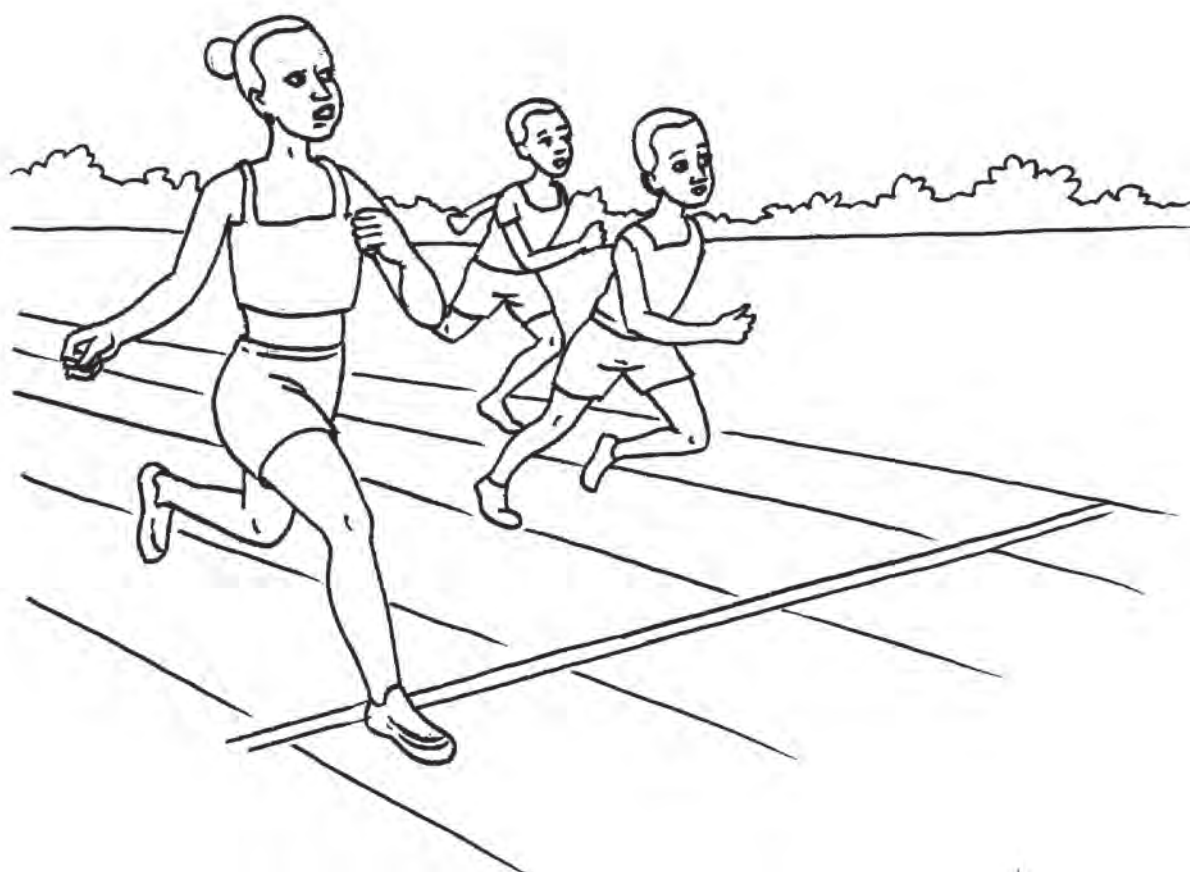


Chapter 1

Introduction to Physical Education



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

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:

