incorporated are what is partly required to produce a learner who has the competences that are required in the 21st century.

This has been done by providing a range of activities which will be conducted both within and outside the classroom setting. The learner is expected to be able to work as an individual, in pairs or groups according to the nature of the activities.

The teacher as a facilitator will prepare additional learning materials to this Learner's Textbook to support the teaching and learning process.

**Associate Professor Betty Ezati**

Chairperson, NCDC Governing Council

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Last but not least, NCDC would like to acknowledge all those behind the scenes who formed part of the team that worked hard to finalise the work on this Learner's Book.

NCDC is committed to uphold the ethics and values of publishing. In developing this material, several sources have been referred to which we might not fully acknowledge.

We welcome any suggestions for improvement to continue making our service delivery better. Please get to us through P. O. Box 7002 Kampala or email us through [admin@ncdc.go.ug](mailto:admin@ncdc.go.ug).

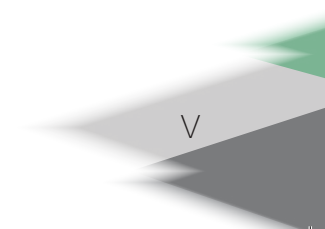


**Grace K. Baguma**  
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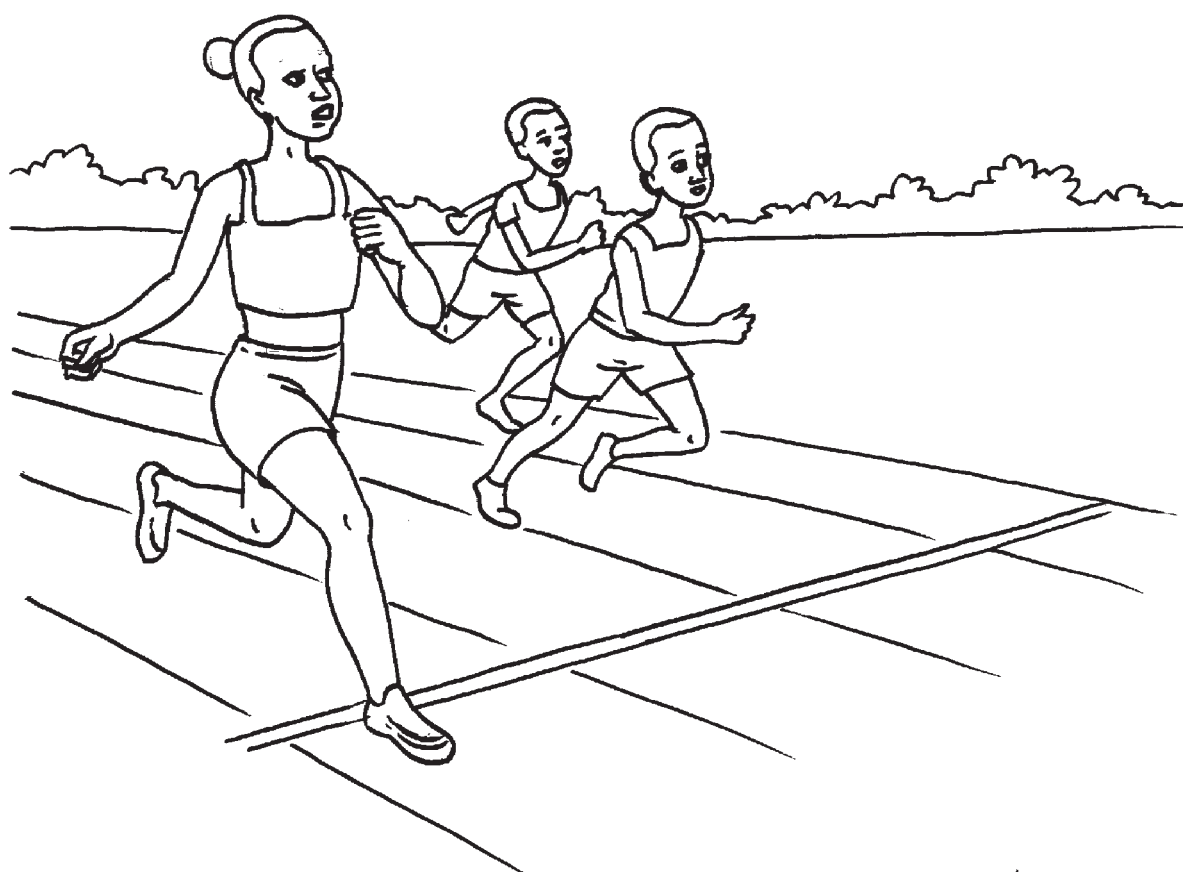
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# Chapter 1

## Introduction to Physical Education



<b>Key Words</b>	After studying this chapter and practising the activities, you will be able to:
<ul style="list-style-type: none"> <li>• physical education</li> <li>• games</li> <li>• sports</li> <li>• physical activities</li> </ul>	<ul style="list-style-type: none"> <li>• understand the meaning and composition of PE.</li> <li>• identify the difference between sport and games.</li> <li>• appreciate the benefit of engaging in PE to an individual and society.</li> </ul>

## Meaning of Physical Education



### Activity 1.1: Meaning and composition of PE

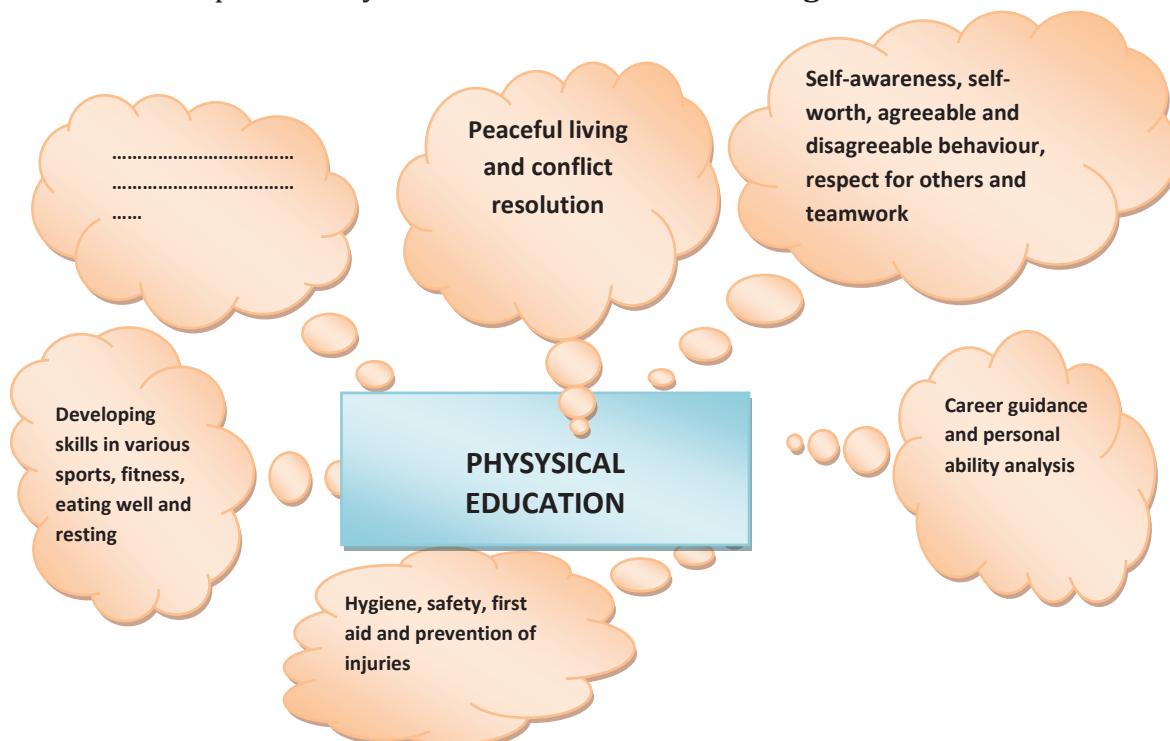
- i) Turn to your neighbour and ask him/her what he/she thinks Physical Education is all about.
- ii) With your neighbour, note down any two key aspects you think Physical Education is about and share with the class.

Physical Education is just like any other subject that you will study in your lower secondary level. Physical Education is “education through the physical”. It is essentially a way of learning through action, awareness and observation. It aims to develop your competence and knowledge of movement and safety, and your ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle.

You will be able to acquire knowledge, understanding, skills, values and attitudes for physical, mental, emotional, personal and social wellbeing.

## Components of Physical Education

Some of the aspects in Physical Education are shown in **Figure 1.1** below:



**Fig.1.1: Concepts in Physical Education**



### Activity 1.2: Understanding the components of PE

Form groups:

- i) Study **Fig. 1.1** and discuss the various components or what makes up Physical Education.
- ii) Share in your groups what else that you think PE involves.



### Activity 1.3: Understanding PE, games, sports and physical activities

In groups of 6 – 8:

- i) discuss what a physical activity is.
- ii) discuss and state the relationship between sport, PE and games.
- iii) study the pictures in **Fig. 1.2** and mention some of the physical activities that you get involved in both at school and at home.



*Fig. 1.2: Examples of physical activities*

### ICT Support

Use the Internet to search for information about the benefits of engaging in physical activities.

### Benefits of Engaging in Physical Education

What happens inside your body when you run, jump, play games, and get involved in other forms of exercise?

As the muscles in your arms, shoulders or legs alternately contract and relax, they use energy that comes from the food you eat. Because of the increased muscle contraction, your heart beats faster, and you breathe more rapidly and deeply. Your body temperature rises and you begin to sweat. These physical activities benefit you physically, socially and mentally.



#### Activity 1.3: Explaining the benefits of engaging in PE

- i) Brainstorm the benefits of engaging in PE.
- ii) Draw a table as shown below in your notebook. In the first column, write 'Physical Benefits'. In the middle column write 'Social Benefits' and in the righthand column write 'Mental Benefits'. Discuss and write down the benefits of engaging in PE as indicated in **Table 1.1** below.
- iii) Make a presentation of your suggestions to the class.

**Table 1.1: Benefits of Engaging in Physical Exercises**

Physical Benefits	Social Benefits	Mental Benefits
-	-	-
-	-	-



#### Information: Benefits of exercise and physical activities

- i) They burn up stored fat so your body shape improves and it fights overweight.
- ii) They relieve boredom.
- iii) They make one confident, thus making it easy to cope with challenging situations.
- iv) They tone up the muscles of the body so as to improve posture.
- v) They strengthen the bones.
- vi) They improve fitness.
- vii) They develop teamwork and working life.
- viii) They are stimulating and enjoyable.
- ix) They relieve tension and stress hence leading to a peaceful mind.



- x) They get rid of aggression; for example, you can take out angry feelings on a ball instead of a person.
- xi) Playing sport is a way to meet and make friends.
- xii) They help one to appreciate playing and doing exercise with others regardless of who they are.
- xiii) They promote team building among those who play and do exercise together.



### Activity of integration

You have been invited to talk to Primary Seven pupils who have just finished their PLE. They have not been physically active because they used all the time to prepare for their PLE. Through observation many of them look unhealthy, unfit yet others have negative attitude towards PE.

Using the knowledge you have acquired, prepare a write-up and share your experience about PE with the P7 candidates so as to encourage them to change their life style.

## Chapter 2

### Safety and First Aid



Key Words	After studying this chapter and practising the activities, you will be able to:
<ul style="list-style-type: none"> <li>• cardiac arrest</li> <li>• carotid pulse</li> <li>• casualty</li> <li>• DRABC routine</li> <li>• emergency</li> <li>• first aid</li> <li>• injury</li> <li>• pulse</li> <li>• RICE</li> </ul>	<ul style="list-style-type: none"> <li>• describe the concept of first aid.</li> <li>• explain the use of the various materials that are used to give first aid.</li> <li>• use appropriate safety procedures to manage injuries.</li> <li>• perform first aid for basic injuries.</li> </ul>

#### Concept of First Aid

When you or any other person gets injured, usually there is that first treatment you give before rushing the person to a clinic, if necessary. That first help is given using various materials which could be local or manufactured (**fig. 2.1**).

This first help is what we call **first aid**.



*Fig. 2.1: First aid kit and its contents*

Knowledge of the emergency measures, such as saving methods can help you prepare for emergency situations. In order to feel more confident and more useful in an emergency, you should know about first aid, its procedures and how to recognize various kinds of injury cases that require medical attention.

During physical activities at school and even at home, injuries such as cuts, bruises and even fainting can occur. In such cases, you need to have knowledge of the different local materials that can be used for first aid or have access to a first aid box that contains first aid items. The most important aim of first aid is to save life and stop further injuries.



### Activity 2.1: Identifying contents of a first aid kit

- i) State the different materials that you locally use to give first aid.
- ii) Using the first aid kit provided by the teacher or one at the school clinic, identify and note down the contents of the first aid kit and what they are used for.
- iii) Share and compare your findings with your neighbour.

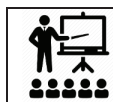


### Activity 2.2: Understanding first aid

In groups:

- i) discuss why it is important to learn first aid techniques.
- ii) discuss the importance of first aid.
- iii) mention the different local materials that you usually use for first aid in case of burns, cuts, bruises etc.
- iv) suggest a local material you would use to provide first aid for each of the named components of the first aid kit and write them in the table below.

S/N	Description of injury	Local material used for first aid	Material used from the first aid kit
1	Small wound	Black jack leave extract	Iodine, spirit...
2			
3			
4			
5			



### Activity 2.3: Explaining the importance first aid

- i) Make a presentation of your findings from **Activity 2.2** to the class.



**You should note that, staying calm and sympathetic and being reassuring are part of the treatment. Encourage those who are injured to feel that they will recover soon, and that there is nothing to worry about. Do this even for minor cuts and scratches.**

### How to Conduct First Aid

In an emergency, you may have only seconds to save a life. The only person you may have to depend on is yourself. How would you handle such a situation if you were alone? Properly administered, first aid can prevent or reduce pain and long-term effects of an injury; in some cases, it can mean the difference between life and death.



**When a person is injured:**

- i) **do not rush in and pick her/him up unless she/he is not seriously injured.**
- ii) **do not move her/him unless it is dangerous or harmful for her/him to stay where she/he is.**
- iii) **do not move her/him if she/he appears to have a fracture, or a back or neck injury until you are sure that movement is safe.**
- iv) **check for breathing. If unconscious, immediately call for expert medical assistance.**
- v) **stop the bleeding (she/he is bleeding) at once with a clean cloth and seek medical aid.**
- vi) **there is need for maximum care while handling the bleeding sections of the casualty.**



- vii) **try as much as possible to avoid direct contact with blood as this possess a great risk of infections.**

### The DRABC Routine of First Aid

DRABC is an acronym in which each letter represents what action you take as you carry out first aid on a casualty. The letters are in order from what you start with as you carry out first aid. DRABC stands for **Danger, Response, Airway, Breathing and lastly Circulation**. It involves checking for **danger**, whether the person is **responding**, opening the **airway** in case the person is unconscious, for **breathing** and then enabling **circulation**.

What do you do if an ill or injured person collapses in front of you? If you follow the DRABC routine, you could save a life. The aim of DRABC is to keep the person breathing until an ambulance arrives. This is because without oxygen, the brain is damaged within just three or four minutes and dead within ten minutes.



#### Activity: Practising the DRABC routine

In groups:

- i) study the steps in the DRABC routine that is elaborated below.
- ii) using a role-play, illustrate the procedures under each of the routine components of DRABC.

#### The DRABC routine is as follows:

- i) **D is for Danger**
  - First stop and check for danger before you rush to help the casualty. There could be danger from equipment, fire, gas, falling masonry or fumes.
  - If there is danger, do not put yourself at risk. Your own safety comes first. Shout or phone for help.
  - If there is no danger, clear the area around the casualty. This could be stopping a game.
- ii) **R is for Response**
  - Shake the casualty gently by the shoulders and shout 'can you hear me?' as shown in **Fig. 2.4.1**.

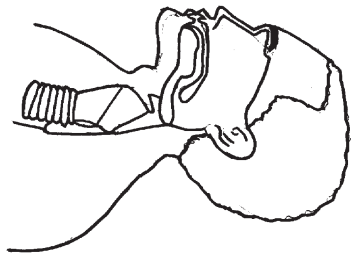


**Fig. 2.2: Checking for response from an injured person**

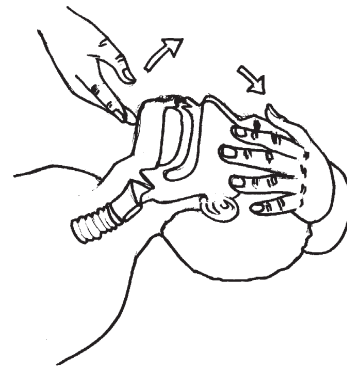
- If the casualty shows any response, he or she is conscious. You can tell from the response how weak the casualty is.
- If the casualty can speak, find out if and where he or she has pain. Do what you can to stop the condition of the casualty from getting worse. For example, stop severe bleeding and support broken bones. Send for an ambulance as soon as possible, if necessary.
- If there is no response, the casualty is unconscious. This is a very serious condition. Move on to resuscitation (make the person regain consciousness) following A, B and C.

**iii) A is for Airway**

- When a person is unconscious, the tongue can block the airway, so preventing this is the most important thing you can do.
- Loosen any tight clothing.
- Raise the chin and tilt the head back to open the airway fully.
- Remove any obvious fingers to scrap away any vomit.



**Fig. 2.3: Tongue blocking the airway**



**Fig. 2.4: Raise chin and tilt head back to unblock the airway**

iv) **B is for Breathing**

Is the casualty breathing?

- Look for the chest rising and falling. Listen for breathing sounds. Feel for breath on your cheek. Moistening the cheek will help.



**Fig. 2.5: Looking, listening and feeling for breathing**

- If the casualty is breathing, do what you can to stop severe bleeding and support broken bones.
- Then place the casualty in the recovery position while you get help.
- But if the casualty shows no signs of breathing, move on to C.

v) **C is for Circulation**

- Feel for the carotid pulse (major arteries in the head and neck), below the ear, at either side of the Adam's apple.
- A pulse shows the heart is beating and the blood is circulating.
- Then give mouth-to-mouth ventilation (the kiss of life) to restore breathing.
- If there is no pulse, give both cardiac massage and mouth-to-mouth ventilation to restore circulation and breathing.

### What next when there is no circulation?

In case you perform the last step of the DRABC routine and the casualty is unconscious, immediately you will need to perform the mouth-to-mouth ventilation to provide oxygen, cardiac massage to boost circulation and lastly putting the casualty into a recovery position as you wait for medical help. These procedures can be performed as elaborated below.

#### a. Mouth-to-mouth ventilation

In mouth-to-mouth ventilation, you force air from your lungs into the casualty's lungs. The oxygen in this air can keep the casualty alive.

1. Make sure the casualty's airway is fully open.
2. Pinch the casualty's nostrils closed with your thumbs and first finger.
3. Take a deep breath. Then seal your lips firmly around the casualty's open mouth. Breathe out smoothly and firmly until you see the casualty's chest rise as shown below.

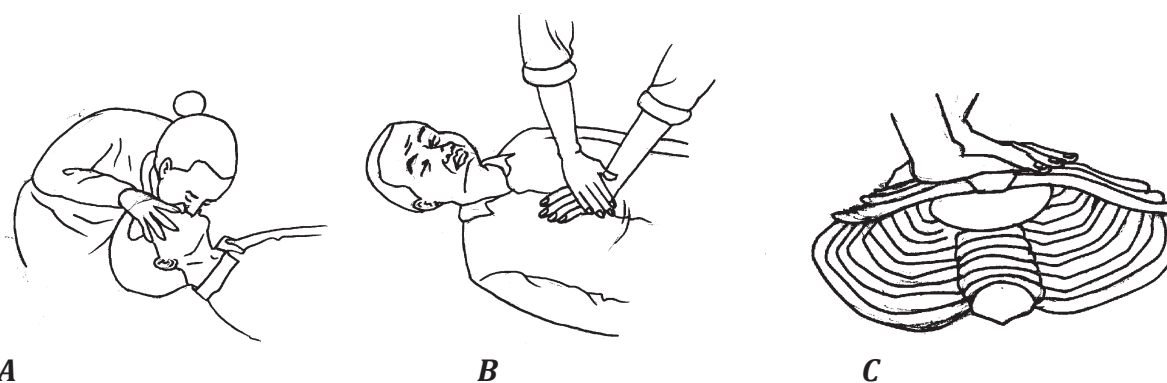


**Fig. 2.6: Mouth-to-mouth ventilation**

4. Take your mouth away and breathe in. The chest will fall.
5. Repeat with 1 breathe every 6 seconds for one minute.
6. If breathing has not returned within a minute, phone for an ambulance. Get back to the casualty as quickly as you can.
7. Continue with the mouth-to-mouth ventilation, if necessary.
8. If breathing also starts, place the casualty in the recovery position.
9. Check the breathing and pulse every three minutes.

