

# Ventures Primary

## Physical Education, Sport and Mass Displays



Grade

6

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Learner's Book

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## PHYSICAL EDUCATION

### Organ of the body (1)

1. Identify body parts that store and transport food
2. explain the process of storing and transporting food.

The human body needs food. The mouth is an external organ which helps in the transporting of food in the body.



#### Key words

digestive system

digestion

particle

faeces

### Transport and store food

The human body parts have several functions. Without the proper functioning of any of the body organs, humans might not perform daily activities easily. There are organs of the body that transport and store food. These organs function in a system called **digestive system**.

1. Collect food items such as, a lemon and sugar.
2. How do the food items taste?
3. Discuss how we find out the taste of food.

#### Digestive system

The digestive system is a series of body organs joined together in a tract that transports and stores food.

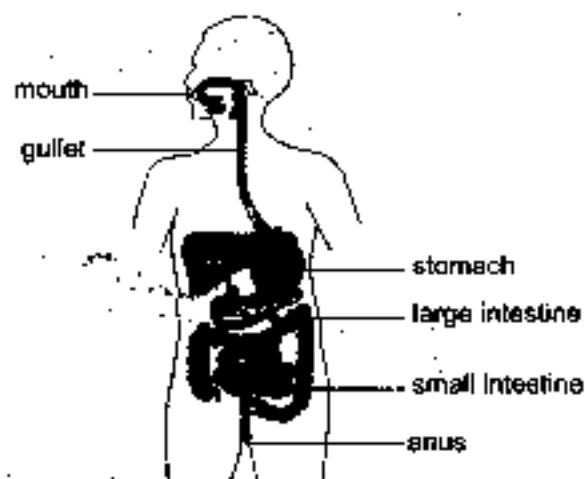
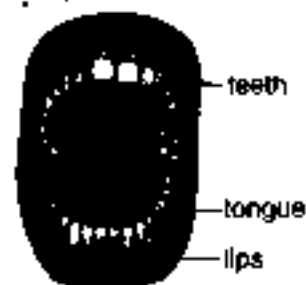


Figure 1.1 Organs of the human body that transport and store food

Figure 1.1 shows the organs that store and transport food. The body parts that transport and store food are the mouth, gullet, stomach, small intestine, large intestine and the anus.

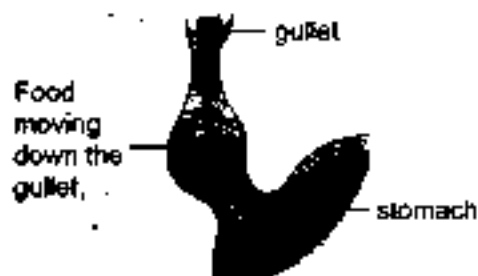
#### a. The mouth

The mouth is an external body part used for eating and drinking. Inside the mouth there are teeth and the tongue. In the mouth the food is broken down by the teeth. The tongue helps to mix the food with saliva so that it can move smoothly into the gullet.



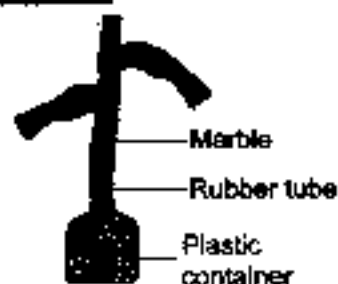
#### b. Gullet

The gullet is a long tube found in the neck. It transports food from the mouth into the stomach. The gullet can expand and contract as food moves through it. The movement of the walls of the gullet through expansion and contraction helps the food to move down the gullet.



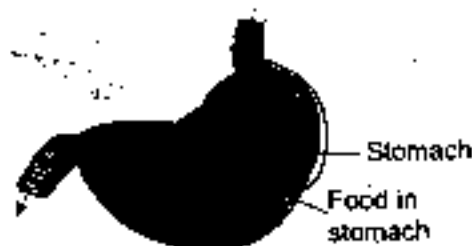
### Activity 2: Movement of food down the gullet

You can demonstrate the movement of the food down the gullet using a rubber tube, a marble and a plastic container.



### c. Stomach

The stomach is one of the largest organs which stores food. It receives food from the gullet. The stomach holds food as the breaking down of food takes place. Food is broken down to smaller **particles**. The breaking down of food into smaller particles is called **digestion**.



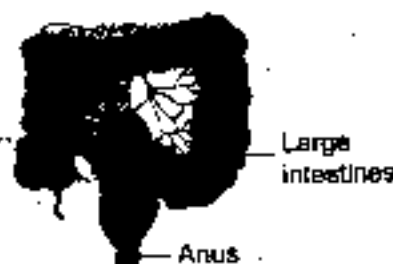
### d. Small intestine

The small intestine is the longest part of the organs which transport and store food. It is about 6 metres long. The small intestine is joined to the stomach and the large intestine. Digestion continues in the small intestine. The small particles from the stomach are **absorbed** into the blood and carried to all parts of the body.



### e. Large intestine

The large intestine measures about 1.5 metres long. It is joined to the small intestine. It **absorbs** water and salts. It stores the waste called **faeces**. The faeces are removed from the body through the **anus**.



## Activity 3

Make a model of the human digestive system using wire and clay or any other available resource.

Label the parts using pieces of Manilla paper and string.

## Exercise 1

1. Draw the digestive system and label the following parts:
  - a) Mouth
  - b) Stomach
  - c) Small intestines
  - d) Anus
2. \_\_\_\_\_ breaks down food in the mouth.
3. The breaking down of food into smaller particles is called \_\_\_\_\_.
4. \_\_\_\_\_ and \_\_\_\_\_ are absorbed in the large intestine.
5. What is the function of the following parts:
  - a) Gullet
  - b) Stomach?
6. Which part of the digestive system removes faeces from the body?

## Unit 2

## Organs of the body (2)

### In this unit you will:

1. identify the body parts that store and transport air
2. explain the process of storing and transporting air.

### Feedback

We need air all the time in order to survive.



### Key words

breathing system    Breathing    nostrils    voice box    trachea  
bronchi    air sacs

### Organs that transport and store air

All living things need air for survival. Air is made up of different gases, which include carbon dioxide and oxygen. The human body needs oxygen from air. We get oxygen from the air when we breathe in. All parts of the body will get oxygen when it is transported to them. Air enters the body through the nose and is transported to the other parts of the **breathing system**. A series of organs joined together to store and transport air is called the breathing system. The nose is the external body part which we use for **breathing**. We can also breathe through the mouth.

### The breathing (respiratory) system

#### a. The nose

The nose is used to take air in and out. It has two openings which are called **nostrils**. In the nostrils there are hairs and mucus which help remove dirt as well as to moisten the air we breathe in.

#### b. The throat

The space from the nose to the back of the inside of the mouth is the throat. The throat is about 13cm long. It is joined to the **voice box**. The voice box produces the voice using the vocal cords.

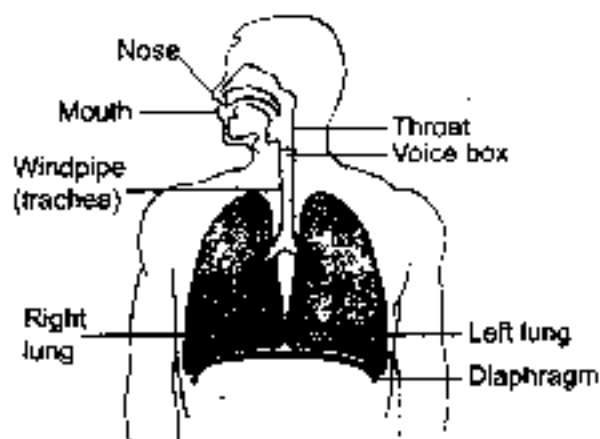


Figure 1.1 The breathing system

### c. The windpipe

The air from the nose passes through the throat and voice box into the windpipe. The other name of the windpipe is **trachea**. The windpipe is a tube about 12cm in length. It looks like a vacuum cleaner hose. The windpipe forms two small tubes which attach to the right and left lungs.

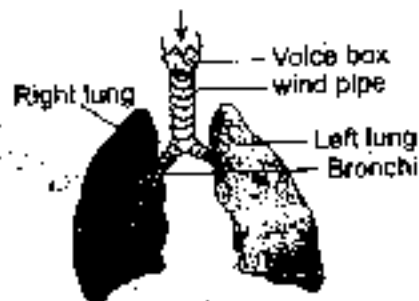


Figure 2.2 The wind pipe

The windpipe has the same structure as a vacuum cleaner hose.



In your groups, examine the vacuum cleaner hose at your school or home. Describe its structure.



Figure 2.3 The structure of the wind pipe

### d. Lungs

The breathing system is made up of two lungs which are found on the right and left sides of the body. The two lungs are joined to the two tubes called **bronchi**. Bronchi the plural form, while one tube is called a bronchus. The lungs have a pink colour and are made up of small **air sacs**. Air sacs are very small air 'bags' found in the lungs which store air. The air sacs are surrounded by blood vessels which carry blood.

The air moves from the windpipe into the bronchi. It enters the air sacs and moves into the blood through blood vessels where it is carried to all parts of the body.

#### Air sacs in the lungs

The body uses the oxygen carried by the blood. When oxygen is used up by the body parts, carbon dioxide is formed. The body does not need carbon dioxide. Blood vessels called capillaries carry carbon dioxide to the lungs for the body to exhale it. The carbon dioxide in the lungs moves from the small air sacs to the windpipe and out through the nose.

The air sacs in the lungs are similar to the air bubbles on plastic bubble wrappers.

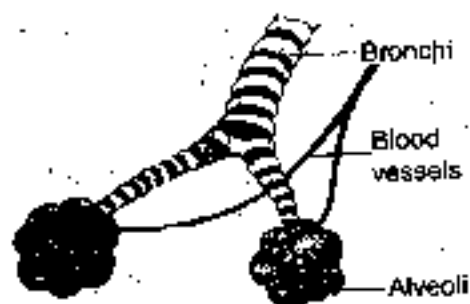


Figure 2.4 Organs in the lungs



Figure 2.5 A plastic bubble wrapper



## Activity 2

Collect plastic bubble wrappers that have air bubbles. Feel the air bubbles and try to press them hard. Explain what you feel and what happens.

### e. Diaphragm

The diaphragm is a muscle found below the lungs that separates the stomach and chest. It can move up and down as we breathe.

## Breathing

**Breathing** is the movement of air in and out of the body. During breathing, the lungs, diaphragm and ribs change their position in order for people to breathe.

### Breathing In

During breathing in, the ribs push out and increase the space occupied by lungs. At the same time, the diaphragm contracts and flattens. This allows the movement of oxygen rich air into the lungs.

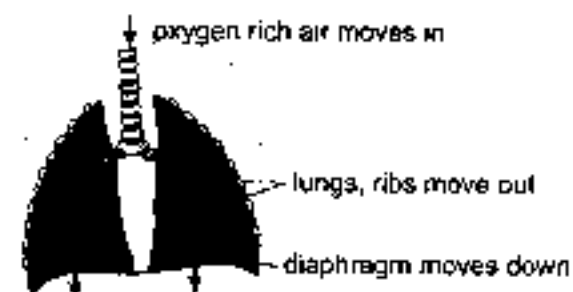


Figure 2.6 position of breathing organs when breathing in

### Breathing out

When we breathe out, the ribs move in and reduce the space occupied by the lungs. At the same time the diaphragm relaxes and the air is pushed out of the lungs. This pushes the air in the lungs out through the windpipe and nose.

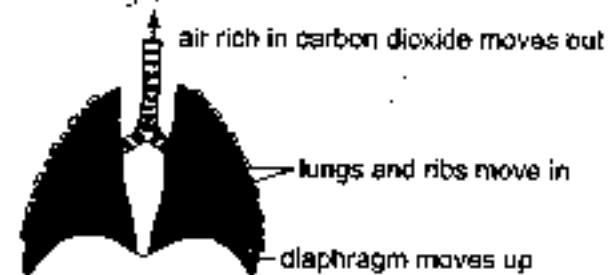
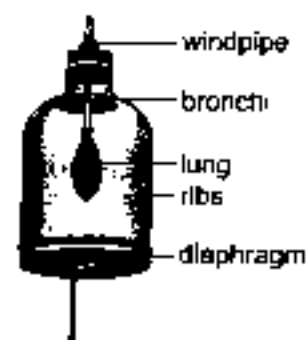


Figure 2.7 position of breathing organs when breathing out

## Activity 3: Breathing model

1. Put a Y tube into the opening of a rubber stopper.
2. Tie two balloons of the same size to the two arms of the Y tube using string or rubber bands.
3. Push the rubber stopper into the plastic container.
4. Cut a thin circle of plastic sheet which can fit over the bottom of the container.



5. Using string, tie the plastic sheet over the bottom of the plastic container.
6. It must not be too tight.
7. Pull down lightly on the plastic sheet using fingers.
8. Push up lightly on the plastic sheet using fingers.
9. Explain what happens when the plastic sheet is pulled down and when it is pushed up.

## Exercise 2

1. Which breathing system part is represented by each of the following on the breathing model
  - a) Plastic container \_\_\_\_\_
  - b) Balloons \_\_\_\_\_
  - c) Top of Y-tube \_\_\_\_\_
  - d) Branches of Y tube \_\_\_\_\_
  - e) Thin plastic sheet \_\_\_\_\_
2. The movement of air into and out of the body is called \_\_\_\_\_.
3. Draw the breathing system and label the following parts:
  - a) Nose
  - b) Windpipe
  - c) Lungs
  - d) Diaphragm
4. What is the other name for the windpipe?

- A series of organs of the body that transport and store food form the digestive system.
- Some of the organs of the digestive system are the mouth, gullet, stomach, small intestine, large intestine and the anus.
- Digested food is absorbed into the body and carried by blood to all parts.
- Faeces which are waste material are removed from the body through the anus.
- The breathing system is a system that stores and transports air to different body parts.
- Some of the organs of the breathing system are: nose, windpipe, lungs and the diaphragm.
- Breathing is the movement of air in and out of the body.
- During breathing, the lungs, ribs and diaphragm move in and out.

### Summary

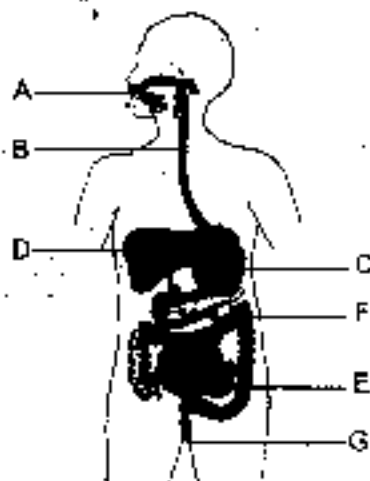
- breathing system** – the system which is made up of the organs which transport air into and out of the body.
- breathing** – the movement of air into and out of the body

<b>digestion</b>	- breakdown of food
<b>digestive system</b>	- the organs of the body which breakdown food
<b>saliva</b>	- the watery substance found in the mouth
<b>gullet</b>	- the food pipe which carries food from the mouth to the stomach
<b>storing</b>	- keeping
<b>absorb</b>	- take in

### End of topic assessment

Choose the correct answer.

Use the picture below to answer questions 1-4.

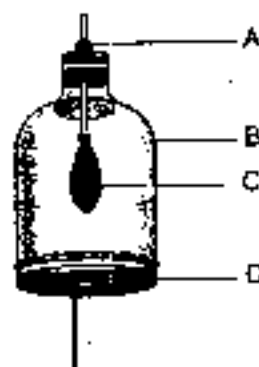


Write down the letters represented by the following organs:

1. Stomach
2. Large intestines
3. Mouth
4. Anus
5. \_\_\_\_\_ breaks down food in the mouth.  
A. Teeth                      B. Tongue                      C. Throat                      D. Lips
6. \_\_\_\_\_ is mixed with food in the mouth so that it can move smoothly  
A. Air                      B. Oxygen                      C. Saliva                      D. Faeces
7. The breaking down of food into smaller particles is called \_\_\_\_\_.  
A. breathing                      B. eating                      C. drinking                      D. digestion
8. Which body part stores more food?  
A. Gullet                      B. Stomach  
C. Mouth                      D. Small intestine
9. The large intestine absorbs \_\_\_\_\_.  
A. saliva                      B. salts                      C. air                      D. food

10. Which part of the digestive system removes faeces from the body?  
 A. Liver                      B. Stomach                      C. Anus                      D. Mouth

Use the picture of the model of the breathing system below to answer questions 11-14.



Which part of the model represents the:

11. Ribs  
 12. Lungs  
 13. Windpipe  
 14. Diaphragm  
 15. What is the name of the muscle that is found below the lungs?  
 A. Ribs                      B. Air sac                      C. Diaphragm                      D. Windpipe  
 16. The \_\_\_\_\_ store air in the lungs.  
 A. bronchus                      B. windpipe                      C. ribs                      D. air sac  
 17. What is the other name for the windpipe?  
 A. Throat                      B. Mouth                      C. Trachea                      D. Voice box  
 18. \_\_\_\_\_ is the movement of air in and out of the body through the nose.  
 A. Drinking                      B. Breathing                      C. Digestion                      D. Eating  
 19. The name of the gas in the air we need is \_\_\_\_\_.  
 A. oxygen                      B. water vapour  
 C. steam                      D. carbon dioxide  
 20. The hairs in the nose help to \_\_\_\_\_ air.  
 A. clean                      B. push                      C. pull                      D. stop

**Answer the following questions.**

1. The digestive system is made up of \_\_\_\_\_ and \_\_\_\_\_ body parts. [2]  
 2. The windpipe is part of the \_\_\_\_\_ system. [1]  
 3. The \_\_\_\_\_ helps to mix food with saliva in the mouth. [1]  
 4. Food is broken to smaller pieces in the \_\_\_\_\_. [2]  
 5. The function of the large intestine is to absorb \_\_\_\_\_ and \_\_\_\_\_. [2]  
 6. The \_\_\_\_\_ is an external organ which we use for breathing. [1]

7. Draw the breathing system and label the following parts:

- a) Nose
- b) Windpipe
- c) Lungs
- d) Diaphragm

[5]

8. The voice box produces the voice using \_\_\_\_\_.

[1]

### **Practical assessment**

1. Design a breathing system model and demonstrate breathing in and breathing out.
2. Design the digestive model using clay, or wire or papier mache. Label 5 parts of the system using manilla.

## Unit 3

## Healthy living habits (1)

## In this unit you will:

1. identify the physical activities done at home and school
2. classify the physical activities done at home and school.

## Flashback

Eating a balanced diet and exercising are important activities for a healthy lifestyle.

## Key words



physical activity   risk   fitness   pounding   coordination  
balance   agility

**Physical activity** is any activity that gets your body moving, makes you breathe quicker and your heart beats faster. It also means movement of the body that uses energy. Examples of physical activities are walking, dancing, gardening and playing games. These activities must be done actively. Physical activity promotes growth, stronger bones, muscles and joints, a stronger heart and a healthy weight and mind.

To maintain health and reduce **risk** to health problems you must have at least one hour of physical activity every day. Risk means danger. There are various physical activities that can be done at home, school and in the community in order to improve our health.

## Physical activities at home

A lot of physical activities can be done every day at home to keep the body physically fit. The following physical activities can be done at home:

### 1. Cleaning the house

Cleaning the house is a physical activity which can improve health and fitness. Fitness is when you are able to carry out tasks without excessive fatigue. We must help our parents to clean inside and outside the house. It is important to use strength whilst cleaning as this will help to improve fitness. Working slowly will not improve your health and fitness.



### 2. Digging in the garden

Digging in the garden at home is a very good example of a physical activity which can help reduce your weight and improve your fitness. When you dig, you breathe faster and your heart will beat faster. This physical activity makes your body sweat. Sweating removes waste from the body.



Figure 3.2: Chetan digging in the garden

### 3. Washing the car

Another activity which can make family members work together is washing a car. The family members can assist each other by fetching water, while other members wash the car. This physical activity helps the whole family keep fit. The brushing, scrubbing and wiping done in this activity allows active movement of the different body parts.



Figure 3.3: Father and daughter washing a car

#### 4. Pounding grain using pestle and mortar

**Pounding** activity is done using a pestle and a mortar. Pounding is hitting hard on something with an object. The activity can help improve the strength of the muscles of the body. It can improve the function of the heart by making it beat faster. It improves **balance** and **coordination**.

Balance is distribution of weight that keeps a person upright or steady. Coordination is the ability to use different body parts at the same time. When pounding in pairs or groups, take turns and avoid injuries.



Figure 3.4 Children making samp by pounding grain

#### Activity 1

1. Bring a pestle and mortar to school. Practise pounding using a mortar and pestle.
2. Identify the body parts and muscles that are used when pounding.

#### 5. Playing games



Figure 3.5 A family playing a ball game

This physical activity is called hot potato game. It is a good game for health and fitness which can be done by family members at home. The game is played using hands only. To play the game you need a small ball or a rolled up stocking. Toss the ball to a member of the family who will catch and toss the ball to another member. Continue to toss to each other until one member misses to catch. The member who fails to catch is out of the game. The game continues until there is only one member left.

#### Activity 2

Play the potato game with your family members at home.  
Play other games that you know at home.



## Physical activities at school

At school there are a variety of physical activities that can help improve our health and fitness. Besides reading and writing at school, we must also take part in physical activities which can improve our fitness and health. The following are some of the physical activities which can be done at school:

### 1. Watering the garden

Working in the school garden is a good physical activity which makes internal organs such as the heart and lungs stronger. This can improve the way the internal organs function and also lead to a healthy life. Other activities that can be done in the school garden to improve fitness are digging and weeding.



Figure 3.6 Learners during an Agriculture lesson at school

### 2. Musical hula hoop game

Musical hula hoop game is a fun twisting game that allows the body to move and balance in different ways. It helps the body to be fit and improves agility, coordination and balance.

To do this activity, you need a hula hoop and music. The game can be choreographed, doing different formations and balances. You can do various activities such as hopping, jumping and running whilst playing with the hula hoop.



Figure 3.7 Learners during a Physical Education lesson

### 3. Skipping rope game

Skipping rope games are good physical activities which can be done with friends at school during break time. Skipping is a full body exercise which uses legs, shoulders and arms for turning the rope as well as for skipping. Skipping helps to reduce body weight. It can also improve balance, coordination and **agility**. Agility is to be quick and graceful when performing a skill. Skipping can be done individually, in pairs or in groups.



Figure 3.8 Leapers playing at break time.

### 4. Hopscotch game (pada)

The hopscotch game is a fun, game which can be played outdoors or indoors. The game can be played using joined hula hoops or drawn hopscotch as shown in Figure 3.9. The hoops can be joined using strings. It can help to build your strength and balance as well as your health and fitness. To play the game, use a small flat stone which you throw into a hoop. Hop on one leg through the other hoops.

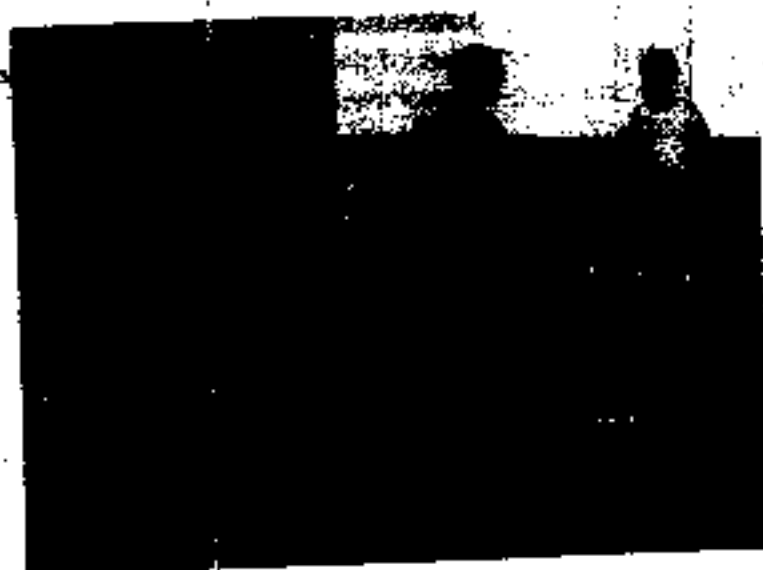


Figure 3.9 Children playing hopscotch

### Activity 3

1. Choose a class leader.
2. State 3 physical activities that are not covered in this book.
3. Divide the class into 3 groups. Each group is assigned one of the 3 physical activities.
4. Each group role plays demonstrating the given physical activity.