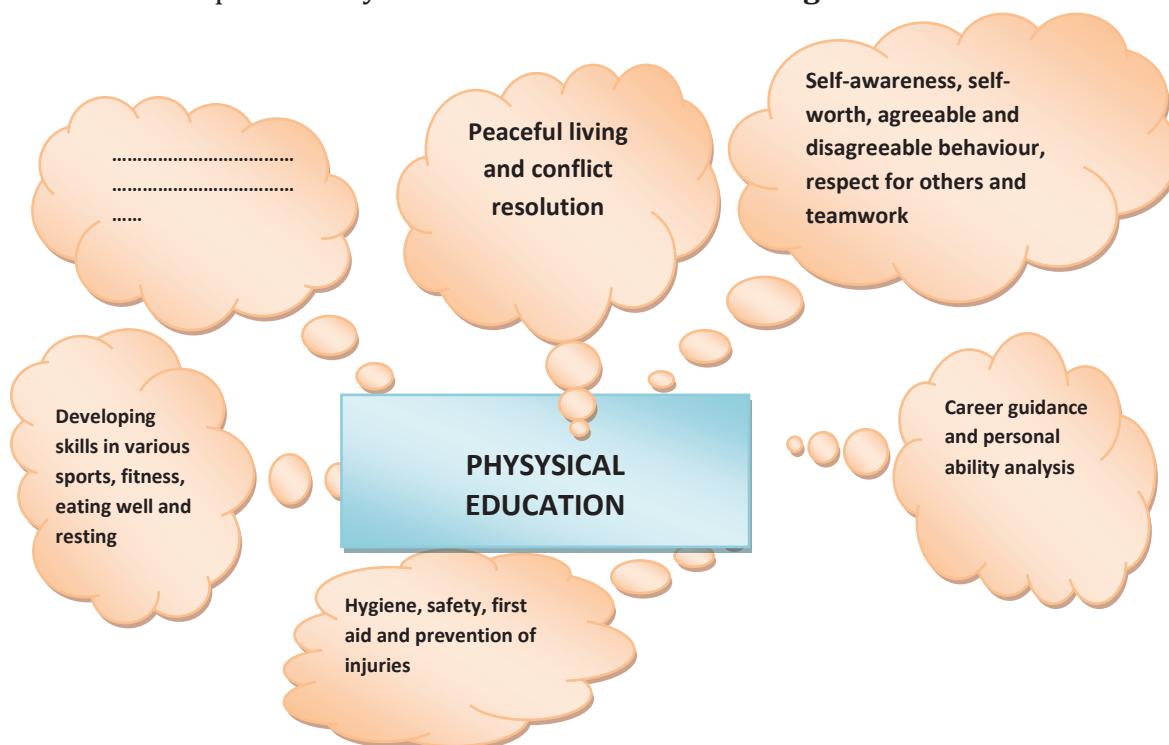


Fig.1.1: Concepts in Physical Education



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"> • cardiac arrest • carotid pulse • casualty • DRABC routine • emergency • first aid • injury • pulse • RICE 	<ul style="list-style-type: none"> • describe the concept of first aid. • explain the use of the various materials that are used to give first aid. • use appropriate safety procedures to manage injuries. • perform first aid for basic injuries.

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**.



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 2.2: Understanding first aid

- 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.

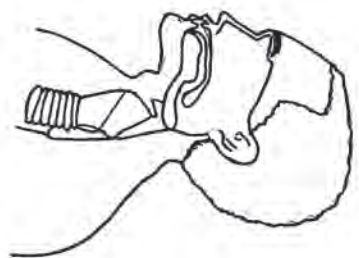


Fig. 2.3: Tongue blocking the airway



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.

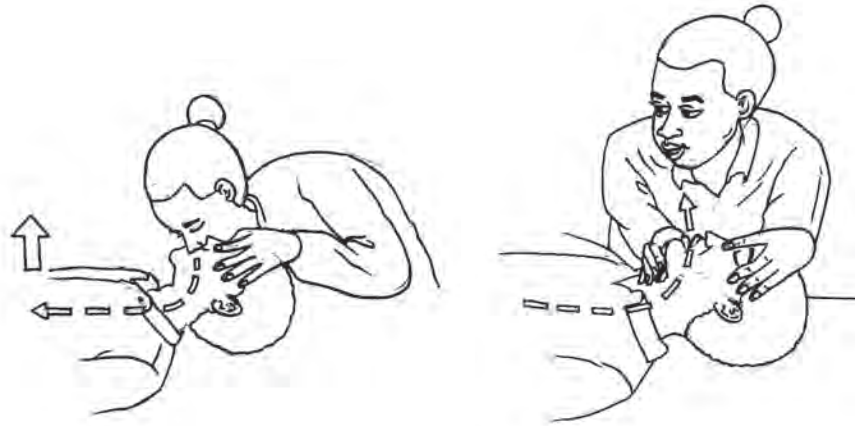
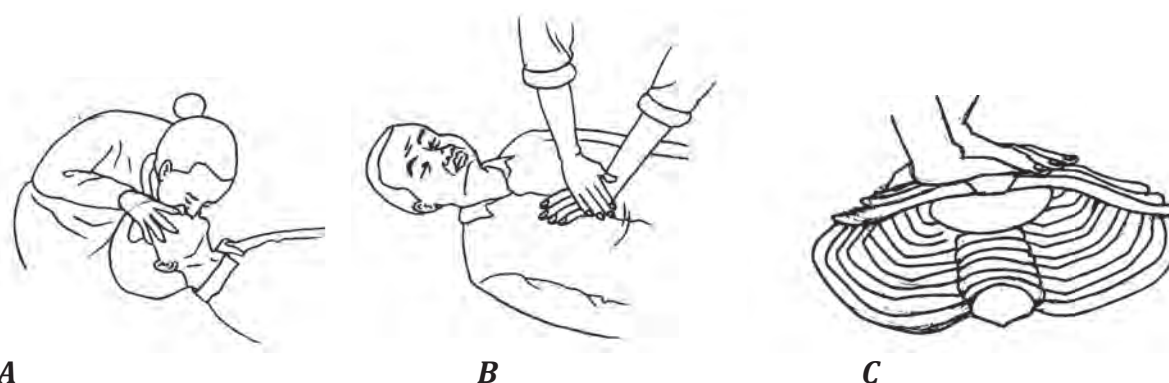