#### b. Cardiac Massage

Cardiac massage or external chest compression is a way of squeezing the heart so that blood is forced out of it and round the body. It is used in case of cardiac arrest. This is when the heart stops beating; for example, during heart attack. Cardiac massage must be combined with mouth-to-mouth ventilation so that the blood gets oxygen too. Cardiac massage can be done as follows:



**A**  
**Fig. 2.7: Doing cardiac massage**

1. Call for an ambulance.
2. Make sure the casualty's airway is open.
3. Start with 2 breaths of mouth-to-mouth ventilation.
4. Now use your weight to compress the chest 15 times as shown in **Fig. 2.7** above. Do it smoothly and quickly, but faster than once per second.
5. Next, give 2 more mouth-to-mouth ventilation.
6. Repeat the pattern of 15 compressions and 2 mouth-to-mouth ventilations until help arrives. Don't stop unless the casualty's condition improves. (NB: skin colour may improve or casualty may move.) Check the pulse.
7. Continue with mouth-to-mouth ventilation, if necessary. Check the pulse every minute.
8. If breathing also starts, place the casualty in the recovery position. Check the breathing and pulse every three minutes.

### c. The recovery position

It is the safest position for an unconscious breathing person. The head is tilted so that the tongue can't block the throat. Since the head is a little lower than the rest of the body, vomit will drain from the mouth and not choke the person. You can safely leave an unconscious person in this position while you get help.



**Fig. 2.8: Recovery position**



### Activity 2.5: Attending to an unconscious

- i) Describe how you would attend to a casualty that is unconscious.
- ii) In pairs, practise and illustrate the recovery position.

#### Attending to minor injuries

In life, you get different kinds of injuries or accidents depending on what we are doing whether at home, school or in our communities. Despite the place where you are, you should be able to save a life using the means available in terms of material. Lack of a manufactured first aid kit should never be an excuse for you not to give first aid. Below is a description of how you can attend to different kinds of injuries.

##### a. Minor Cuts and Wounds

Minor cuts can be caused by any sharp object such as knife, scissors, broken glass, blades or nails. Although the surface cut may be small, such objects can penetrate deeply and cause more harm to the internal parts in the body. If not covered properly, dirt may get into the wounds, and so even minor scratches can become infected.

##### Action taken for cuts and wounds

- i) Wash hands thoroughly before treating the wound.
- ii) Gently clean away any dirt on the surface of the cut or wound.
- iii) Using clean warm water and a little mild antiseptic, clean the wound and the surrounding area.



**Fig. 2.9: Cleaning a wound**



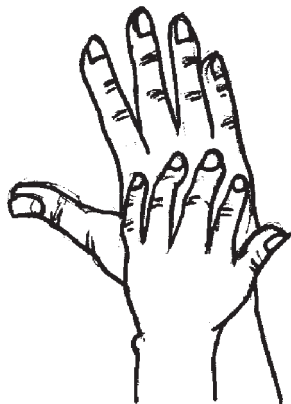
- iv) Dress the wound with a clean bandage.
- v) If the wound or cut is caused by a rusty object, a tetanus injection may be required.

**b. Cramps**

A cramp is a sudden pull in the muscle during a hard or long activity. It may be caused by lack of fluid or flow or blood to the muscles. It can cause sharp pain in the muscle. Poor circulation or hard, long exercise in hot or cold conditions can cause a muscle to become cramped.

**Action taken for a cramp**

- i) Gently stretch and straighten the cramped muscle.
- ii) For a hand cramp, get the person to straighten the fingers and press down on the tips.



*Fig. 2.10: First aid for a hand cramp*

- iii) For foot or calf cramp, get the person to stand, pushing down on the heel and toes.
- iv) For thigh cramp, seat the person and straighten the leg. Lift the toes with one of your hands and press down on the knee with the other one.

**c. Sprains**



*Fig. 2.11: Sprained ankle*

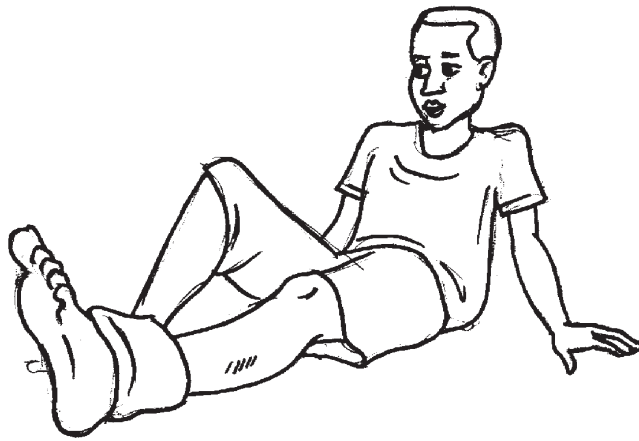
When the white tissue that binds bones and muscles together in a joint is torn, it is called a sprain. Sprains often happen to ankles, but can also affect wrists, elbows, knees and shoulders.

Signs and symptoms of sprains are pain and tenderness around the joint, restricted movement of the joint, swelling and bruising.

**Warning!** Do not move the joint if you suspect it is fractured.

**Action taken for sprains (RICE)**

- i) **R**- Rest the joint in the most comfortable position.
- ii) **I**- Apply ice packs that are wrapped in a piece of cloth.
- iii) **C**- Apply a compression bandage that extends well beyond the site.
- iv) **E**- Elevate the injured limb to reduce blood flow to the limb.

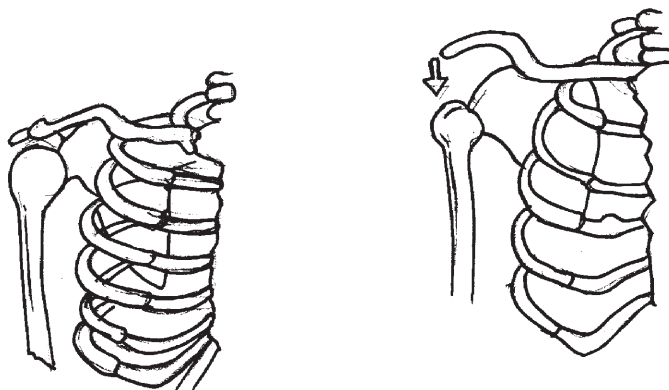


**Fig. 2.12: Ice on a sprained ankle**

- v) Seek medical aid.

**d. Dislocations**

When the bones are pushed out of their normal position, it is called a dislocation. Signs and symptoms of dislocations are intense pain, deformity, inability to move the joint, and swelling and bruising.

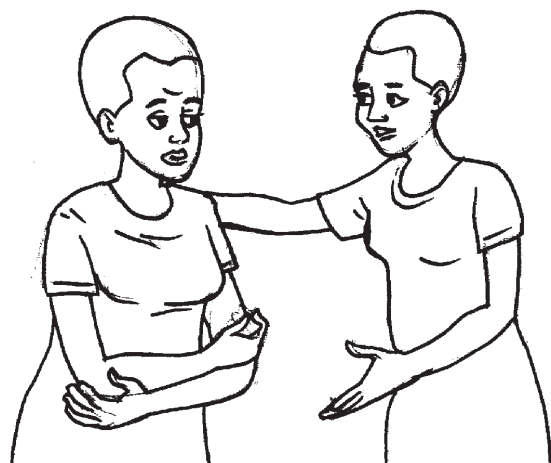


**Fig. 2.13: Dislocated shoulder**

**Warning!** Do not move the joint if you suspect a fracture, and do not attempt to push the joint back into position.

**Action taken for dislocations**

- i) Support and rest the joint in the most comfortable position



**Fig 2.14: Support and rest for a dislocated joint**

- ii) Apply ice packs
- iii) Seek medical aid immediately

**e. Fractures**

A fracture is a broken or cracked bone. There are two types of fractures: open and closed fractures as you will see in the science lesson.

- ❖ **What is an open fracture?**
- ❖ **What is a closed fracture?**

Signs and symptoms of fractures are: the sound or feeling of the bone breaking; intense pain around the break; deformity of the limb or inability to move it; tenderness when light pressure is applied; and the sound of bone-ends grating against each other.

**Warning!**

If possible, do not

- move the broken bone.
- shift the casualty unless it is essential for safety.
- administer any food or drink because a general anaesthetic may be needed.

**Action taken for fractures**

- i) If there is an open wound, control bleeding and cover the wound with a clean dressing then apply a bandage, making sure it is not directly over the fracture.
- ii) Support the fractured limb in the most comfortable position. Raise and rest the fractured foot or ankle on pillows or folded blankets.
- iii) Do not attempt to straighten the fractured limb.
- iv) Seek medical aid immediately.



### Activity 2.6: Practising first aid for minor

In groups of five, illustrate how you would give first aid on the injuries elaborated above using the items from the first aid kit. You are encouraged to improvise where there is no item in the first aid kit.



### Activity 2.7: Explaining safety and injury prevention

- i) Prepare and make a presentation of the
  - different situations which would require the DRABC routine of first aid.
  - danger points and activities at school that are likely to cause injuries.
  - different ways you can prevent injuries before, during and after sports activities.



### Activity of Integration

**Context:** Suppose you were in the field for inter-class ball game competitions and two students collide, causing one to fall hard on the ground, and the other collapsing due to the collision as shown in **Fig. 2.15** below.



**Fig. 2.15: Accident during school competitions**

#### Task: Using your knowledge and skills

- i) In a presentation, illustrate what you would do and how you would help these students.
- ii) State in a write-up, the possible injuries and the steps you would follow to give first aid of the stated sports injury?

## Chapter 3

### Body Conditioning



<b>Key Words</b>	After studying this chapter and practising the activities, you should be able to:
<ul style="list-style-type: none"> <li>• Warm-up</li> <li>• Cool down</li> <li>• Dynamic exercises</li> <li>• Stretching</li> </ul>	<ul style="list-style-type: none"> <li>• know own body and its use in performance of physical activities.</li> <li>• identify and use the principal ways of prevention of injuries during physical activities.</li> <li>• perform a range of safe warm-up and cool down exercises that can be used before and after a physical activity.</li> <li>• explain the value of warming-up and cooling down before and after performing a physical activity respectively.</li> </ul>

#### Body changes and Participation in Physical Activities

Boys and girls participate in a number of physical activities. Despite the body changes that happen to them, their participation in physical activities should not be changed.

Boys are usually considered to be stronger compared to girls although it may not be true for all cases. Hence there are some similarities and differences in the activities that are played by boys and girls.



### Activity 3.1: Our body and performance of physical activities

In groups of five, copy **Table 1.4** below in your exercise books. In the second column, write a physical activity. Indicate in the 3rd and 4th columns the differences in how it is performed by boys and girls.

**Table 2**

SN	Activity	Boys	Girls
1			
2			
3			
4			

- i) Discuss in your groups the similarities in the physical activities that boys and girls engage in.
- ii) Write down the body parts that are used in physical activities.
- iii) Identify the body parts that need protection during physical activities.



**Note:**

**The difference that comes with performance of physical activities are normal and healthy. For example, the weights thrown, pushed or carried by boys are usually higher than those of girls at a particular developmental change. This is mainly for safety reasons.**

As adolescents grow, there are physical changes that happen to their bodies. For example, girls grow breasts. Therefore, during physical activity care must be taken not to hit the breast since this can lead to injury. The same applies to the testicles of boys.

Warm-up and cool-down are some of the key principle of injury prevention especially when it comes to engagement in physical activities. It is therefore very important that before any activity you first warm up and after cool down.

**Warm-up**

- Equipment and facility
- Field/space to work on that is clean and clear of sharp objects
- Proper sportswear



### Activity 3.2: Understanding warm-up

In most situations, it is important to prepare for any form of physical activity by completing a warm-up.

- i) Why is it important to warm-up?
- ii) What are some of the activities you can do so as to warm up?



#### Principles of Warming up

##### Why warm up?

The basic phases of a warm-up are

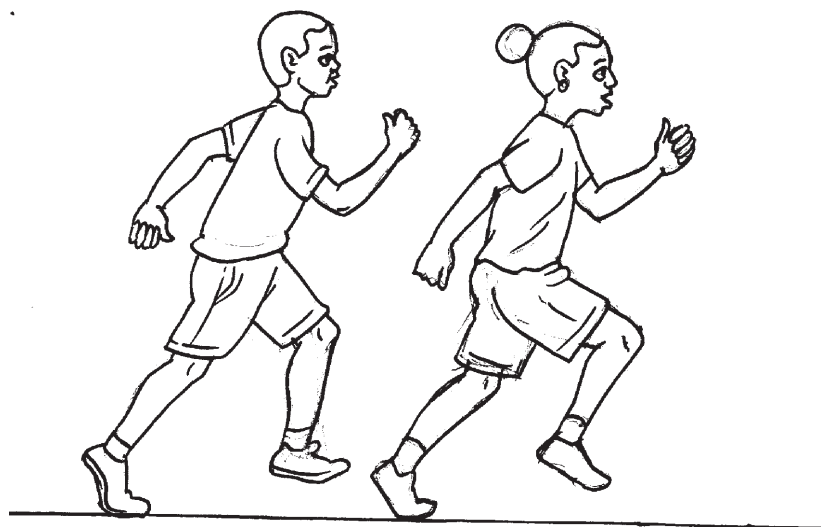
- i) an increase in body and muscle temperature.
- ii) an increase in blood and oxygen flow to the working muscles.
- iii) lubrication of the joints to improve range of motion.

A warm-up lubricates the muscles, joints and other connective tissues in preparation for stretching of muscles. This further reduces cases of injury.

##### How and when to Warm up

Before any sporting activity, it is advisable to engage in a warm-up session of 5 – 10 minutes, including general exercise, dynamic stretching exercises and specific exercises.

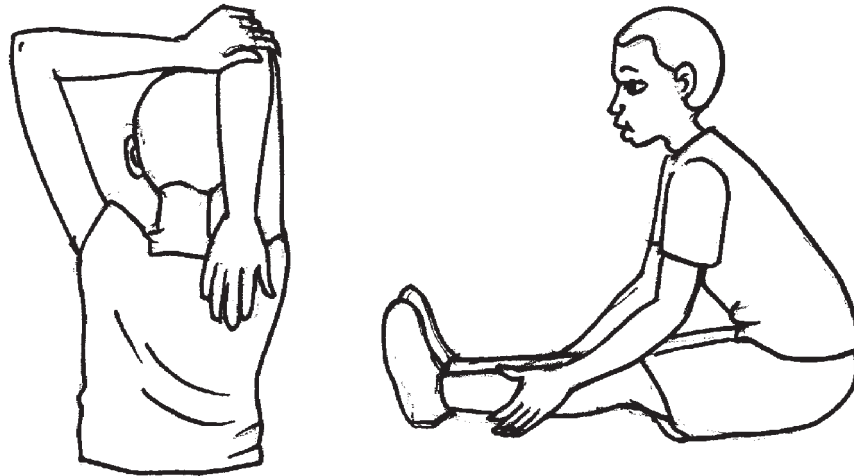
- a) One common and better form of general exercise is jogging.



*Fig. 3.1: Jogging is a good way to warm up*



- b) Dynamic stretching exercises are good because they
- i) lengthen muscle and tendon units.
  - ii) promote blood circulation.
  - iii) prevent traumatic injuries.
  - iv) enhance performance.



*Fig. 3.2: Stretching*

#### **How to Stretch**

Stretching has to be dynamic and not static so that the muscles get warmed up.

#### **When to Stretch**

It is important to stretch before and after exercise or sports and games.



*Fig. 3.3: Examples of stretching exercises*

- c) Sport specific exercises are exercises that duplicate the exact movement of a certain action of a sport. They develop strength and flexibility in the same range of motion as the actual skill. These exercises usually depend on the major activity to be performed. For example, if it is football, do some specific exercises to work on the legs.

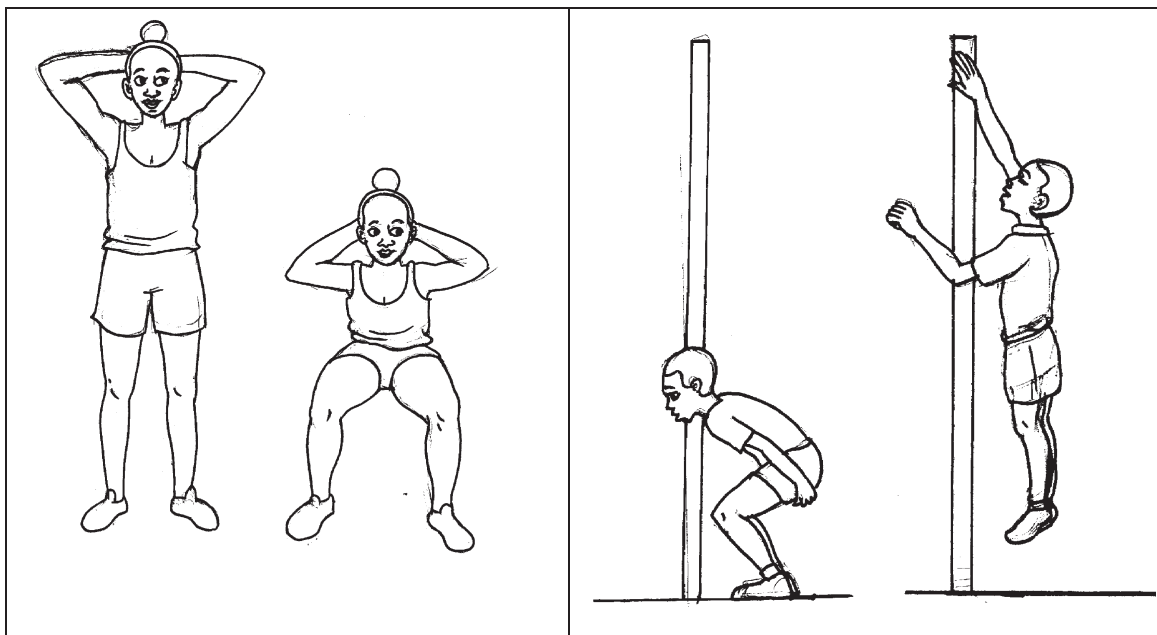


Fig. 3.4: Squat exercise

Fig. 3.5: Jump and reach test



### Safety Tips

#### Rules of stretching include:

- i) Warm-up prior to stretching
- ii) Stretch before and after exercise
- iii) Stretch alternate muscles
- iv) Stretch gently and slowly
- v) Never bounce or stretch rapidly
- vi) Stretch to the point of extension or discomfort but never pain
- vii) Breathe slowly and rhythmically throughout the stretching routine. Do not hold.



### Activity 3.3: Performing warm up exercises

Brainstorm for general and sport specific exercises and perform them in groups of 4 – 6.

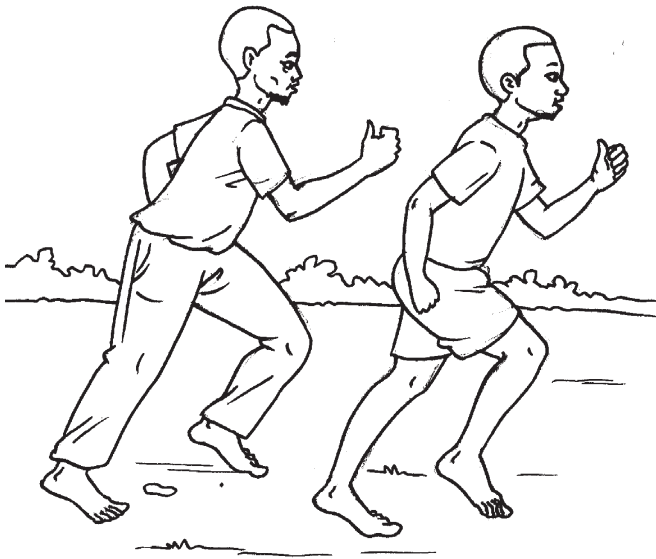
Your teacher will lead you through warm-up exercises starting with:

**i) General exercises**

Try out the following general exercises: walking drills; knee to shoulder exercises, jogging, running, skips, stationery jumps and others that shall be indicated by your teacher.



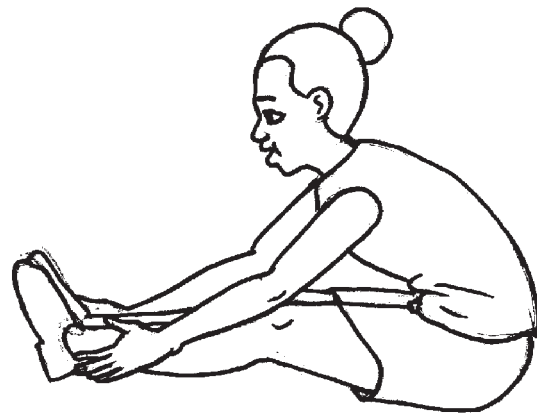
*Fig. 3.6: Different walking drills as warm-up exercises*



**ii) Dynamic Stretching Exercises**

Go through the following stretching exercises and ensure that you do them with a dynamic rhythm.