## Exercise 1

1. Any activity that makes your body move, breathe quicker and makes your heart beat faster is called \_\_\_\_.
2. Name three physical activities which promote fitness.
3. Physical activities improve the function of \_\_\_\_ and \_\_\_\_ in the body.
4. Cleaning the house is a physical activity that can help improve your \_\_\_\_ and \_\_\_\_.



5. What is the name of the physical activity shown in the picture above?
6. Which three components of fitness are improved by 'the musical hula hoop' game?
7. Name two skills used in the game 'hopscotch ring'.

## Unit 4

## Healthy living habits(2)

### In this unit you will:

1. classify the physical activities done at home, school and the community
2. keep a record of the physical activities done at home, school and the community.

### Rashback

Physical activities are important to keep our body healthy and fit. State two physical activities done at home.

#### Key words



community  
diabetes

campaign  
obesity

diary infectious

disease

Physical activities can improve our health and reduce the risk of developing several diseases such as **obesity**, **diabetes** and heart disease. Obesity is a disease that is caused by over-eating. Diabetes is a disease that affects how your body uses blood sugar.

### Physical activities in the community

The people in the **community** must take part in many physical activities in order to improve their health and fitness. A community is a group of people who live in the same area. A healthy community is a happy community. Physical activities can help reduce the risk of illnesses in the community. Families must work together in the communities to promote healthier lifestyles. Some of the activities which can be done in the communities are:

#### Doing a clean-up campaign

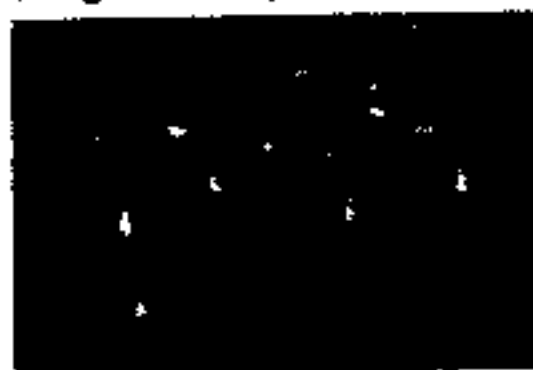


Figure 4.1: Children participating in a clean up campaign

A **campaign** is when people work together actively to achieve a certain goal. All the people in the community must take part in cleaning activities. It is an important physical activity which can promote our health and fitness, and prevent the outbreak of diseases. As the people pick litter, sweep and clean the drains, they will be exercising. These activities keep the body active and improve the functioning of body parts such as the heart. During the cleaning activity, we must put on protective wear. This helps reduce the spreading of **Infectious diseases**. Infectious diseases are illnesses caused by the entrance of germs in the body. We need to wear face masks, gumboots and gloves to protect our bodies from germs.

The Zimbabwean government launched clean-up campaigns as a health and physical activity programme. The first Friday of every month was declared a National Clean-up Day.

### Activity 1

Organise a clean-up club at school and carry out a clean-up in areas near your school like the shopping centre, clinic, roads and bus terminus.

### Cycling

Cycling is a physical activity which can be done by members of the community. The community can form a cycling club which promotes cycling as an activity for keeping fit. Members of the club can cycle three times a week. Cycling improves the strength of the leg muscles as well as the way our lungs and heart work. During cycling, the cyclist must wear protective clothes such as helmet, gloves and shoes. When cycling along the road you need to follow the road rules to avoid accidents.



Figure 4.2 People in a cycling club

### Karate club

Karate is one of the physical activities which can improve health and fitness. It can promote good behaviour and provide skills for self-defence. It is important to be able to defend yourself when attacked by anyone in the community. A karate



Figure 4.3 People performing karate

club promotes friendship as members are likely to meet new people. Only a trained karate teacher must teach karate skills to avoid injuries. Do not do karate without your karate teacher's instructions. Members of the karate club are not allowed to go around fighting other people in the community. They should be disciplined.

### Aerobic dancing

Dancing to music is a physical activity which can be done by members of the community in a community hall or gymnasium. Aerobic dancing is a type of dance which can improve how our lungs and heart function. This also improves fitness. Dancing in groups is fun and helps to build friendship among members of the community.



Figure 4.4 People dancing during an aerobics class

### Activity 2

1. Form an aerobic dancing club.
2. Discuss the importance of dancing exercises to the body.
3. Practice different dancing exercises.

## Classification of physical activities

Physical activity can be done at home, school and in the community. Table 4.1 shows various physical activities done at home, school and in the community.

Table 4.1 Classification of physical activities

Physical activity at home	Physical activity at school	Physical activity in the community
1. Cleaning	1. Gardening	1. Harvesting parties (nhimbe)
2. Ironing	2. Cycling	2. Tree planting
3. Gardening	3. Sport	3. Clean up campaigns
4. Playing games	4. Exercising	4. Sport festivals
5. Dancing	5. Games	5. Community dances
6. Jogging		6. Sports clubs
7. Stretching		7. Fixing roads and filling up gullies

## A physical activity diary

Keeping a physical activity **diary** is a way to keep record of how active you are. You can record all your physical activities in a diary. A diary is a book where you record all the activities you do every day. It can help you to keep record of your daily physical activities for example, the minutes you spend running or the days you exercise every week. The following is an example of a physical activity diary and how to record information in the diary.

### My physical activity plan

Name: MARY MENDO

Week commencing: 11 March 2020

Physical Activity	Physical Activity	Physical Activity	Physical Activity	Physical Activity	Physical Activity	Physical Activity
Duration	Duration	Duration	Duration	Duration	Duration	Duration

When	When	When	When	When	When	When
Notes	Notes	Notes	Notes	Notes	Notes	Notes

The physical activity diary shows the days of the week, type of physical activity, duration (time taken to do the activity) and the date the activity was done. Record all the information in the diary using the headings in the table above. If the physical activities are not recorded, it is difficult to check your progress in physical activity. The diary also helps you to increase the time spent on some physical activities, for example, running one kilometre in the first week; you can increase that to two kilometres. This information must be recorded in the diary.

Design your own physical activity diary for a week using the headings in the sample of the physical activity plan. Write down all the information for your own activities over a period of one week.

1. What is the importance of physical activities?
2. Name 2 physical activities that can be done by the community.
3. Infectious diseases are caused by \_\_\_\_\_.
4. Cycling improves the \_\_\_\_\_ of the legs.
5. In Zimbabwe, the first Friday of every month was declared the \_\_\_\_\_.
6. One club which can be formed in the community is the \_\_\_\_\_ club.
7. State the importance of karate as a physical activity.
8. A \_\_\_\_\_ is a book where you record all the physical activities done every day.
9. The activity in the picture helps improve the function of \_\_\_\_\_ and \_\_\_\_\_.
10. Give the reasons why the physical activity plan is important.
11. Design your own physical activity plan for a week.







### Healthy living habits (3)

#### What are you with?

1. identify diseases that can be caused by imbalances in nutritional value
2. explain deficiency diseases.



Nutrients are needed by the body for health. State 5 food nutrients needed by the body for health.



word:

deficiency diseases    underweight    bow legs    nutrition  
iodine

Healthy living makes us feel good and keeps us from diseases and other health problems. One way of healthy living is to eat food with enough **nutrition**. Nutrition is the process of absorbing nutrients from food to use in the body. Poor nutrition can be caused by not eating enough or failing to choose the right kinds of food. Failing to eat a balanced diet increases the risk of developing diseases because of nutritional value imbalances.

#### Deficiency diseases

These are diseases caused by the imbalance in nutritional value or lack of nutrients such as proteins, vitamins and minerals. Some of the diseases are scurvy, rickets, goitre, marasmus and kwashiorkor. These diseases are also called **deficiency diseases**.

#### Scurvy



(figure 5.1. a) A person suffering from scurvy



orange juice

lemon

(b) Foods that are rich in Vitamin C

Scurvy is a disease caused by lack of vitamin C in the body. Decaying of gums, swollen bleeding gums and slow healing wounds are some of the signs of suffering from scurvy. Most of the fruits like oranges, lemons and strawberry contain vitamin C which prevents scurvy.

### Rickets



Food sources of vitamin D

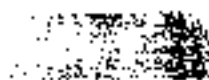
Rickets are caused by lack of vitamin D. Rickets are weak and soft bones which can bend as the child grows. It causes muscle weakness and **bowlegs**. Bowlegs are legs that bend around the knees due to rickets. Fish, dairy products and liver are some of the rich sources of vitamin D needed to prevent rickets.

### Goitre



Goitre and food rich in iodine

Goitre is a disease caused by lack of a mineral called **iodine** in the body. Goitre is the swelling of part of the neck. It causes poor growth in children. Iodised salt and salt water fish are some of the rich sources of iodine which must be eaten to avoid goitre. Most of the food we eat every day contains iodised salt.



Collect pictures of food that can prevent the following deficiency diseases:

1. Scurvy

2. Goitre

## Kwashiorkor



eggs



beans



mopani worms

Figure 1.1: Child suffering from Kwashiorkor. [Food for Life: A Practical Approach]

Kwashiorkor is a disease caused by lack of protein in the body. It is one of the deficiency diseases in children from areas affected by poor food supply. Children with kwashiorkor have swollen bellies, feet and ankles. Balanced diets rich in proteins such as eggs, milk, beans, kapenta, meat and mopani worms help prevent this problem.

## Marasmus



meat and eggs



rice



beans

Figure 1.2: Child suffering from marasmus. [Food for Life: A Practical Approach]

Marasmus is a disease caused by lack of nutrients such as carbohydrates, and proteins. It occurs in children. Children with marasmus lose a lot of muscle and fat and they are **underweight**. To be underweight is to have a lower body weight for your age. Dry skin and hair are signs of marasmus. It leads to poor growth. Marasmus can be reduced by eating food with proteins, carbohydrates and other minerals.

## Activity 2

Collect pictures of food that can prevent the following deficiency diseases:

1. Kwashiorkor
2. Marasmus

Create an educational poster for an awareness campaign.

1. All diseases caused by lack of nutrients are called \_\_\_\_ diseases.
2. Give two examples of deficiency diseases.
3. A disease caused by lack of vitamin C is called \_\_\_\_.
4. Rickets are caused by lack of \_\_\_\_.
5. Name any food which can help to prevent scurvy.
6. One source of iodine is \_\_\_\_.



7. What is the name of the disease the child in the picture is suffering from?
8. What are the 2 signs of a child suffering from marasmus?
9. How can we prevent kwashiorkor?
10. A child with bowlegs is suffering from \_\_\_\_.

1. Identify diseases that can be caused by lack of exercises
2. Identify diseases that can be caused by poor sanitary conditions.

Lack of some nutrients in the body can cause food deficiency diseases. State any three deficiency diseases.



high blood pressure    sanitation    fever    contaminated water  
dehydration    stagnant    bacteria

A lack of exercise causes many health problems such as obesity, high blood pressure, diabetes and heart diseases. Many people die because of the effects of lack of exercise. Exercising is good for healthy lifestyle.

### Obesity



Obesity is when a person has too much body fat. It is a health danger which increases the risk of heart diseases, high blood pressure, diabetes and cancer. Obesity is one of the major problems of lack of exercise. Increasing physical activity and eating foods with less fat, and drinks with less sugar can prevent unhealthy increase in weight.

## Diabetes

Diabetes is a disease in which the body is not able to control the sugar levels in the blood. Lack of exercise and increase in body weight causes diabetes. Diabetes causes heart and kidney diseases. Exercising reduces body weight which can help prevent diabetes.



White bread



White rice



Fizzy drinks



Cake



Ice cream

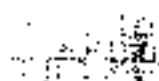
Avoid eating too much of processed foods like white bread and sweetened foods like cakes and fizzy drinks. These foods contain too much sugar.

## Heart diseases

Lack of physical activity causes heart diseases such as heart attack. We should reduce eating food with a lot of fat and salt. Eating fruits and vegetables as well as exercising helps to control heart diseases.



Physical activity is a healthy living habit that must be practised by everyone to promote body fitness.



Discuss the physical activities which help keep the body fit and reduce the risk of preventable diseases like obesity. Use a bathroom scale to measure your body weight. Record your weight in your diary every month.

**High blood pressure** is when the force of the blood pushing against the walls of the blood vessels is too high. When the force of blood reaches high levels, it can cause serious health problems. Lack of exercise can cause increase in blood pressure. High blood pressure increases the risk of heart and kidney diseases. It is good to exercise in order to control your blood pressure.

### Activity 2

Draw water from a plastic container using a hospital syringe until it is full.

Always wear latex gloves when handling hospital syringes.

Close the tip of the syringe using sticky stuff or a rolled piece of paper. Push the plunger of the syringe inside.

Explain what happens to the sticky stuff.



Figure 10.1: Drawing water

Water is forced out of the syringe when you push the plunger. The force of water pushes the sticky stuff from the tip of the syringe. The movement of water as it pushes the sticky stuff is the same as the blood as it pushes against the walls of the blood vessels. The pushing force is called **pressure**. High blood pressure means that the pushing force of blood in the blood vessels is very high.

In order to control your blood pressure, eat enough fruits and vegetables. The following must be avoided:

- Eating too much salt
- Drinking alcohol
- Inactive lifestyle
- Overweight

Washers are used by people in very bad condition

Some diseases are caused by poor sanitary conditions. **Sanitation** is the practice of protecting health through hygiene. Good sanitary conditions involve clean water, toilets or latrines to manage waste and food preparation. Some of the diseases caused by poor sanitary conditions are cholera, dysentery, typhoid and bilharzia.

## Cholera

Cholera is an infectious disease caused by eating food or drinking water contaminated with **bacteria**. See Figure 6.5 a). Bacteria is a germ that causes disease. It can lead to **dehydration** and even death if not treated. Dehydration is when the body loses a lot of water than the amount that is taken in. It causes watery diarrhoea. The diarrhoea is like rice water in colour.



Figure 6.5 a)



To prevent cholera we must drink water from protected sources like borehole or water tanks. See Figure 6.5 b). Borehole water should be tested and decontaminated before use. We must always clean all the fruits before we eat them. Cooked food must be covered to avoid contact with house flies. Always wash your hands using running clean water and soap or ashes after using the toilet.

## Dysentery

Dysentery is an infectious disease caused by bacteria which enters the intestine through food or water. Dysentery causes severe diarrhoea which can contain blood, mucus or pus. Foods like fruits must be cleaned. We must wash our hands before eating.



Figure 6.5 c)

## Typhoid

Typhoid is an infectious disease caused by bacteria. It can be passed through drinking **contaminated water** and eating dirty food. Contaminated water is water that has germs that cause diseases. It can cause high fever, diarrhoea and vomiting. A person with typhoid feels weak, pain in the stomach and headaches.

We can reduce the chance of spreading the disease by using boiled water for drinking and washing food.



Figure 6.5 d)





## 11.1 Diseases caused by poor sanitation

Typhoid, cholera and dysentery are diseases that cause diarrhoea. Diarrhoea leads to loss of fluids in the body. This causes dehydration which may lead to loss of life. The salt and sugar solution is the best way to replace the lost fluids in the body. The salt and sugar solution is also known as the oral rehydration solution.

### Bilharzia

Bilharzia is a disease caused by worms found in **stagnant water** in a river or a dam. Stagnant water is water that does not flow, for example, water in a pond. The worms can enter the body when a person is swimming, washing or playing in dirty water. People can also become infected by drinking water or eating food that has been washed in untreated water. Bilharzia affects the intestines and the bladder which stores urine. The disease also affects the brain and the lungs. A person affected can pass out blood in the urine and faeces. We must swim and bath in clean water. Drink clean water and also use clean water to wash food.



Figure 11.1: Bilharzia in a pond

### Activity 3

Discuss the importance of good sanitary conditions to the people in the community.

### Exercise 4

1. Name 3 diseases caused by lack of exercise.
2. \_\_\_\_\_ is a disease in which the body is not able to control the sugar in the body.
3. We control heart disease through \_\_\_\_\_ and \_\_\_\_\_.
4. What is high blood pressure?
5. How can we control high blood pressure?
6. State two habits which must be avoided to control high blood pressure.
7. Write down three diseases caused by poor sanitary conditions.
8. What causes cholera?
9. The type of diarrhoea with blood is called \_\_\_\_\_.
10. What is the name of the germs that cause cholera and dysentery?
11. \_\_\_\_\_ is caused by worms found in stagnant water in dams and rivers.



1. identify safety rules and regulations for various activities
2. state injuries related to physical activities.

Lack of exercise leads to diseases like high blood pressure, obesity and heart diseases.



bouts regulations abusive language jewellery littering  
extinguished hiking

In all physical activities we do at home, school and the community, safety rules and regulations must be followed. Following safety rules and regulations helps in the prevention of injuries or even loss of lives. **Regulations** are types of rules used to control the way physical activities are done. There are different rules and regulations used in athletics, gymnastics, camping and swimming.



gymnasium

### Dressing

In the gymnasium:

- No **jewellery** of any type such as rings and necklaces should be worn



- Shoes are not allowed on the gym floor. Bare feet or gymnastic shoes are recommended
- Stockings are not safe because they are slippery on mats or hard floor
- Girls must wear leotards only
- Boys must wear t-shirts tucked into shorts that are not baggy
- No belts, buckles and zippers are allowed

### Preparing for gymnastics

- Arrive early for the class
- No food or drink should be taken to the gymnasium
- Visit the toilet before the lesson
- No athlete should leave the gym without permission from the teacher

### During the gymnastics lesson

- Start by warming up properly
- Report any problems such as injuries or sickness to your teacher
- Do not do any activity in the gymnasium without the teacher's permission and instruction
- No running around
- Know the skills you are performing. Do not attempt skills you are not able to do

### Code of conduct

- Always follow rules and regulations
- Maintain high standards of good behaviour
- Avoid use of **abusive language**. Abusive language is any language that makes people feel put down
- Work as a team
- Always be on the lookout for fellow learners



Figure 1.1.1.1.1.1.1



### During camping:

- Wear appropriate clothes such as trousers and shirts
- In some camping sites cell phones are not allowed
- Behave well
- No boys in or near girls' facilities or vice versa
- Respect camping property such as caravans, boats and even the ground
- Follow the camping timetable and attend all the events
- Do not smoke at the camp site
- **Littering** of the camp ground is not allowed. Littering is dumping rubbish on the ground.

### Safety rules during camping:

- Campfires must be supervised all the time and **extinguished** properly before leaving them. Extinguishing is putting out the fire completely
- **Hiking** or walking on roads must be done as a group of three or more. Hikes are long vigorous walks
- No pushing or throwing a member
- Wear life jackets when participating in water activities
- Swimming should only be done during supervised times by an adult safeguard and in safe areas
- No horseplay or dangerous behaviour is allowed

Combat games are games where individuals or teams fight against each other to score points. Examples of the combat games are karate, boxing, judo and wrestling.

### Boxing



The following are rules used in boxing:

- the boxer must wear proper gear for the fight
- wear head gear which covers the head, ears, cheeks and the chin
- wear a mouth-guard which protects the boxer's teeth
- wear thick boxing gloves
- wear protective cups for males to protect the sex organs
- wear breast protectors for female boxers

For boxing **bouts**, the boxers compete according to their weight, age and experience. A bout is a match. This helps to assure the safety of the boxers. Stop a bout anytime when a boxer shows signs of being defeated.

### Shot put

Shot put is a physical activity in athletics. A heavy metal ball is thrown using one hand. The equipment used in shot put can cause injuries if rules are not followed.

The following are safety rules used in shot put:

- tape the fingers using bandages but no gloves should be worn
- throw the shot using one hand above height of shoulder
- throwing must be done only inside the circle
- the shot must be thrown only within the marked area
- the athlete should leave the circle only from the back
- during throwing no athletes are allowed into the throwing area
- towel or rug should be available to dry the throwing area



### Swimming

Swimming activities are exciting but they can be dangerous if safety precautions are not followed. Safe swimming pools are surrounded by a wall which has a lockable gate. Safety equipment must be available in places where they can be seen by the swimmers.

The following are swimming pool rules:

- shower before entering the swimming pool
- children less than 16 years of age must always be accompanied by an adult during swimming

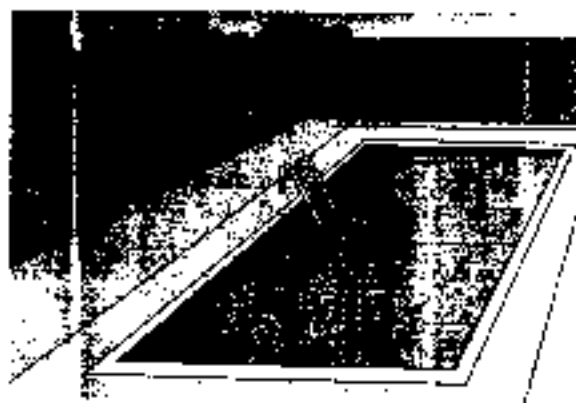


Figure 7.6: Swimming pool

- always shower after swimming to remove all pool acid
- no pushing each other into the pool
- always wear proper attire such as, trunks and swimming costumes. Strictly no underwear allowed
- no one is allowed to swim with open wounds
- no food or drink is allowed in the pool, or on the deck
- no animals in the fenced pool area
- do not swallow the pool water
- urinating, discharge of faeces and nose blowing in the swimming pool is not allowed
- enter and exit the pool slowly

Design a game in your groups which can be played outdoor using any sport equipment. Come up with the rules and regulations for the game. Demonstrate the game to the class.

1. Why is it important to follow safety rules and regulations?
2. \_\_\_\_\_ are rules used to control the way physical activities are done.
3. Name two rules which must be followed in the gymnasium.
4. Give one code of conduct used in gymnastics.
5. State one safety rule for camping.
6. A match in boxing is called a \_\_\_\_\_.
7. Draw protective equipment used in boxing and write their names.
8. In shot put, after throwing, the athlete must leave the throwing area only from the \_\_\_\_\_ of the circle.
9. Before entering the swimming pool all swimmers must \_\_\_\_\_ their bodies.
10. Another name for walking as a sport is \_\_\_\_\_.

1. state injuries related to physical activities.

Rules and regulations must be obeyed in all physical activities to reduce accidents and injuries.

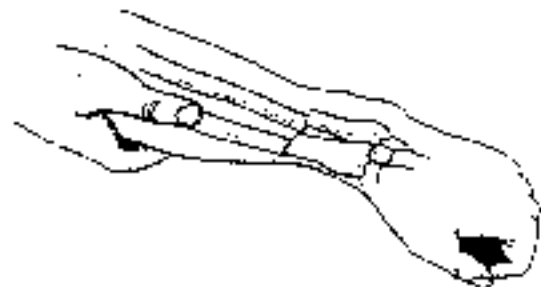


green stick      discoloured      joints      strain      bruise

Safety rules and regulations are important when doing physical activities because they help prevent different types of injuries. Injuries can occur in sport, or during exercising. These injuries affect the performance of the athletes and disturb their career in sport. Most of the people who are at risk for sport injuries are those who are not active for a long time, do not warm up properly before exercise and those who play contact sport such as rugby, soccer and handball.

The most common injuries in physical activity are fractures, dislocations, strains and bruises.

A fracture is a broken bone. It can be broken completely or a thin crack of the bone. The bones can fracture in several places and in many pieces. A fracture happens when a bone is pushed by more force than it can support.