Fig. 2.6: Mouth-to-mouth ventilation

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.

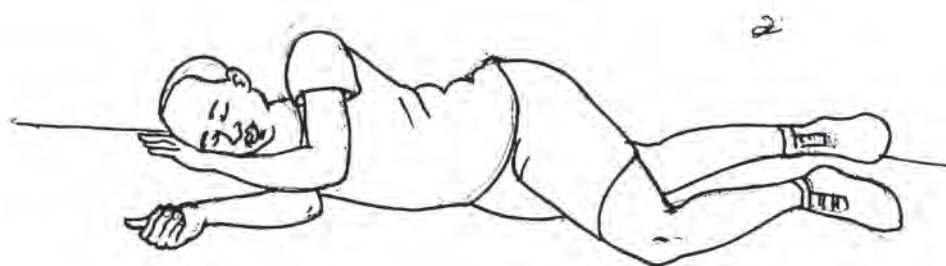


Fig. 2.8: Recovery position



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.

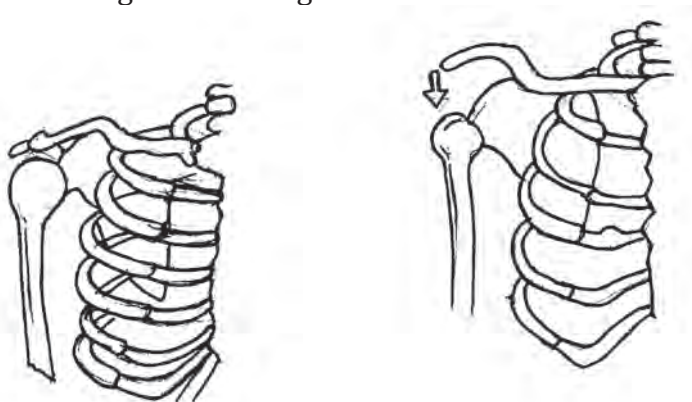


Fig. 2.13: Dislocated shoulder

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

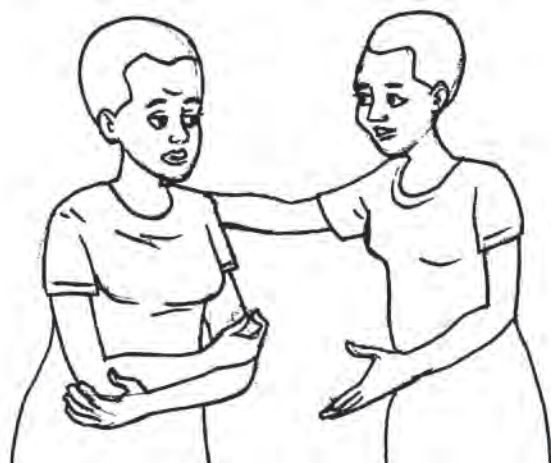


Fig 2.14: Support and rest for a dislocated joint

- 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



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

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.

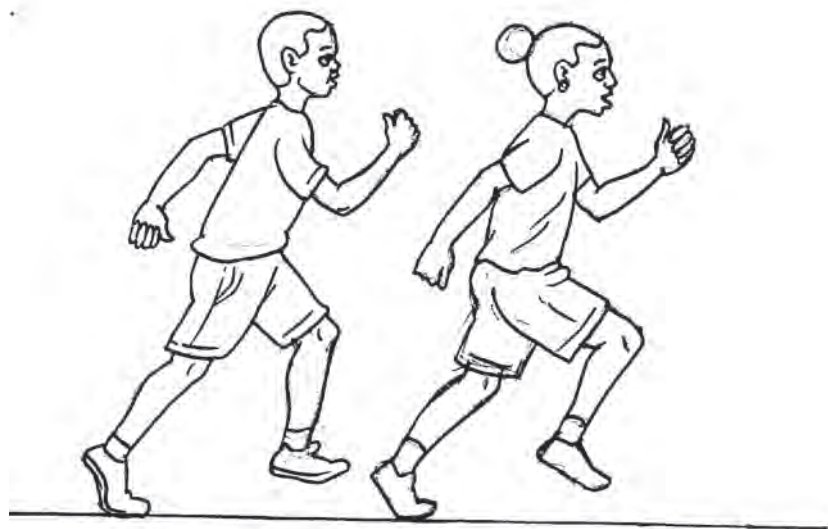


Fig. 3.1: Jogging is a good way to warm up

- 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.