- a) **Hamstrings:** Sit on the ground with legs stretched out in front. Keeping the back straight, reach forward as far as possible.



**Fig. 3.7: Hamstring stretch**

- b) **Quads:** Lie down on the left-hand side. With the right-hand, hold the right foot and by bending the knee, draw it up towards the back. The left leg should be bent at 90 degrees. Change legs and repeat.



**Fig. 3.8: Quad Stretch**

- c) **Calves:** Lean against a wall or pole and put one foot in front of the other. Bend the front knee until a stretch can be felt in the calf of the straight back leg. Do not forget to stretch both legs.



**Fig. 3.9: Calf stretch**

- d) **Achilles:** Repeat the calf stretch, then slowly bend the back knee until a stretch can be felt in the Achilles tendon (back of the foot).



**Fig. 3.10: Achilles stretch**

- e) **Groin:** Sit down, bend the knees and put the soles of the feet together. Hang on to the feet, put elbows on the inside of the knees and slowly pull feet towards the body. Hold.



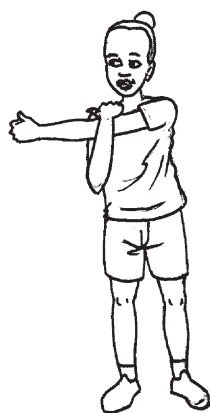
**Fig. 3.11: Groin stretch**

- f) **Back:** Link hands above the head. Stretch upwards.



**Fig. 1.12: Back stretch**

- g) **Shoulders:** Lift the right arm so that it is horizontal to the floor. Place the left-hand just above the elbow and pull it gently across the body. You can also work with a friend and ask them to stretch you as shown in **(Fig. 3.13 ii)** below.



**(i)**



**(ii)**

**Fig. 3.13 i & ii: Shoulder stretch**



- h) **Arms:** Bend the elbow of the right arm and place it behind the head, and with it touch the back. With the left hand, gently push the right elbow down.

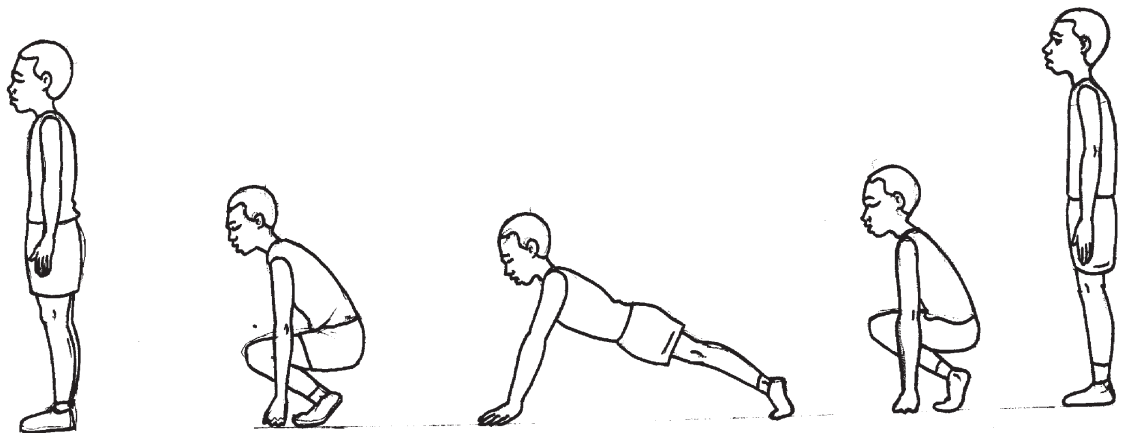


*Fig. 3.14: Arm stretch*

### iii) Sport Specific Exercises

Try out the following sport specific exercises. Your teacher will demonstrate more exercises as you train in other sport activities.

These may include: squat thrust for athletes, sprint ABCs, plyometric exercises, sprints and any others that your teacher will demonstrate.



*Fig. 3.15: Squat thrust*



## Cool-down

It is also important to cool down. Why do you think so?

	<b>Activity 3.4: Practising cool-down exercises</b>
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- i) Perform the three steps below for your cool-down. Your teacher will guide you through the different exercises.

**Step 1:** **Global** cool-down which can be slight jogging or walking

**Step 2:** **Gymnastic activities** like jumping different body shapes to loosen the muscle reaction

**Step 3:** **Relaxation** by stretching. You can perform the same stretching exercises as in warm-up but this time they should be long slow stretches and not dynamic. And lastly, do some breathing: muscle contract/relax.

**Note:** A person must always finish their training or game with a slow walk or jog, and again do the stretching exercises used in warm-up but not dynamic. A cool-down prevents severe muscle soreness after training, and stops muscles becoming stiff and tight.

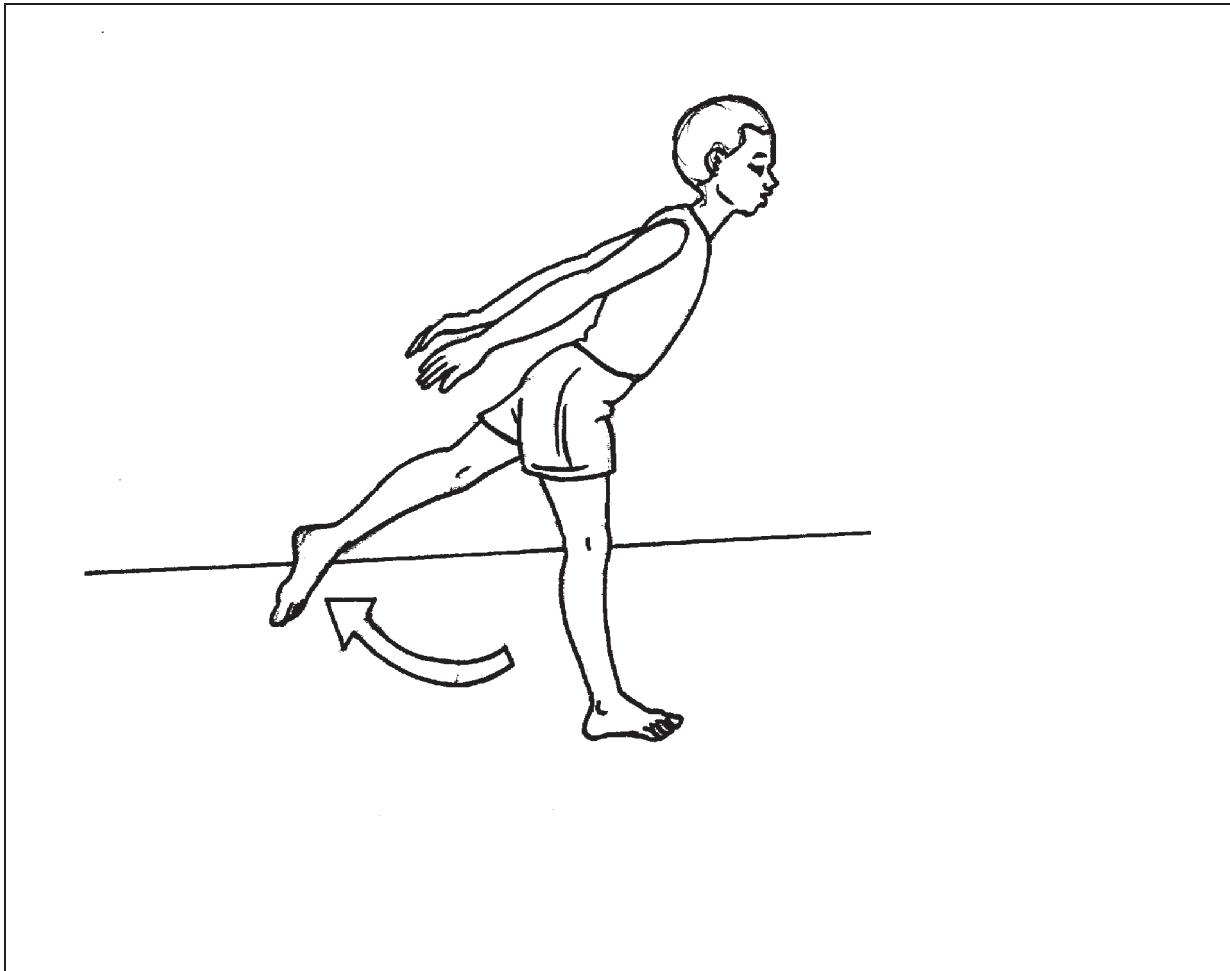
	<b>Activity of Integration</b>
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Suppose the school athletics team is preparing for the inter-school competitions, but among them are two girls who have previously won in the events (i.e. 100m, and 400m). These girls know that they are good and lately they don't bother to warm up with others especially in preparation for practice. The team captain has requested that you talk to the girls.

Using knowledge and skills you have acquired from studying this chapter, prepare a presentation of what you would tell or ask the girls to do in order to change this attitude that they have developed lately.

## Chapter 4

# Movement Concepts in Educational Gymnastics



<p><b>Key Words</b></p>	<p>After studying this chapter and practising the activities, you will be able to:</p>
<ul style="list-style-type: none"> <li>• gymnastics</li> <li>• spotter</li> </ul>	<ul style="list-style-type: none"> <li>• understand the concept of Educational Gymnastic activities and their relevance to maintaining fitness and health.</li> <li>• apply spotting skills to ensure safe performance of gymnastic activities.</li> <li>• perform basic movement activities and body shapes with awareness of safety precautions and practices.</li> </ul>

## Equipment and Facilities

- Proper sportswear
- Working space that is free of sharp objects, holes or even dirt
- Soft ground e.g., a grassy area or gymnastic mat, if available

## Introduction to Gymnastics

Gymnastics includes a range of events, skills and techniques. It includes floor exercises, which focus on tumbling, different body shapes, balancing techniques and different movement variations. This unit will focus on balancing and movement variations that can be done on a mat or soft ground.

Gymnastics helps you to develop the large muscle groups, strength, endurance, agility, balance, flexibility and coordination.

Activities in this area provide excellent opportunities for development of perseverance, courage, initiative, resourcefulness and understanding individual differences.

This unit will therefore provide an opportunity for you to discover your abilities and achieve success by your own efforts.



### Activity 4.1: Meaning and composition of gymnastics

In small groups, use your prior knowledge of gymnastics to:

- i) discuss and describe the various activities that can be done in gymnastics.
- ii) brainstorm and list the importance of engaging in gymnastics activities.



**During the performance of gymnastic movements, safety is key and sometimes in order for one to do a particular activity one may need help or support from a colleague. The person who supports the other to do the gymnastic activity and also prevent injury is called a spotter. There can be one or more spotters depending on the complexity of the activity. With the guidance given about spotting in gymnastics and the roles played by a spotter, observe and role-play spotting during performance of any gymnastic skill that requires a spotter. In this way, you will be able to develop your ability to critically evaluate the quality of a performance.**



### Activity 4.2: performance of basic movement

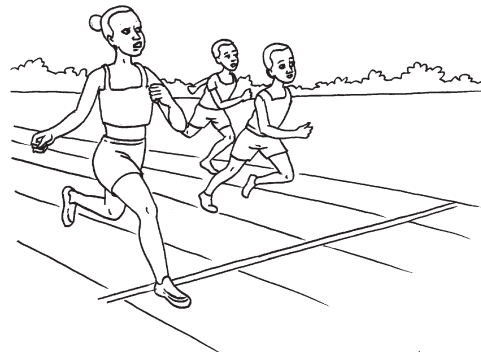
In small groups, practise the following space awareness and movement themes with special consideration of safety.

#### Locomotion: walking, jogging and running

These are activities that you always engage in. However, they can be done with some technique as shown in the **Fig. 4.1** and **4.2** below. Ensure that you move your arms too.



**Fig. 4.1: Walking**



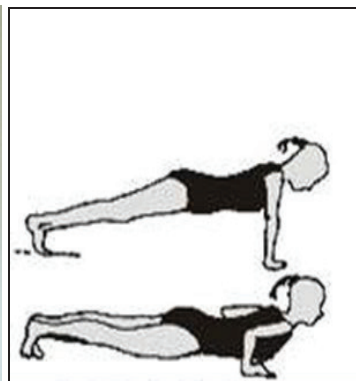
**Fig. 4.2: Running**

#### Weight Bearing

Here you can carry one another or carry some weights. These are activities which involve carrying of weight. You can try out as many as possible as illustrated below.



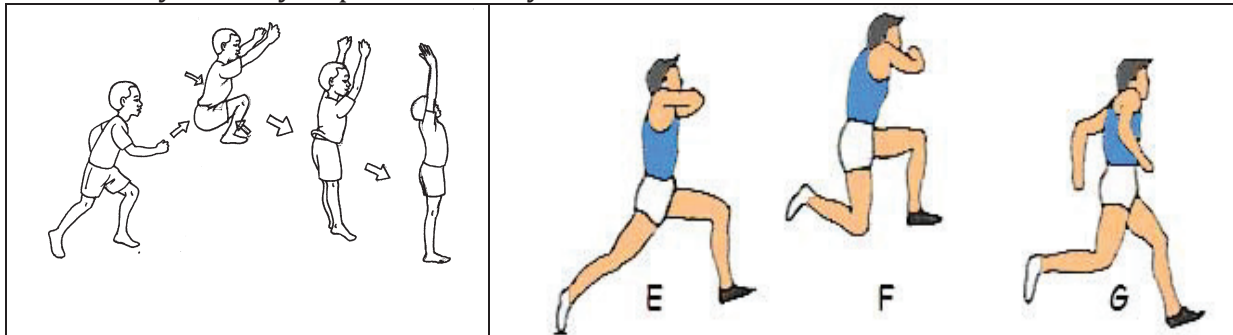
**Fig. 4.3: Arm resistance**



**Fig. 4.4: Push up**

### Transference of Weight

Weight can be transferred by hopping, jumping, or even throwing objects. You can try as many as possible. Study the illustrations below.



**Fig. 4.5: Jumping**

**Fig. 4.6: Hopping**

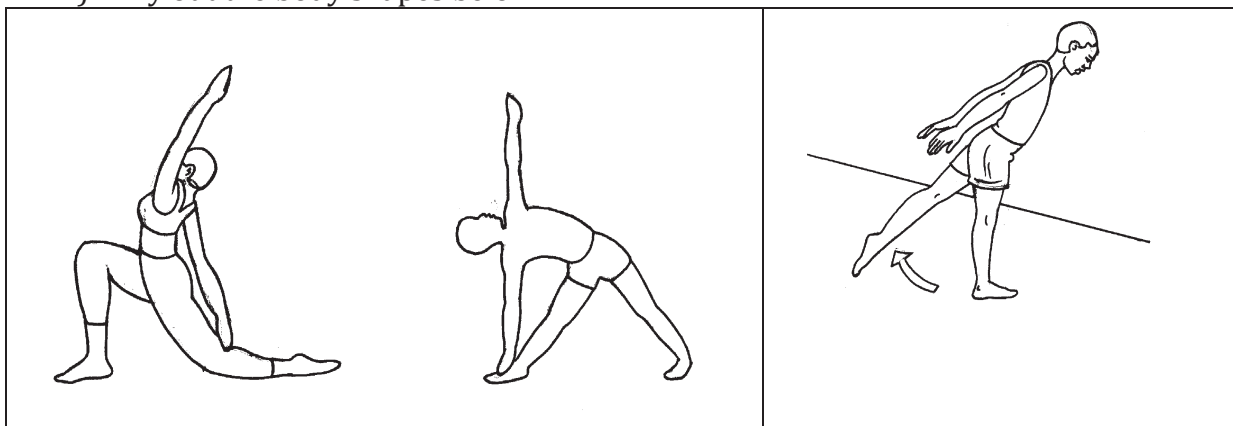
### Body Shapes

The human body is capable of making a variety of shapes; for example, stretched shapes, curled shapes, wide shapes, narrow shapes, round shapes and many others.

A body shape is an extension of the whole body or part of it in various directions. Body shapes therefore refer to the position of the body in space.

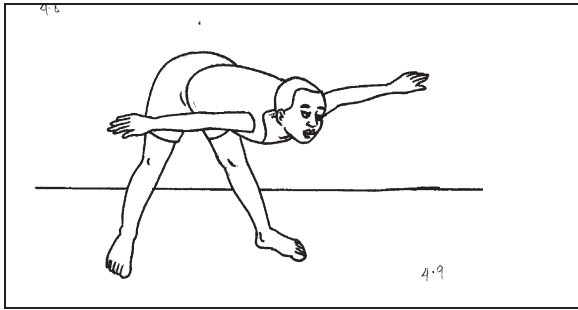
Remember the size of the space available for exercise is what creates the need to change the body shape.

- i) Try out the body shapes below

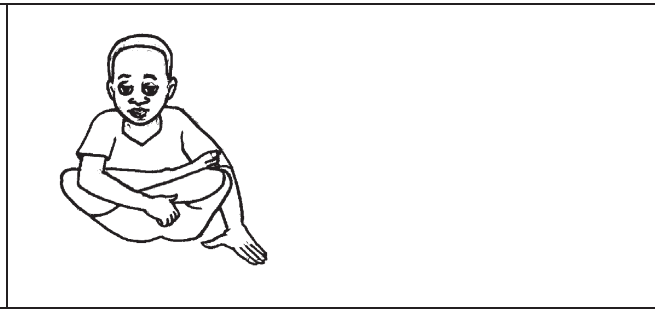


**Fig. 4.7: Stretched body shape**

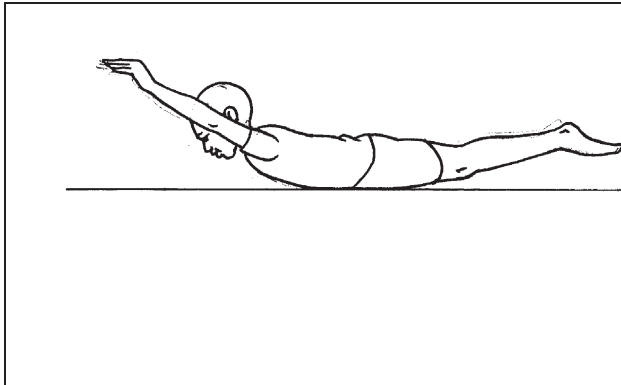
The stretched body shape can be done by freely extending the body limbs in different directions. As shown in the diagram above, you can make a star shape, T-shape and many others.



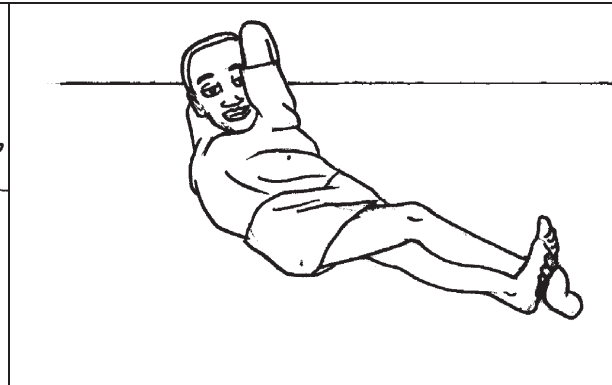
**Fig. 4.8: Wide body shape**



**Fig. 4.9: Curled body shape**



**Fig. 4.9: Narrow body shape**



**Fig. 4.10: Twisted body shape**

ii) Think about more body shape and demonstrate them in groups to the whole class.



### Activity of Integration

You are appointed a lead organiser for your class display of basic gymnastics during a school day. The event will specifically be used to interest the school community in the use of various safe movements to improve their fitness levels in addition to enlightening parents about the importance of gymnastics to a growing child.

- a. As a leader organiser, lay out the activities your class would display for that purpose. For each activity state the number of participants, the equipment and purpose.
- b. Demonstrate the planned activities as an entertainment and an educational piece to a selected audience.



## Chapter 5

### Exercise, Rest and Hygiene



<b>Key Words</b>	<b>After studying this chapter and practising the activities, you will be able to:</b>
<ul style="list-style-type: none"> <li>• rest</li> <li>• sleep</li> <li>• exercise</li> <li>• hygiene</li> <li>• cleanliness</li> <li>• well-being</li> </ul>	<ul style="list-style-type: none"> <li>• know the meaning of exercise and rest.</li> <li>• understand why exercise and rest are important to personal well-being.</li> <li>• appreciate the relevance of personal hygiene and cleanliness.</li> </ul>

#### Introduction

In this chapter you are expected to articulate the relevance of exercise, rest and hygiene to inspire individuals to leave a healthy lifestyle. More information is given relating to the ways in which one can exercise, rest and live hygienically.