Some of the common causes of a fracture include:

- falls in activities like soccer, netball, basketball,
- direct strikes to the body, for example, when hit by a cricket ball or bat
- car accidents





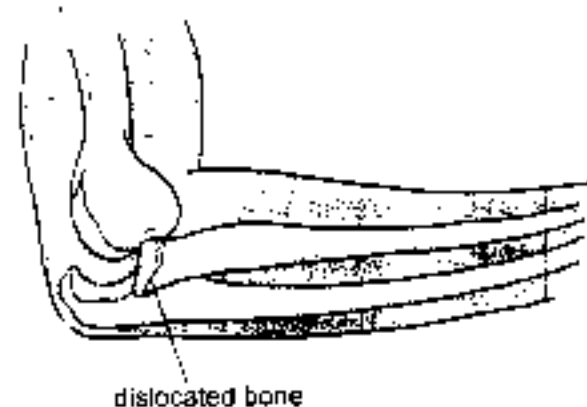
Figure 1.1

1. Hold the ends of a small green stick. Carefully break it.
2. Hold the ends of a small dry stick. Carefully break the stick.
3. Explain what happens to each of the two sticks as you break it? Which stick is easier to break?

The dry stick can break easily. The green stick cannot completely break. This is what happens when a fracture takes place. Bones of adults can easily break like a dry stick and those of young children are like a green stick which can not break easily. They cannot completely break and this is called the **green stick** fracture.

Not all fractures can be prevented. What athletes can only do is to keep their bones strong by eating a nutritious diet with food rich in vitamin D and minerals like calcium, it is also important to exercise regularly. Examples of the exercises are walking, running and dancing.

A dislocation is an injury to a **joint**. A joint is a place where two or more bones come together. A dislocation is when the ends of the joints are forced from their normal positions. It causes a lot of pain and a person will not be able to move the joint. The most common dislocations take place in the shoulder, fingers, hips and elbow. A person with a dislocation is not able to move the injured part. The joint dislocated will swell and become **discoloured**. Discolouring is a change from the original colour to a less pleasing colour.





Dislocations can occur in:

- contact sport such as soccer and hockey
- falls such as in gymnastics and volleyball
- striking the ball accidentally using hands and fingers.

To help prevent a dislocation, athletes should:

- try and prevent falls during any physical activity by removing any objects that might cause tripping
- play safely by wearing protective clothes in contact sport.

### 3.3.3

A **strain** is when a muscle is pulled or stretched so that it is torn. This injury occurs only on muscle fibres. Strains can be mild or severe depending on the muscle torn. If the strain is mild, the pain is small and if it is severe, there is more pain.

Muscle strain is caused by:

- physical activities that involve running, jumping and kicking. For example hurdles in athletics, soccer and basketball
- cold weather
- overworking muscles
- lack of warm-up or improper warm-up

In order to reduce muscle strain:

- warm up must be done before any activity
- stop an activity when the body is tired
- increase time for warm up in cold weather
- avoid over-stretching



Figure 3.4 Strained lower limb at rest

## Activity 2

Hold a rubber band using two fingers as shown in the picture and pull it with less force. Then pull the rubber with more force.

Explain what happens to the rubber when you pull it with less force. What happens when it is pulled with more force?



The activity shows what happens to the muscles as they stretch during exercises. The rubber band is like a muscle which can stretch if force is applied to it. If more force is used, the muscles can tear just like what happened to the rubber band. This tearing of the muscles is a strain.

A **bruise** is a common skin injury that results in a change of colour of the skin. The blood from the damaged part under the skin collects near the surface of the skin. This causes a black or blue mark on the skin.

A bruise occurs:

- when a person bumps into something or when something bumps into them. For example, when a goal-keeper bumps into a goal post or when a player is hit by a cricket ball.
- when players fall onto a hard surface. For example, when a basketball player falls in the court of play.



Figure 8.5 Bruise on a foot

To prevent bruises:

- Wear protective gear such as shin guards in contact sport like soccer
- Keep floors dry and free from clutter in basketball or tennis court
- Remove furniture away from common play areas and place it where it belongs
- Remove electrical codes, wire or ropes from areas where you may trip and fall and place them in a storage box.



1. A \_\_\_\_\_ is a broken bone.
2. State two causes of fractures.



3. What is the name of the injury shown in the picture?
4. What causes this injury?
5. A dislocation takes place on a \_\_\_\_\_.
6. Name two sports games where fractures are common.
7. A strain is when a \_\_\_\_\_ is pulled or stretched until it tears.
8. Describe how to reduce muscle strain.
9. A common skin injury that results in change of colour of the skin is called \_\_\_\_\_.
10. Name any two places where dislocations commonly happen.

- Physical activities are important to improve health and fitness.
- These can be done in different places such as at home, school and the community.
- Some of the physical activities are digging in the garden, pounding food, exercising using skipping ropes and dancing.
- All physical activities done every day must be recorded to monitor our progress.
- Diseases caused by lack of nutrients are scurvy, rickets, goitre, kwashiorkor and marasmus.
- Lack of exercises can cause diseases such as obesity, high blood pressure, heart diseases and diabetes.
- Good sanitary conditions are needed in the community to prevent infectious diseases such as cholera, dysentery, typhoid and bilharzia.
- Safety rules and regulations protect people from injuries and accidents.
- Different physical activities have rules and regulations which must be obeyed.
- Some of the injuries related to physical activities are: fractures, dislocations, strains and bruises.
- Proper warm-up, protective clothes and cool down help to reduce injuries.

<b>jewellery</b>	- part of what people wear for beauty such as rings and necklaces.
<b>karate</b>	- a Japanese sport which teaches how to fight using hands and legs
<b>fitness</b>	- being fit
<b>over-weight</b>	- heavier than a normal body size
<b>contaminating</b>	- making dirty
<b>risk</b>	- chances of something bad happening
<b>pounding</b>	- crushing using a pestle and mortar
<b>Community</b>	- a group of people of the same culture living together
<b>campaign</b>	- activities done to achieve a set goal
<b>diary</b>	- a record of experiences
<b>infectious disease</b>	- diseases which can spread easily from one person to another
<b>preventable diseases</b>	- diseases which can be easily avoided
<b>deficiency diseases</b>	- diseases which are caused by lack of some nutrients
<b>underweight</b>	- low weight
<b>imbalance</b>	- not equal
<b>bowlegs</b>	- bent legs like the shape of a bow
<b>nutritional value</b>	- the importance of nutrients in food
<b>blood pressure</b>	- the force of blood as it moves through the blood vessels

sanitary	- clean and free from germs
dehydration	- losing water from the body
stagnant	- not moving
bout	- a fighting competition
regulations	- rules offered by an organisation
abusive language	- bad language
extinguish	- put out a fire
hiking	- walking for pleasure or sport
discoloured	- change in colour

Choose the correct answer.

- Which one is not a physical activity?  
A. Dancing                      B. Cycling                      C. Digging                      D. Sleeping
- Physical activities help to improve \_\_\_\_\_.  
A. reading                      B. writing                      C. drawing                      D. fitness



- What is the name of the physical activity shown in the picture?  
A. Horse riding                      B. Jogging                      C. Cycling                      D. Skiing
- A skill used in the game 'hopscotch ring' is \_\_\_\_\_.  
A. walking                      B. hopping                      C. running                      D. rolling
- \_\_\_\_\_ are rules used to control the way physical activities are done.  
A. Signs                      B. Laws                      C. Regulations                      D. Points
- Which one is not a rule used when camping?  
A. Campfires must be supervised                      B. Behave well  
C. No smoking                      D. Littering is allowed
- A match in boxing is called a \_\_\_\_\_.  
A. rally                      B. bout                      C. score                      D. test
- In shot put, after throwing, the athlete must leave the throwing area only from the \_\_\_\_\_ of the circle.  
A. front                      B. back                      C. left                      D. right

9. We are not allowed to \_\_\_\_\_ in the swimming pool.  
A. eat                      B. glide                      C. submerge                      D. float
10. Another name for walking as a sport is \_\_\_\_\_.  
A. camping                      B. mountaineering                      C. running                      D. hiking
11. Which one is not an infectious disease?  
A. Rickets                      B. Cholera                      C. Typhoid                      D. Dysentery
12. The first Friday of every month was declared the \_\_\_\_\_ in Zimbabwe.  
A. Women's day                      B. National Aids day  
C. National clean-up day                      D. Teachers' day
13. A \_\_\_\_\_ is a book where you record all the physical activities done every day.  
A. bible                      B. diary                      C. dictionary                      D. atlas



14. What is the name of the disease shown on the picture above?  
A. Typhoid                      B. Goitre                      C. Diabetes                      D. Rickets
15. Which disease is caused by lack of exercise?  
A. Typhoid                      B. Goitre                      C. Rickets                      D. Obesity
16. A disease caused by lack of vitamin C is called \_\_\_\_\_.  
A. rickets                      B. diabetes                      C. scurvy                      D. dysentery
17. What causes kwashiorkor?  
A. Lack of vitamins                      B. Lack of exercise  
C. Lack of minerals                      D. Lack of proteins
18. \_\_\_\_\_ is a disease in which the body is not able to control the sugar in the body.  
A. Heart attack                      B. Cholera                      C. Bruise                      D. Diabetes
19. A \_\_\_\_\_ is a broken bone.  
A. fracture                      B. dislocation                      C. strain                      D. bruise
20. A dislocation takes place on a \_\_\_\_\_.  
A. muscle                      B. joint                      C. bone                      D. mouth

**Answer the following questions.**

1. High blood pressure is \_\_\_\_\_. [1]
2. We can control high blood pressure by \_\_\_\_\_. [2]
3. Three diseases caused by poor sanitary conditions are \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_. [3]
4. We can control cholera by drinking \_\_\_\_\_. [1]

5. The type of diarrhoea with blood is called \_\_\_\_\_. [1]
6. Typhoid is caused by germs called \_\_\_\_\_. [1]
7. \_\_\_\_\_ is caused by worms found in stagnant water in dams and river. [1]
8. \_\_\_\_\_ are rules used to control the way physical activities are done. [1]



9. The name of the injury shown in the picture above is \_\_\_\_\_. [2]
10. A strain is when a \_\_\_\_\_ is pulled or stretched until it tears. [2]

Design a diary of the physical activities for a week. Record all the information for the week.

## Topic

3

## Aquatic skills

Unit 9

Water hazards (1)

### What you will

1. investigate water hazards in Zimbabwe.

### Flashback

Playing in water is a fun activity but it is also dangerous.



#### Key words

cold shock  
stagnant

water canal  
water

disused

gravel

pit

Water hazards are everywhere.

Water bodies are good places to spend a day. People can spend the day fishing, picnicking and swimming. However, water bodies can be dangerous especially when children are left alone. Many accidents can happen at such places if people are not careful. Water may look clean and safe but many hazards can take place.

Some of the water bodies which can be dangerous are flooded rivers, disused gravel pits, sewage ponds, dams, and canals.

#### Flooded rivers

Flooded rivers can pose dangers to people especially young children. It is not a good idea to cross a river even if you are late. The flowing water has a lot of force which can sweep away anyone



trying to cross the river. Usually the flowing river carries logs and other materials which can be a hazard to the people crossing the river. Sometimes children swim in flooded rivers especially when the water is low. There is a danger of sudden increase in flowing water especially during the rain season. Read the newspaper story below.

### **Children swept away by flash floods**

**Bvure-** The onset of the main rain season has resulted in tragedy in Makade village where three children were swept away by flash floods while playing on a dry river bed. There had been heavy rains upstream and the Manakufa siblings were playing downstream in an apparently dry river bed. However a flash flood suddenly occurred, sweeping away the three children playing downstream.

Assistant Commissioner Vusele confirmed the death of the three boys. He commented that, "The Meteorological Service Department of Zimbabwe and the Civil Protection Unit is warning of a continuation of heavy rains in the following weeks.

We are warning motorists and the public in general not to cross flooded rivers and bridges. Children should not play near rivers even dry riverbeds. Children should not swim in unprotected water bodies such as lakes, rivers and dams as they risk drowning or being swept away by water currents. In areas where floods might occur, we urge people to move to safe ground well in time."

We must follow news and weather reports, especially during the rainy season we must take the advice given seriously. We need to follow the advice given to avoid the dangers of drowning. In some cases, bridges are washed away by the force of water. Motorists are also warned of the dangers of crossing bridges when they are covered with water.

### **Disused gravel and quarry pits**

Disused gravel and quarry pits are the pits left when gravel was dug from an area either for road construction or other uses. During the rainy season, gravel pits collect water and look like dams. Children are usually tempted to play in these pits. It is dangerous to play in these gravel pits. Some of the pits are deep and may cause drowning. The gravel pits may have



Figure 1.1 Children playing in a disused quarry pit



underwater plants, rubbish, dead animals and car wrecks. These pollute the water which makes it unsafe for swimming and drinking. The temperature of water in the gravel pits is very low and causes **cold shock**. Cold shock is the condition of the human body after being exposed to sudden cold temperatures. Quarry water is much colder than river or dam water.

**Stagnant water** in the gravel or quarry pits can become breeding places for mosquitoes. Stagnant water is water that does not flow. Mosquitoes cause malaria which is a deadly disease. Bilharzia is also another disease that can breed in the **disused gravel pit**. A disused gravel pit is a gravel pit no longer in use. These should be filled up after use.

The other dangers are jumping, falling, or diving into the pits. These may lead to fractures, dislocations and even death.

### Sewage ponds

These are water bodies which store sewage. Sewage is disposed human waste. In some urban areas, the sewage is transported by pipes to a place where it is treated. The water is stored in ponds. Plants and animals live in these ponds. Children may want to play or fish in these ponds. It is dangerous to swim or fish in these ponds because the water is polluted. The water and the fish can cause water-borne diseases such as cholera and typhoid.

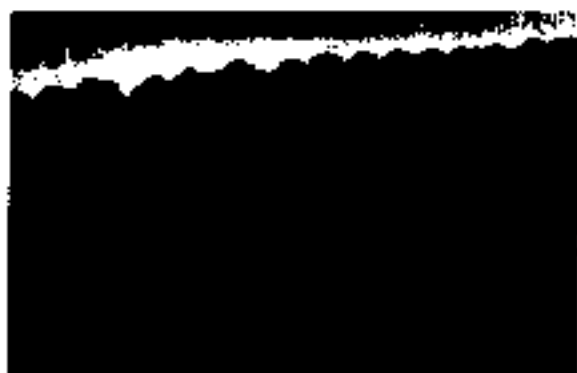


Figure 9.3 A sewage pond

Sewage ponds are dangerous places for children to play. There is usually mud in the ponds. There are chances that a person who swims or plays in the water gets stuck in the mud and may drown.

### Dam

A dam is a good source of water for irrigation and adventure activities like fishing, and boat cruising.

However, dams can be dangerous to people. Some of the dangers are:

- Animals like crocodiles that can hurt or kill people.
- Water waves which can even disturb good swimmers. Chances of drowning are high.

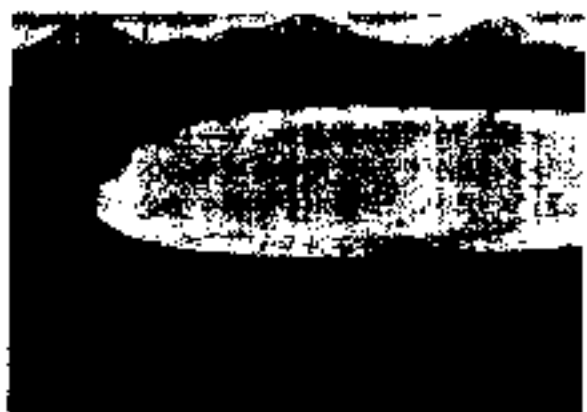


Figure 9.4 A dam

- Underwater weeds and plants which can entangle swimmers under the water.
- Difficult to get out because of steep banks.

**Water canals** or irrigation canals transport water from a dam to the fields. The water is used to irrigate plants such as sugarcane and maize. The canals may cause water hazards. Read the story below of what happened in Buhera at Murambinda Irrigation.



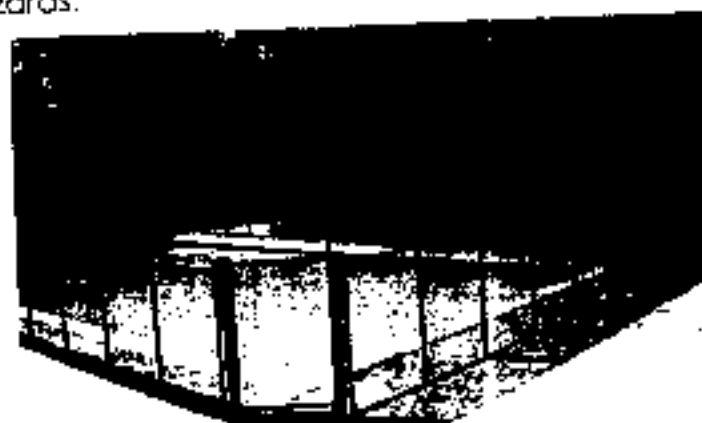
Fig. 1.5.2 Water canal

### **Murambinda child drowns in canal**

On 8 June 2017 at the Murambinda Irrigation a three year old child drowned in a canal. This happened at Mapako Village under chief Nyashanu. Police confirmed the incident and advised parents and guardian to always look after their children. The child drowned while trying to cross the canal which was 50cm deep and 60cm wide. The parents found the body floating on top of water after he had gone missing.

Some canals are so deep that the water flows with force that they can drown young children. The water is not safe for swimming because it is dirty.

A swimming pool is a good place for swimming and adventure games such as water aerobics exercises. However, like any other water body, they can also cause some hazards.



People who are not able to swim must not enter the swimming pool without help from adult lifeguards. Other ways of reducing drowning are:

- Swimming pools must be fenced.
- Have swimming lessons for everyone who will use the pool.
- Be aware of the pool depth and do not dive into shallow pools, use shallow end when learning.
- Keep lifesaving equipment close to the pool at all times.
- No horseplay at the pool is expected.

There are chances of spreading diseases if the swimming pool is not clean. The following precautions should be taken:

- Keep the pool water clean by treating it using approved chemicals.
- Do not use the pool if you are sick or have open wounds.
- Keep pets out of the pool.
- Do not swallow pool water.
- Do not swim if you are not sure of the cleanliness of the pool.
- Use only toys designed for use in swimming pools and avoid dangerous objects like glass and metal.
- Stay in the shade when not in the pool to avoid sunburn.

### Activity 1

Visit any water body in your area. Discuss the possible dangers it can cause to children. What do you think can be done to reduce the dangers at the water body?

### Exercise 1

1. Name any two dangerous water bodies.
2. The \_\_\_\_\_ forecast the possible weather conditions.
3. Give the reason why it is not safe to swim in quarry pits.
4. Gravel pits have underwater \_\_\_\_\_ and \_\_\_\_\_ which may cause drowning.
5. Name two activities which can lead to fractures, dislocations and death at gravel or quarry pits.
6. Give two reasons why sewage ponds are not safe for swimming.
7. Adventure activities done in a dam are \_\_\_\_\_ and \_\_\_\_\_.
8. Water-canal are used for \_\_\_\_\_.
9. The safest place for swimming is the \_\_\_\_\_.
10. Give two swimming pool precautions.
11. Describe how you can reduce drowning in swimming pools.

## In this unit you will:

1. demonstrate survival techniques in water.

## Flashback

Water bodies such as dams, rivers and lakes provide water for different uses but they can be dangerous places. List three accidents that can happen at unsafe water bodies.



## Key words

survival

chest compressions

## Survival techniques in water

Swimming is a good exercise and a fun adventure activity but it can also be dangerous. It is important to stay safe in water and if there is danger we must use swimming **survival** skills. Survival is the ability to remain alive in spite of an accident. Some of the survival techniques in water which you must learn are:

1. jumping into water
2. swimming using a side stroke for 25 m
3. exiting the pool without a ladder
4. treading water
5. floating on the back, face up and out of water
6. equipment for rescuing a drowning person

## Jumping into water

The jumping entry into the swimming pool must be done in deep water. If the water is known to be deep, the safest technique is to enter feet first with a straight body.

To jump into the pool, stand with toes over the edge of the pool side. Jump from the pool side keeping the body straight and hands on the side of the body. Bend the

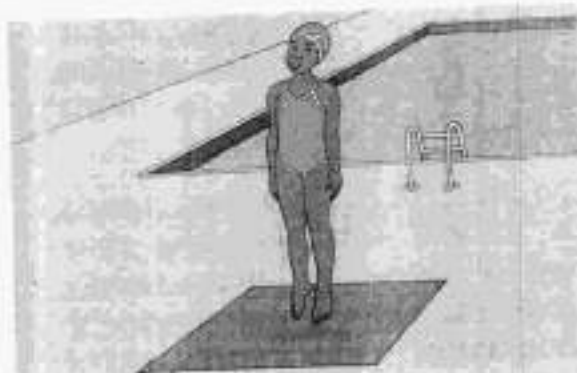


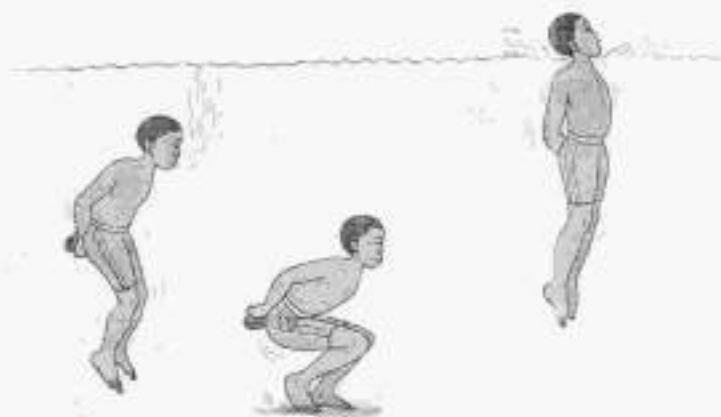
Figure 10.1 Girl practising the straight jump

knees on landing in the water and submerge. Return to the surface and breathe in. Practise this activity many times and remember to always do this activity on the deep end of the swimming pool.

### Bottom bounce

Jump into the water in the same way as for the straight jump. Breathe out as you submerge. Crouch and push yourself upwards from the floor of the pool. Keep your body straight and hands on your side as you move upwards. Breathe out when the head is above water.

This activity can improve your water survival skills. Practise this activity many times at the school swimming pool.



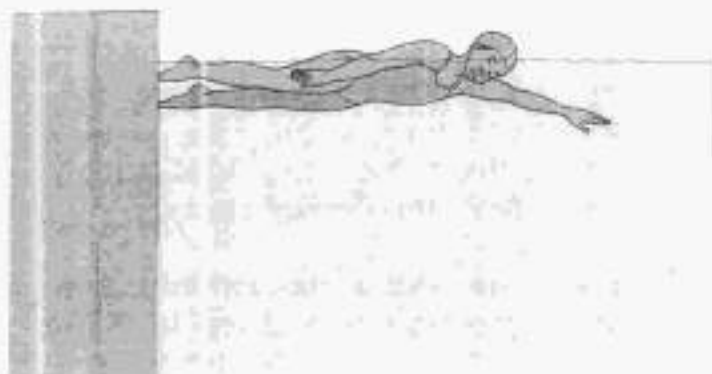
The side stroke is one of the strokes used in swimming. The stroke is named the side stroke because the swimmer lies on one side. The arms and the legs move in opposite directions during this stroke. It is a lifesaving technique used for long distance swimming.

This is because it does not use much energy as the swimmer uses only one hand. To practise the side stroke, swim a distance of 25m on one side and then turn over to use the other side.



Start the stroke by pushing off the wall into a side stroke position and float on your side as shown in Figure 10.4.

The head of the swimmer should be in line with the spine and turned sideways and slightly upwards. One cheek and ear should be in water and the rest of the face above water.





## Activity 1

Using the exiting technique practise, get out of the pool in less than 20 seconds. Jump in, swim 25 metres using the side stroke and then exit the pool without a ladder.

## Exercise 2

1. Name two survival techniques in water.
2. Explain how you can enter the deep end of the swimming pool.
3. Draw and label three floating aids.
4. What is the name of the stroke shown in the picture below?