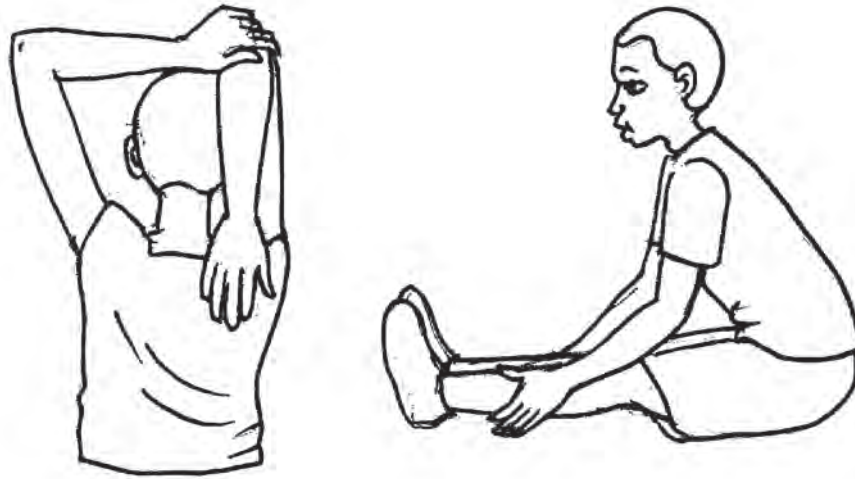


Fig. 3.2: Stretching

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.