#### What is exercise?

What happens inside you when you run, swim, dance, play football, or enjoy some other form of exercise?

As the muscles in your arms, shoulders or legs alternately contract and relax, they use energy. Your heart beats faster, you breathe more rapidly and deeply. The blood flow increases, body temperature rises and you begin to sweat.





### Activity 5.1: Understanding exercise

In groups of six, discuss the following:

- i) What is exercise?
- ii) Why should one sweat during exercises?
- iii) Make a list of activities that one can do in order to exercise?

#### Types of exercises

Different exercises have different benefits to the body. For this reason, they are categorised according to the physical fitness component they will improve.

Exercises are classified into two types: aerobic and anaerobic.

##### i) **Aerobic exercises**

These are nonstop, repetitive, strenuous physical activities that are performed in the presence of oxygen throughout the exercises. Aerobic exercises usually improve muscular and cardio-respiratory endurance.

##### ii) **Anaerobic exercises**

These are intense physical activities that last only from a few seconds to a few minutes, during which muscles use up more oxygen than the blood can supply. Anaerobic exercises usually improve the flexibility, strength and sometimes speed at which the muscles work.



### Activity 5.2: Explaining the different types of exercises

In groups of 6:

- i) discuss and come up with a list of five aerobic and five anaerobic exercises.
- ii) prepare and make a presentation of your suggestions.



#### Myths and facts about exercise

No.	Myths	Facts
1	No pain, no gain: exercise to the point of feeling pain is the only way to improve your abilities.	Pain is a danger signal—a signal that you are causing harm. Sharp or sudden pain should be a signal to stop immediately.
2	Sit-ups and other abdominal exercises will decrease fat in the stomach area.	You cannot spot reduce or lose fat just in one area.
3	Drinking fluids before	Plain water will not cause cramps. Without

	exercising can cause stomach cramps.	adequate water, you can become dehydrated, which can lead to muscle cramps.
4	Being thin is a sign of fitness.	Thin people who do not exercise are likely to have poor heart, lung and muscular fitness.
5	If women lift weights, they will develop large muscles.	Women actually have less muscle tissue and more fat tissue than men. They have a balance of hormones that prevent the development of large muscle.
6	Exercise is unsafe for older people.	The health of elderly people can benefit greatly from moderate exercise.

### What is rest?

	<b>Activity 5.3: Understanding rest</b>
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In small groups, discuss:

- i) what rest is.
- ii) the benefit of having enough rest.
- iii) the different forms of rest.

In groups of five, discuss and draw up an exercise routine for a week, putting into consideration the need for rest.

### ICT

Search the Internet for different forms of rest and the benefits of having enough rest.
---

### What is sleep?

Rest is best acquired when one **sleeps**. **Sleep** is the deep relaxation of the body and mind during which the eyes are closed and there is little conscious thought or movement.

As you sleep, your body and brain undergo changes that make up a sleep cycle. The sleep cycle involves light sleep, deep sleep and dreaming. The first stage consists of a gradual period of falling asleep. During stages two and three, your sleep becomes deeper making your muscles more relaxed.

These stages of deep sleep help restore the body and renew its energy.

**Note:** People who exercise regularly spend more time in the 2nd and 3rd stages than people who do not exercise.

### Take Home Activity

In groups of five, discuss and draw up an exercise routine for a week, putting into consideration the need for rest.

### Benefits of Engaging in Physical Exercises and Resting



**Fig. 5.1: Examples of exercise and rest**

#### Activity

In small groups:

- i) engage in any form of exercise set up by the group members.
- ii) share and write down ideas about your inner feeling when you engage in physical exercises.
- iii) what would you miss if you did not engage in such activities?
- iv) identify the reasons why you need rest.
- v) identify forms of rest you normally undertake.
- vi) explain what would happen if one worked continuously without resting.

Rest is the state of putting the body out of regular actions that stress the muscles. There is a body energy reserve that continues to reduce when we are doing work. You therefore need to rest to allow the body to mobilize the energy fuels into the stores to enable you continue with work. There are different forms of rest which include: sitting, lying or sleeping. It is therefore important to have rests between any forms of activity. That is why there are breaks with your study timetable as well as during a sports game such as netball, basketball, football etc. It is also the reason why people go to sleep after a day's set of activities.

At times, during rest we can engage in some light activities that require less energy such as eating, watching a film and watching other people play.

**Activity 5.4: Explaining the importance of sleep**

1. As a class, identify the items you use for ensuring a sound sleep
2. Which environment would you recommend for one to have a sound sleep?
3. Identify some challenges one would face if one failed to have sufficient sleep.

**Personal Hygiene****Activity 5.5: Understanding our body**

In relation to the different parts of your body:

- i) state what you like about them.
- ii) find a partner and share your thoughts.
- iii) you can now share your ideas with the class.

The human body is made up of many parts. Some of the parts remove wastes from the body. It is therefore important to keep them clean. The clothes you wear must also be clean. The care you give to your body and clothing is known as **personal hygiene**. A person who takes care of himself/herself is always confident, cheerful and active. In order to keep high standards of hygiene, it is good to have a daily and a weekly routine of personal hygiene. Different body parts need different types of care. Each body part should be given the care it requires.

**Caring for the Face****Activity 5.6**

In groups of 6 – 8, discuss and answer the following questions. Share your group findings with the class.

- i) Identify the different parts of the face.
- ii) How do you keep the different parts of the face clean?
- iii) State the different materials used in taking care of the different parts of the face.
- iv) Show how you can wash your face correctly.

**Caring for the Teeth**

You have learnt how to take care of the face. It is also very important to learn how to clean your mouth and the teeth. The teeth are used for grinding and breaking food into small particles for easy swallowing. Food left on the surface and in-between the teeth leads to problems. If it is not removed, it can lead to tooth decay. It is good to brush the teeth every morning and after every meal and before going to bed at night.



### Activity 5.7



**In groups:**

- i) discuss the reasons why we need to keep the mouth and teeth clean.
- ii) write down the different materials which are used in cleaning the teeth.
- iii) discuss the different ways of brushing teeth.
- iv) Now go and brush your teeth using the materials provided. (You need to have brought the materials that you use for brushing your teeth.)

Cleaning of the teeth includes:

- i) using a toothbrush, tongue crapper or tooth stick to remove all the dirt from the tongue.
- ii) using toothpaste.
- iii) using local materials such as charcoal and salt.
- iv) rinsing the mouth with clean water.

**Note:**

Never use sharp or dirty objects to remove food particles between the teeth because they can damage the gum.

### Caring for Hair

Hair appears beautiful when kept clean and healthy.



**Fig. 3. 4: Combing the hair**



### Activity 5.8: How to care for the hair

In groups of 6 – 8:

- i) hold a discussion with your neighbour and write the different steps you follow while cleaning your hair.
- ii) identify what manufactured materials can be used to keep your hair clean and neat.
- iii) discuss and identify what local materials can be used to keep your hair clean and neat.



**Note:** Ensure that you come with the different materials that you use to keep your hair clean and neat, or you can use a video to record the steps you follow while cleaning your hair.



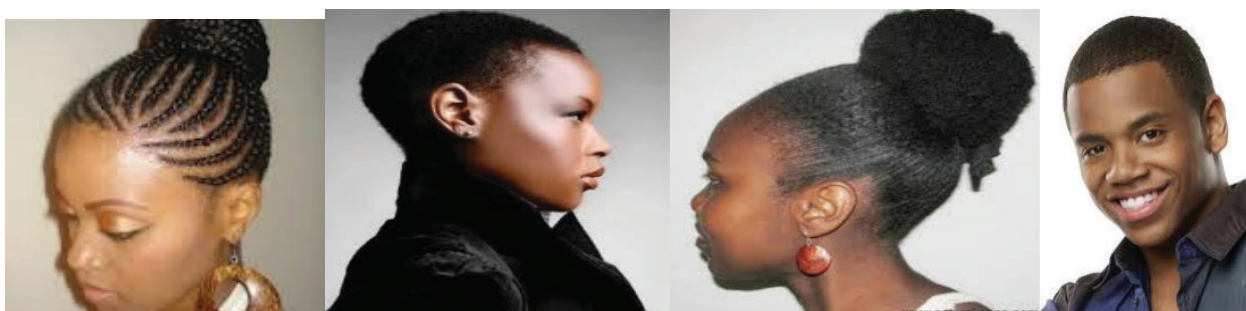
**Fig. 3.5: Manufactured hair care products**

You can keep your hair clean and neat at all times by washing, drying, oiling and combing. This keeps away dandruff and lice.

It is dangerous to share combs, brushes and towels. Sharing these items may lead to the spread of diseases like ringworm and parasites like head lice.

It is important to trim hair in order to remove dead ends, keep it in shape and manageable. It is not advisable to shave off the hair completely. This exposes the scalp to direct sun rays.

**Regardless of the hair style, hair must always be neat**



**Fig. 3.6: Hair styles**



### Caring for the Hands and Nails

Hands are essential parts of the body. They too must be kept clean. Hands are often in contact with food and dirt. Long fingernails hide dirt and germs and need to be properly washed. Washing hands is a good practice as it protects us from germs.



#### Activity 5.9: Checking personal hygiene

#### Read, reflect and answer

Do you wash your hands after . . .

- i) using the toilet?
- ii) blowing your nose?
- iii) cleaning animal waste or garbage?
- iv) touching a sick person?
- v) cleaning a baby?
- vi) changing nappies?

Do you wash your hands before and after . . .

- i) eating?
- ii) preparing food?
- iii) treating wounds or cuts?
- iv) touching a sick or injured person?
- v) carrying a baby?

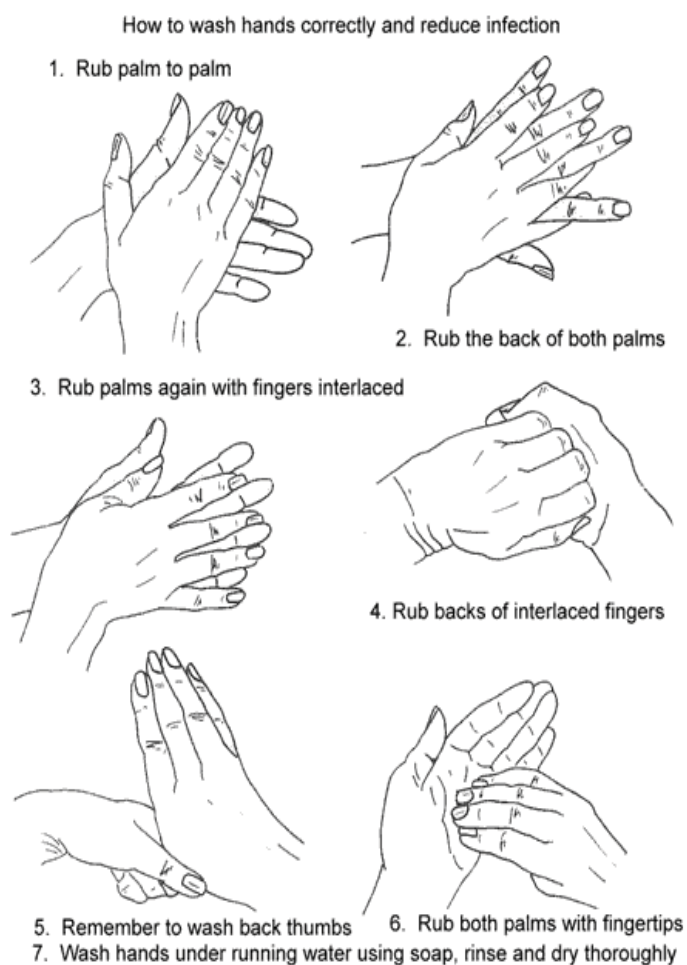


#### Remember

**Hands touch so many things both clean and dirty. Wash them using soap and water to keep them clean. Do not forget to wash the inner parts if you have long nails.**



**The 7 steps of washing hands include:**



**Fig. 3.7: How to wash hands**

**Hand washing**

- is highly effective in reducing the spread of germs.
- must be done regularly and correctly.

**Note:** Nail biting is bad. It causes disease. You should avoid it.

**Caring for the Feet**

The feet, just like the other body parts, need good care especially during hot weather. The feet must be kept clean and dry. Dirty and damp feet encourage the growth of fungus called foot rot between the toes. These lead to unpleasant smell and pain. Proper care of your feet will improve your general appearance.



### Activity 5.10: caring for feet

Study the picture in the figure below and answer the following questions.

- i) What is wrong with the picture shown?
- ii) Write down the possible causes of the situation.
- iii) What can be done to help people facing such a situation?



**Ensure that you:**

- i) wash the feet especially between the toes.**
- ii) dry the feet properly.**
- iii) trim toe nails.**



- iv) air the feet frequently.
- v) put on open shoes in the hot season.
- vi) avoid damp stockings.
- vii) wear comfortable shoes.
- viii) avoid tight and high-heeled shoes.



**Fig. 3.12: An example of clean and neat footwear**

### Caring for the Body

We should all endeavour to have clean bodies by bathing properly and daily.

Some learners were asked why they bath and they gave the following responses:

- i) My mother told me to.
- ii) To feel good.
- iii) To keep clean.
- iv) To avoid bad smell.
- v) To avoid punishments.

What do you think about the above responses? Which ones are not the best when caring for the body?

We need the following materials when bathing:

- clean water
- soap
- herbs provided by nature
- bath wash
- sponge



### Activity 5.11: Understanding the importance of bathing

In small groups:

- i) What advice would you give to a friend who does not bath on a daily basis?
- ii) Compose a poem about the importance of bathing and record it using a voice recorder.
- iii) Find locally available materials that can be used in cleaning of the various body parts of the body. Carry them to class to share your experience with your classmates.



### Activity of Integration

Health professionals recommend that for full body wellness, one needs to do exercises, have enough rest and keep a high level of hygiene. However, it is observed that many people, especially the youths, are visibly below the healthy threshold since they hardly get enough time to exercise, rest and take care of their personal hygiene. This puts them at risk of diseases that could have been avoided.

- a. Using your experiences acquired through studying this topic, write a newspaper article to promote healthy living through exercise, rest and proper hygiene.
- b. Showcase practically the correct ways of exercising and keeping proper hygiene to help young people stay healthy.

## Chapter 6

### Basic Running Skills



Key Words	After studying this chapter and practising the activities, you will be able to:
<ul style="list-style-type: none"> <li>• sprint</li> <li>• hurdle</li> <li>• relay</li> <li>• baton exchange</li> <li>• crouch start</li> </ul>	<ul style="list-style-type: none"> <li>• understand the concept of running as used in athletics.</li> <li>• make improvised athletics equipment from local materials which can be used during their practice.</li> <li>• understand the safety precautions before, during and after running activities in order to prevent injuries and damaging equipment.</li> <li>• perform the various exercises with others so as to develop the running skill.</li> <li>• apply the various starts used in running activities during athletic performance.</li> <li>• perform short sprints using the appropriate techniques.</li> <li>• perform baton exchange using the visual and non-visual baton exchange.</li> <li>• perform the rhythmic hurdle clearance over three flights.</li> </ul>

## Equipment

In this chapter, you need:

- space to work from preferably a field.
- proper sportswear.
- Batons.
- hurdles/boxes.

## Safety

- The field should be free of potholes.
- The field should be free from sharp objects.
- The grass in the field should be short.
- Make sure your finger nails are short.
- Ensure that you first warm up before any practice of any activity.
- Put on proper sportswear.

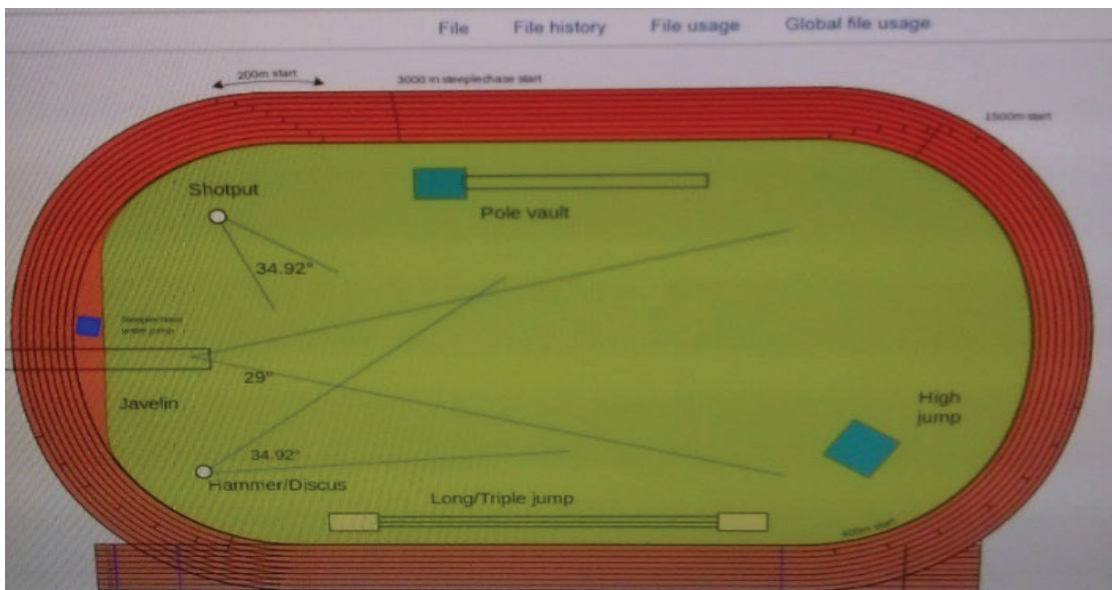
## Understanding Athletics—Running

	<h3>Activity 6.1: Understanding Athletics</h3>
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- What do you think athletics is?
- Name some of the activities that are performed during athletic events.

Athletics involves three types of activities namely running, jumping and throwing.

These are further categorized into track events and field events. Track events take place on the track, while field events take place inside the track/in the field as shown below.



**Figure 6.1: The athletics arena**



Your teacher will take you around the arena and you will see the difference. The inside of the arena is called the field. This is where field events (throws and jumps) take place. The outskirts of the arena is the track where running events take place.

There are categories of running events and these include: sprints (short distance) (100 m, relays, hurdles and 400 m); middle distances (800 m and 1500 m); long distances (3000 m, 5000 m, 10,000 m) and road races (cross country and marathon).

Running is something that you have always been engaged in while in your primary school. Running is a form of physical activity based on the natural form of movement at high speed. It is part of the athletics sports events that make up track and field events. These running events were promoted previously as a means of developing one's physical ability to chase animals as in hunting or to escape from enemies during the ancient period. Soldiers also used to move long distances on foot during the time of war.



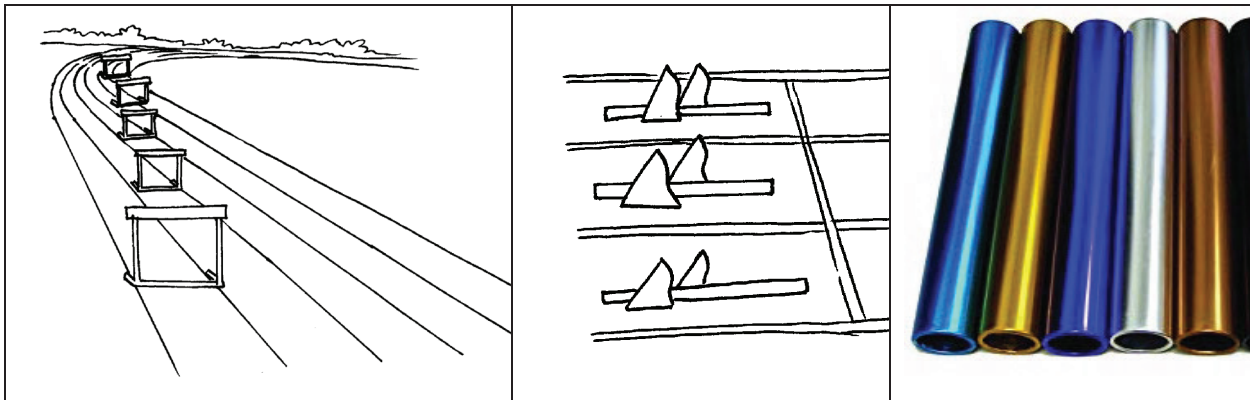
*Fig. 6.2: Examples of running activities*

The major goal of running as a sports event is for one to cover a given distance in the shortest time possible to be declared a winner.