## 3 Treading Water

Treading water is when a swimmer moves their limbs to keep the body afloat in a vertical position in order to keep their head above the surface of the water. This technique is used to survive in water. It is used by swimmers to rest without leaving the water.

When treading water, make use of both arms and legs and keep the body upright.

- Always keep your head above water and breathe slowly. Breathing slowly can save your energy.
- Move your arms horizontally like wings of a bird flying.
- Move your legs back and forward in a circular way like a person riding a bicycle.
- Point your feet downwards as you move your legs.
- Hold on to any floating equipment if you are not able to float in water.



Figure 10.2.4: Swimming treading water

The technique of floating on the back is good to relax the body and have fun. Floating on the back saves energy during swimming.

In order to learn to float on the back in water you should be calm and relaxed. You must be able to swim from one end of the pool to the other without any help. Do not try to float on your back by yourself for the first time. Get help from your teacher as shown in Figure 10.9.

You can also use arm floaters to learn how to float in water on your own as shown in Figure 10.10.

To improve your floating skills you can:

- Move your arms behind your head or move your arms straight out.
- Make sure that your palms are always facing the sky and fingers are closed.
- Push your back slightly upwards and lift your chest and stomach.



- Bend your knees and let your legs hang.
- Kick your legs up and down to remain floating.

It is important to enter the water only if it is the last plan when rescuing a drowning person. Diving into the water and rescuing a person may be a sign of bravery but it may be dangerous. Floating equipment like inflated tubes, balls, and long sticks must be used to rescue a drowning person.



## Dry land rescue

If you can reach the person drowning keep your body away from the edge. Hold on to something or be supported by another person who is strong. Extend a long stick, towel or clothing to the casualty. Pull in and keep your body weight as far as possible from the pool edge.

Practise the rescue activity: Start by using the shallow end of the pool and then use the deep end of the pool. You need to take caution as you work with a partner to support you when you reach out.

If you cannot reach a drowning person throw a floatable object like a ball, an inflated tube. These can also be tied to the end of a rope. Stand in a throwing position away from the edge. Before you throw tell the casualty to prepare to catch. If the equipment is tied to a rope, coil the rope before you throw it. Throw within the area that the casualty can reach the equipment.

## Rescuing by getting into water

If you cannot reach the drowning person or throw equipment over the required distance, you can enter the water. Enter the water to a position where you can reach or throw. Enter feet first and focus on the drowning person. Throw the floatable equipment over head to the casualty as shown in Figure 10.15. Avoid to come too close to a drowning person as they can grab you and end up pulling you down with them.

## First aid to the drowned person

In order to help the person who has drowned the following steps can be followed:

- Check if the casualty is breathing as soon as they have been rescued from water
- Ask someone to call for medical help

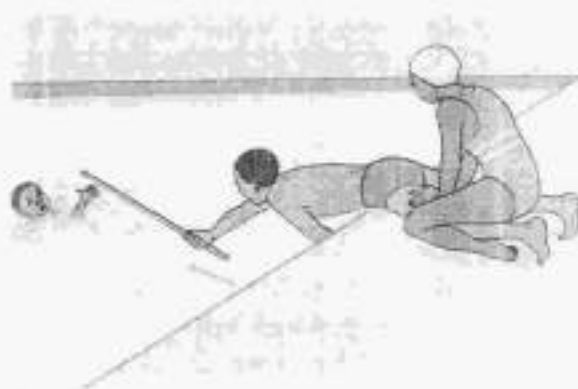


Figure 10.14: Rescuing by using a rope and floatable object



Figure 10.15: Rescuing by getting into the water

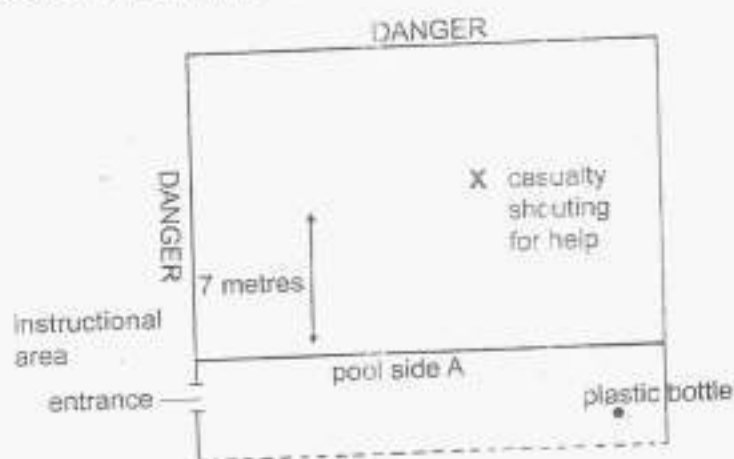




- If the person is not breathing or responding give them five rescue breaths either through the nose or mouth
- Start **chest compressions** using your hands then two breaths. A chest compression is pressing the chest firmly to assist a person to breathe.
- Repeat the same steps until the casualty recovers.



1. Demonstrate the arm movement in side stroke using oranges or tennis balls.



2. Instructions:  
Look at the diagram showing pool side A deep water and where the casualty is drowning. The casualty is a weak swimmer.  
Explain how you can rescue the victim shouting for help. Make use of the setup shown in the diagram.

### Exercise 3

1. \_\_\_\_\_ is what a swimmer can do in a vertical position in order to keep the head above the surface of the water.
2. Give the reasons why floating on the back is important in swimming.
3. Name equipment used in dry land rescue of a drowning person.
4. Explain what you will do if you cannot reach the drowning person or throw equipment.
5. Describe how you can save a drowned person on land.



100%

## What you will:

1. practice front and back crawl techniques
2. demonstrate correct diving and tumbling turn techniques.



In swimming we use different strokes. In pairs list five swimming strokes.



diving      tumble turn      aqua-aerobics      water polo

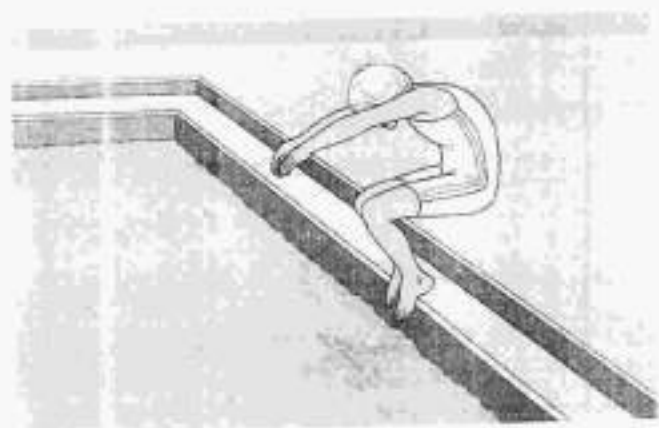
## 1. Diving

We can enter the swimming pool using different techniques. We can walk down the steps, jump or dive. Safety is needed when doing **diving** activities. Diving is the swimming activity of quickly entering into water. When diving you must follow these safety rules:

- Protect the head all the times by stretching the arms beyond the head
- Keep the head between the arms
- Grip the pool side with the toes
- Glide to the water surface after diving
- Practise diving in deep water about 3 to 3.5 metres.

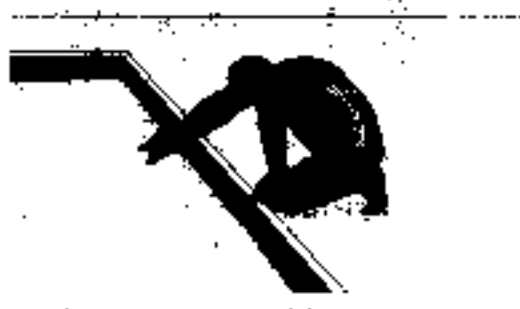
Diving can be done from the sitting, kneeling, squatting and standing positions.

- Sit on the pool side with heels resting on the rails of the pool
- Keep the head between the arms
- Push to lift the hips
- Stretch on entry
- See the bottom of the pool after submerging and as you come upwards



### Swimming from the kneeling position

- Start from the kneeling position at the edge of the pool with one leg in front with its toes on the edge
- Keep the head down between the stretched arms (Tuck the head)
- Push to lift the hips
- Stretch to body as you enter the water.  
See Figure 11.2



### Swimming from the squatting position

- Stand on the pool side with legs slightly apart and the toes of both feet on the edge of the pool
- Bend the knees and stretch the arms
- Keep the head between the arms
- Push up to lift the hips
- Keep the arms straight as you enter the water
- Keep the body stretched under water



### Swimming from the standing position

- Stand on the edge of the pool with one leg in front and the other leg half a metre back
- Slightly bend the front leg
- Lift the back leg
- Keep the head down between the arms
- Stretch the body to enter the water



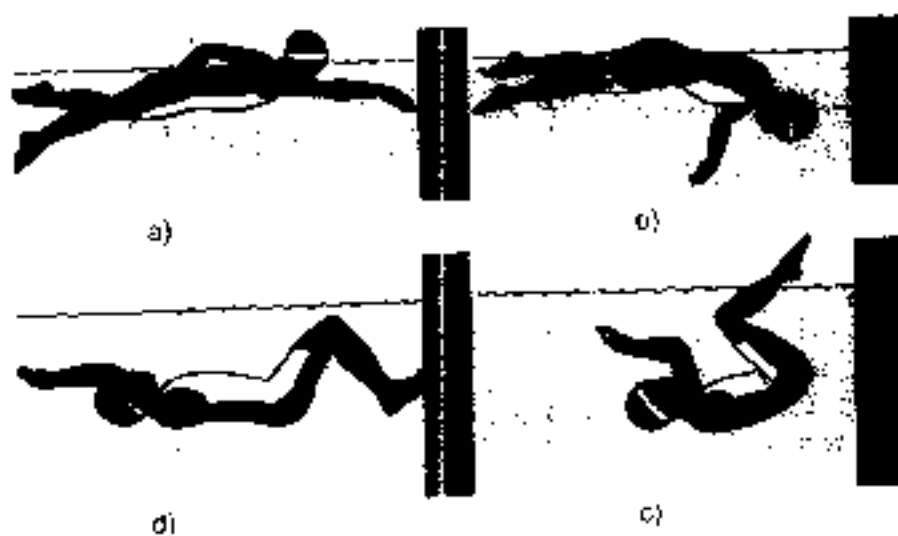
Figure 11.4: Standing position

## Activity 1

Practise diving from the kneeling and squatting position.

### Front crawl/Armable turn technique

The **tumble turn** in swimming is a way of turning when you reach the edge of the pool. The tumble turn is turning and twisting in the water so that you swim to the opposite direction.



When practising the front crawl tumble turn you have to follow the following steps:

- Swim towards the wall of the pool
- Do a forward roll about a metre from the wall
- As you do the forward, place your feet onto the wall and stretch your arms
- Push your feet hard onto the wall and twist back to the front crawl, glide and continue swimming.

To practise the tumble turn you can do the somersault on a high jump landing mat. The front crawl tumble turn in water is done in the same way as the somersault.

Practise the tumble in water.

- Swim towards the wall on your back.
- Turn from back to front
- Do a forward roll about a metre from the wall
- Place your feet onto the wall and stretch your arms
- Push your feet hard onto the wall and stay on your back as you swim



## 11.10 Breaststroke turning to the wall

To perform the breaststroke turn, follow the steps below.

- Swim towards the wall using the breaststroke, see Figure 11.7.
- About a metre from the wall stretch out the whole body
- Keep your head down and look at the bottom of the pool
- The fingers of one hand should be ready to touch the wall
- Push both hands forward and touch the wall using only one hand, see Figure 11.8
- Swing the arm of the other hand back with force. This will push your feet up into your chest
- Bring your other arm up by your ear and breathe see Figure 11.9
- Dive your head back into water
- Using your feet push off with force from the wall see Figure 11.10 a)
- Keep your arms stretched in front of you see Figure 11.10 b)
- Move your legs up and down as you swim using breast stroke



Figure 11.7: Approach to the wall

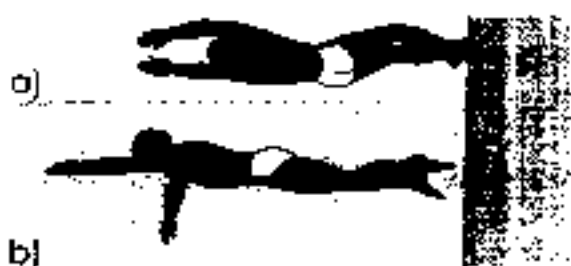


Figure 11.11: Aqua-aerobics

## 11.11 Aquatics games

### Aqua-aerobics

Aqua-aerobics are exercises done in a swimming pool. These exercises are done with music. Different exercises such as turning, twisting, movement of arms and legs underwater can be done. These exercises improve fitness. Aqua-aerobics can be done either on the deep end or the shallow end. Good swimmers can use the deep end. The teacher will give instructions from outside the pool.

## Water polo

Water polo is an aquatic sport. It is played by a team of seven players in a swimming pool using a ball. The ball is thrown into the opponent's net to score. The front crawl stroke with the head up is used to play the game.



Some of the rules of the game are:

- Use one hand to hold the ball but the goal-keeper can use two hands within 5 metres
- Players can pass the ball or swim with the ball
- Players are not allowed to touch the bottom of the pool. Players tread water and swim throughout the match.

Practise the following exercises in water using music of your choice:

- Marching three steps forward and backwards
- Submerging for 2 seconds
- Jumping up three times
- Turning clockwise a right angle and back

1. Name three different types of diving positions.
2. During diving from the squat position, the swimmer must bend the \_\_\_\_\_ and stretch the arms.
3. During diving you must keep the \_\_\_\_\_ between the stretched arms.
4. What is a 'tumble turn'?
5. When doing the back crawl tumble turn, the body must turn from back to \_\_\_\_\_.
6. During tumble turning the legs of the swimmer must \_\_\_\_\_ against the walls of the pool.
7. Aqua-aerobics are done in the \_\_\_\_\_.
8. How many players form a team in a game of water polo?
9. State one rule used in water polo.
10. Name the stroke used in water polo.



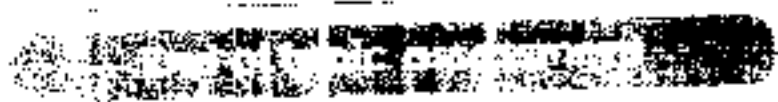
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- Water hazards in Zimbabwe include drowning, when crossing flooded rivers, playing in disused gravel pits and canals and dams.
- The swimming in quarry pits can cause cold shocks due to low water temperatures.
- In order to reduce accident of drowning in water bodies we must follow rules and regulations.
- It is important to learn different survival techniques in water such as treading water, and floating in water.
- We can also rescue drowning people using floating equipment such as inflated tubes and balls.
- The ability to swim long distances and exiting the pool without a ladder is necessary for survival.
- First Aid skills are needed to help a drowning person.
- Swimming is made up of different strokes such as front crawl, back crawl and breaststroke.
- In order to enter the swimming pool safely we must practise different diving techniques like diving from the sitting position.

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<b>diving</b>	- jumping into water using head and hands first into water
<b>aqua-aerobics</b>	- exercises which are done in a swimming pool performed to music for fitness
<b>deck</b>	- the flat surface around the swimming pool where swimmers can dive
<b>precautions</b>	- safety measures that should be followed
<b>lifebuoy</b>	- floating equipment that can help save life
<b>sewage</b>	- water and solid waste such as faeces and urine
<b>currents</b>	- water moving in a dam like waves
<b>quarry</b>	- crushed stones used in roads
<b>casualty</b>	- the drowned person
<b>breaststroke</b>	- a swimming stroke in which the swimmer lies face down, arms swept forward, outward and back under the water, while legs are kicked like a frog's
<b>deep end</b>	- the part of the swimming pool where it is deepest
<b>drown</b>	- failing to swim and breath in water which can cause death
<b>floating</b>	- free to move on water
<b>submerging</b>	- going under water completely
<b>water hazards</b>	- these are different types of dangers that can occur in water
<b>cold shock</b>	- the way the body responds quickly to sudden cold water
<b>stagnant water</b>	- water not flowing

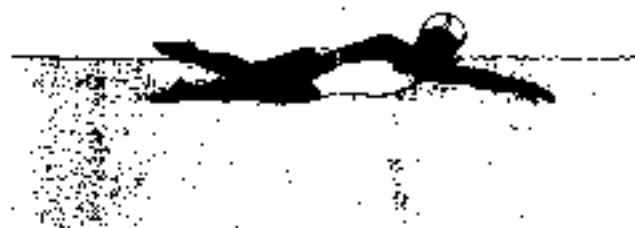
<b>breeding place</b>	- a place where mosquitoes lay eggs and grow
<b>entangle</b>	- to twist in such a way that something is not easy to remove
<b>survival</b>	- to continue to live
<b>crouch</b>	- to bend down
<b>chest compressions</b>	- pushing of the chest using hands
<b>tumble turn</b>	- to roll forward and turn
<b>aqua-aerobics</b>	- exercises done in water performed to music
<b>water polo</b>	- a water game played by seven players using a ball in a swimming pool



**Choose the correct answer.**

- \_\_\_\_\_ is an example of a dangerous water body.  
A. Tap B. Sink  
C. Protected well D. Disused gravel pit
- The weather report \_\_\_\_\_ the possible weather conditions.  
A. draws B. forecasts C. plays D. reads
- Gravel pits have underwater \_\_\_\_\_ which may cause drowning.  
A. plants B. light C. germs D. air
- Which of the following activities can lead to fractures, dislocations at gravel or quarry pits?  
A. Fetching water B. Diving  
C. Bathing D. Washing clothes
- Which of the following water sources is safe for swimming?  
A. Sewage pond B. Swimming pool  
C. Gravel pit D. River
- Which one is not a swimming pool precaution?  
A. Keep the pool clean B. Do not swallow pool water  
C. Swallow the water if you are thirsty D. Keep pets out of the pool
- To reduce drowning at the swimming pools \_\_\_\_\_.  
A. do not swallow the pool water  
B. stay in a shed  
C. keep the pool water clean  
D. keep lifesaving equipment close to the pool
- Which one is not a survival technique in water?  
A. Treading water  
B. Floating on the back  
C. Swimming using a side stroke  
D. Wearing shoes during swimming
- You can enter the deep end of the swimming pool by \_\_\_\_\_.  
A. diving B. rolling  
C. tumble turning D. being pushed by friends





10. What is the name of the stroke shown in the picture?  
A. Front crawl      B. Back crawl      C. Side stroke      D. Breaststroke
11. \_\_\_\_\_ is what a swimmer can do to keep the head above the surface of the water while the body is vertical.  
A. Treading water      B. Diving  
C. Floating on the back      D. Submerging
12. Floating on the back helps the swimmer by \_\_\_\_\_.  
A. saving energy      B. diving  
C. swallowing water      D. jumping into water
13. Equipment which cannot be used in dry land rescue of a drowning person is a \_\_\_\_\_.  
A. rope      B. boat      C. ball      D. inflated tube
14. If you cannot reach a drowning person or throw equipment you can \_\_\_\_\_.  
A. enter the pool through the shallow end and then throw equipment  
B. shout at the person  
C. jump into water  
D. do dry land resuscitation
15. \_\_\_\_\_ is a type of diving.  
A. Slide in      B. Jump in      C. Tread in      D. Tumble in
16. When doing the back crawl tumble turn, the body must turn from back to \_\_\_\_\_.  
A. right      B. left      C. back      D. front
17. During tumble turning, the legs of the swimmer must \_\_\_\_\_ against the walls of the pool.  
A. rest      B. slide      C. push      D. dive
18. Aqua-aerobics are usually done in the \_\_\_\_\_.  
A. gravel pit      B. water canal  
C. sewage pond      D. swimming pool
19. \_\_\_\_\_ players form a team in a game of water polo.  
A. 7      B. 6      C. 5      D. 4
20. The stroke used in water polo is \_\_\_\_\_.  
A. breaststroke      B. sidestroke      C. front crawl      D. back crawl

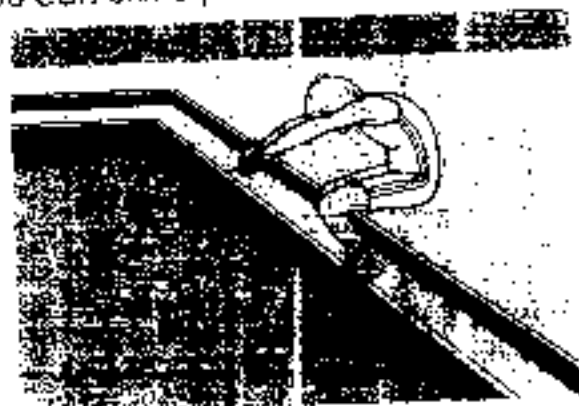
#### Section 10 questions

**Answer all the following questions.**

1. \_\_\_\_\_ is a way of entering water using hands first.
2. A safer way of learning the diving skill is to use the \_\_\_\_\_ of the pool.



3. Give reasons why quarry dams are a dangerous place to swim.
4. Name two examples of buoyancy aids used for safety in swimming.
5. State two dangers of swimming in a dam.
6. What are the dangers of stagnant water at home?
7. What is the name of the lifesaving stroke used for long distance swimming?
8. Explain how you can exit a pool without using the steps.



9. What is the name of the diving technique shown in the picture?
10. What is the importance of aqua-aerobics?
11. The skill of turning under water is called \_\_\_\_\_.
12. If you cannot reach a drowning person, \_\_\_\_\_ a floating object to rescue.

Demonstrate the following:

1. Sidestroke
2. Floating on the back in water
3. Kneeling diving

## Running (1)

1. show preparatory phase for sprints, running and race walking
2. execute the appropriate sprinting techniques pawing action with increased speed.

Athletics is made up of activities which include running, throwing and jumping.



words

lanes

pawing action

torso

Athletics is one of the sports which can be done at school and in clubs. It is made up of many activities such as running, walking, throwing and jumping. Running is made up of sprints, middle and long distance activities. Sprinting is running short distance such as 100 metres. Middle distance is running a distance of more than 800 metres but long distance is running distances 10 000 metres and more. These activities are run on a track which is 400 metres in length marked with some lines. These lines are called **lanes**. When athletes are running, they must keep to their lanes in some events such as 100 m, 200 m, 400 m and above.

What can we do to improve our sprinting ability?

To improve our ability to sprint we must practise skills which can make us run very fast. Some of the activities that can be done to improve our sprinting ability are:

- The sprint or crouch start technique
- Activities which can improve the starting technique

## 12.1 Sprint technique

The sprint start technique is made up of three stages which are:

- On your marks
- Set
- Go or gun

### 12.1.1 On your marks starting line

When preparing for the sprint start, the athlete has to be correctly positioned.

Place the toe of the front foot 25 cm behind the starting line. The knee of the back leg is placed beside the front foot. This is done before the on your mark command. This prepares the athlete for the crouch start.



Figure 12.1 On your marks start

This is the next stage of the crouch start technique.

Place the thumb and forefinger of your hands behind and parallel to the starting line. Hands must be shoulder width apart. The other fingers form a high bridge in order for the shoulders to be as high as possible. Straighten your arms and look forward 1 metre ahead.

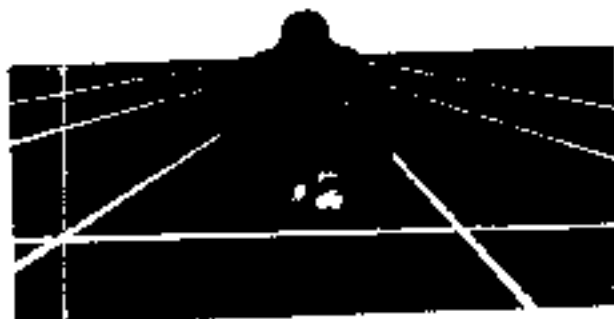


Figure 12.2 On your marks start

The next stage after the 'on your marks stage' is the 'set' stage. The set is the stage which prepares the athlete to sprint. At this stage all the athletes must remain steady.