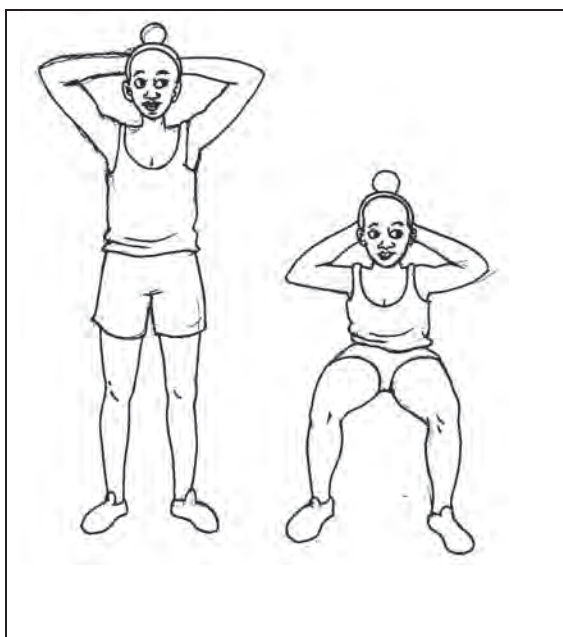


Fig. 3.4: Squat exercise

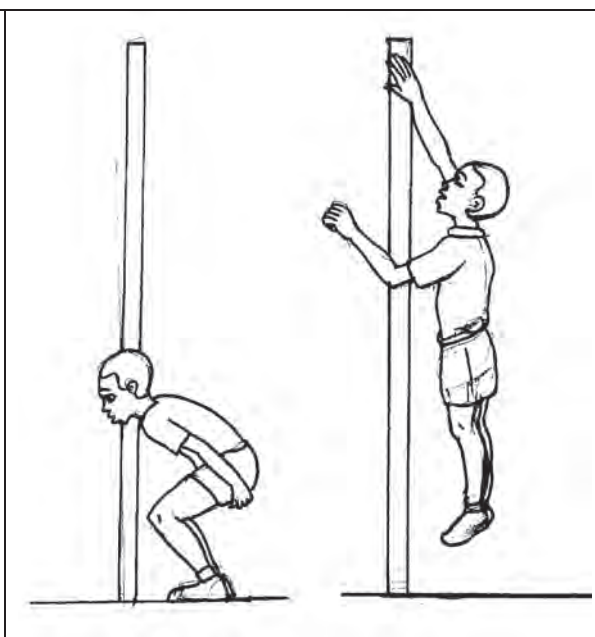


Fig. 3.5: Jump and reach test



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

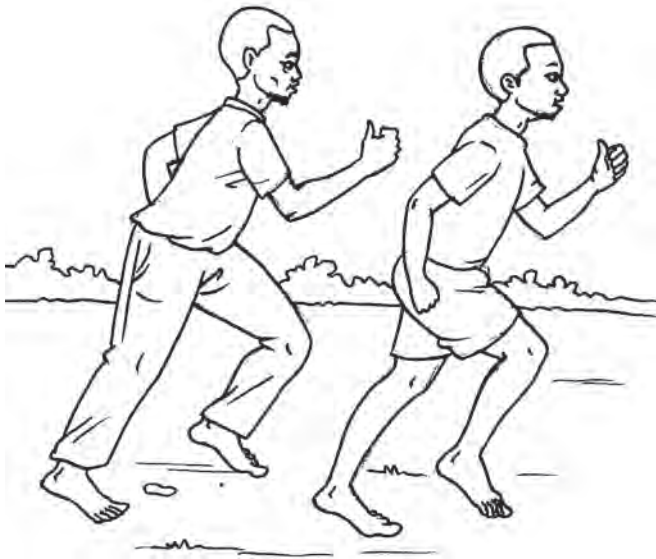
Brainstorm for general and sport specific exercises and perform them in groups of 4 – 6.
Your teacher will lead you through warm-up exercises starting with:

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.

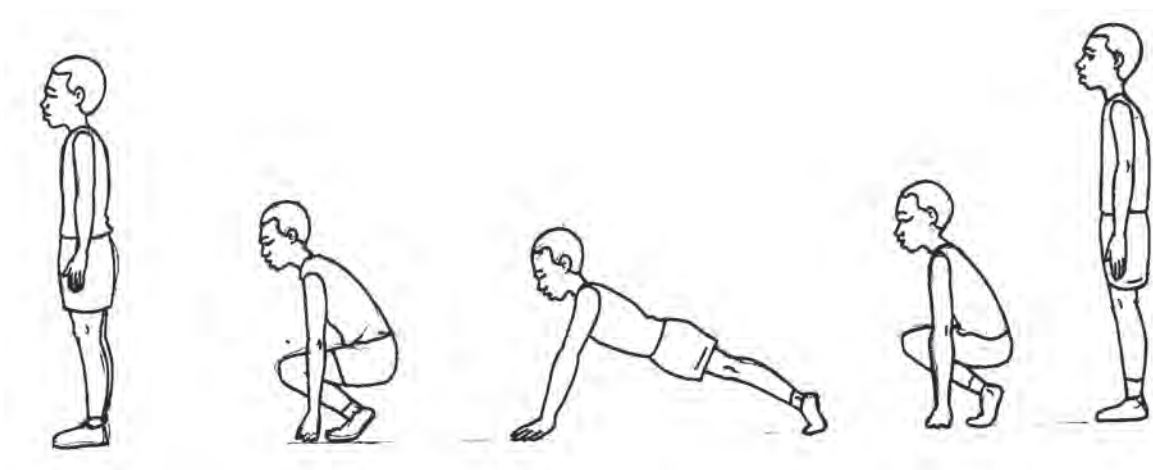


Fig. 3.15: Squat thrust

Cool-down

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



Activity 3.4: Practising cool-down exercises

- 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.