### **The running events and equipment used**

There are various running events and these include: sprints (100 m, 200 m and 400 m); middle distance races (800 m and 1500 m); long distance races (5000m and 10000 m); hurdles (100 m hurdles for women, 110m hurdles for men and 400 m hurdles for both men and women) and relays (4 x 100 m and 4 x 400 m). Beside the track where these events take place, there are other equipment needed for proper involvement in the events.





*Such equipment can also be made locally from simple materials found all over.*

### Safe Practices in Athletics Running Activities: Warm-up and Cool-down

When getting ready to participate in any running activity, ensure safety of the learners. This includes:



- Demarcate the activity area and make sure it is safe with no hazardous material.
- Ensure you are properly dressed in sportswear.
- Do warm-up activities and at the end of the event do some cool-down activities

### **Activity 6.2: Practising basic running skills**

In small groups with guidance from the teacher, practise the following running drills: starts, reaction time, sprint games, endurance games, sprint ABCs, resistance runs, pursuit runs, acceleration runs and reaction games.

**Note:** The above activities are easily understood when done practically. You will need to go in the field and try them out with the guidance of the teacher.

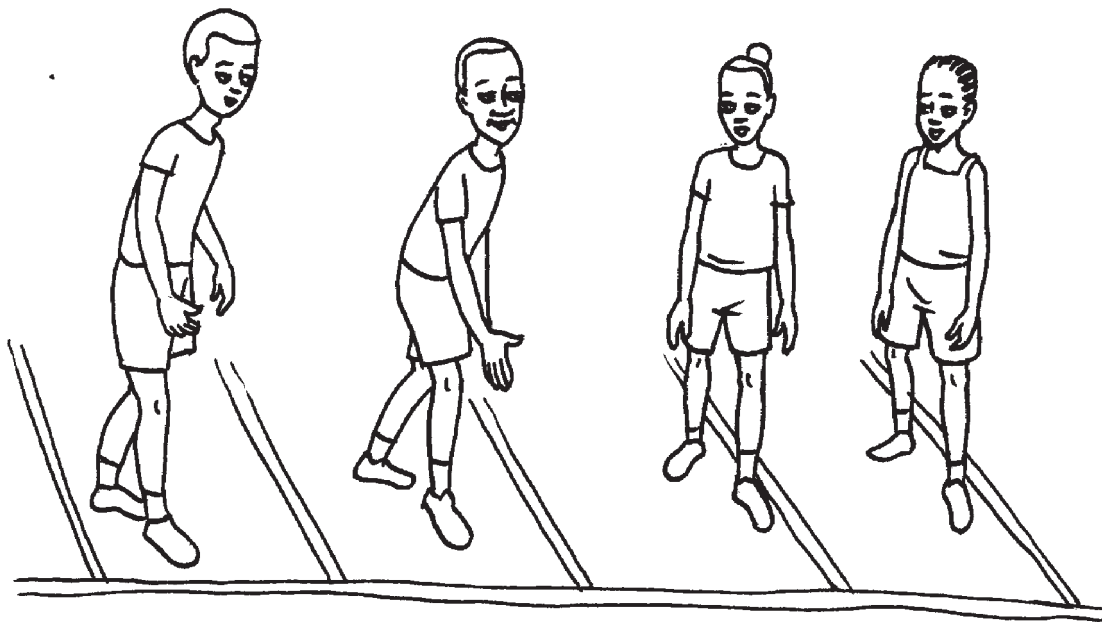
### Starting Running Events

There are two common ways to start a race. You either use a standing start or a crouching start.

### Standing start

This is mainly common to middle and long distance runners. It has the following features:

- i) Stand at the starting line as shown in the figure below.
- ii) Bend forward by leaning on the legs that is put forward.
- iii) Your teacher will give you the signal by saying:
  - On your mark
  - Go!!
- iv) On the signal "Go" take off and run at a moderate intensity



*Distance runners at the start line*

### Standing Start Rules

- i) All runners must stand behind the starting line.
- ii) No one is allowed to start before the 'Go' signal is set.
- iii) Runners are free to mix up in the lanes available.

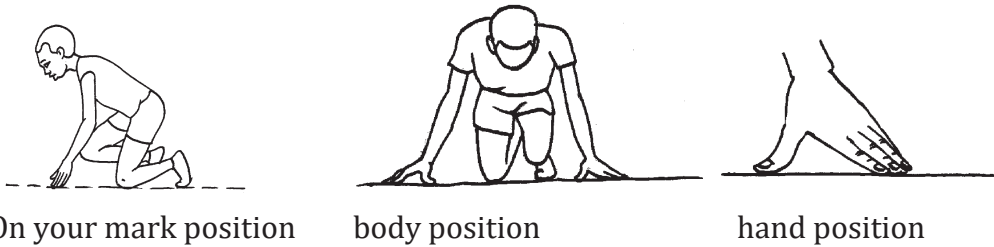
The teacher will help you to understand the standing start and perform it better through various practice drills that he will give.

### Crouching start

This type of start is mostly used for the sprint races, including relays and hurdle events. The procedure of a crouching starting is as follows:

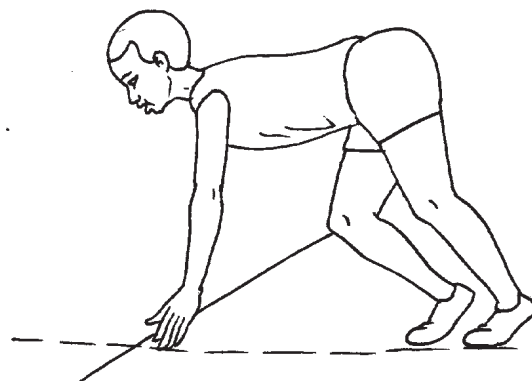
- i) **On your marks:**

- Place the front block a distance of elbow to fingertips behind the starting line. The rear foot is placed further back.
- Place the hands directly under the shoulder, with the fingers arched and arms slightly wider than shoulder-width apart.
- Keep arms straight and the weight evenly distributed.
- Put the head in level with the back with eyes looking down.
- Put the rear leg at right angle to the starting line.



ii) **Set**

- Raise the hips until slightly higher than the shoulders.
- Lean forward with shoulders slightly in front of the hands.
- Place front knee at 90 degrees and the rear knee at 120° - 130°.



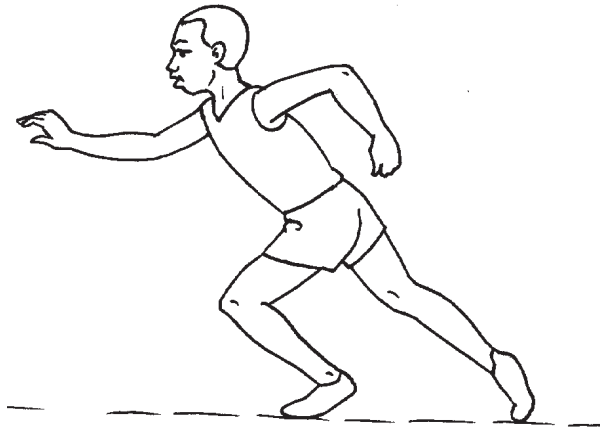
**Set position**

iii) **Go**

This is divided into two (2) phases as seen below.

**Drive phase**

- Lift the trunk but keep leaning forward.
- Press both legs on the blocks.
- Lift both hands from the ground in an alternately swinging action.
- Pull the rear leg rapidly forward.



***Go! Drive position***

**Acceleration phase**

- Quickly plant the front foot on the ball of the foot.
- Maintain a forward lean with head down.
- Increase your stride length and stride frequency with each stride.
- Maintain low body position.
- Straighten the trunk after 20 – 30 metres.

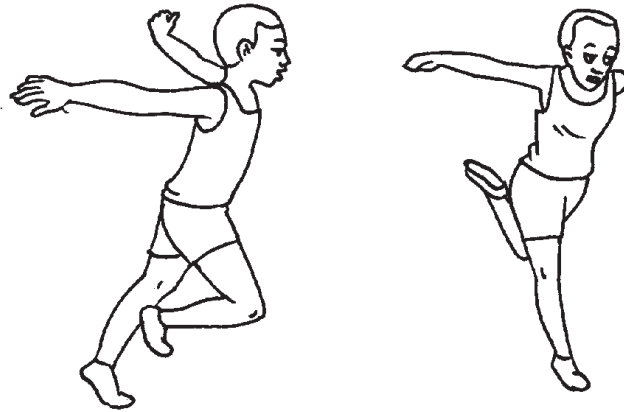


***Acceleration***

Practise the crouching start under the guidance of the teacher if you are to become perfect.

**Finish**

- Throw the body towards the finishing line within the last 1 – 2 metres of the race.
- Make a 'dip' finish that involves the chest forward.



**'Dip' finish**

**Organization of Sprint Races**

Sprints include races like 100 m, 200 m, 400 m, the relays and hurdles.

- i) Practise sprints at a distance of 30 metres, 60 metres and the 100 metres.
- ii) Ensure that you use the correct start.
- iii) Observe one another and give feedback to your colleague.

**Note:** Your teacher will observe and also give you feedback. The teacher will give you various other activities that turn you into a better performer.

**Organization of Middle Distance Races**

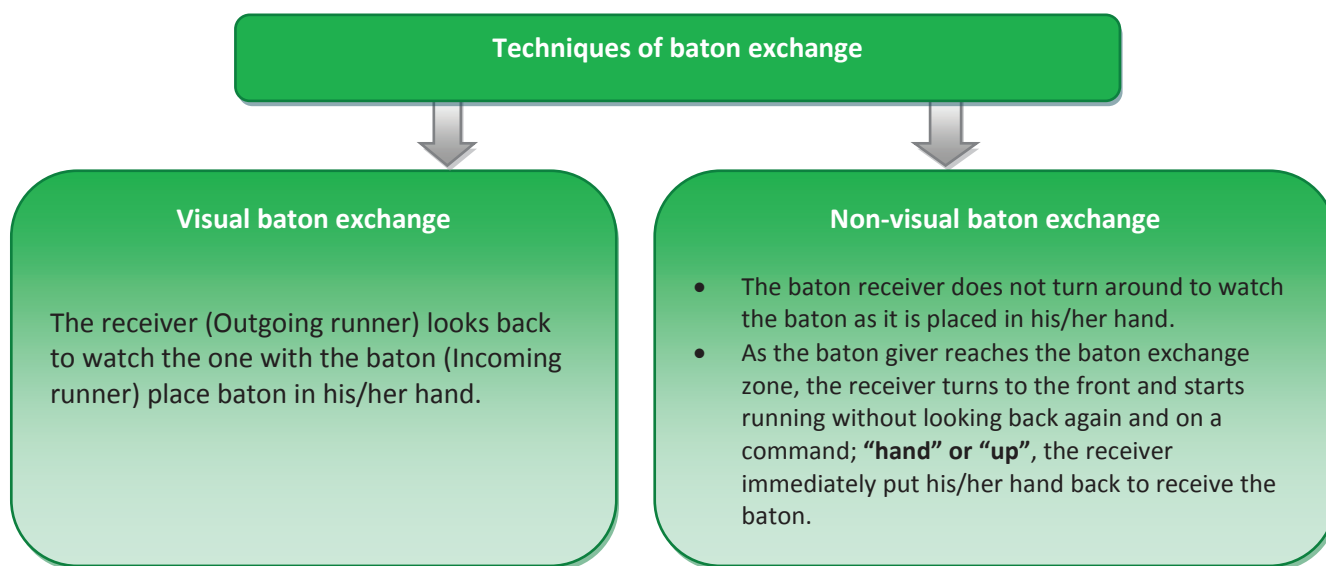


**Activity 6.3: Practising distance runs**

Do you remember how to start the distance runs?

- i) Demonstrate the standing start.
- ii) Using the standing start, practise running one lap (400 m), rest for 10 minutes then try out two laps (800 m).
- iii) In groups, try to compete in 1500 m with the guidance of the teacher.

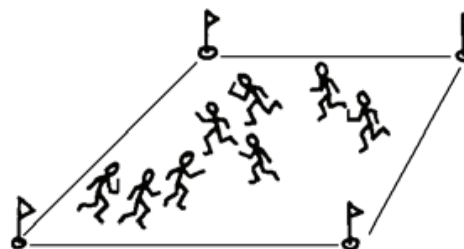
## Relays



### Introduction to the Visual Exchange

**TIPS:**

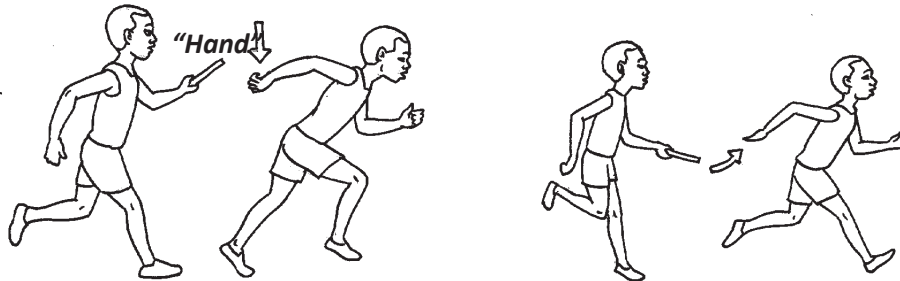
- Run naturally when carrying the baton
- Outgoing runner should take the baton



### Instructions

- In a group, move randomly within a 40m x 40m area, using one baton for every two athletes.
- Pass batons from the front, side and rear.
- Also work in pairs, practise visual exchanges within a 20 m exchange zone.

## Introduction to the Non-visual Exchange



### Instructions

- Work in pairs and take it in turn to pass, receive the baton efficiently at walking and jogging speed.
- Use push pass and up sweep passing techniques.
- Repeat in groups of four, passing right-left-right-left.

#### TIPS:

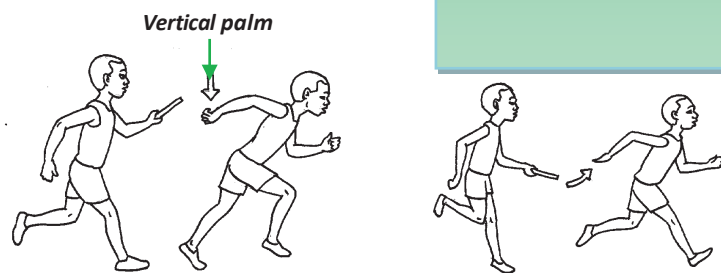
- Walk, jog and run naturally looking ahead
- Incoming runner gives command for outgoing runner's hand to come back

## Non-visual Passes at increased speed

#### TIPS:

- Sprint naturally and keep looking ahead.
- Say "hand" three or more steps before you need to.
- Grip the baton firmly once received.

>> Don't snatch or grab <<



### Instructions

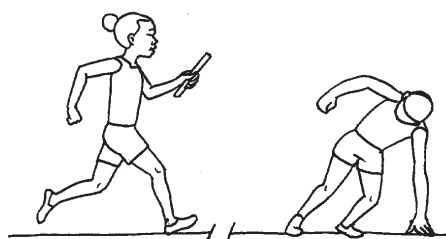
- Work in pairs.
- Pass the baton at a medium to fast speed over 50 – 70 m (2 – 3 repetitions).
- Use both push pass (down sweep) and upsweep passing techniques



## Check Mark and Starting Position

### TIPS:

- Outgoing runner goes when the incoming runner hits the check mark
- Incoming runner runs through the exchange
- Never look back



### Instructions

- Set check mark and practise starts from the starting position.
- Use various starting positions (standing, the one-handed support).
- Incoming runner approaches at maximal speed.



### Activity of Integration

The Head teacher of Yala Seed School was impressed by the level of PE in your school. She has requested your PE teacher to let your class present to her school the athletics running activities so as to motivate her students to pick interest in running at the school.

**Task:** Organize a safe athletics activity demonstration you would display to the learners of Yala Seed School.

## Chapter 7

### Skills in Rounders



<b>Key Words</b>	<b>After studying this chapter and practising the activities, you will be able to:</b>
<ul style="list-style-type: none"> <li>• innings</li> <li>• 'no-ball'</li> </ul>	<ul style="list-style-type: none"> <li>• make improvised equipment for rounders using local materials.</li> <li>• execute basic skills used in rounders with application of the safety precautions.</li> <li>• understand the skills, safety precautions and rules considered in the game of rounders.</li> <li>• apply the basic skills of rounders in mini-game situations.</li> <li>• display aspects of teamwork, companionship, leadership, decision-making.</li> </ul>

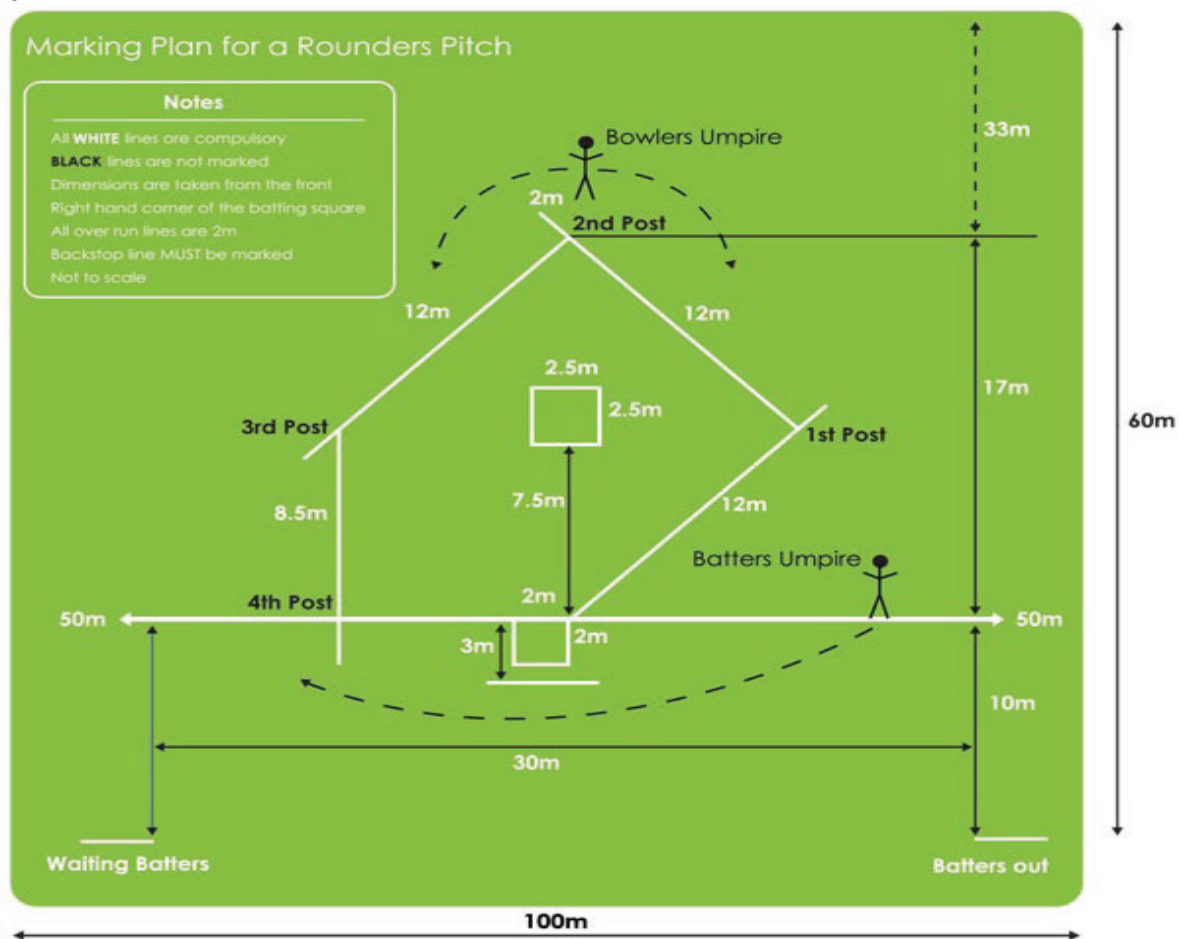


### Basic Background of the Game, Competences

As early as the 16th century, some forms of batting and fielding games could be found in Europe, particularly in England, Scotland, Ireland, Wales, France and Italy. These games eventually evolved into three distinctive games: cricket, baseball and rounders. Around the 18th century, these games spread to the colonies: India, Pakistan, Australia, West Indies, Canada, USA and New Zealand. And in the 19th century, they were introduced in Uganda specifically by the Indians who majorly used them as a pass-time activity.

By the end of this chapter you will be able to make improvised equipment for rounders and perform basic techniques of the game of rounders with consideration of rules as well as safety.

### Play Area



**Fig. 7.1: Rounder pitch**



### Activity 7.1: Understanding the game of rounders

Study the figure above and execute the following tasks:

- i) Draw and label the figure in your notebook
- ii) As a class and using easily available materials, follow the plan to mark the play area for rounders in the school playground.