After the command 'get set', the athlete must take and hold a deep breath. Raise the hips slightly higher than your shoulders. Push your weight forward onto your hands and extend your back leg. The front knee must form a right angle. Look forward.



Figure 12.3 Get set stage

towards the ground at a spot 1 metre ahead. At the gun/go stage, the athletes are not allowed to move forward before the sound of a starter gun. This can cause the athlete to be disqualified and will not be allowed to take part in the event.

On the sound of the starter gun or whistle, push back hard with your back leg. Take your hands off the ground as you drive your body forward. Swing your leading leg and take a short step as you lean forward. Pump your arms forward and sprint.

For your safety make sure that you use the proper shoes for running.

There are many activities that can be done to improve your crouch start skills. The following are some of the activities:

#### Pushing the ground

Jog slowly within the marked area. On the signal set, each athlete touches the ground with fingers and thumbs into a set position. Repeat the activity many times.



#### Jumping, turning and

#### pushing the ground

Start the activity by jogging slowly. Jump high in the air and turn around to face the opposite direction. Land into the 'set' position and drive out of the set position. Repeat this activity in the opposite direction. This activity is important to improve the movement of the body from the set position.



Practise the sprint start technique in pairs demonstrating the correct positions.

The sprint start helps to drive the athlete forward with speed. During the sprinting, correct technique is required for the athlete to sprint. The sprinting techniques include:

- Body position
- Arm action
- Leg action



A good sprinting technique is made up of the following skills:

- Run in an upright position looking directly to the finishing line.
- Bend the elbows at right angles and pump the hips with hands as you run. The hands must be relaxed as you run.
- Run using a high lift of the thighs and pump your arms while running.
- Lean forward on the balls of your feet.
- The feet must push hard on the balls of the feet with **pawing action**.
- As you run step with toes only not the whole foot.

To improve your sprinting technique, use the following activities:

- High knee marching and running with leg extension
- Seat kicks
- Sprint with partner
- Formula one

March forward slowly forcing the thigh of the leading leg up to a horizontal position. Land onto your toes with each step and push off again using toes. The arms must be bent at the elbows. Repeat the activity while running.





## Donkey

Move slowly forward kicking up the heels to the back and try to hit the buttocks. Start by running in place and then move forward at a slow jog. Then increase the speed of leg movement. Always keep your arms moving forward and backward.

## Running with a partner

Using a belt one athlete pulls another like a donkey pulling a cart. The athlete in the role of a donkey wears a belt around the abdomen. The partner in the role of a cart holds the ends of the belt and allows running whilst pulling the belt. This activity will make the athlete in the role of the donkey work hard. Both athletes (donkey and the cart) will move forward a distance of 15 metres.

## Running from a lying start

In this activity the athlete increases speed slowly over 20 metres and then sprints with maximum effort for 20 metres. Repeat the activity 2 or 3 times. This activity improves the athlete's sprint endurance and develops the ability for relaxed speed running.

## Obstacle course

A distance of about 80 m is run. The distance is divided into:

- An area of flat space
- An area for hurdles
- Slalom poles

Each athlete starts with a forward roll on a mat and run through the course. Record the time taken by each athlete.



Fig. 1. The donkey.



Fig. 2. Running with a partner.

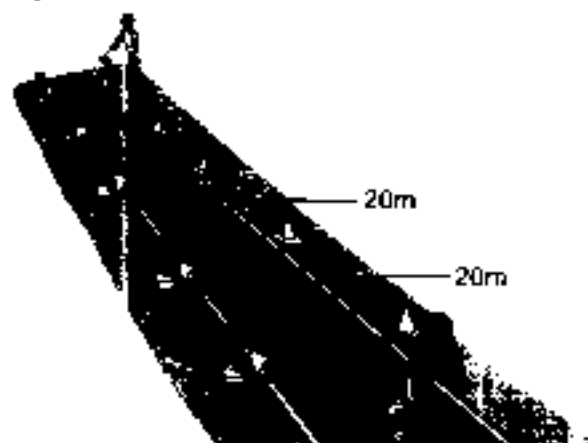


Fig. 3. Running from a lying start.



Fig. 4. Obstacle course.

In any race a good finish can make the athlete win. The winner in a race is a person whose trunk or **torso** crosses the finish line first. The torso is part of the human body from the shoulders to the hips excluding arms and legs.

Every athlete should fight hard throughout the race to cross the finishing line first. The race is not complete until the finishing line is crossed. To finish the race, you must do the following:



- When you are about three strides from the line, pull your arms back.
- Push your chest and shoulders forward as you cross the line
- Keep looking ahead
- Do not look around at the other athletes.

1. Name the three stages of the sprint start.
2. Running is made up of \_\_\_\_\_ and \_\_\_\_\_ distance activities.
3. The lines marked on the track are called \_\_\_\_\_.
4. During the set position, you must raise the \_\_\_\_\_ slightly higher than the shoulders.
5. A \_\_\_\_\_ is used to start a running event in athletics.
6. During running, the feet must push hard on the \_\_\_\_\_ of the feet with a \_\_\_\_\_ action.
7. All running events which require speed are called \_\_\_\_\_.



8. What is the name of the position shown in the picture above.
9. The winner in a race is the one whose \_\_\_\_\_ crosses the finish line first.
10. Describe two skills that make up the sprinting technique.



## Running

### In this unit you will:

1. show preparatory phases for middle and long distance running and race walking
2. demonstrate a higher level of endurance in fairly long distance events.



In all sprinting events we use the on your marks, set and go commands.



Activities

fly start

cross country

race walking

Just like the sprints, the middle and long distance running are made up of the correct starting techniques. The starting technique used in middle and long distance is called the flying start or standing start. The **fly start** is the start of a race where athletes begin from standing or upright position. Some of the activities which can be done to improve the running of middle and long distance events are:

- the fly start technique
- activities to improve running

The fly start is made up of two stages namely:

- On your marks
- Go/gun

Stand with your feet shoulder width apart, with your powerful leg behind the starting line. Most of your weight should be on the front leg. Bend the knees and lean forward. Put the left foot forward and the right arm forward or the right foot forward and the left arm forward. The back, neck and head should be in line as you lean forward. You are not allowed to move the body from this position.

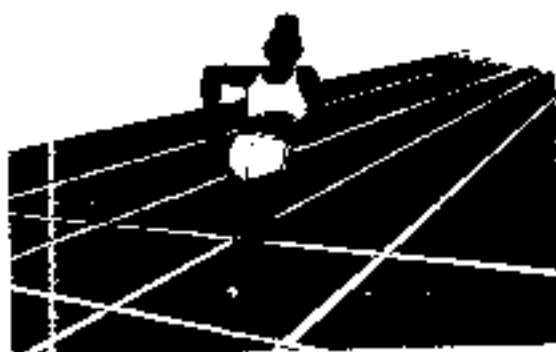


At the signal 'Go' push your body forward swinging your arms backward and forward.

### Running technique

When running in long distance races you must do the following:

- Run with the body upright
- Strike the ground with the heel first and then the toes for the push off from the ground
- Relax your arms and lightly move them forward and backwards as you run (See Figure 13.3)
- Breathe normally



Practise and demonstrate the fly start technique in athletics.

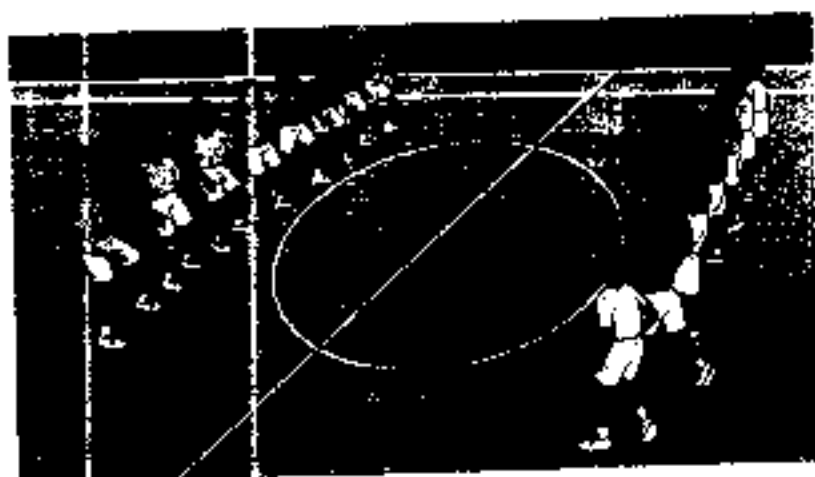
### Improving middle to long distance running technique

We can improve our middle to long distance running by practising the following games and activities:

- Hwai-hwai game
- 15 minute middle distance run
- Cross-country/ fun run

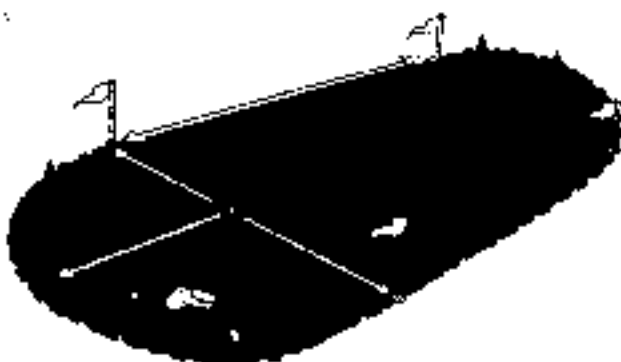
### Hwai-hwai game

The game starts with two groups of equal numbers. The leading group represents 'hyenas' while the other group represents the 'sheep'. The hyenas run to catch the sheep. The sheep run away from the hyenas until they get to the opposite goal post.



### Relay race (distance 400 m to 1 km)

The race is run by teams of about ten members each. Each team has to run 5 times around a course of about 200 m. Each team member's time is recorded. The team's score is the sum of each member's results.



### Cross-country and fun run

To practise long distance running, cross-country and fun run activities can be used. **Cross-country** is a race run over different places like hills, grass, muddy places and crossing rivers. A distance of about 3 km can be run. Cross-country races are usually done as a competition. **Fun run** activities on the other hand also are not competitive but are just done for enjoyment. As you take part in the races, you should record the time using a stopwatch.



### Race walking

**Race walking** is a long distance walking event in athletics. Although it is a foot race, it is different from running in that one foot must be in contact with the ground at all times. A distance of about 5 kilometres is walked.

The following must be practised to improve race walking:

- Head should be upright and eyes looking 20 m in front of you
- Relax neck and shoulders
- Arms should be bent at elbows all the time
- Swing your arms forward and backward and keep hands close to the body
- Avoid leaning too far forward
- Land on the heel of the foot
- Rotate your hips
- Avoid long strides which make you tired.



Figure 13.2



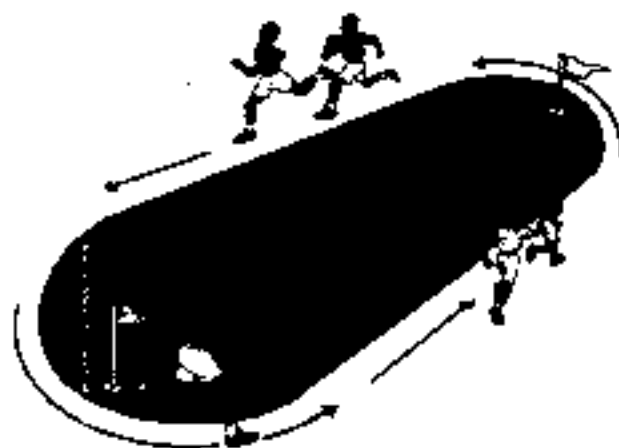
Figure 13.3



- Athlete must never have both feet off the ground at the same time
- The leg moving forward must be straightened not bent at the knee when the foot first makes contact with the ground until it is vertical.

### 1. 8x50m walking relay

- Stand in groups of 8 one behind the other in a single file
- The leader will stand holding a baton near the starting line
- From a signal the leaders walk following the course of 50 m and then pass on the baton to a member on the back of the file
- The activity continues until all the members of the group have walked the 50 m race
- Record the time taken by each group.



### 2. Handicap walk

In this activity athletes are grouped according to their ability to walk. Three groups are formed. A walking course of two kilometres is marked from the school gate to a shopping centre and back. The first group of athletes to walk is that of the slowest athletes. The next group will start walking after 2 minutes. All the athletes are expected to finish the race at the same time.

1. What is the name of the starting technique used in long distance running?
2. How many commands are used in middle running?
3. Describe how the long distance race is run.
4. What is race walking?
5. Explain one rule of race walking.
6. A race run over different places like hills, grass and crossing rivers is called \_\_\_\_\_.
7. An instrument used to measure the time taken during a race is called \_\_\_\_\_.
8. Describe the technique used in race walking.

1. execute correct baton exchange
2. demonstrate appropriate techniques in hurdles.

Relays are run by teams of athletes who pass the baton to each other in turns until the race is complete.



### Key words

leg      baton      hurdles

The relay is one of the most exciting events in athletics. In most competitions, the relay is the last event. It is a team event in which athletes run a certain distance called a **leg**. A tube called a **baton** is passed on by each runner at the end of each leg. One of the relay events is the 4 × 100 m.

The relay baton is a smooth hollow tube about 30 cm long and 12 cm around. It can be made of wood, metal or plastic.



Batons are usually coloured to make them easier to see.

Baton exchange is the passing on of the baton by one athlete to the next in a relay. There are different techniques of passing the baton. These are:

- The upsweep pass
- The downsweep pass

In baton exchange, the hand of the athlete passing the baton is not the same as the hand of the athlete receiving it. For example, if the athlete is passing the baton using the right hand, the athlete must receive with the left hand.

### Upsweep baton pass

The upsweep is a safe and easier technique in baton exchange.

- The athlete receiving the baton stretches out the receiving hand, palm downwards
- The thumb and the index finger should form a V-shape
- The athlete passing the baton brings it up into the 'V' of the receiving athlete, see Figure 14.2
- The athlete passing must hold the first quarter of the baton and the receiving athlete holds the second quarter
- The athlete passing the baton must leave the baton when the receiving athlete has grasped it
- The receiving athlete should always be looking ahead.



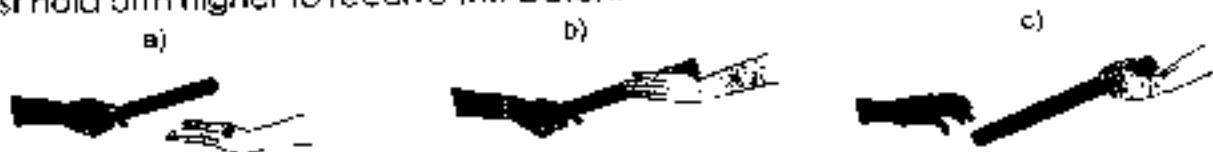
Figure 14.2 The upsweep baton exchange



Figure 14.3 The upsweep baton exchange in action

### Downsweep baton exchange

The downsweep technique is the quicker of the two techniques of baton exchange but it requires more practise. In this technique the athlete receiving the baton must hold arm higher to receive the baton.



- The athlete passing must hold the end of the baton
- The receiving athlete pushes the receiving hand back palm facing upwards
- The athlete passing the baton pushes it downwards into the palm of the stretched hand. See Figure 14.4 b)
- The athlete receiving must form a V-shape with the fingers and thumb
- The receiving athlete must grab the baton firmly



Figure 14.5 The downsweep baton exchange in action



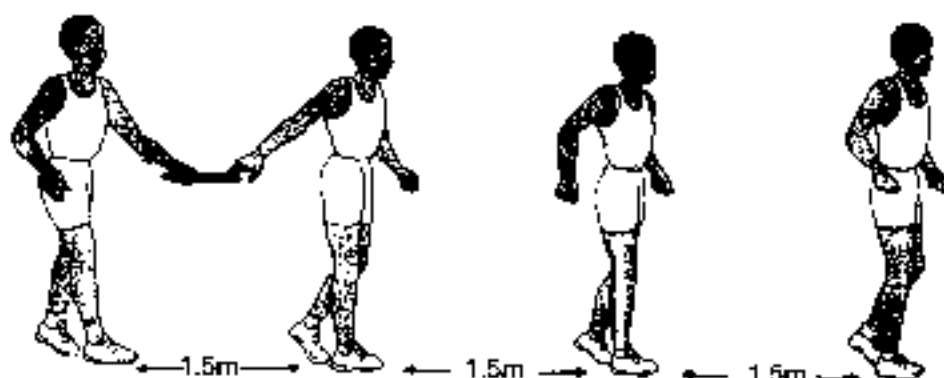
Practise makes perfect. You can improve your baton exchange technique by doing the following activities:

#### Activity 1: Baton exchange

- Form groups of ten
- Stand in a file facing the other group of ten members behind a line about 50m away
- The first runner holds the bottom of the baton in the right hand
- On the signal 'Go' sprint to the other file and pass the baton to the receiver's right hand using a downward movement
- The receiver must stand behind the line with the right arm open facing upward
- Watch the baton as you receive it and if it drops quickly pick it up and continue running
- The passing athlete joins the other team using the right side of the file.



#### Activity 2: Baton exchange



- Stand 1.5m metres apart, one behind the other
- The athlete at the back holds the baton
- Athlete passes the baton with the left hand to the right hand of the athlete in front
- After receiving, the athlete must pass to the left hand of the athlete in front
- The last athlete will receive the baton using the right hand
- The athlete passing must shout 'baton' for the athlete in front to receive it.

This activity can be done by walking to the next athlete to hand over the baton. The activity can also be practised using the downsweep baton exchange technique. Left to right baton exchange.



Figure 1: Baton Pass

- The first athlete holds the bottom of the baton in the left hand
- Run and pass it into the right hand of the next athlete 10m away using the down sweep
- As you approach the receiver, shout 'baton' for the receiver to push the right hand backwards in order to receive the baton
- Continue passing with the left and receiving with the right hand.

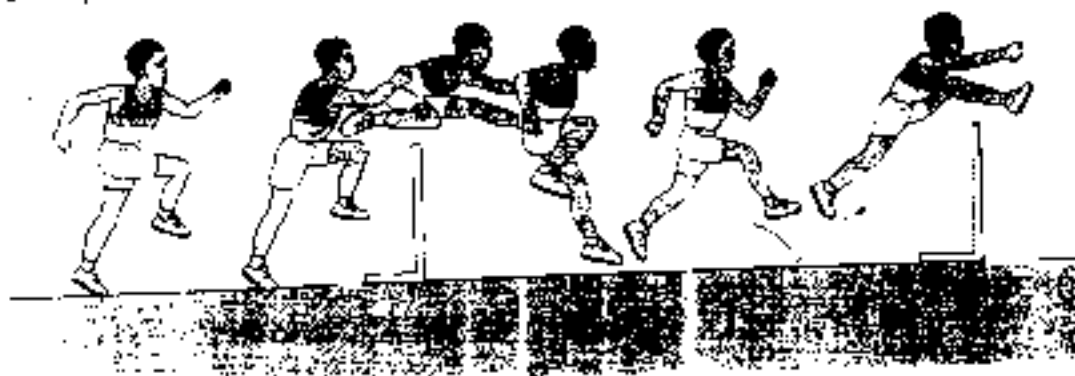
In this activity the distance and speed of running can be increased.



Practise and demonstrate the downward sweep technique.

Hurdling is a race in athletics where athletes are expected to run over obstacles called **hurdles** which are set at different distances on the track. The athletes must run with speed over the hurdles. One leg must be leading during hurdling and the same leg must be used throughout the event.

The height of the hurdles for athletes at Grade 6 level is 76 cm for girls and 84 cm for boys. For safety learners should not jump to clear hurdles. To improve the hurdling technique, the hurdler must practise the following activities:

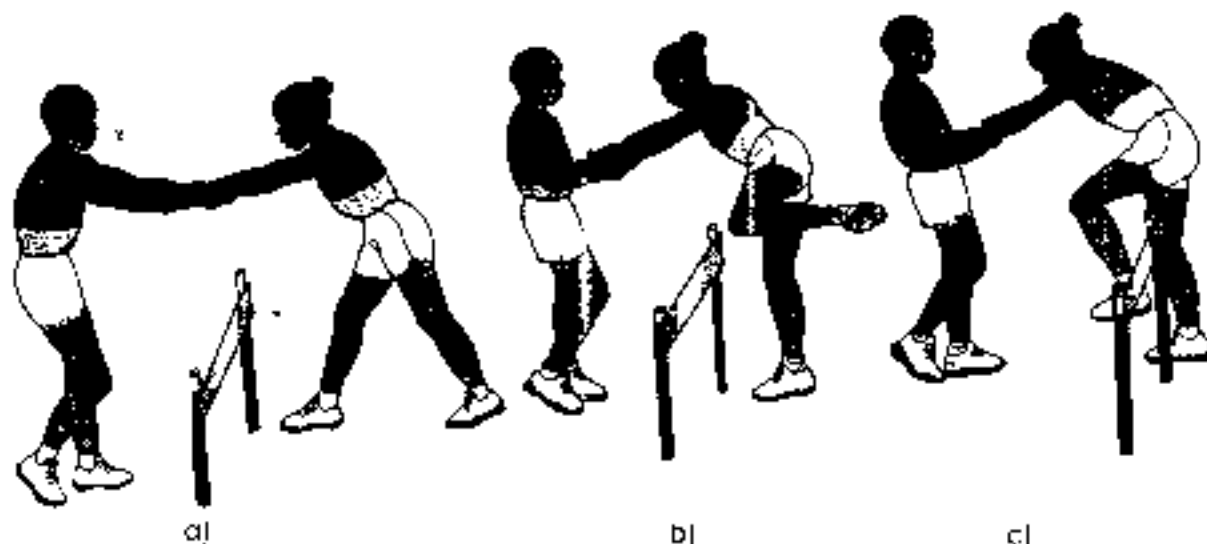


### Exercise 14.10: Running from a crouched position

- Sit down on the floor legs stretched
- Bend your right leg as shown on Figure 14.10.
- Swing your arms forward and backwards as if you are running
- Bend your body so that your hands reach the ball of the foot
- Hold in this position for 5 seconds
- Change the position of the legs and repeat the exercise
- This exercise will improve the skill of running over a hurdle



### Exercise 14.11: Running over the hurdle



- Hold your partner's wrist for balance
- Place your back leg about 60cm from the front leg. See Figure 14.11 a)
- Your partner must bend his legs as you come forward
- Move forward with your back leg and pass the knee over the hurdle. See Figure 14.11 b)
- Point your toes outwards as you do the movement
- As you land keep your knee high as if you were sprinting. See Figure 14.11 c)
- Exchange the roles and continue practising.

### Instructions

- Stand in a single file, 5m away from the first obstacle
- Walk over the obstacles using the same leg throughout
- Run over the obstacles clearing them using the same technique
- Always remember the leading leg is not changed during hurdling.



Fig. 3.14: An athlete jumping over an obstacle.

Demonstrate the hurdling technique using low obstacles over a distance of 100m.

1. A distance run by one athlete in a relay is called \_\_\_\_\_.
2. What is the length of a baton used in relays?
3. The skill of passing on the baton to the next athlete in relays is called \_\_\_\_\_.
4. The technique of passing the baton upward is called the \_\_\_\_\_.
5. In the downsweep technique the athlete receiving a baton must form a \_\_\_\_\_ with fingers and thumb.
6. The obstacles used in hurdling are called \_\_\_\_\_.
7. The height of hurdles for primary school level girls is \_\_\_\_\_.
8. Explain how the downsweep baton exchange is done.
9. In all hurdle races the \_\_\_\_\_ leg is not changed.