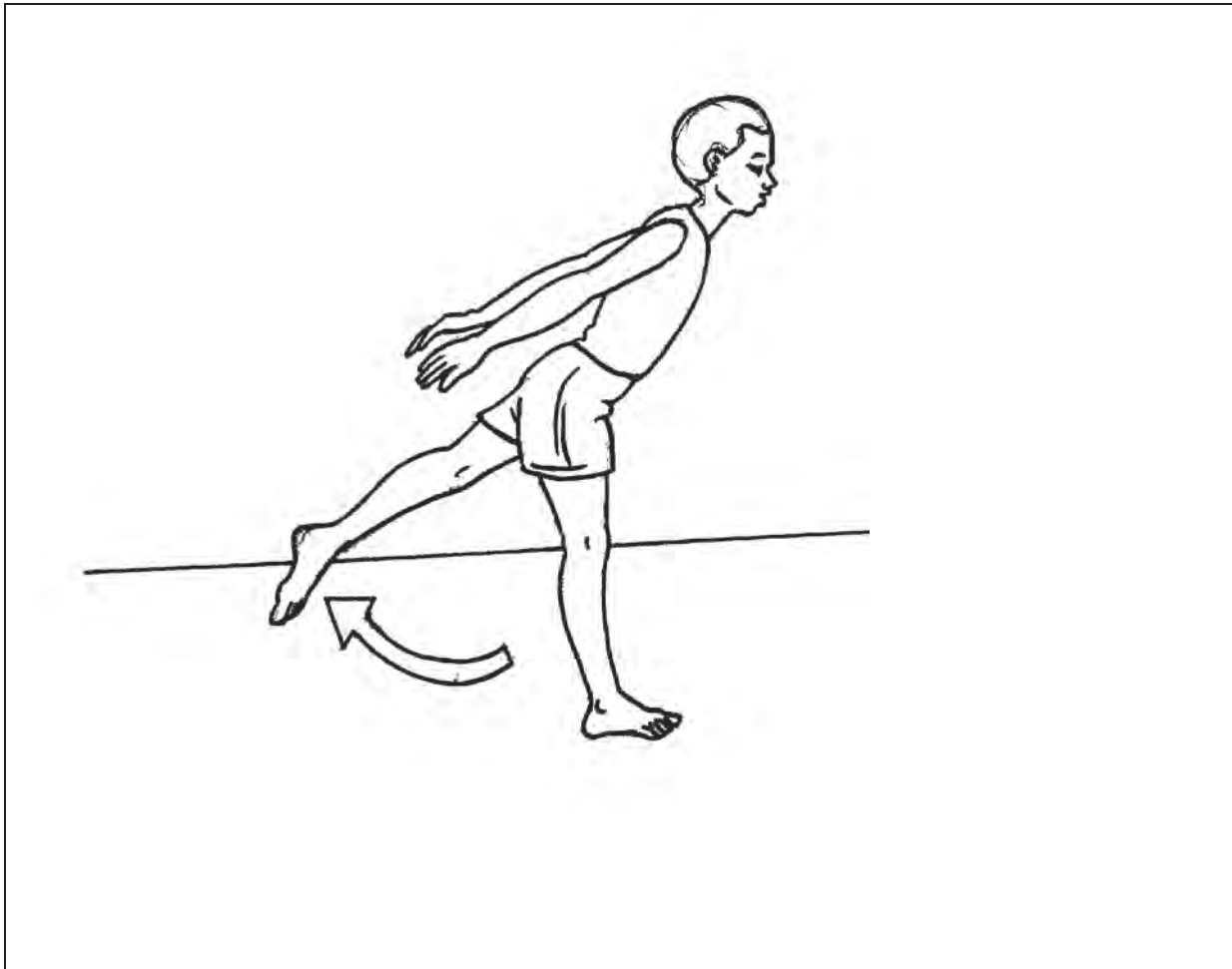
Activity of Integration

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



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

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

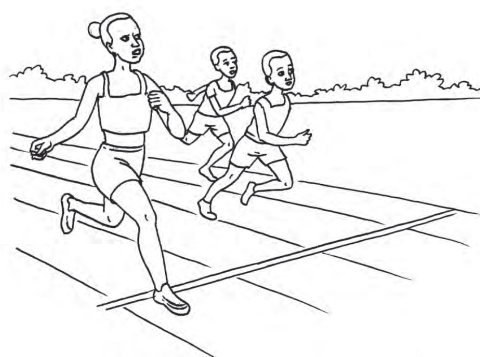


Fig. 4.2: Running

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

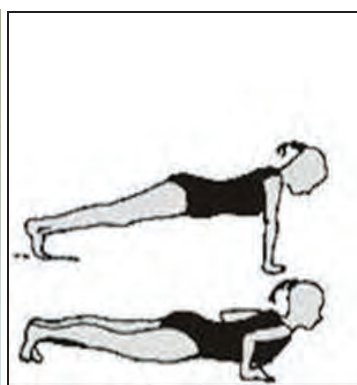


Fig. 4.4: Push up

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.