#### Equipment and Costumes



**Fig. 7.2: Equipment used in rounders**

- i) Identify each of the materials in the **Fig. 7.2** above
- ii) Discuss the use of each of the material listed in 1 above
- iii) What other material other than those above is required for the game of rounders?
- iv) How can you make playing rounders safe for all participants?



**The equipment needed for rounders consists of a truncheon shaped rounders bat, a rounders ball and 4 posts set out in a diamond shape. A traditional ball is hard and covered in leather although safer, softer balls are used for schools.**

#### Basic Skills Used in Rounders

There are many skills in the game of rounders that are similar to the skills learnt from other games. Of course some being new and others being a modification of the skills you have learnt.



## Activity 7.2: Practising basic skills in rounders

- i) With a classmate, try out the following skills: catching a ball thrown to you close to the ground, catching a ball thrown to you direct towards your body, catching a ball thrown to you well above your head, batting a ball thrown to you at different levels.
- ii) Change roles in the activity.
- iii) Share with the class what challenges you faced during the activity time.
- iv) What strategies do you have for improvement on the areas of difficulty in executing the above skills?



### Information

a. **Catching:** on the ground and in air

i) **Upper catching**

This involves catching a ball which is in air and above the head level. This skill is used when fielding usually some distance from the batsman in the outfield or when a batsman hits the ball high into the air and requires good judgement.

#### Action Points

- Move quickly and balanced towards the ball.
- Fingers should be pointing upwards with the thumb closer.
- Fingers should be relaxed and cupped.
- The arms should not be fully extended to the paths of flight of the ball.
- Keep your head steady with your eyes level, watching the ball at all times and call your name for the ball to prevent a collision with another player.
- The oncoming ball should be sighted just over the fingertips with the catcher standing right in the paths of the ball.
- The ball should be caught in the cupped hands.
- The elbow should be relaxed and bent to absorb the force and the fingers should close around the ball.
- Your hands should give into the body.

ii) **Lower catching**

This is a technique which involves catching a ball which is either rolling along the ground or dropping but below the knee level.

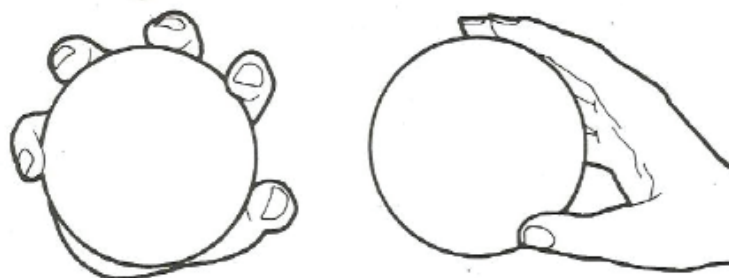


*Fig. 7.3: Lower catching*

**Action Points**

- Position yourself in the direction of the incoming ball.
- Keep the head still and eyes on the incoming ball.
- Weight on balls of feet.
- Relaxed stance.
- Hands pointing down, fingers together.
- Your knees should be bent with your feet roughly shoulder-width apart in a relaxed position with your weight evenly distributed so you can react/move quickly towards the ball.
- Your hands should be together with your fingers pointing down and when the ball is caught, your hands should give into the body if directly hit at you, or give to the side of your body if the ball is left/right of you.
- Keep your head steady with your eyes level and watch the ball at all times.

**b. Bowling: The grip**



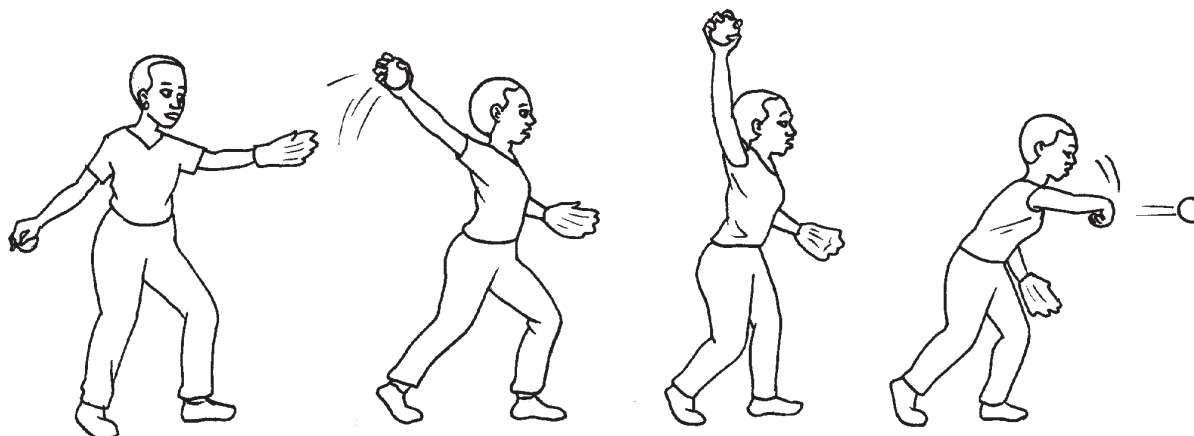
a. Thumb and four-finger grip.

b. See daylight.

*Fig. 7.4: The Grip*

### Over Arm Bowling

This refers to a skill of releasing a ball towards the batter from over arm. An illustration of a bowler using over arm technique is shown below.



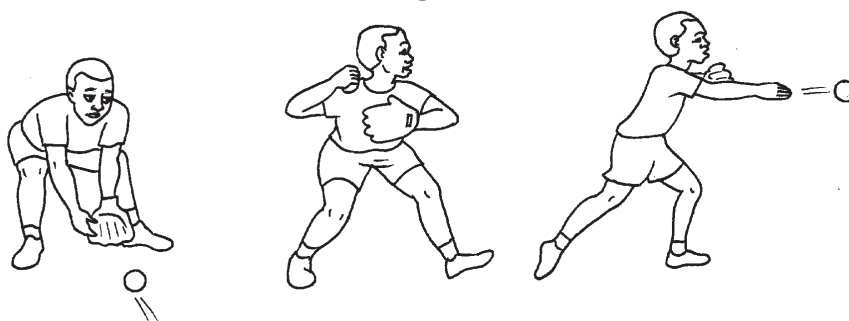
**Fig. 7.5: Over bowling**

### The Bowling Action

- The bowling spring is the spring from which the ball is released. Keep the ball close to your chin or above the shoulder level.
- Keep your head upright and eyes to the batsman.
- As your back foot lands on the pitch, keep your body upright. Your back leg should remain stable and support the body while the front foot should be raised slightly.
- Your front foot should be pointing to the batsman.
- Push your bowling arm forward and down from the coil position with your non-bowling arm pointing to the batsman.
- The arms should rotate through with the ball released at the top of the delivery arc.
- As you follow through, fold your bowling arm into your body and swing your hips around to finish.
- Your momentum will take you towards the batsman, but make sure you don't run down the middle of the pitch.

### Under Arm Bowling

This refers to the skill of releasing a ball towards the batter from under arm level



**Fig. 7.6: Underarm bowling**



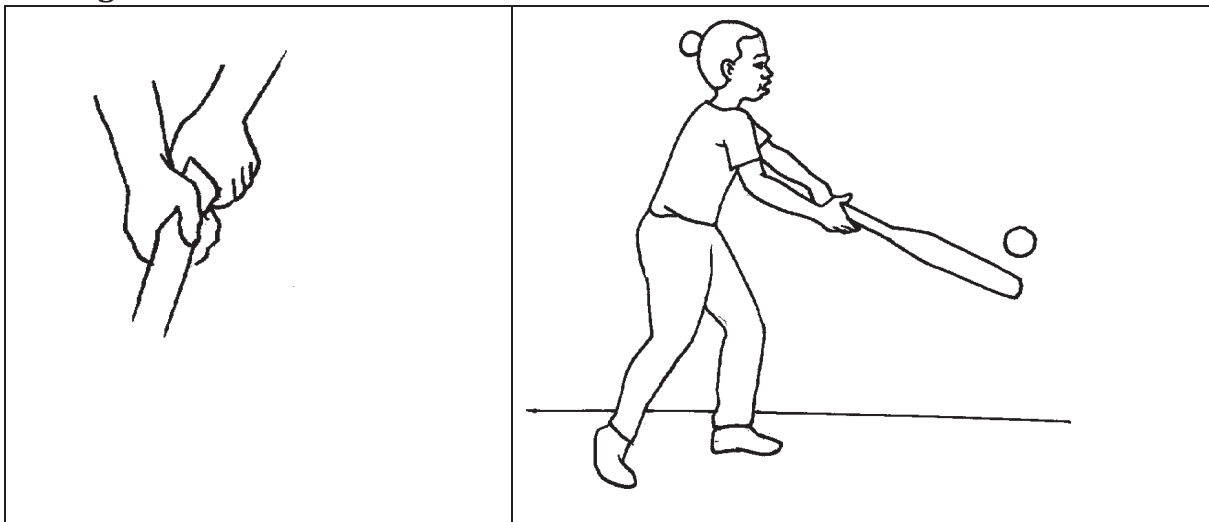
### Under Arm Bowling Action

- Grip the ball using the bowling arm.
- Keep the eyes to the batter.
- Keep the non-bowling arm pointing in the direction in which you are bowling.
- Keep the ball below the waist level.
- Step sideways with the support foot forward.
- Lift your bowling hand behind.
- Step forward with the support foot, bend the knee, turn the shoulders and release the ball.
- Follow through by getting your balance and swing the support arm backward as you swing the bowling arm forward, and then step forward with the right foot.

### c. Donkey drop

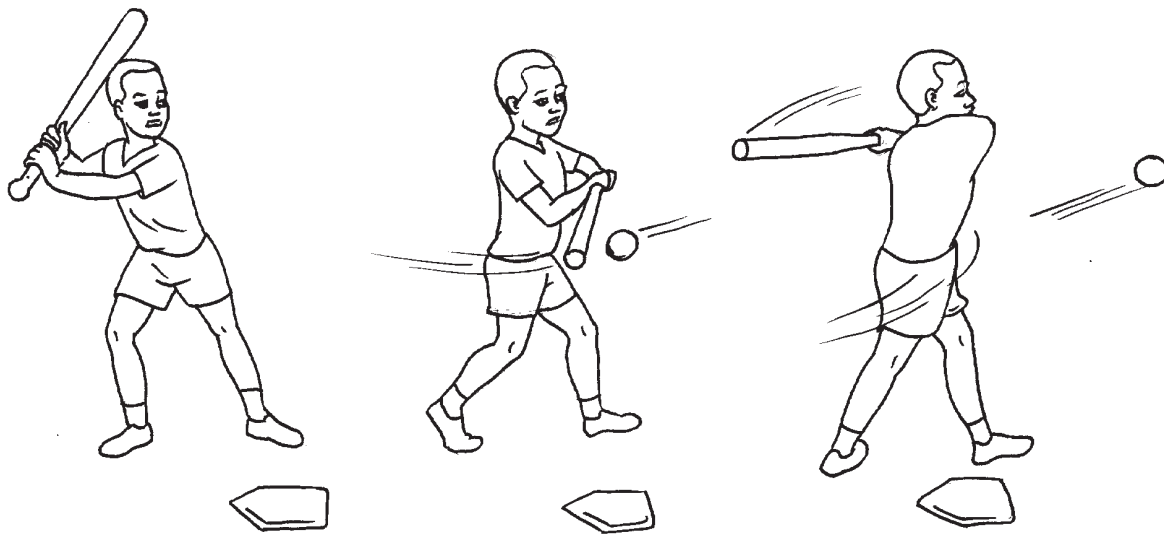
A donkey drop in rounders is when the bowler bowls the ball high in the air. The ball then drops just as it gets to the batter. This encourages the batter to hit the ball up, indicating that the fielding team members are more likely to get a catch.

### d. Bating



*Fig. 7.7: Bat grip*

*Fig. 7.8: Batting action*

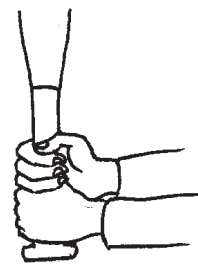


**Fig. 7.9: Batting action in steps**

**The Grip**

With one hand sitting on top of each other, it is essential to join your hands on the bat.

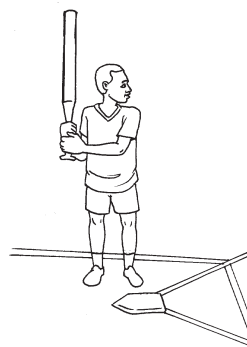
For left-handed players, put the left-hand on top. For right-handed players, put right-hand on top. Grip the bat firmly and feel the bat in your fingers rather than the palm of the hands.



**Fig. 7.10: The grip**

**Stance**

The position of feet—same span as shoulder width. Weight equally on both feet, back foot in line with front foot.

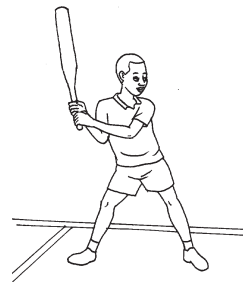


**Fig. 7.11: The Stance**

### Stand, Stride

Stand with your back and knees bent slightly.

Push off the back foot hitting against a straight front leg.



**Fig. 7.12: The swing**

### Swing

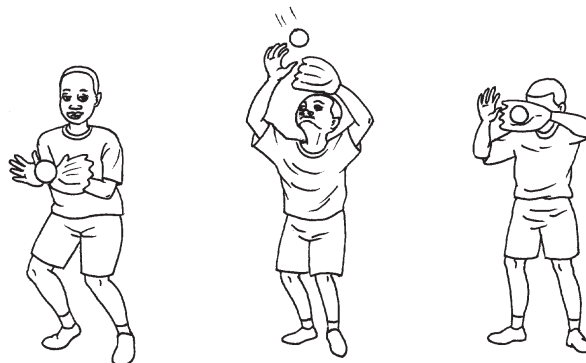
- When pitcher starts to throw, swing the bat and turn your hips but not your feet.
- Your stomach should be pointing right at the pitcher as you hit the ball.
- Both feet should be firm on the ground when you hit the ball.
- Keep your shoulders level.
- Keep your head steady, don't turn.
- Keep your front arm away from your body, the bat back and still.

### Fielding

Action points

- Keep eyes focused on the oncoming ball.
- Move quickly to field the ball.
- Stop the ball with the non-throwing arm.

Once the ball is caught, quickly move into a throwing position.



**Fig. 7.13: Fielding aerial balls**

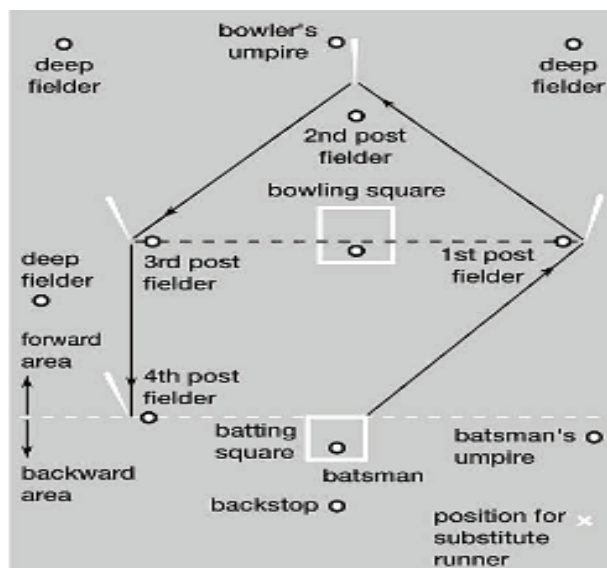
- Fielding ground ball requires good grounding position and split second timing to catch the ball on a good bounce.



**Fig. 7.14: Fielding grounders**

**Game Organization, Progression and Scoring**

**Player Organization**



**Fig. 7.15: Positions of players**



**Activity 7.3: Discovering the positions of play in Rounders**

As a class, form teams of 9 players each. Each team is given a chance to try out the positioning of the players on your marked play area for rounders.

What problems do you face in the organization of the players on a rounders field? Discuss with the teammates your challenges and views.

**Information**

**The pitch features a bowler's square (2.5 m) which is 7.5 m from the batter's square (2 m). 1 metre behind the batter's square the backstop line should be marked. The four posts are positioned around the bowler's square as shown in the diagram (black lines show lines that should be marked; green lines are for measuring only).**

**Rules of the Game**

1. A team consisting of a maximum of 15 players and a minimum of 6, of whom no more than 9 may be on the field at one time. An innings is over when the 9th batter is out.
2. If the ball goes behind, the batter may only run to first post but may continue to run once the ball has returned in front of the batter's square again.  
In this way, it is possible to reach 4th post and score a rounder, even if the ball is hit behind (although this would only happen in practice due to a fielding error).
3. A batter can run to a post even if it has been previously stumped but there is no score if this is done on 4th post.
4. Batsmen must carry their bat when running.
5. When the bowler has the ball in his square, you cannot move on, but if you are between posts, you can carry on to the next.
6. You must touch 4th post on getting home.

Each team has two innings with all people in the team having a go at batting. The innings is over when all the batting players are either out or at a base so that there is no-one left to face the next ball. One by one, the batters line up to take their turn in the batting square. The bowler throws the ball towards the batter.

**Bowling and No-balls**

As a bowler, you must bowl a ball towards the batter so that:

- it is thrown with a smooth underarm action.
- the ball arrives without bouncing and within the batters square.
- the ball is above the batter's knee, below the batter's head, and not at the batter's body.
- the bowler's feet are inside the bowler's square when the ball is bowled otherwise a 'no-ball' is called.

A batter can attempt to hit a no-ball and can run on a no-ball, if desired whether the ball is hit or not, but cannot return once first post is reached. If two consecutive no-balls are bowled to the same batter, the batter scores a half-rounder.

### **Batting**

- The batter gets one chance to hit the ball (ignoring no-balls) and must run even if the ball is not struck.
- If the ball is hit behind the batting square or not hit at all, the batter may only run to first base.
- Otherwise, the batter runs around as many of the bases as possible and stops at a post only when the batter thinks there is a danger of the next post being 'stumped'.

The batter is out if:

- the batter hits the ball and it is caught without first hitting the ground.
- the post being run to is 'stumped'—a fielder touches it with the ball.
- the batter runs inside a post.
- the batter loses contact with a post when the bowler has the ball inside the bowler's square.
- the batter overtakes a fellow batter when running around the posts.
- while not running between posts, the batter obstructs a fielder.
- the batter's foot is outside the batter's square when the ball is bowled.

### **Scoring Rounders**

A score is immediately posted in the following situations:

- If the batter hits the ball or is bowled a no-ball and then reaches the fourth post, a rounder is scored.
- If the batter fails to hit the ball and reaches the fourth post, a half-rounder is scored.
- If the batter hits the ball and reaches the second post, a half-rounder is scored.
- A fielder obstructs a batter running to a post and a half-rounder is scored.
- If the batter hits the ball and reaches the first, second or third post without being out, the batter stays at that post (and must keep in contact with it) until the next ball is bowled. As soon as the ball leaves the bowler's hand, such a batter can run to the next post, if they wish, even if a no-ball is called.
- If the batter does not keep contact with the post, the fielding side can stump the next post to get the player out. 2 batters cannot be at the same post so a batter must run on to the next post if the next batter catches up with them.
- A batter who continues in this way and reaches the fourth post, scores a half-rounder. Once the fourth post is reached, the person goes to the back of the batter's line and awaits their next turn to bat.

### **Winning**

After both sides have played both innings, the side with the most Rounders wins.



### Activity of Integration

Youths enjoy highly competitive and challenging physical activities, yet the scope of choice is so limited among many young people in Uganda. For this reason many Ugandan youths live a more sedentary life leading to a number of health problems at a very young age, which can be addressed through participation in alternative enjoyable activities.

Based on your experience developed through your engagement in Rounders in this chapter, prepare and present a rounders game aimed at creating awareness about the beauty of the game as an alternative activity of choice to your peers.



## Chapter 8

### Skill Development and Diet



<b>Key Words</b>	After studying this chapter and practising the activities, you will be able to:
<ul style="list-style-type: none"> <li>• skill</li> <li>• skill performance</li> <li>• skill development</li> <li>• nutrition</li> <li>• diet</li> <li>• motor behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• perform the different types of skills.</li> <li>• understand the different types of skill as used in PE.</li> <li>• understand the factors affecting skill performance.</li> <li>• understand the importance of healthy eating in relation to one's performance in physical activities.</li> </ul>

#### Introduction

In this chapter you will be exposed to the types of skills used in PE and explain the dietary requirements for a physically active person. The general factors that affect skill development and execution will also be covered.

Skill acquisition is a set of internal processes associated with practice or experience leading to a relatively permanent change in the capacity for motor skills.