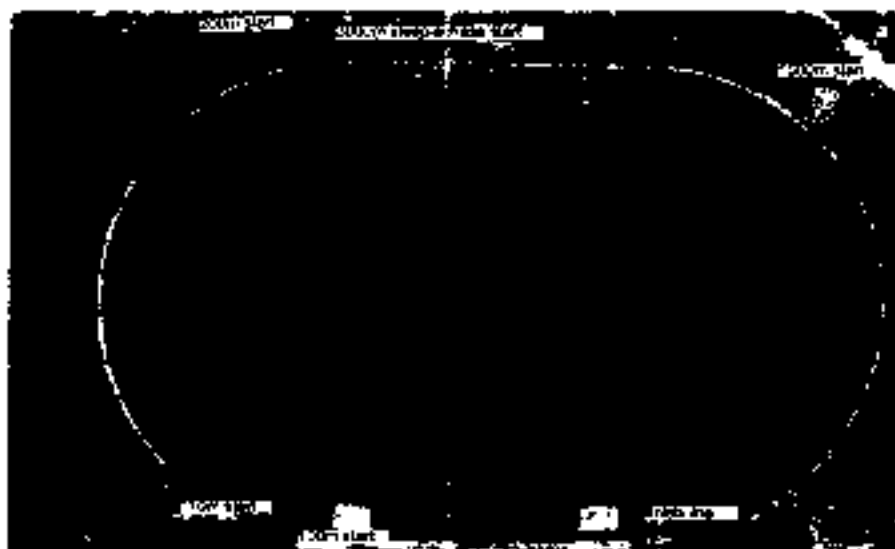
1. execute horizontal jumping techniques
2. execute vertical jumping techniques.

Jumps in athletics are grouped as horizontal and vertical jumps.



horizontal jump    vertical jump    checkmark    flop technique

Jumping is an activity in athletics which is done on the field not on the track. The field is the area surrounded by the athletics track. Different sections of the field are marked for different types of jumps and other field events such as shot put, discus and javelin.



Jumping requires a jumper to be fit and skilful. Jumps are divided into two categories namely **horizontal** and **vertical**. Horizontal jumps are long jump and triple jump. Vertical jumps are high jump and pole vault. All jumps are made up of the following stages:



- approach or run-up
- take-off
- flight
- landing

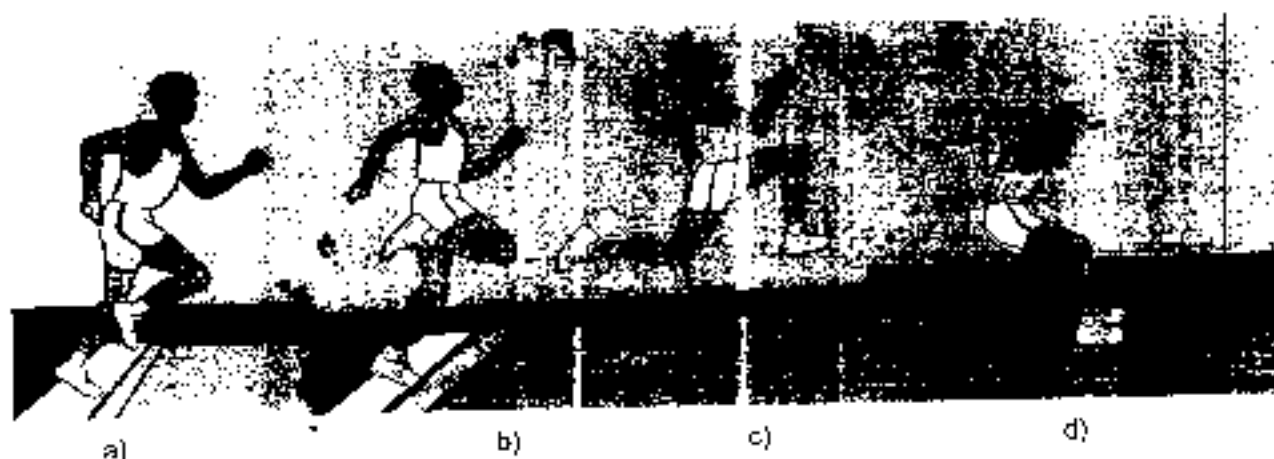
The two types of horizontal jumps are long jump and triple jump.

Safety is needed when doing horizontal jumps.

Prior to competition

- Always dig the sand for safe landing.
- Remove objects like litter or glass from the sand.
- Always jump from non-slip surfaces.

The long jump like any other jump is made up of approach run; take-off, flight and landing stages as shown in Figure 15.2 below.



Run up or approach

- Start your run up from the same spot each time with both feet together. Run very fast to reach the take-off board which is painted white.

Take-off

- Push hard onto the take-off board with the same foot each time. As you take off throw your arms up with force in a motion. At the same time bring your back leg up and forward. Look up as you jump.

### Flight

- Flight involves the movement in mid-air. Try to gain as much height as you can.

### Landing

- As you go down, push forward with your legs, arms and the trunk. The heels must hit the sand. Quickly push your arms back to force the whole body to move forward.

Activities which can be done to improve long jump

- Activities which can be done to improve long jump are a) distance jumping  
b) run up using checkmark  
c) jumping from a low box

#### a. Distance jumping

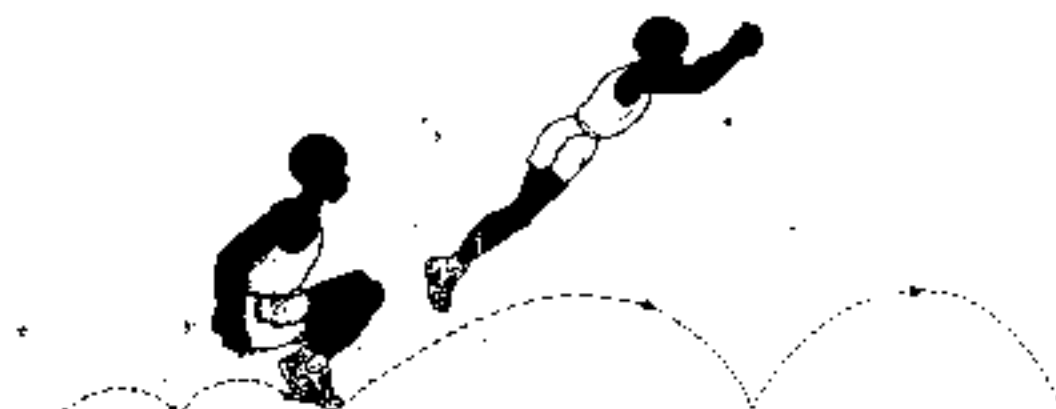


Figure 15.3 Distance jumping

- Jump from a line marked on the ground using two feet.
- Jump three times non-stop.
- Measure the distance of the three jumps.
- In order to get the longest jump, all three jumps must be equal in length.

Avoid jumping upwards but jump low and forward.

#### b. Run up using checkmark

- A **checkmark** is a mark put at the edge of the track about thirty metres from the take-off board.
- Start with both feet together opposite the take-off board.
- Take a step forward with your take-off foot.
- Run nine strides back down the run up.
- Mark the ninth stride. This becomes your starting point for the run up.
- Turn to face the take-off board. Place the non-jumping foot on the mark.
- Run up through the take-off board into the pit many times.



### c. Jumping from a low box

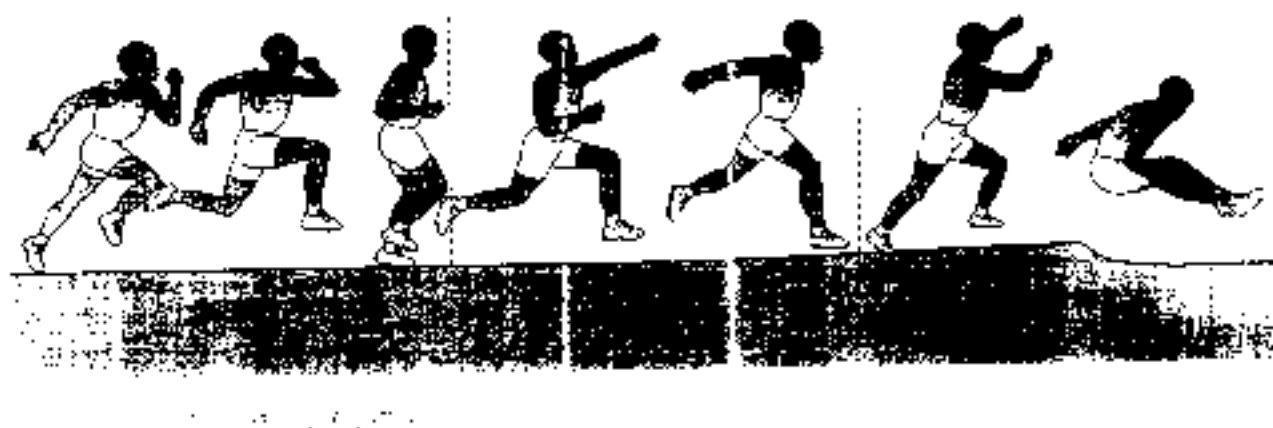


- Run up three strides and step on a low box on the third stride.
- Take off from the box and land into the sand.

The box should be supported by two people so that it will not tip.

Triple jump is also a horizontal jump like long jump. It is made up of three jumps which are hop-step-and-jump. Just like long jump it has four stages namely: run up, take-off, flight and landing. The three jumps which are the hop-step-and-jump are done after the take off stage.

The run up, take-off, flight and landing for triple jump are the same as in long jump.



- The first three pictures show the **hop** stage.
- The middle two pictures show the **step** stage.
- The last two pictures show the **jump** stage.



## Activities to improve triple jump skills

- Activities to improve triple jump skills are
- a) rabbit hops
  - b) combining hops and steps
  - c) hop, step and jump rhythm
  - d) standing triple jump into the pit

### a. Rabbit hops



Figure 10.10 Rabbit hops

- Stand with feet together
- Take off from the two legs jumping horizontally and land on two legs bending your knees.
- Continue the jumps up to three times.

Always remember to bend your knees when landing to avoid muscle strain.

### b. Combining hops and steps



Figure 10.11 Hop, step and jump

Practise the three jumps used in triple jump as follows:

- Hop twice and step once.
- Step twice and jump once.
- Step twice, hop once and jump once.
- Hop twice, step twice and jump once.

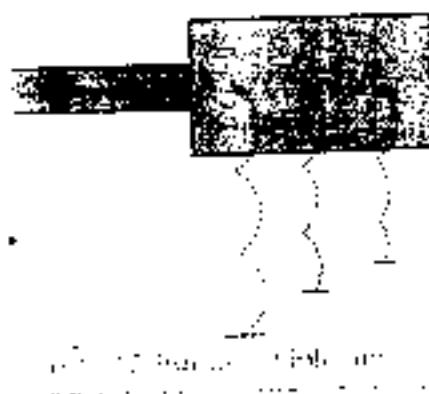
### c. Hop, step and jump rhythm



- Start from the standing position
- Run, and take off.
- Hop, step and jump.

### d. Standing triple jump into the pit

- Start from a standing position on the side of the jumping pit.
- Hop, step and jump into the pit starting from a distance of four metres from the pit.
- Practise the activity increasing the distance from the pit as shown in the picture.



Practise the triple jump technique using hula hoops and demonstrate the technique to your teacher.

Vertical jumps are jumps that are done for height. The athlete must jump over a horizontal supported bar. The jump is performed in the field just like the horizontal jumps. Examples of vertical jumps are pole vault and high jump. Vertical jumps are also made up of the following stages:

- Run up
- Take off
- Flight or bar clearance
- Landing

Safety is needed in vertical jumps.

- Always jump from a non-slip surfaces.
- Jumping from wet grass is dangerous.
- Wear well-fitting jumping shoes with spikes
- Use suitable high jump bed for the flop technique. A technique in high jump were an athlete jumps backward over the bar landing on the mat with shoulders and back.

High jump

In high jump we use different techniques for a good performance.

#### a. The scissors kick technique

Practise this technique using a sand pit.

- Approach the bar from the right or left
- Take five to ten springing steps as you approach the bar
- Take-off using one leg
- Push your arms up as you take-off
- Lift your back leg over the bar in a scissors movement
- Straighten your legs as you go over the bar
- Land on the front leg.



Figure 1.11 The scissors kick technique

#### Activity 2

Stand 3 to 5 steps away from the bar on the side you prefer. Set the bar at waist level. Run and jump using the scissors style. Raise the bar as you improve.

#### b. Fosbury flop technique

The Fosbury technique is also called the J-approach because the run up is J-shaped. In this technique the jumper lands on the back on a mat.



Figure 1.12 The J-approach to high jumping

The flop style is made up of the following:

#### Approach

- Your approach run should be eight to ten strides.
- The first four strides are straight in order to allow you to build up speed.
- The second four strides are curved to bring you up to the bar.
- The last four strides must be shorter and quicker.

#### Take-off

- Land on your heels and bend your legs.
- Rotate your body as you take-off.

#### Bar clearance

- Arc back and bring legs together
- Bend knees and lift feet over the bar

#### Landing

- Tuck your chin into the chest and land on your back on the mat

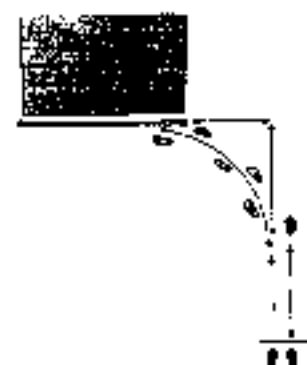


Figure 15.13 The approach run

Activities to help improve high jump skills:

Activities to help improve high jump skills are a) the curl  
b) back arc  
c) curve sprinting  
d) backward jump

#### a. The curl

This activity stretches the muscles in your back and helps prevent injuries while you are jumping.

- Lie flat on the floor on your back.
- Pull your knees into your chest.
- Pull your chin up to your chest.
- You must feel the stretch in your back when you curl up.



Figure 15.14 The curl

#### b. Back arc

This activity loosens up the muscles on your back.

- Lie on the floor and place your hands under your shoulders.
- Keep your hips on the ground.
- Push up slowly with your arms until the upper body is in an upright position.
- Hold the stretch for about 10 seconds.
- Lower your body back to the starting position and repeat.



Figure 15.15 The back arc

### c. Curve sprinting

The activity helps to improve the curved flap run up. See Figure 15.16. As you run, lean into the curve and you should not slow the running speed.

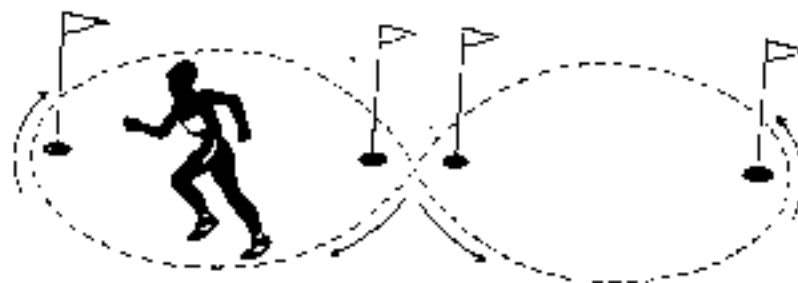


Figure 15.16

### d. Backward jump

Practise take-off and landing on the mat.

- Arrange the mats to form a pile.
- Face away from the mats.
- Jump upward landing on your back with legs up in the air.
- Your body should form an arc as you jump.



Practise this activity several times before using a low bar. Do the same activity using a low horizontal bar.

### e. Pole vault

Another vertical jump is the pole vault. A strong metallic pole is used to help in jumping.



Figure 15.17 Pole vaulting: (a) to (e) are the stages of the jump

The pole vault is made up of the following stages:

- Approach
- Run up
- Take off
- Flight
- Landing

#### Approach

- Hold the pole with your favourite hand at the top and the other hand between 40cm and 60cm lower down.
- The thumbs and fore fingers of each hand should be to the top of the pole.
- Run towards the horizontal bar and push the pole to the ground

#### Take off

- Jump up pushing the pole upwards

#### Flight

- During your flight turn your body so that you will face the opposite direction
- Push the pole so that it will not drop on the horizontal bar as you jump over the bar

#### Landing

- Land on the mat on your back.

### Swinging on the pole

The pole vault requires a lot of practice. The following activities will help you to learn pole vault:

#### a. Swinging on the pole from a short run up

- Your teacher will hold the pole while one end is placed in the long jump sand pit in a slanting position
- Run up and grab the pole
- Swing through to land in the sand or pole vault landing mat.



Swinging on the pole

This activity will help you to find which side of the pole you will swing on before running up.

#### **b. Pulling up and rotating on a rope**

- Lie on the floor and at the same time hold onto a rope
- Rotate on the rope as shown in Figure 15.20.
- Pull down hard and look back down on the floor to start the rotation.



Figure 15.19

This activity helps you be able to rotate and do the upward movement on the pole. It also helps the arms and shoulders to become strong enough to perform the pole vault.

#### **c. Swinging on a rope and lifting the knees**

- Place gymnastics mats beneath the swinging area
- Jump and grab a rope using two hands
- Swing your body upwards
- As you swing bend and lift your knees
- Try to touch the rope as high as possible with your knees and feet.

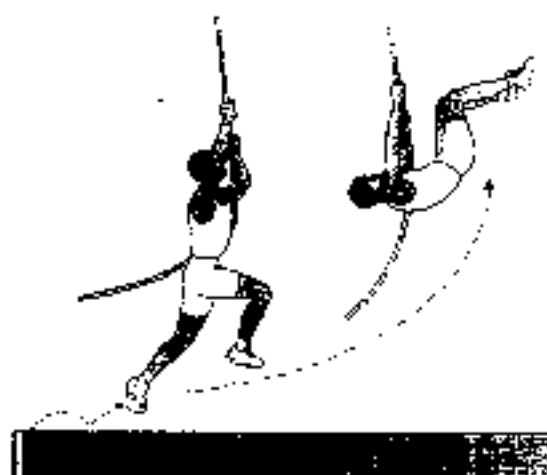


Figure 15.21 The person swinging on rope

#### **d. Swinging into a sand pit from a low height**

- Stand on a drum or table
- Plant the pole into the sand at the take-off end of a long jump pit
- Look forward on the right side of the pole and swing on the left side of the pole
- Swing forward onto the landing pads or sand pit.



Figure 15.22 Swinging into a sand pit from a low height

1. Name 2 categories of jumps.
2. What are the four stages of all jumps?
3. Give one example of horizontal jumps.
4. As you land on the sand push forward with your \_\_\_\_\_ and \_\_\_\_\_.
5. Triple jump is made up of \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ jumps.
6. Examples of vertical jumps are \_\_\_\_\_ and \_\_\_\_\_.
7. Explain two safety precautions in vertical jumps.
8. Two examples of techniques used in high jump are \_\_\_\_\_ and \_\_\_\_\_.
9. The type of vertical jump where a long metal pole is used is called the \_\_\_\_\_.
10. During the flop technique, the \_\_\_\_\_ of the jumper must be arched.



## Unit 16

## Throws

### What you will

1. demonstrate the correct handling of implements
2. execute correct throwing techniques in a marked cycle.

### Introduction

There are different throws in athletics. The throws are discus, javelin and shot put. Shot put and discus are examples of rotational throws.



#### Key words

implements

spectators

field event

Throws are some of the events done in athletics in the field. Some of the throws in athletics are discus, shot put and javelin. All throws should be practised before the athletes can perform well. In all throws the athletes use equipment which should be handled and thrown in a marked area, these are called **implements**. Throws are made up of the following stages:

- The grip
- Throwing action

These are the main stages of all the throws and the athletes have to practise them.

Safety is needed in all throws. All the equipment for throws can cause accidents to the athletes or the **spectators**. Spectators are people viewing an athletic activity. This is the reason why most throws take place from inside a cage to avoid accidents, for throws like discus the throwing area must be protected by a fence.

### Shot put

The shot is a field event that involves throwing or putting a heavy solid brass or iron ball called the shot as far as possible. It weighs about 3.25 kg.

The stages in shot put are the grip, placing on the neck, stance and the push or throw.



### a. Grip

- Hold the shot at the base of the fingers and not on the palm
- The fingers are well spread apart and use the thumb to support the shot
- The hand is raised and held back.



### b. Placing on the neck

- Raise the shot above your head
- Lower the shot straight down until it is under the jaw as shown in Figure 16.3
- Push the shot into your neck
- Lift your elbow until it is parallel to the floor
- Point the palm to the throwing direction.



### c. Stance

- Stand facing opposite the throwing area
- Lean your body forward as shown in Figure 16.4
- Body weight should be on the front supporting leg
- The chin, knee and toe of the front leg should be in line with each other.



### d. The push

- Glide and twist the hip rotating the body
- Push the shot over head from the hand and follow through.

The shot should land in a marked area. Figure 16.5 shows all the stages to be followed to complete the throwing in shot put.



To practice the different ways of performing the shot put throw, you can also do the following activity:



### a. Push throw

- Hold the basket or soccer ball using two hands
- Reach back to the side with the ball in both hands
- Twist the body forward leaving the ball and the hands back
- Move to throw from this position.

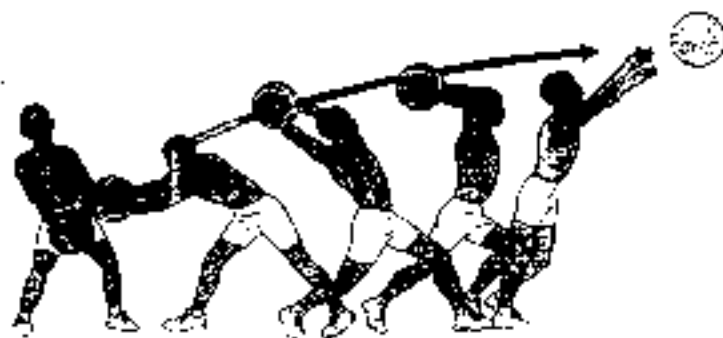


Figure 1.1.1 Push throw

### Study 1

Demonstrate the shot put throw from the standing position using the shot put throwing area.

### Exercise 5

1. Name two types of throws in athletics.
2. Which type of throw must be done inside a fenced area to avoid accidents?
3. What is the name of the equipment used in shot put?
4. Explain the grip in shot put.
5. Which part of the body do you place the shot before you throw?
6. All throws should land in a \_\_\_\_\_ area.

### Unit 2

Discus is a **field event** in which an athlete throws a heavy disc called discus. The discus is thrown within a marked area for distance. A field event is sporting contents that do not involve running such as jumping or throwing.



Figure 1.1.2 Discus

A discus is made of rubber or wood surrounded by a metal rim.

### The standing throw technique

The standing throw is one of the techniques used in discus throw. The following are stages of the standing throw technique.

#### a. The discus grip

- Hold the discus loosely in the palm of your throwing hand
- Fingers can be spread out evenly on the discus
- Use the thumb to keep the discus in position



Figure 16.9 The discus grip

#### b. Stance

- Stand with your feet hip width apart, sideways of the throwing area
- Slightly bend your knees
- Turn your body as you extend your arms backwards
- Swing the discus forward turning your body to throw and follow through
- The discus should land in a marked area.



Figure 16.10 Discus standing throw technique

Figure 16.10 shows all the stages of the discus standing throw technique. To perfect your discus throw skills, you can do the following activities:

#### Bowling the discus

- Hold the discus using the correct technique.
- Put one leg in front.
- Swing the hand with the discus opposite the front leg forward.
- The discus should roll forward as shown in Figure 16.11

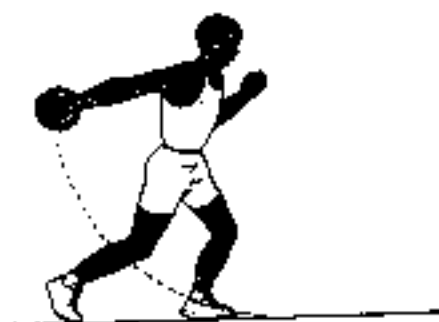


Figure 16.11 The bowling activity

#### Swinging a rubber ring

- Hold a rubber ring
- Step forward
- Swing to throw the ring from shoulder upwards.