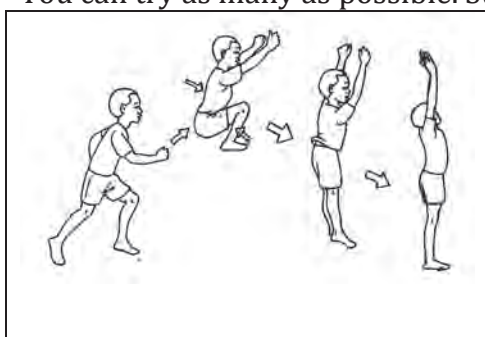


Fig. 4.5: Jumping

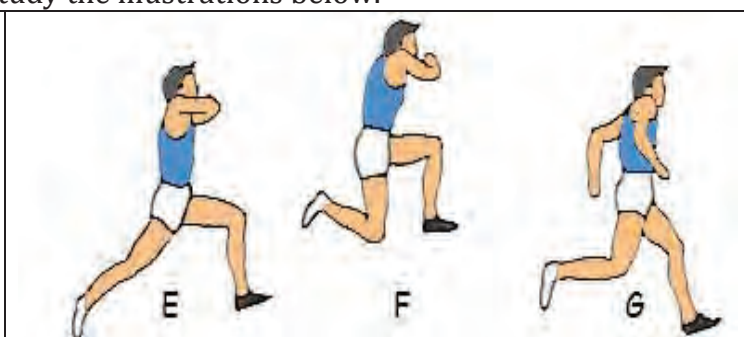


Fig. 4.6: Hopping

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

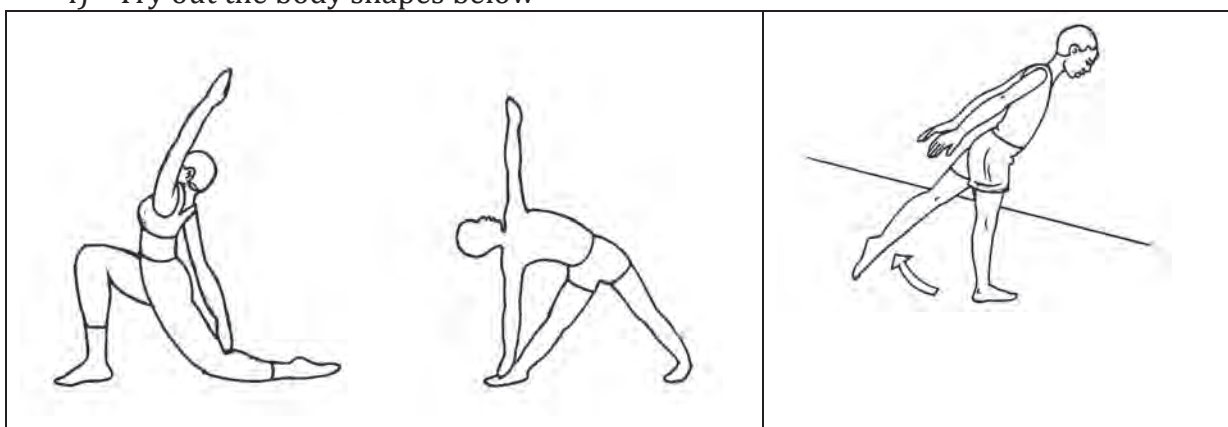


Fig. 4.7: Stretched body shape

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.

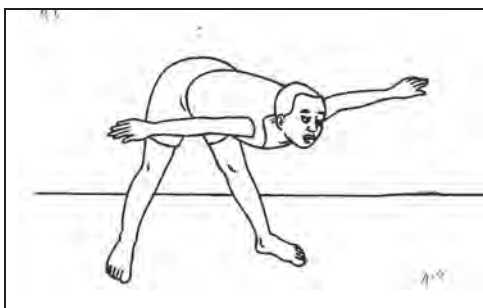


Fig. 4.8: Wide body shape

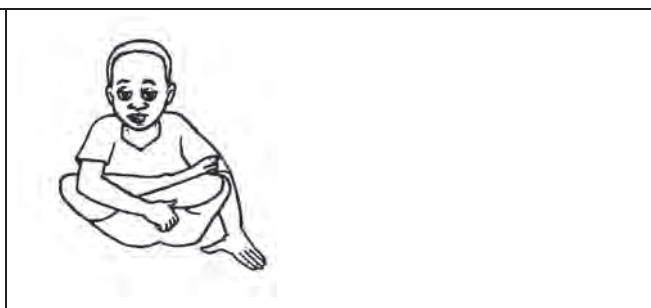


Fig. 4.9: Curled body shape

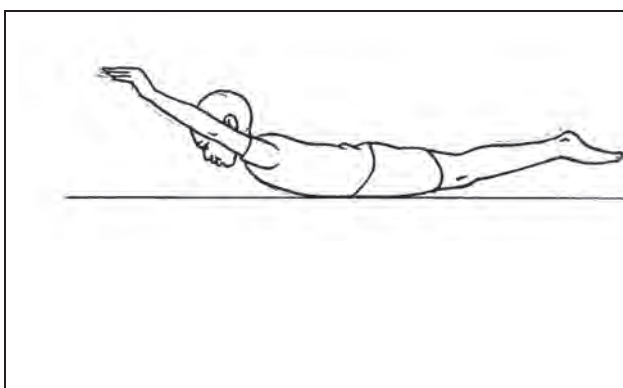


Fig. 4.9: Narrow body shape

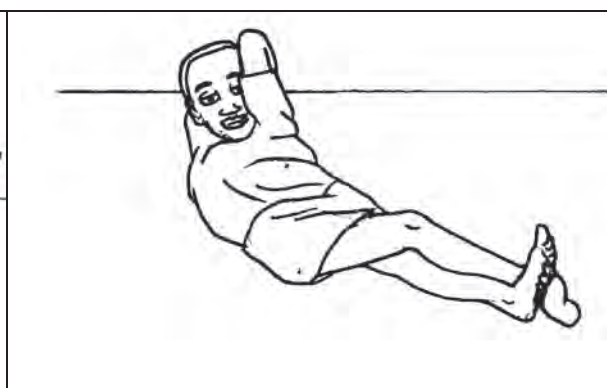


Fig. 4.10: Twisted body shape

- 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.