Motor behaviour is the outcome of motor learning, which should either be performed appropriately or explained.

Motor skill is a movement that is performed with a desired environmental goal in mind. Therefore, movements with no particular environment goal are not motor skills but just motor movements.

Ability is a stable characteristic or trait genetically defined that underlie certain skilled performance while capability is a skill of producing a performance result with maximum certainty, minimum energy and minimum time and can be developed by practice.

### Basic Skill Development

Basic skills are those that are required for basic movement such as walking, jogging, running, sprinting, catching, throwing, kicking, etc. You started developing some of these skills subconsciously when you were still young but there is need to correctly learn and develop these skills for you to move more efficiently throughout life.

	<h2>Activity 8.1: Practice of basic skills</h2>
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#### 1. Walking

- Walk about in the activity area in an easy, relaxed and natural way (in free space, a circle, around a square, rectangle, triangle and irregular shape) without contact with others.
- Walk in different ways (short steps or long steps, fast or slow, high or low).
- Change of speed during the walk (slow, moderate, fast, brisk and stop).
- Walk on different parts of the legs (balls, tip toes, heels, out step, instep, outside of the out step, inside on the instep).
- Side walking (crossing the legs, without crossing the legs) and backward walk.
- Walk on rhythm (beat, double beat, quartet beat) alone and instep with partner/s.
- Walk on a line and bar on the ground, raised platform such as a bench.



**Fig. 8.1: Examples of skills**

## 2. Running



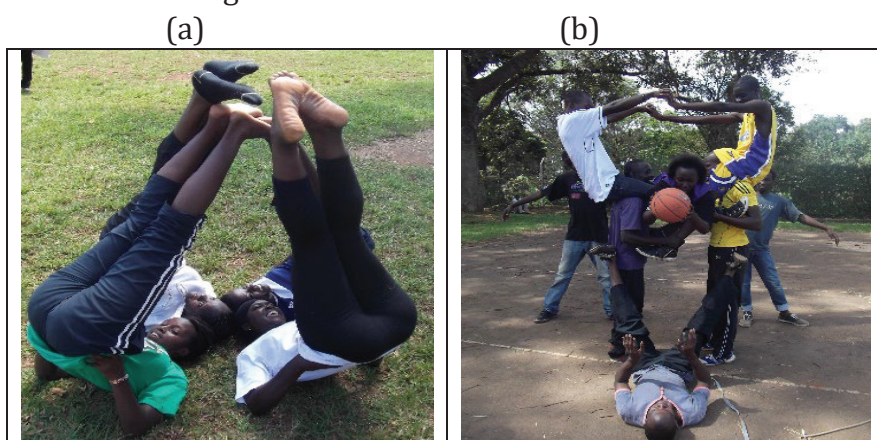
**Fig. 8.2: Running**

- Run about in the activity area in an easy, relaxed and natural way (in free space, a circle, around a square, rectangle, triangle and irregular shape) without contact with others.
- Run in different ways (short steps or long steps, fast or slow, high or low, with a high knee lift).
- Responding to signal to start and stop running, change direction, to specific point and back, around obstacles.
- Running with equipment and to a rhythm (alone and in step with partners).

3. In pairs and using a fibre ball, try out the skills of catching and throwing, kicking and trapping.

### Complex skill development

These include the addition skills that are required for performance of specialized movements. They are in most cases integrated with basic skills. Examples include: run and jump; run, hop, step and jump; run, clear obstacle and land, jump and catch a ball; target throws and target kick.



**Fig. 8.3: Examples of complex skills**

**Activity 8.2: Practising complex skills**

Practise the following skills:

1. Run and jump into a sand pit. Check how far you can jump.
2. Run, hop, step and jump into a sandpit. Check how far you can hop, how long you can step and the overall distance you can jump into the pit.
3. Run, clear a bar placed on two parallel stands and land onto a soft surface. Take note of how high you can jump.
4. In pairs, with one throwing the ball, the other jumps to catch a high ball then land safely. Explore the different ways in which you can catch the ball as well as ways you can land safely.

**Factors that affect one's skill performance**

There are many factors that affect an individual's skill performance. They are categorized into physical, psychological, physiological, mental and environmental.

**Activity 8.3: Understanding factors that affect performance**

- i) In small groups, identify the factors that can affect your execution of skills so far learnt in this chapter.
- ii) Do categorize the listed factors under physical, physiological, psychological and environmental.
- iii) Prepare a simple presentation about how feeding affects skill performance.



**Foods and their Nutrients**



**Fig. 8.4: Fruits**

An active participant should eat a lot of fresh fruits, vegetables in addition to energy giving foods and other foods. Different activities will require different amounts of the respective foods. However, you should have a slot for each type of food in what is called a balanced diet. You should therefore plan for a well-balanced diet in regard to the nature of activity you are to get involved in.

Proper diet helps in the prevention of health-related diseases and conditions that would increase injury risks. Thus, it is important for you to know how to prevent injuries through proper dieting and exercise.

Each food item you eat has some active parts in it that make it different from other foods. That is why beef is different from fish. You also see that potatoes are different from rice. These active parts of a food are called nutrients. Nutrients are broadly divided into six different classes i.e. carbohydrates, proteins, fats, minerals, vitamins and water.



**Fig. 8.5: Examples of foods**



### Activity 8.4: Understanding dietary needs

In six groups, assigned each of them one class of nutrients and let them:

1. discuss and come up with the meaning of the food class assigned to them.
2. suggest sources of such nutrients from the foods they eat from their locality.
3. state the importance of the nutrient to an exercising person.
4. describe the body's dietary needs in terms of energy, growth and repair of cells.
5. discuss the dietary needs for physically active individuals, and justifying why athletes need special dietary recommendations.
6. explain the different energy needs of different categories of people.

### Healthy Meal



### Activity 8.5: Understanding healthy eating

- i) In pairs, share with your partner what you think a healthy meal is.
- ii) Come up with a list of foods one can consider to have at a particular meal.

Usually, we mistake fatty and junk foods for healthy meals. It is very important to watch what you eat. Your body needs food, and the food that you eat affects your health in many ways i.e. how you look and feel, how well you resist disease and even how well you perform mentally and physically.



**Fig. 8.6: Categories of foods**

## Overeating and Under-eating



### Activity 8.6: Understanding eating habits

- i) In pairs, discuss and share the meaning of these two terms: **overeating** and **undereating**.
- ii) In groups of six, discuss and note down the reasons you think lead to overeating and undereating.
- iii) Outline some of the disadvantages of over-eating and undereating.
- iv) Discuss and note down the bad eating habits you know.
- v) Suggest ways how one can avoid such habits.
- vi) Demonstrate some of the good eating habits you know and share with the class.



*Fig. 8.7: Effects of undereating*



Very often girls and some boys tend to limit what they eat or increase on what they eat for a number of reasons. Most of the reasons rotate around peer influence such as girls wanting to be seen as slim, or boys wanting to be seen as strong.

Many times, we develop habits which we may not realize unless we are told by a friend or someone who has closely watched our behaviour. Some of the good habits include eating on time and eating healthy meals, among others. On the other hand, eating a lot of junk foods is one of the very common habits in the world today.

### ICT

Design posters about some of the bad eating habits, print and pin them on the noticeboard at the dining hall



**Activity of Integration**

A number of physical education students observe that many people walk and run in a wrong way. Similarly majority of the population have very limited knowledge about what to eat for purposes of health promotion. These two factors, in the long run, affect their physical health and physical independence at middle age.

- a. From your knowledge of basic movement skills, design a practical activity programme to help the community correctly learn the various basic movement skills.
- b. Based on locally available foods, design a weekly mealing plan that can appropriately guide the promotion of health of the community members.



## Chapter 9

### Basic Skills in Netball



<p><b>Key Words</b></p>	<p><b>After studying this chapter and practising the activities, you will be able to:</b></p>
<ul style="list-style-type: none"> <li>• offside</li> <li>• over-third</li> <li>• contact</li> <li>• penalty</li> <li>• a metre</li> <li>• footwork</li> </ul>	<ul style="list-style-type: none"> <li>• make improvised netball equipment from local materials.</li> <li>• execute netball basic skills with application of the safety precautions.</li> <li>• understand the skills, safety precautions and rules considered in the game of netball.</li> <li>• apply the basic netball skills in mini-game situations.</li> </ul>

## Introduction

Netball is one of the ball games that involves catching and passing. It is played by both boys and girls throughout the world. Although there are still no men's team, the game is played by two teams; each team has 7 players on court.

This chapter empowers you to make improvised netball balls from locally available materials and perform basic techniques of the game of netball with consideration of safety.

## Netball equipment

You will need balls to practise the techniques used in the game of netball in addition to a well demarcated court and goal posts. The standard ball is made of rubber, leather or similar material. It weighs 400 – 450 g, and measures 690 – 710 mm in circumference.

**Fig. 9.1** below shows the variety of balls that can be used to practise netball skills. **Fig. 9.1 b** and **c** are examples of improvised balls which can be used in an event that you have no access to ball in **Fig. 9.1 a.**, especially back home during community activities. It is therefore important that you learn how to make an improvised ball.



**Fig. 9.1:** Balls that can be used for netball



### Activity 9.1: Making an improvised ball for netball

In small groups:

- i) collect local materials that can be used to make an improvised ball.
- ii) make a ball using the collected materials which matched the weight description of that used in netball.
- iii) make a presentation to the rest of the class indicating the process taken and the materials used.



### Activity 9.2: Safety precaution to be considered

In groups, discuss and come up with a write up of the safety measures that should be considered in order to prevent injuries while playing netball



**For safety, the following measures should be considered:**

- Put on appropriate and comfortable sportswear.
- Keep your finger nails short.
- Avoid wearing jewellery.
- Keep field of play free from sharp objects.
- Follow the netball rules of fair play.
- Do proper warm-up and cool-down.
- Ensure enough rest and re-hydration.

### Basic Skills Used in Netball

In order to play netball, you will need to be able to perform the following basic skills or techniques:

- i) Catching
- ii) Passing: chest pass, underarm pass, overhead pass, single-handed shoulder pass, bounce pass.
- iii) Foot work:
  - Single foot landing leading to: pivot and throw, jump and throw, step and throw.
  - Two feet landing leading to: pivot and throw, deciding the landing foot, stop and throw, jump and throw.
- iv) Shooting: single-handed shooting, two-handed shooting.
- v) Basic offensive and defensive skills in a game situation.

### *Catching and passing techniques*



### Activity 9.3: Performing catching and passing

In small groups, practise the following catching and passing skills/techniques with keen consideration of safety.



**Catching and throwing is the art of passing and moving the ball from one player to another. It includes the following:**

- i) Catching high or low balls
- ii) Overhead pass
- iii) chest pass
- iv) under arm pass
- v) shoulder pass
- vi) bounce pass

**Catching:** This is the way you receive a ball either from a teammate or an opponent

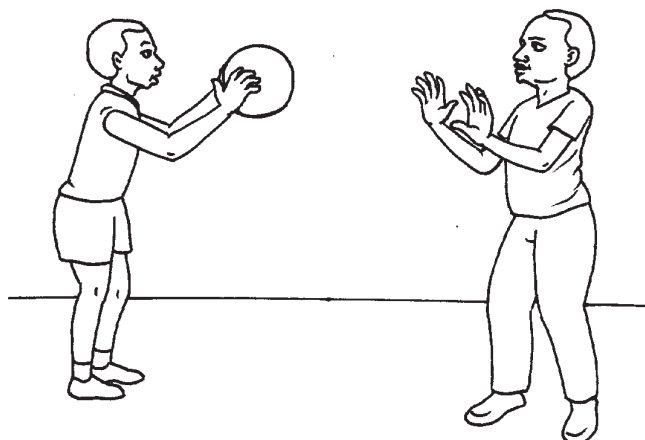
### How to Perform the Skill



**Fig. 9.2: Catching a ball**

- Eyes on the ball.
  - Judge flight and speed of the ball.
  - Arms fully stretched, reach out towards the ball.
  - Hands and fingers spread out, thumbs at the back to prevent the ball from slipping through.
  - Fully stretch arms to take either a high or low ball.
  - Let hands be in line of flight of the throw.
  - Give cushioning effect through your body and arms to cope with power and pace of throw.
  - Follow through to ensure strong balance.
  - Drop one foot backwards to cope with pace of throw.
- If you are catching the ball, move towards and not away from it.

### Catching a Ball at Chest Level



**Fig. 9.3: Catching a ball at chest level**

- Look at the direction from which the ball is coming.
- Arms reach out for the ball.
- Fingers slightly spread.
- Thumbs towards each other so that the arms form a funnel to prevent the ball from slipping through the fingers.
- The trunk should be flexed so that you can absorb the force of the ball.
- As the ball falls into your hands, secure it and draw it towards your body.

### Catching High Balls



**Fig. 9.4: Catching a high ball**

- Look at the direction from which the ball is coming.
- Hands and wrists face each other and at the base almost touching each other.
- The fingers are spread forming a sort of a basket.
- Arms reach out for the ball and as the ball falls into the basket.

### Catching Low Balls





**Fig. 9.5: Catching a low ball**

- Look at the direction from which the ball is coming.
- Little fingers point each other almost touching each other.
- Elbows against the body.
- Fingers slightly spread and forming sort of a shovel.
- On receiving the ball, the arms flex and the ball is brought towards the body.

### **Passing**

This is the way you move the ball to your teammates.

#### **Overhead Pass**

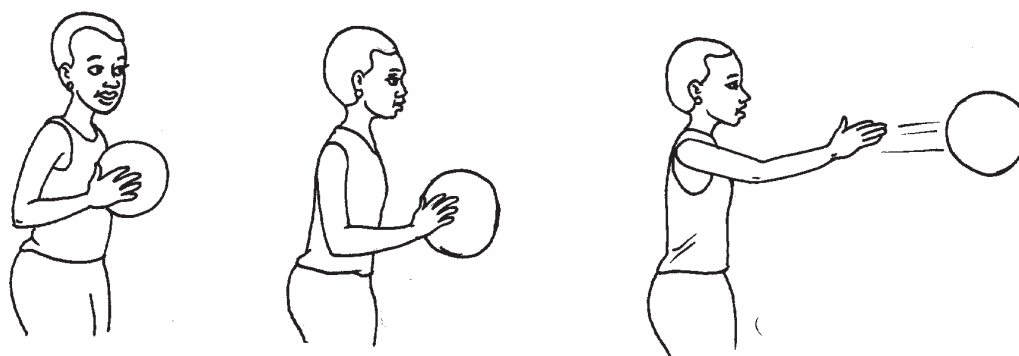
##### **How to Perform the Skill**

- Spread your fingers around the ball but don't let it rest on your palms. Bend your arms and try and keep your elbows close to your body.
- Lift the ball over your head and allow it to drop back slightly—this will give you a little extra push as you release the ball.
- Put one foot forward as this will help you lean into the pass.
- Aim between your teammate's head and their chest. This should help them to catch the ball easily.
- Give the ball a little push upwards by getting your whole body weight behind it.
- Do not forget to stretch out your arms and fingertips upon release.

#### **Chest Pass**

The chest pass is the quickest, most accurate and most efficient way of getting the ball around the court. As well as getting the ball into the attacking zone, the pass is often used at throw-ins.





**Fig: 9.7 chest pass**

### **How to Perform the Skill**

- Your hands should form a W behind the ball. Bring your thumbs together in the centre with your forefingers and other fingers comfortably spread out. Always keep the ball close to your chest.
- Keep your feet shoulder-width apart and bend your knees slightly. This usually provides the best balance and helps prepare for quick movements.
- When making a pass, step forward with one foot. This will help you get energy from the floor as you push through with the ball.
- As you step forward, try and use the momentum you gain from the ground to add extra power to the pass—the faster the ball travels, the less likely it is to be intercepted by an enterprising opposing player. Keep your elbows close to your body and push through with the ball.
- Keep pushing through the ball and at the point of maximum power, release it, straightening your arms and fingers. Keep your wrists pointed upwards to help fully extend your arms.
- Keep following through the ball with your whole body. Keep your eye on the receiver. If you are catching the ball, move towards but not away from it.

### **Underarm Pass**

This is a short quick pass used to dodge a high ball interception.



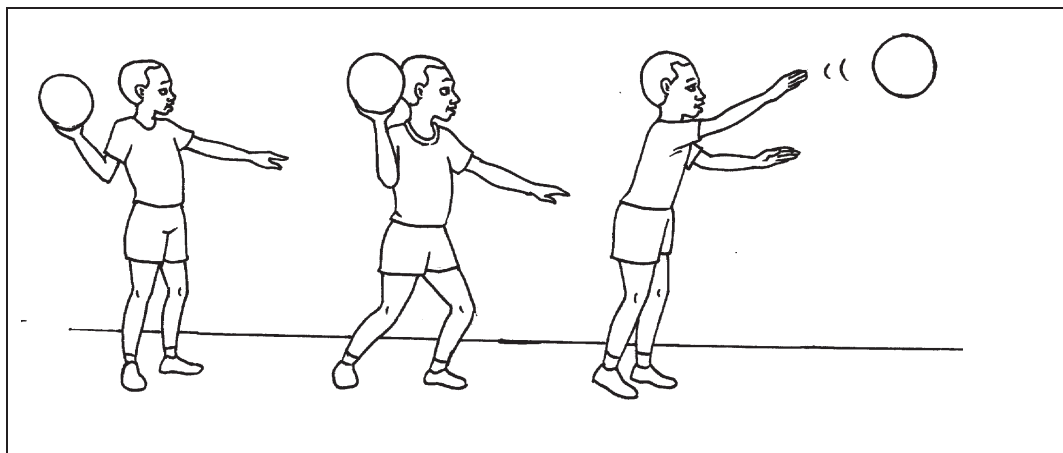
**Fig. 9.8: Underarm pass**

**How to Perform the Skill**

- Hold the ball in one or both hands below the waist level (if a ball is above the waist but below the shoulder, it is a side/bullet pass).
- Release the ball as it is swung towards the target.
- Transfer body weight forward.
- Extend your arm towards the target.

**Shoulder Pass**

This is a pass used to pass a ball over a long distance.



**Fig. 9.9: shoulder pass**

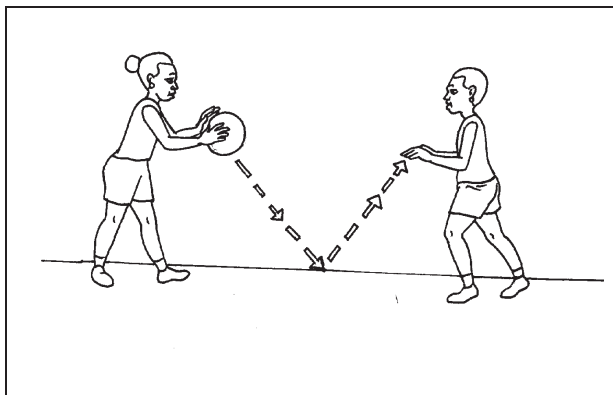
**How to Perform the Skills**

- Shoulder passes are thrown one-handed, so make sure you have got a steady grip on the ball. Control it with both hands and bring it up to shoulder level. Your elbow should be positioned at right angles to the shoulder.
- Place your throwing hand behind the ball with your fingers spread. You will get more power if you move your opposite foot in front of your body.

- Bend the knees slightly to give maximum control over your weight distribution, and to provide the opportunity to “spring” out of the position once the pass is made.
- To get maximum power behind this pass, you need to fully straighten your arm.
- Follow through with your entire arm, right down to your fingertips, and transfer all weight onto your front foot.
- Aim to point your fingers in the same direction as the pass. Keep your head up and your eye on the receiver.

### **Bounce Pass**

This techniques is used to pass a ball over a short distance given.



**Fig. 9.10: bounce pass**

### **How to Perform the Skill**

- Hold the ball firmly in both hands at chest height, elbows in, thumbs behind the ball.
- Make sure that you are fully in control of your balance and your fingers are pointing towards the floor of the court.
- Stand with one of your feet forward and bend your knees slightly as you make the pass.
- You need to release the ball from waist height. Use the power from your arms and knees as you push the ball forward. Use the distance from your chest to your waist to give the ball as much power as needed in the situation.
- Flick the wrists and fingers at the point of release to add a final powerful push to the ball.
- Aim the ball just over halfway between you and the receiver.
- Extend your arms as you make the pass to keep the ball on the right path and bend your knees to retain balance.



### Activity of Integration

During the inter-school netball game between your school and a visiting school, it was observed that most of the players from the visiting school did not only lack the basic netball skills, but also lacked knowledge of the basic rules of netball play. Your PE teacher has tasked you to organize a demonstration of netball skills to the entire audience to display the beautiful netball skills as well as umpire it.

Using the skills and techniques, prepare the display.