Figure 16.12 Swinging activity

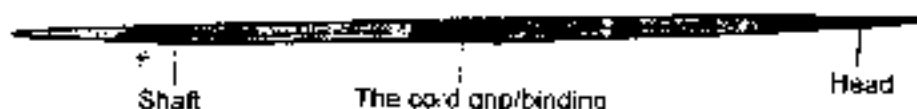
### Throwing a ball from a sitting position

- Sit down and split your legs as shown in the picture
- Hold the ball in one hand
- Swing the hand backwards and forward releasing the ball from shoulder upwards.



Demonstrate the discus grip and the standing throw technique.

Javelin is a field event just like discus and shot put. It involves throwing a sharp metal object like a spear called a javelin.



The javelin has a metal or wooden shaft with a pointed metal head and the cord grip or binding.

There are different ways of grip in javelin. The grips are the **middle finger** and the **forefinger** grips.



forefinger grip



middle finger grip

In the forefinger grip, the forefinger is placed behind the binding of the javelin. In the middle finger grip, you grip the javelin with your middle finger and thumb.



- In the run up the javelin is carried high up above shoulder with the palm of the hand facing upwards.
- Always keep the palm upwards throughout the throw. Build speed on your approach run.
- In the last strides of your run up stretch your throwing arm back so that the javelin is behind you.



- Lean backward
- Drive the hand with the javelin forward to release the javelin.
- Keep your elbow high throughout the release so that the javelin goes high above your head and shoulder.
- Release the javelin with a follow through.

**NB.** You must remain behind the throwing line. Crossing the throwing line will disqualify your throw.

## Activities to improve the javelin throw

Activities to improve the javelin throw include a) running two handed throw  
b) extending the throwing arm  
c) reach back to throw

### a. Running two handed throw

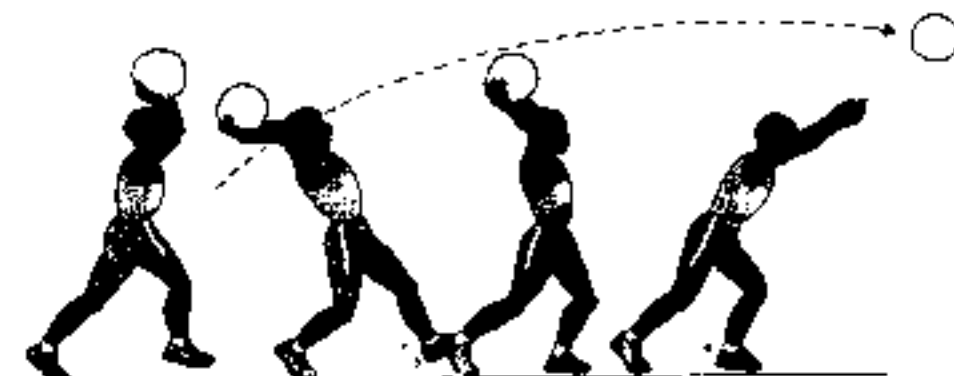


Figure 16.18 Running two handed throw

- Hold the ball in two hands above the head
- Stand shoulder width apart
- Run two or three strides
- Lean backwards and throw the ball forward with a follow through, see Figure 16.18.

### b. Extending the throwing arm

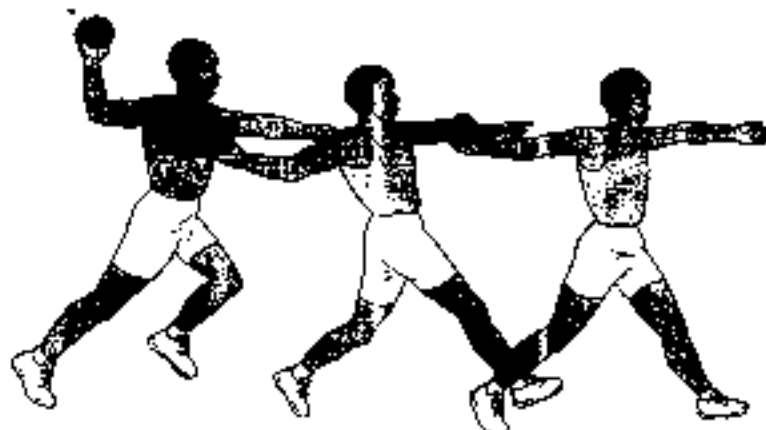
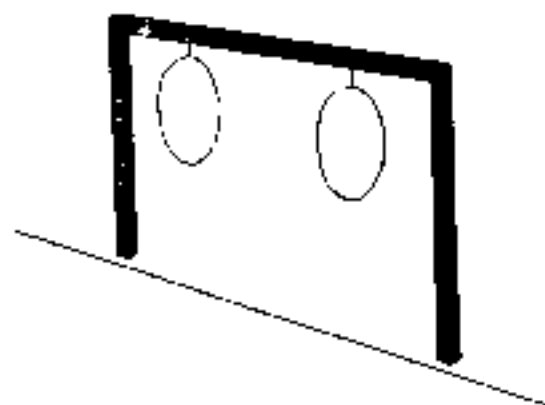


Figure 16.19 Extending the throwing arm activity

- Hold the ball in the throwing arm
- Extend the throwing arm backwards and at the same time stepping forward with the opposite leg to the throwing arm see Figure 16.19.

This activity will help you to extend the throwing arm during the run up in javelin.

c. Reach back to throw



- Place several tennis balls on a table as shown in Figure 16.20
- Stand in front of the table so that the balls are behind you
- Stand with one leg in front facing a hanging hoop
- Reach back to grasp a ball only by turning the upper part of your body
- Turn back to the front and throw into the hoop.

Demonstrate the middle finger and forefinger grips used in javelin.

Exercise 4



a)



b)



c)

1. What are the names of the implements shown in the pictures above?
2. Name two materials used to manufacture a discus.
3. Explain the discus grip.
4. Draw a javelin and label the following parts
  - Head
  - Shaft
  - Cord grip
5. State two types of grips used in javelin.
6. During the run up the javelin is carried high up above the \_\_\_\_\_.
7. In javelin all throwers must remain behind the \_\_\_\_\_ line after throwing.
8. Explain the throw stage in javelin.



## Glossary

- Athletics is made up of four areas namely running, walking, throwing and jumping.
- The sprint or crouch start is used in all sprinting races.
- The commands 'on your marks', 'set' and 'go' are used to start a sprint race.
- The torso is used in finishing a race.
- The flying start is used in long and middle distance running.
- Race walking is a long distance walking event which is about 5 km.
- A relay button is a hollow tube about 30cm long and 12cm around.
- Two types of button exchange are the upsweep and the down sweep.
- Hurdling is an event where athletes are expected to run over obstacles called hurdles.
- Jumps are divided into two categories which are horizontal and vertical.
- All jumps are made up of the following stages: run up, take off, flight and landing.
- Long jump and triple jumps are examples of horizontal jumps.
- High jump, and pole vault are examples of vertical jumps.
- Discus, shot put and javelin are types of throwing events in athletics.
- The stages in some of the throws are the grip, stance and throwing.

## Glossary

<b>endurance running</b>	- being able to run a long distance without getting easily tired
<b>sprinting</b>	- running very fast
<b>lap</b>	- running a 400 m distance around the track
<b>crouch start</b>	- the type of starting used in a sprint race
<b>torso</b>	- the upper part of the body from the waist to the neck
<b>upsweep</b>	- upward movement of the baton in relay race
<b>horizontal jump</b>	- type of a jump where distance is measured
<b>vertical jump</b>	- type of jump where height is measured
<b>flop style</b>	- a style of jumping in high jump where the J-approach is used and the athlete lands on the back of the body on landing mat
<b>lanes</b>	- lines which divide the race track to keep runners apart
<b>baton</b>	- an object transferred by runners in a relay race
<b>obstacles</b>	- equipment used in hurdles
<b>pawing action</b>	- the movement of the leg to the ground using the front part of feet when sprinting
<b>starter gun</b>	- a gun used to start a race
<b>stopwatch</b>	- instrument used to measure the time taken in races
<b>checkmark</b>	- a mark used during run up in horizontal jumps
<b>curl</b>	- curved
<b>implements</b>	- equipment used in throws

## End of topic assessment

### Multiple choice

Choose the correct answer.

- The sprint start is made up of \_\_\_\_ stages.  
A. two                      B. three                      C. four                      D. five
- During sprinting we use \_\_\_\_\_.  
A. low arm                      B. high arm                      C. high knee                      D. low knee
- The lines marked on the track are called \_\_\_\_\_.  
A. lines                      B. lanes                      C. marks                      D. tracks
- During the set position, you must raise the \_\_\_\_\_ slightly higher than the shoulders.  
A. legs                      B. hands                      C. head                      D. hip
- How many members form a team in 4 x 100 m relay race?  
A. Four                      B. Five                      C. Six                      D. Seven
- Which one is a long distance race?  
A. 100 m                      B. 60 m                      C. 200 m                      D. 10000 m
- In which race is implement used in athletics?  
A. 800 m                      B. 100 m                      C. hurdles                      D. relays
- The winner in a race is the one whose \_\_\_\_\_ crosses the finish line first.  
A. torso                      B. head                      C. hands                      D. legs
- Which one is not part of the sprinting technique?  
A. Arm action                      B. Leg action                      C. Body position                      D. Jumping
- What is the name of the starting technique used in long distance running?  
A. Sprint                      B. Flying                      C. Crouch                      D. Sitting
- In race walking, the athletes must never have both \_\_\_\_\_ off the ground.  
A. elbows                      B. hands                      C. feet                      D. knees
- A race run over different places like hills, grass and rivers is called \_\_\_\_\_.  
A. hurdles                      B. cross-country                      C. sprint                      D. middle distance
- An instrument used to measure the time taken during a race is called a \_\_\_\_\_.  
A. stopwatch                      B. scale                      C. tape-measure                      D. ruler
- In the downsweep technique, the athlete receiving a baton must form a \_\_\_\_\_ with fingers and thumb.  
A. circle                      B. j-shape                      C. v-shape                      D. t-shape
- The height of hurdles for primary school level girls is \_\_\_\_\_.  
A. 84 cm                      B. 76 cm                      C. 50 cm                      D. 100 cm

16. Which one is not a stage in jumps?

- A. Approach      B. Grip      C. Landing      D. Take off



A.



B.



C.



D.

17. Which implement is used in discus?

18. Hop, step and jump are stages of \_\_\_\_\_ jump.

- A. pole vault      B. long      C. high      D. triple

19. On which part of the body do you place the shot before you throw?

- A. Chest      B. Head      C. Elbow      D. Neck

20. In javelin we use the \_\_\_\_\_ grip.

- A. forefinger      B. two hands      C. one finger      D. palm

### Practical questions

**Answer the following questions.**

- The first two stages of jumps are \_\_\_\_\_ and \_\_\_\_\_.
- The type of vertical jump where a long metal pole is used is called the \_\_\_\_\_.
- \_\_\_\_\_ and \_\_\_\_\_ are two types of throws in athletics.
- Which type of throw must be done inside a fenced area to avoid accidents?
- The two types of grips in javelin are \_\_\_\_\_ and \_\_\_\_\_.
- All throws should land in a \_\_\_\_\_ area.
- Name two materials used to manufacture a baton.
- Draw a javelin and label the following parts
  - Head
  - Shaft
  - Cord grip
- During sprinting, the feet must push hard on the ground in the \_\_\_\_\_ action.
- The two stages of the flying start technique are \_\_\_\_\_ and \_\_\_\_\_.

### Practical assessment

**Demonstrate the following:**

- The sprint start.
- The hurdling using low obstacles.
- The throwing technique in shot put.

## space awareness

### what you will:

1. demonstrate moving into space
2. demonstrate covering open space
3. discuss the advantages of moving into space
4. explain the disadvantages of moving into space.

Invasion games are played by two opposing teams. One team plays to win the space of the other team in order to score. Examples of the most popular invasion games in our schools are soccer, netball, rugby and handball.



invasion

offence

defence

space

**Invasion** games like soccer, netball, rugby and handball are amongst the most popular games in the world over. Invasion is when one enters into another's territory by skill or force. In these games the players aim to win the ball from the opposing team and score goals in the opposing team's goal area.

in the following invasion games you are going to learn about:

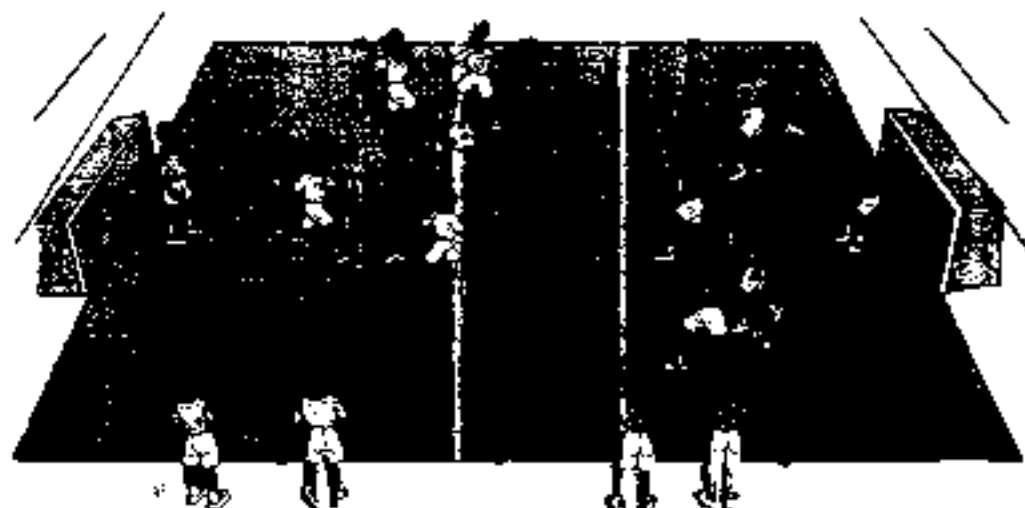
- Attacking and defending skills used in the games
- Safety requirements
- Type of equipment
- Positioning of players
- Rules of the games

- Advantages of moving into space
- Disadvantages of moving into space

1. **Name of game:** Passing football

**Skills used in the game:** passing, catching, shooting, dribbling, space awareness

**How to play the game:**



- Form teams of five members each
- Use a space of 25 m by 16 m for the game
- One member of the team is a goalkeeper
- Play the game in the same way as football
- The game is played indoors or outdoor at the playfield.

**Equipment needed to play the game:** balls, a bib for the three point player, shoes with rubber soles, shin guards.

**Number of players:** 5 for each team

**Rules:**

1. There are two periods of 10 minutes each for the game
2. Only the goal keeper is allowed to use hands and feet
3. You are not allowed to score directly without passing to a teammate
4. A direct free kick can be awarded to the opposing team if a player kicks, trip or opponent.



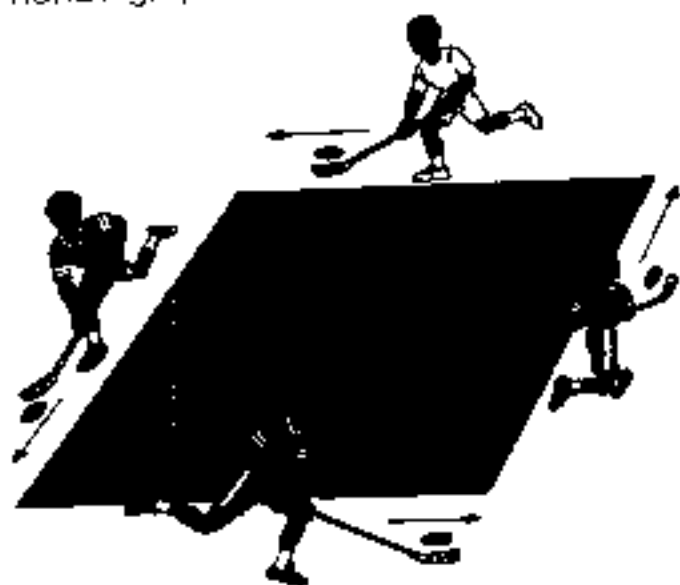
Demonstrate the 'passing football game' in your groups.

## 2. Name of game: Square hockey

**Skills used in the game:** dribbling, stick handling, space awareness

### How to play the game:

- Form four teams of 5 members each
- Each team stands on one side of a 10 metre square
- Each member of a team is given a number
- Mark a 30 cm circle in the middle of the floor
- Place 4 flat discs in the circle
- When a number is called all players with the number run to the middle and dribble a disc out of the circle through the spot where you were standing
- Drive the disc in a clockwise direction around the square and back to the starting point and to the circle
- The game continues until all the members of the team have their turns
- The first player to reach the circle scores 4 points to the team the second player scores 3 points
- The team which scores most points is the winner.



**Equipment needed to play the game:** plastic discs, hockey sticks, chalk board for recording, tape measure for recording the distances

**Number of players:** 5 per team

### Rules:

- Use the correct direction when moving with the disc
- Each team stands on one side of the 10 m square
- Move only in the expected path as you drive the disc.

## Advantages of moving into space

The following are some of the advantages of moving into space when playing invasion games:

- Players will learn how and to move off the ball.
- It helps to receive the ball.
- It helps players to control the ball.
- Moving into **space** at the right time allows players to make decisions. Space is an unoccupied position.
- It allows players to be able to look around them and find ways of working with the other players.

### Advantages of moving into space

Moving into space is a good skill for invasion games; however, it has the following disadvantages:

- It allows your opponents to know the next movements you are planning to do.
- It can affect the way the team plays in the event of losing the ball.
- You can open space in your own territory.

### Exercise 1

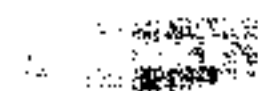
1. Name four skills used in invasion games.
2. Explain how the square hockey game is played.
3. Give one advantage and disadvantage of moving into space.
4. A game called 'passing football' is played by \_\_\_\_\_ players aside.
5. What are the rules of the 'passing football' game?



## Positioning



1. demonstrate proper positioning within boundaries
2. demonstrate proper positioning with team mates and opponents.



In most games it is important to be in the right position in order to catch or pass the ball to your teammate.



### Key words

playing position

goal crease

touchdown

In game skills players are expected to maintain their **playing positions**. These determine the roles that players have in the game. For example, some defend while others attack. The following games can help you to practise and maintain positions when playing invasion games.

1. **Name of the game:** Touchdown ball

**Names of positions:** goalie, two defence players, three forwards

**Skills used in the game:** positioning, space awareness, passing, catching, defending, attacking

**How to play the game:**



Touchdown ball

- Form teams of six players.
- The players take their positions as shown in Figure 18.1.
- The goalies must be in a marked area called a **goal crease**. A goal crease is a line that shows the goal area.



- Each team wears its own colour of bibs.
- A player from the team that wins the toss gets the ball and stands on the centre line.
- The team that won the toss starts the game by passing to a teammate.
- They continue passing until they manage to throw to their goalie to score a **touchdown** which is six points. A touchdown is a six-point score made by carrying or passing the ball into the end zone of the opposing side.
- The other team must defend so that the ball is not passed to the goalie.
- After a team has scored, the other team restarts the play by a pass at the centre.

**Equipment needed to play the game:** a rugby ball, bibs

**Number of players:** 6 players

**Rules:**

1. Only the goalie is allowed inside the goal crease and is the only person allowed to score. Goalies occupy the opposite sides of their teams where they will score by receiving balls from their teams.
2. After an unsuccessful shot at goal, the goalie will start the ball by kicking to a teammate.
3. Holding the ball for more than three seconds is not allowed.

2 **Name of game:** Positions in baseball

**Names of positions in baseball:** batter, pitcher, catchers, short stop, right field, left field and centre field.

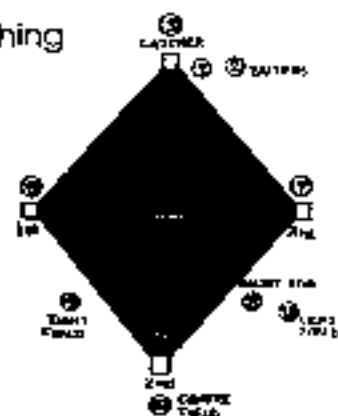
Batters hit the ball using a bat, the pitcher throws the ball to the batter, a catcher catches balls the batters fail to bat, and field players catch the ball after it is hit by the batter.

Players must keep their positions during the game. Each position is numbered as shown in Figure 18.2.

**Skills used in the game:** batting, throwing, fielding, catching

### How to play the game:

- The game is the same as baseball.
- Batters work together as a pair.
- Pitcher throws the ball to the batter who hits the ball and decides to run to the first base or other bases.
- The second batter will try to get the first batter home (the starting position).
- Fielders must catch flying balls before any of the batters reaches the base, then the batter is out.



DATE

- When a batter is out, all players rotate on position. For example, from batter to right field following the numbers.
- This allows all the players to play all positions.

**Equipment needed to play the game:** two bats, one softball, one home plate and three base plates, several gloves

**Number of players:** 9-11 players

**Rule:**

1. Rotate in the correct order.

1. How many points are a 'touchdown' score?
2. Name the positions of players in baseball.
3. What are the roles of the batter and the pitcher in the baseball game?
4. What are the rules of the 'touchdown' ball?
5. Name the equipment used in a game of baseball.

Demonstrate the 'touchdown' ball game.

## 19

### Reaction

1. execute principles of attack and defence.

Speed is needed when throwing and catching the ball in most games.



Key word

reaction

There is need for quick reaction in all invasion games so as to win a ball, move fast enough to reach a ball or to defend a ball. **Reaction** is the ability to move fast in order to receive or send a ball. The following game can help to improve the players' reaction skills:

1. **Name of game:** Two goal football

**Skills used in the game:** attacking, defending, positioning, reaction, kicking and dribbling

**How to play the game:**

- Form two equal teams and have one team wear bibs of one colour
- Use soccer field or basketball court
- Each team has two goal areas to defend
- Choose a goalkeeper for each goal area
- Each team gets a ball and place it at the centre. On the signal kick the ball into play
- Try to score a ball at either of the opposition's goal areas



**Equipment needed to play the game:** a ball, a set of bibs per team, cones or four portable goals.

**Number of players:** 6

**Rules:**

1. You may touch the ball using any part except your arms from shoulders to finger tips with exception of the goalkeeper.
2. Only the goalkeeper is allowed to handle the ball with their hands.
3. If a player touches the ball with hands or arms the other team gets a free kick.

The following are some of the basic principles for attacking in invasion games:

- a. Being able to move inside and behind the defenders of the other team.
- b. Being able to change the way you attack so that the other team will not know the playing style you want to use.
- c. Making use of the width of the field to spread out the defenders.
- d. Being able to move in different ways to score.

### Principles of Defending in Invasion Games

Defending in invasion games requires players to play as one team and avoid making mistakes that can cost the whole team. The opposing team should not be allowed to score. The following are some of the ideas that can be used in defending:

- a. To delay by slowing down the game through passing to each other.
- b. Provide defence which does not allow the other team space to attack.
- c. Being able to provide defence in all areas of the field.
- d. To concentrate and avoid simple mistakes.
- e. Be able to play as a team.

Design your own game which involves attacking and defending using a ball. Demonstrate the game.

1. Reaction is \_\_\_\_.
2. Name three skills used in two goal football.
3. Name two principles of attacking in invasion games.
4. Name two principles of defending in invasion games.

## Summary

- Invasion games involve attacking and defending.
- Space awareness is an important skill in invasion games.
- Several skills such as passing, shooting, dribbling, catching, defending and attacking are used in invasion games.
- Correct positioning of players is very important in all invasion games.
- Some players can be positioned as defenders, others as attackers and others as forwards.
- The ability to react to a situation is important in invasion games.
- Accurate reaction is needed when passing, shooting, dribbling and catching.