- 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.
- Demonstrate the planned activities as an entertainment and an educational piece to a selected audience.

Chapter 5

Exercise, Rest and Hygiene



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

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.

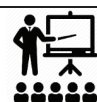
Exercises are classified into two types: aerobic and anaerobic.

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?

	Activity 5.3: Understanding rest
---	---

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

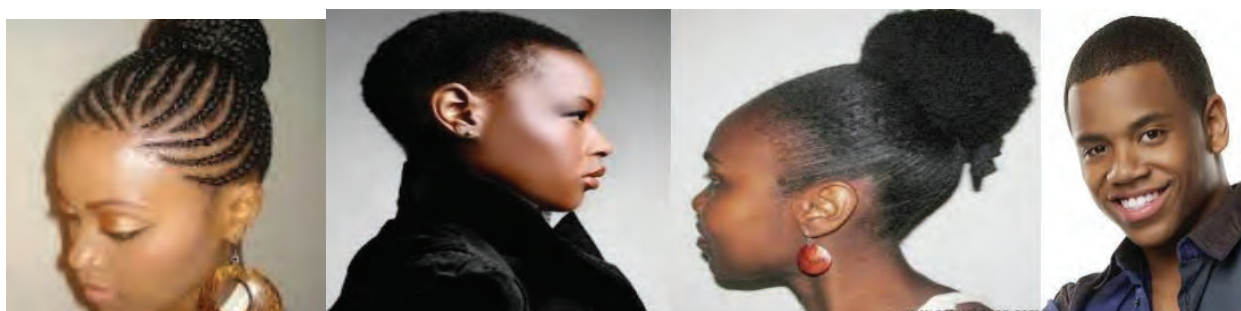


Fig. 3.6: Hair styles

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:

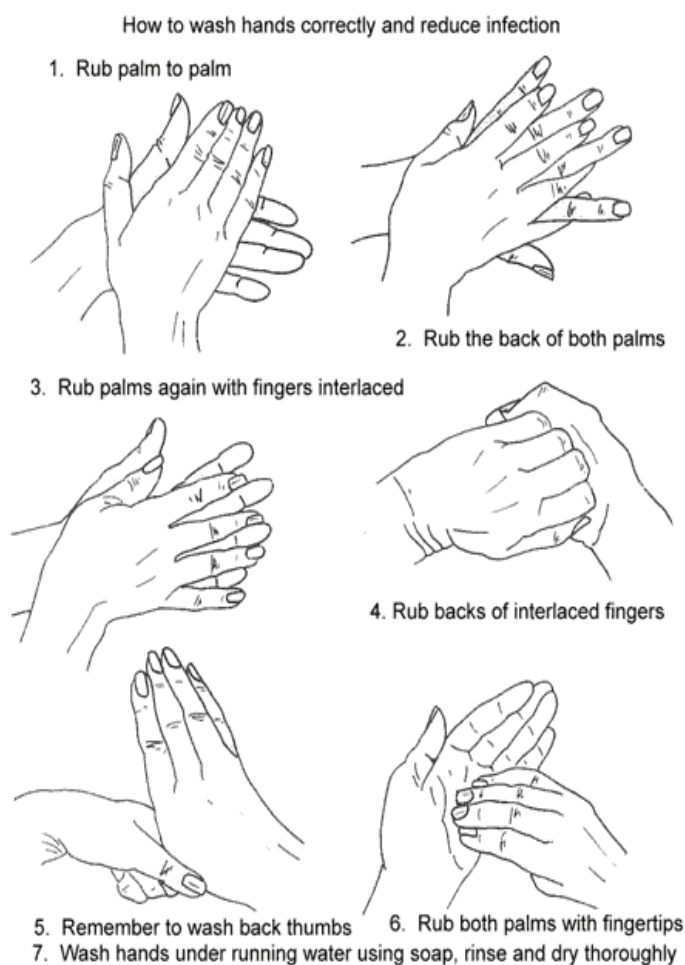


Fig. 3.7: How to wash hands

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 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.