## Chapter 10

### Basic Skills of Volleyball



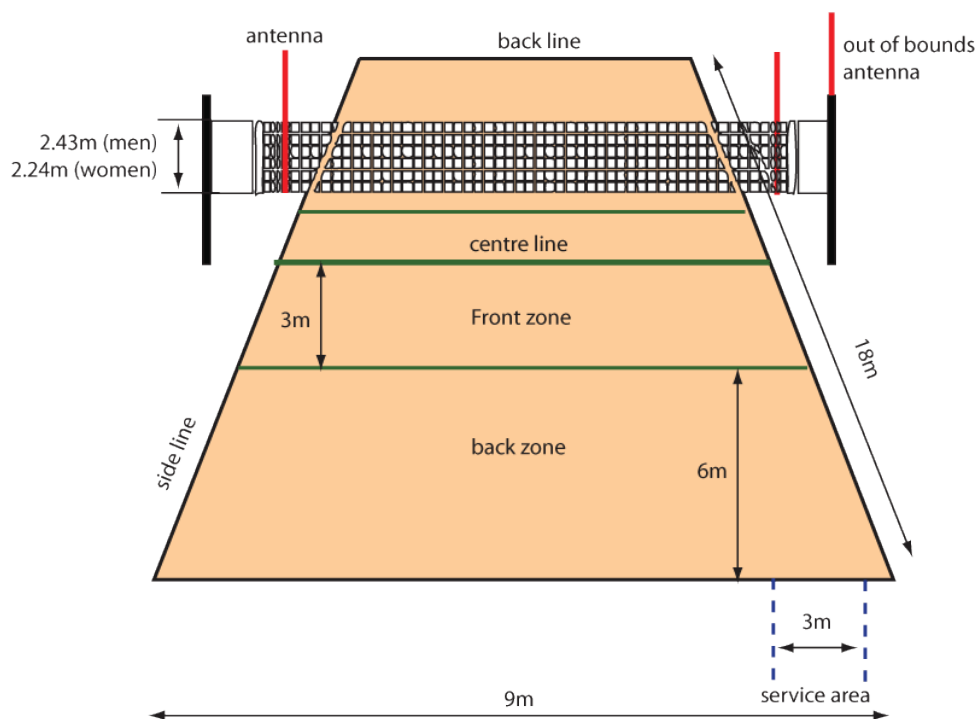
<p><b>Key Words</b></p>	<p><b>After studying this chapter and practising activities, you will be able to:</b></p>
<ul style="list-style-type: none"> <li>• service</li> <li>• rotation</li> <li>• blocking</li> <li>• setting</li> <li>• spiking</li> <li>• netting</li> <li>• common point</li> <li>• game point</li> </ul>	<ul style="list-style-type: none"> <li>• make improvised volleyball equipment from local materials.</li> <li>• execute volleyball basic skills with application of the safety precautions.</li> <li>• understand the skills, safety precautions and rules considered in the game of volleyball.</li> <li>• apply the basic volleyball skills in mini-game situations.</li> </ul>

## Introduction

Volleyball is a ball game played by two teams by hitting the ball to and fro over the net using hands. Each team consists of six (6) players on court. The play area is 18 m in length and 9 m in width. The two teams are separated from each other by a raised net at the centre of court. The players of each team aim at grounding the ball in the other team's part of the court over the net, a major way of accumulating points in order to win the game.

## The volleyball Court

This game is played on a court illustrated

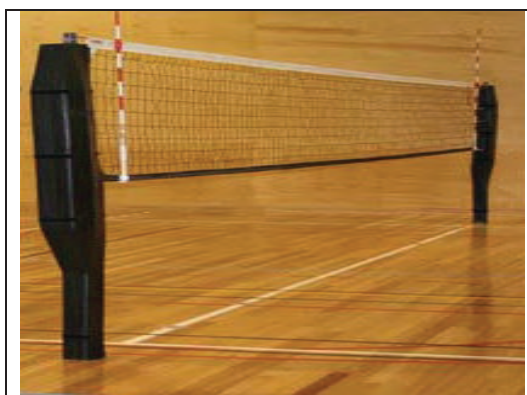


**Fig. 10.1: Diagram of the volleyball court**

## Improvisation for Volleyball

When you are to play volleyball, you need to have a ball, a net and some strong poles that you will hang the net on. All these can be got from the sports shops spread all over the country.





*Fig. 10.2: Volleyball net*



*Fig. 10.3: Volleyball*

Nevertheless, you can also make the volleyball accessories from local materials in order to play the game.



*Fig. 10.4: Sample improvised volleyball balls*

	<p><b>Activity 10.1: Making an improvised ball for volleyball</b></p>
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In small groups:

- i) collect local materials that can be used to make an improvised ball.
- ii) make a ball using the collected materials which matched the weight description of that used in volleyball.
- iii) make a presentation to the rest of the class indicating the process taken.





### Activity 10.2: Safety precaution to be considered

In groups, discuss and come up with a write-up of the safety measures that should be considered in order to prevent injuries while playing volleyball.



#### Safety Precautions while Playing Volleyball

- i) Ensure proper warm-up before playing.
- ii) Perform only those skills and techniques as instructed by your coach.
- iii) Be sure all equipment, especially shoes, is fitting properly before play.
- iv) Remove all jewellery and metal hair fasteners and other body ornaments.
- v) Be aware of your surroundings both home and away including but not limited to surface conditions or obstruction around the volleyball court.
- vi) Notify the coach immediately if injured.

#### Basic Skills used in Volleyball

In order to play volleyball, you will need to be able to perform the following basic skills or techniques:

- i) serving,
- ii) service reception
- iii) digging
- iv) volleying
- v) setting



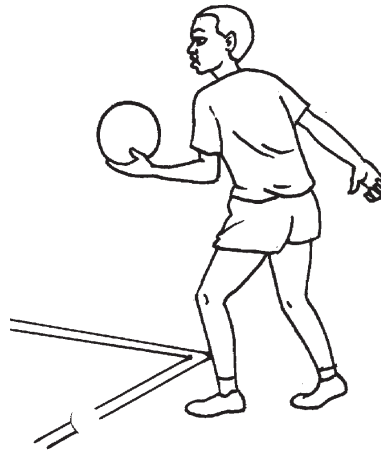
### Activity 10.3: Performing volleyball skills/techniques

#### Serving

There are two ways of performing a serve: using the under arm or the overhead methods. Both methods require that you:

- i) have a stable stance on the right-hand corner of the court.
- ii) ensure that you are out of the backline of the court.
- iii) place the ball in one hand.
- iv) toss the ball and hit it with the other hand.

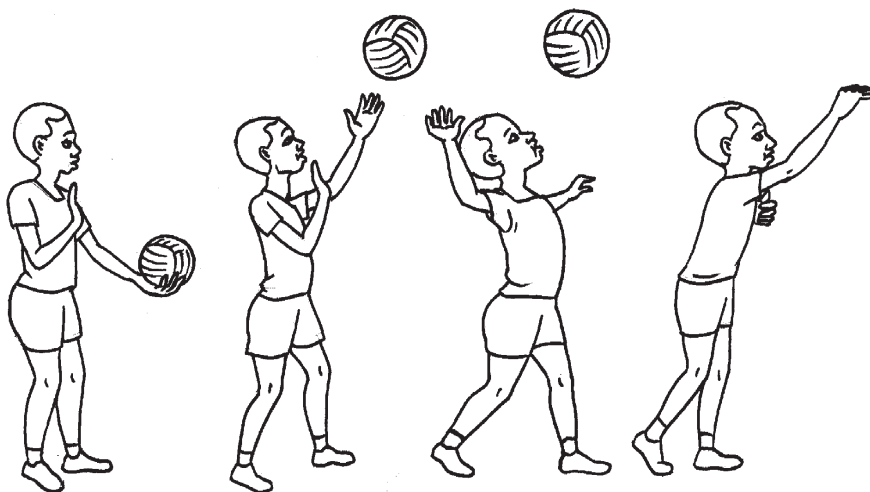
- v) direct the ball to go over the net to the other court area.
- vi) follow through and enter the court area.



**Fig. 10.5: Underarm service**

In order to perform the overhead service:

- have a stable stance on the right-hand corner of the court.
- ensure that you are out of the backline of the court.
- place the ball in one hand.
- toss the ball high above the head.
- strike the ball with the other hand as shown in the figure below.
- direct the ball to go over the net to the other court area.
- follow through and enter the court area.



**Fig. 10.6: Overhead service**



**Together with your peers and under the guidance of the teacher, you will perform different techniques that will help you to perfect serving of the ball.**

**a. Serve reception: Dig Pass and Volley Pass**

When the ball has been served in volleyball, the other player to whom the ball is directed has to receive that ball and pass it on to other teammates or back to the other side of the court. This is done by using either a dig pass or a volley pass. Players of both teams have to make sure that the ball does not land down in their part of the court.

You can practise the reception/passing techniques as follows:

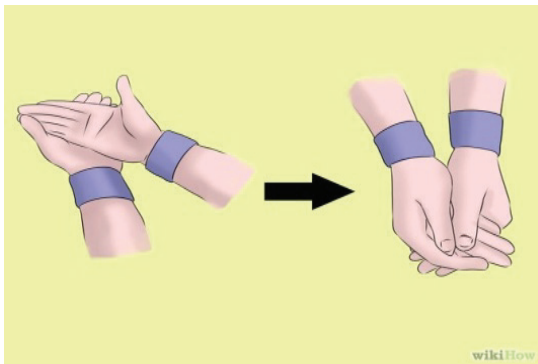
**A Dig Pass**

This technique is used to receive and play low balls. Such balls could be from the opponent’s side or from a teammate.

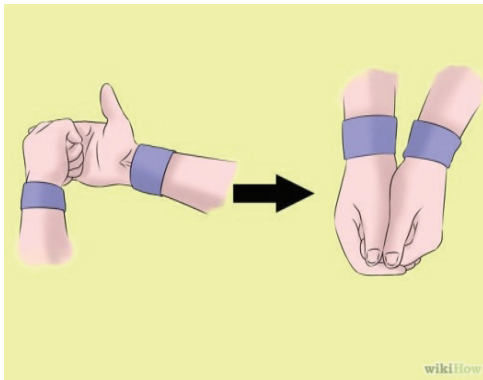
How to perform a dig pass:

- put one hand up.
- lay the other hand up on top of it.
- then bend your hand/fingers so it looks as if you are holding water in your hand.
- put your thumbs next to each other, sitting on top.
- receive the ball on the flat part.

The different ways of placing the hands for reception or dig pass include the following:



- i) Make a fist with your left-hand, while placing the knuckles to the right. Lay your thumb on top. Put your left-hand around the fist, knuckles to the left. Put that thumb on top right next to the other thumb.



- ii) Put palm on palm and put the bottom hands thumb over top palm. With palms facing up, bend them back so they bring your arms straight and together. Using that flat surface on your arm, you can manoeuvre the ball more easily to where you need to be changing angle and direction.



- iii) In whichever position, your arms need to be level with your shoulders, laterally jutting out from them at about 80 degrees from the floor.



Together with the teacher you will perform various drills to help you master the dig pass.

## The Volley Pass

This is another technique in volleyball used to play and receive high balls.

### How to Perform a Volley Pass

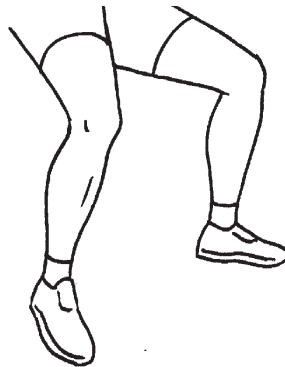
- i) Make sure the ball is coming down towards your forehead.
- ii) Get in position and extend your arms up above your head.



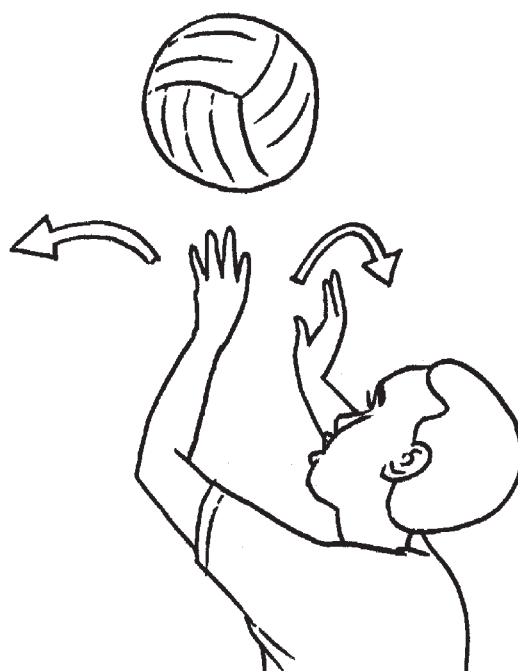
- iii) Position your hands to fit the size of the coming ball.



- iv) Position your feet and flex your knees slightly.



- v) Then perform the volley pass.



You and your peers will be helped by the teacher to perfect the skill of volleying through regular practise.

### **Basic Attack and Defence: Setting, Spiking and Blocking**

For a team to win a game of volleyball, it must accumulate points. At the same time the team must ensure that the opposing team does not accumulate points. Therefore when a team accumulates points, it is considered to be on the attack while when the team limits the opposing team to accumulate points it is considered to be on the defence.

#### **a. Setting**

This is a technique similar to the volley pass. But here a player receives a teammate's pass in order that the play may continue by passing the ball overhead to an attacker.

#### **b. Spiking**

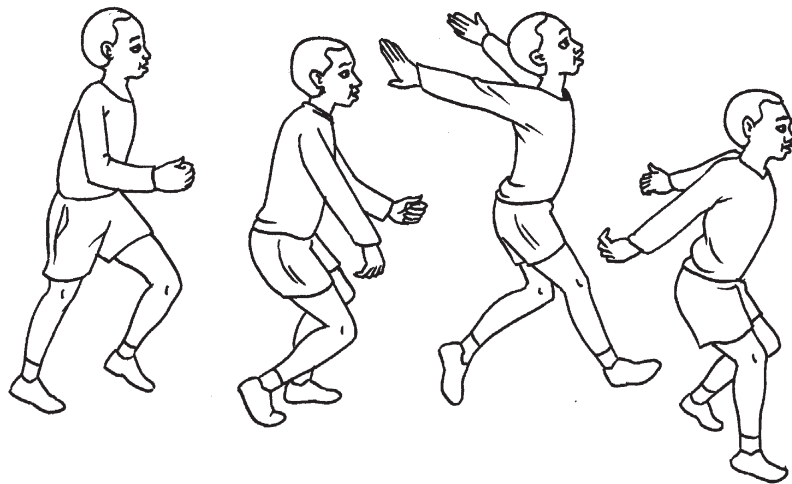
This is the technique of striking the ball sharply over the net into the opponent's court with the aim of getting a point. This comes after the ball had been set.



### **Activity 10.4: Performing volleyball basic attack and defence**

#### **How to Spike**

- i) Make a stride approach to take off position

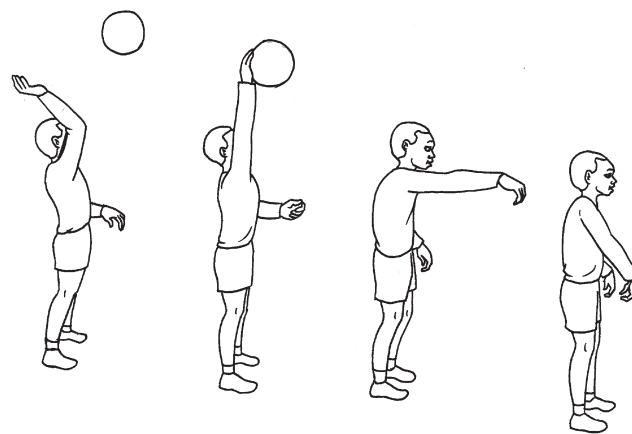


ii) Take off with both legs and arch your back with the hitting arm swung backwards over the head.



iii) Hit the ball with one hand over the net into the opponent's court and land on the balls of your feet.





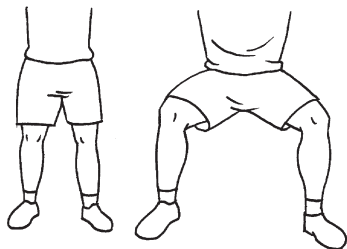
Include many different drills with the guidance of your teacher to perfect your spike.

### c. Blocking

This a technique is used to stop the ball from crossing the net as a result of an opponent's attack. It is done by the three front court players close to the net occupying positions 2, 3 and 4. These players stop the ball from crossing into their own part of the court by jumping vertically upwards with their arms raised in the path of the incoming ball.

### How to Block

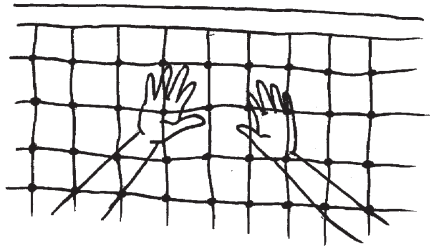
- a) Get into the ready position and stand with your feet shoulder-width apart.



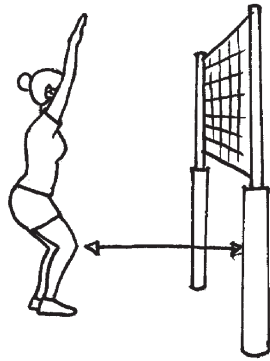
- b) Keep your arms high



- c) Keep your palms facing the net



d) Stay a half arm's length away from the net



**Note:** One, two or all the three front court players can be involved in the blocking of the ball.

It demands for a lot of practice if you are to master blocking. Together with your peers, the teacher will guide you in such practice drills.

### 1. Game situation

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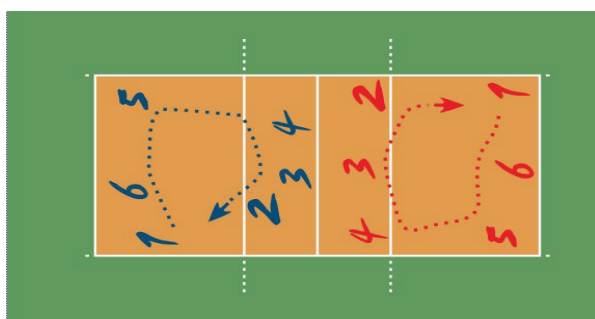
### 2. Basic court playing positions and Rotation

The picture below shows the 6 volleyball players in their playing positions at the start of the game.



**Fig. 10.7: Volleyball court**

The game of volleyball is initiated with a serve and all players must be in their playing positions. If the team that was serving lose the right to serve, then the opposing team will take on the serve. This will require the players of that team to move into the next playing position clockwise before serving the ball. A condition called **ROTATION** as shown in **Fig. 10.8** below.



**Fig. 10.8: Positioning of players**

**Note:** Player in position 1 moves to the next playing position clockwise which is 6. This will push clockwise all other players into the next playing position until the player who was in position 2 ends up in position 1.

### Initiating Play: Under Arm and Overhead Serve

We have already discussed the process of rotation in the game of volleyball. This only occurs when the game is in action. Game action is started with a serve. And every time a team scores a point or a fault is made, play is restarted with a serve. The serve is performed by the player occupying position 1. This is the right-hand back court player. The serve is performed from outside the court and strictly behind the back line of the court. Here the serving player hits the ball with one hand over the net into the opponent's part of the court.

### 3. Basic rules of volleyball

The game of volleyball is governed by international rules. These are set up by the international governing body of the game (FIVB). These rules are regularly amended to suit the situation of the present. Below are some of the basic rules of the game:

- i) Server must serve from behind the end line until after contact.
- ii) Ball may be served underhand or overhand.
- iii) Ball must be clearly visible to opponents before the serve.
- iv) Served ball may graze the net and drop to the other side for point.
- v) Team will rotate each time they win the serve.
- vi) Players shall rotate in a clockwise manner.
- vii) There shall be 4 – 6 players on each side.
- viii) Maximum of three hits per side is permitted.
- ix) A player may not hit the ball twice in succession.
- x) A player must not block or attack a serve.
- xi) The net should not be touched during play.
- xii) Players are not allowed to cross onto the opponent's part of the court.



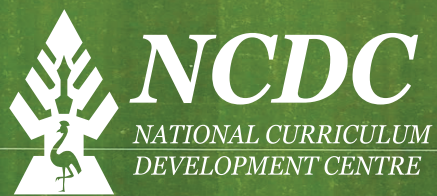
### Activity of Integration

Volleyball is a sport that can be played by people of all walks of life. It may be female or male, young and old, and for health reasons or professional development. Lack of equipment and practical inability to perform the volleyball skills are some of the hindrances to its development countrywide.

Prepare a demonstration to counteract the hindrances highlighted in the scenario.







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