## Summary

<b>invasion</b>	– taking over the opponent's space in order to score
<b>touchdown</b>	– a score by dropping the ball in the goal crease
<b>goal crease</b>	the marked area in a play field where a touchdown is made
<b>space</b>	– open area not occupied by players
<b>offence</b>	– the way of moving the ball in order to score
<b>defence</b>	– protecting a ball from attack
<b>positioning</b>	– moving in space in order to receive or pass
<b>batter</b>	– the player who strikes the ball using a bat in baseball

## End of topic assessment

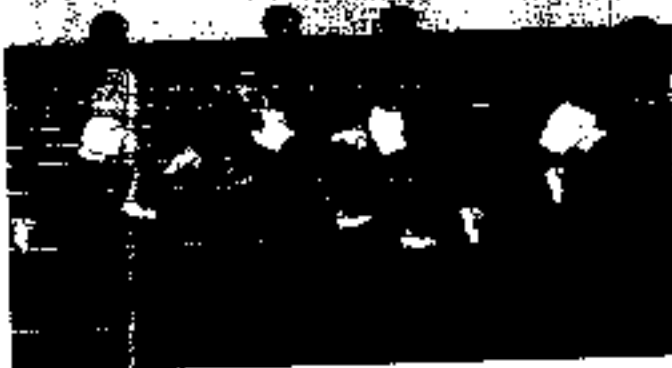
### Multiple choice

Choose the correct answer.

1. \_\_\_\_ is an example of an invasion game.  
A. High jump                      B. Soccer                      C. Shot put                      D. Relay
2. The following are invasion games except \_\_\_\_\_.  
A. rugby                      B. soccer                      C. cross country                      D. netball
3. Invasion games aim to \_\_\_\_\_ goals in the opposing team's goal area.  
A. defend                      B. attack                      C. remove                      D. score
4. The player allowed to handle the soccer ball with hands is the \_\_\_\_\_ in two goal football.  
A. midfielder                      B. striker                      C. goalkeeper                      D. defender
5. A foul in invasion games is when a player \_\_\_\_\_.  
A. falls down                      B. kicks or trips an opponent  
C. violates the rules of the game                      D. celebrates a score
6. The following are awarded as a penalty in soccer except \_\_\_\_\_.  
A. red card                      B. toss                      C. free kick                      D. throw in

In any race a good finish can make the athlete win. The winner in a race is a person whose trunk or **torso** crosses the finish line first. The torso is part of the human body from the shoulders to the hips excluding arms and legs.

Every athlete should fight hard throughout the race to cross the finishing line first. The race is not complete until the finishing line is crossed. To finish the race, you must do the following:



- When you are about three strides from the line, pull your arms back.
- Push your chest and shoulders forward as you cross the line
- Keep looking ahead
- Do not look around at the other athletes.

1. Name the three stages of the sprint start.
2. Running is made up of \_\_\_\_\_ and \_\_\_\_\_ distance activities.
3. The lines marked on the track are called \_\_\_\_\_.
4. During the set position, you must raise the \_\_\_\_\_ slightly higher than the shoulders.
5. A \_\_\_\_\_ is used to start a running event in athletics.
6. During running, the feet must push hard on the \_\_\_\_\_ of the feet with powering action.
7. All running events which require speed are called \_\_\_\_\_.



8. What is the name of the position shown in the picture above.
9. The winner in a race is the one whose \_\_\_\_\_ crosses the finish line first.
10. Describe two skills that make up the sprinting technique.

7. A defender's role is to \_\_\_\_\_.  
 A. score a goal  
 B. catch the ball  
 C. pass the ball  
 D. prevent an opponent from scoring
8. In order to start the game, a team needs to win a \_\_\_\_\_.  
 A. ball                      B. net                      C. score                      D. toss
9. In baseball a \_\_\_\_\_ throws the ball to the batter.  
 A. Batter                      B. Pitcher                      C. Goalkeeper                      D. Catcher
10. In soccer if a player handles the ball with their hands it is a \_\_\_\_\_.  
 A. score                      B. award                      C. foul                      D. win

### Structured questions

#### Answer the following questions.

1. State any three advantages of moving in space in invasion games. [3]
2. Define playing position. [1]
3. State three playing positions in baseball. [2]
4. Why are rules important in invasion games? [2]
5. Give a principle of attack in invasion games. [1]

1. Practice the "Touch down" ball game in your groups.

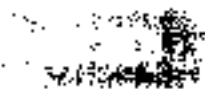
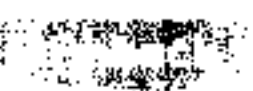


Figure 20.1: A person in a dynamic pose, possibly a martial artist or athlete.



1. aim stationary targets from within a 40 m distance
2. aim at average moving target for height with different shapes after a short run and jump.



In target games, players score when they successfully throw or strike an object. Examples of target games are golf, darts, and archery.



target games

pins

bullseye

fielding

**Target games** are games where players score when they successfully throw or strike an object closer to a target than their opponents were able to. The following are examples of target games that you can play to improve your ability to aim at targets:

1. **Name of game:** Pin bowling

**Skills used in the game:** throwing, aiming, targeting, stance

**How to play the game:**

- The bowler will hold the ball with one hand and one leg behind the other
- Using the under arm throw roll the ball on the floor to move towards the **pins** arranged as shown in Figure 20.1. Pins are the target of a bowling game.





- Each player has two chances to knock down as many pins as possible with their bowling ball.
- If you knock down all pins with your first ball you get ten points.

**Equipment needed to play the game:** ball, pins.

**Number of players:** individuals

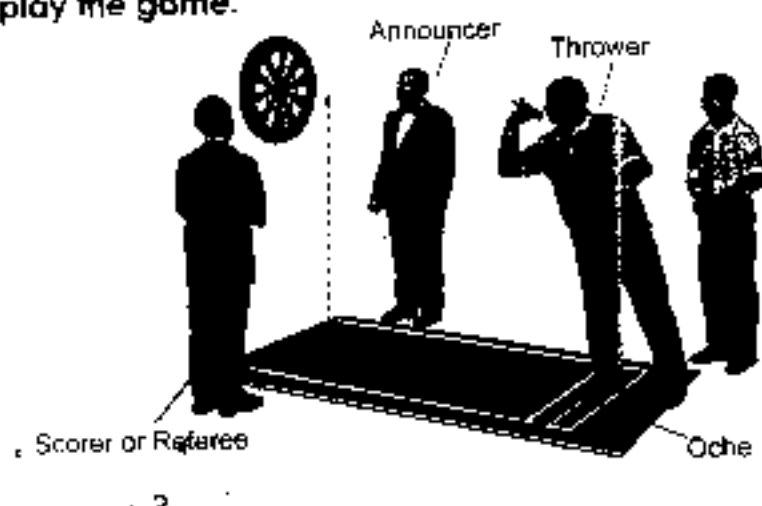
**Rules:**

- A bowler has two turns to knock down all the ten pins.
- The ball should roll on the floor not to be thrown to the pins.

2. **Name of game:** Darts

**Skills used in the game:** throwing, aiming, stance

**How to play the game:**



- Take turns to throw arrows called darts at a circular board.
- The idea is to score from 200 to 0 in fewer throws than the other player.
- The game is about accurate aim.
- Stand facing the dart board which is 2 m away.
- Hold the dart high above the shoulders as shown in Figure 20.2.
- Throw aiming at a number on the dart board or the centre of the board which is called the **bullseye**.

**NB** At this level you can make use of flat magnetic arrows which are not sharp.

**Equipment needed to play the game:** darts, dart board a mat and a stand.

**Number of players:** 2

**Rules:**

- To calculate the points subtract the points for the three throws from the present total.
- Always throw using one hand.



- Each player is allowed three throws per chance.
- The winner is the first player who reduces the score to zero.

3. **Name of game:** Hit and run

**Skills used in the game:** throwing, aiming, stance.

**How to play the game:**



Figure 1.10: Hit and Run game in progress

- Form two teams, one batting and the other **fielding**. Fielding is to catch or pick up the ball after it has been hit in a game such as cricket or baseball, and to try to prevent the other team from scoring.
- The fielding team must have a pitcher, fielders, one long base player and a catcher.
- When the batter hits the ball they must run to the long base and return home if possible.
- A point is awarded for reaching the long base and another to the home base.
- If it is not safe to return home a base runner must stay in the long base.
- Runners are allowed to be on the same base at the same time.

**Equipment needed to play the game:** tennis ball, baseball/cricket bat, three mats for a long base, pitcher's box and a home plate.

**Number of players:** 8 per team

**Rules:**

- A runner on the long base may run only when the ball has been hit by a batter.
- The team that scores more runs is the winner.

Form teams of five members each and demonstrate the pin bowling game.

1. \_\_\_\_\_ games are games where players score when they successfully throw or strike an object closer to a target.
2. \_\_\_\_\_ and \_\_\_\_\_ are target games.
3. Two skills used in target games are \_\_\_\_\_ and \_\_\_\_\_.
4. What safety measures can do you need when playing darts?
5. How many players form a team in a hit and run game?
6. \_\_\_\_\_ and \_\_\_\_\_ are equipment used when playing darts.
7. What is the name of the centre part of a dart board?
8. Give one rule for the hit and run game.

## 21

## Stance

### In this unit you will

demonstrate the correct postures in readiness to execute skill.

### Introduction

Combat games are games that are played by players who fight each other to find the winner. Combat games are fun and players must play safely and fairly.



#### Key words

stance

crouch stance

judo

karate

### 1.1

A **stance** is a balancing position in sporting activities. It can also be referred to as the posture. In sports the correct stance helps the body to balance, to be able to move and to reduce injuries. Being aware of a good stance is the first step in positioning the body. A correct stance is required in most of the games such as tug of war, cricket, basketball, tennis, darts, archery and karate.

The following are examples of stances that different players must take in order to perform well in the games:

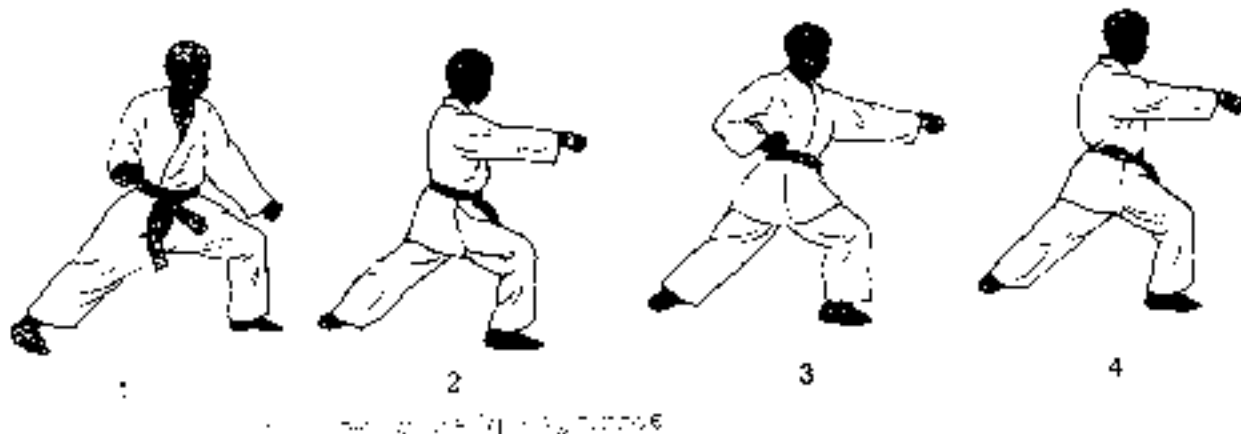
#### a. Crouch stance

The wicket keeper has to use the **crouch stance** in order to see all the balls coming and be ready to catch them. The feet are shoulder width apart. The body weight is balanced on the balls of the feet in order to move with speed to catch the ball.



Figure 1.1 Crouch stance by the wicket keeper

## b. Karate fighting stance

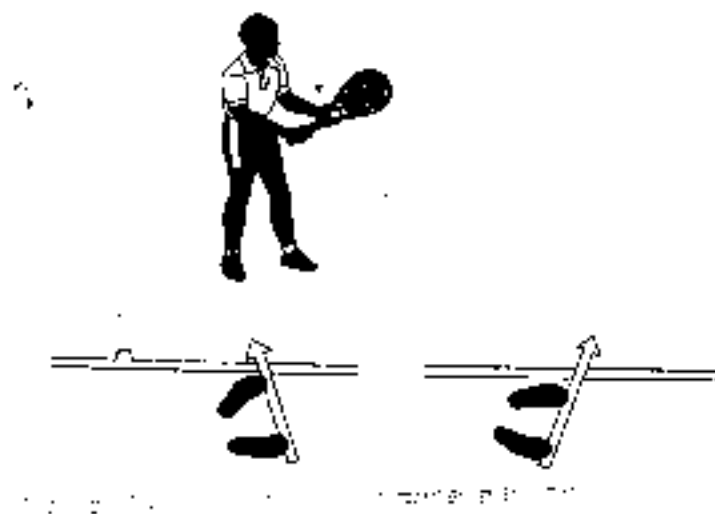


- Stand in the fighting stance as in Figure 21.2 picture 1.
- Slide the back foot forward and punch to the chest level using the right hand.
- Punch again with the left hand without stepping forward.
- Punch again with the right hand to the stomach level.

Always maintain the correct stance as you punch by bending the knee of the front leg so that you will not see the front leg.

## c. Serving stance in tennis

- Stand with feet shoulder width apart.
- The racket is held in front of the body with the wrist and the arm relaxed. See Figure 21.3.
- Knees should be slightly flexed.



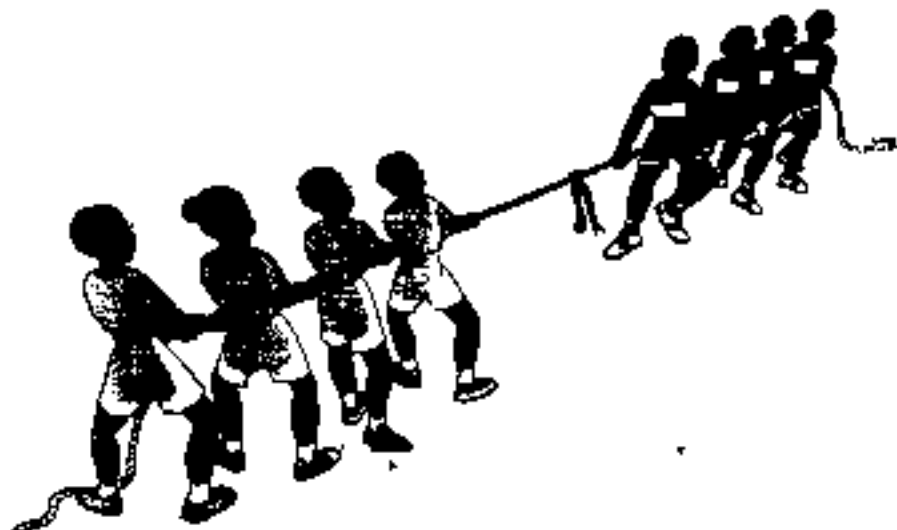
Demonstrate the correct stance for the wicket keeper.

The following are examples of combat games where different stances can be practised.

**1. Name of game:** Tug of war

**Skills used in the game:** pulling, gripping, balancing, coordination

**How to play the game:**



- Form two teams of four players each
- Teams pull opposite each other by holding the rope
- The team that pulls the other team across the centre line on the ground, wins the game.

**Equipment needed to play the game:** strong rope

**Number of players:** 4 players per team

**Rules:**

1. The rope used should be marked in the middle with a centre line and 2 marks about 4 m from the centre line.
2. At the start of the pull the centre line should be above the centreline marked on the ground.
3. Nobody's elbow should go above the knee.

**2. Name of game:** Judo

Judo is one of the Japanese games involving fighting by grabbing and pulling down the opponent.

Only practise this skill in the presence of the teacher.

**Skills used in the game:** pulling, gripping, stance

### How to play the game:



- Stand with the right leg in front and grab your partner's right hand near the shoulder.
- As you grab, turn your body so that your partner's weight is on your back.
- Bend your knees and move the body forward.
- Pull your partner over the shoulder so that he or she drops on the mat on the back.
- Keep on holding on your partner as he or she drops on the mat.
- Always maintain the stance as you perform the skill.

**Equipment needed to play the game:** gym mat, suitable judo dress

**Number of players:** 2

#### Rules:

1. Wear appropriate attire.
2. Practise the skills on a gym mat to avoid injuries.
3. Do not use excess force on your opponent.
4. When an opponent signals that he or she is in pain stop the activity.

Demonstrate the punching from the karate fighting stance.

1. What is a stance?
2. Give two reasons why a correct stance is important in target and combat games.



- Name one combat game.
- What are the important skills used in tug of war?
- What is the name of the Japanese sport which involves grabbing and pulling the opponen?
- State two rules for safe practise of judo.

#### • Summary

- In target games the ability to aim is very important.
- In combat games the ability to use the correct stance helps in executing the skill correctly.
- Sports like judo and karate are very good combat games.
- In all striking games, correct grip and stance helps the players to aim at a target.

<b>stationary</b>	- not moving
<b>Judo</b>	- Japanese fighting sport which involves throwing opponent by grabbing
<b>karate</b>	- Japanese fighting sport which involves punching, kicking and blocking
<b>pins</b>	- cone shaped equipment used in the sport of pin bowling
<b>combat</b>	- compete in order to win
<b>stance</b>	- a balancing position in sports like in karate
<b>target</b>	- an object that you aim at

### End of topic assessment

#### Multiple choice

Choose the correct answer.

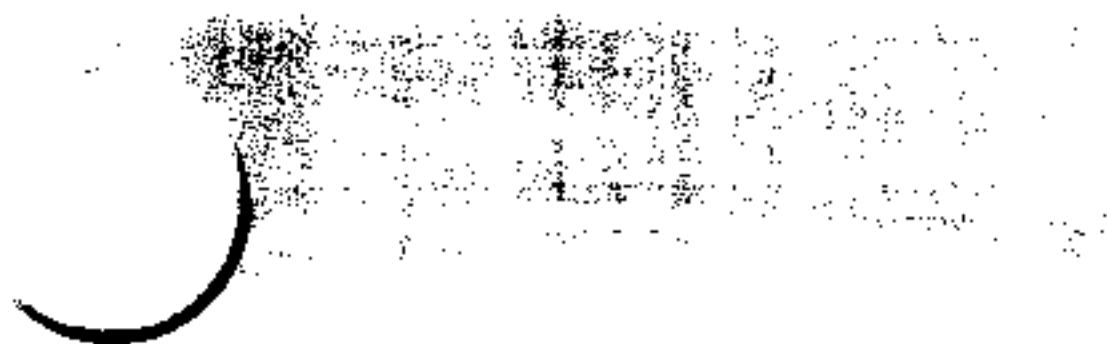
- In a bowling game the targets are called \_\_\_\_\_.  
A. balls                      B. pins                      C. darts                      D. club
- If you knock down all pins with your first bowling ball you get \_\_\_\_\_ points.  
A. 20                      B. 5                      C. 10                      D. 6
- In darts, the dart board is \_\_\_\_\_ metres away.  
A. 5                      B. 2                      C. 7                      D. 10
- Aiming at the centre of the dartboard is called a \_\_\_\_\_.  
A. bullseye                      B. touchdown                      C. score                      D. goal



5. The player who hits the ball in cricket is called a \_\_\_\_\_.  
 A. pitcher                      B. fielder                      C. batter                      D. catcher
6. The following is an example of a target game.  
 A. Tennis                      B. Soccer                      C. Handball                      D. Golf
7. Sports equipment used in tennis is a \_\_\_\_\_.  
 A. bat                      B. club                      C. dart                      D. racket
8. Judo is a \_\_\_\_\_ game.  
 A. Zimbabwean                      B. Indian                      C. Japanese                      D. American
9. A target game that involves a bat is called \_\_\_\_\_.  
 A. golf                      B. darts                      C. tennis                      D. cricket
10. The following is a combat game except \_\_\_\_\_.  
 A. judo                      B. karate                      C. tennis                      D. wrestling

Section 2: Short Answer Questions

1. Equipment used in golf are \_\_\_\_\_ and \_\_\_\_\_. [2]
2. Equipment used in bowling are \_\_\_\_\_ and \_\_\_\_\_. [2]
3. When you aim at the centre of the dartboard, it is called a \_\_\_\_\_. [1]
4. Which two equipments are used in tennis? [2]
5. State 3 playing positions of a fielding team in baseball. [3]



1. perform strokes for height, spin, distance and power
2. strike the ball or object to a target over a specified distance
3. strike the ball or object over a barrier not more than 1.5m in height.

Net games are activities in which players send an object towards a court or target area that an opponent is defending. The aim is to cause the object to land in the target area while making it difficult for the opponent to return the object. Net games include Volleyball, Tennis, Squash, and Wheelchair Tennis.

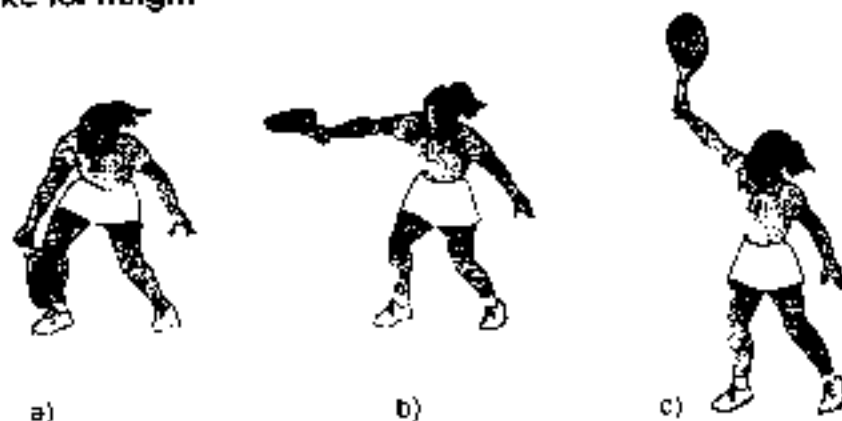


Most of the net games make use of strokes. The strokes are important movements a player performs to hit a ball using a racket. The strokes are used in the following net games: lawn tennis, table tennis, and squash. Examples of stroke are forehand, backhand, volley, and smash.

Strokes are performed for different purposes and situations. For example we have strokes for:

1. Height
2. Spin
3. Distance
4. Power

## 1. Stroke for height

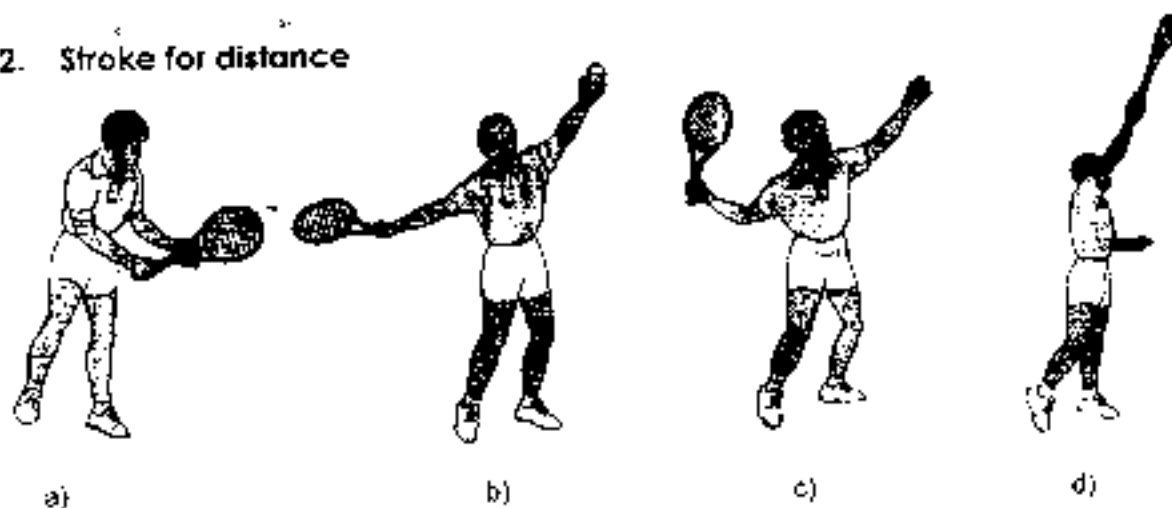


The lob is a high stroke used as a defence shot to move the opponent away from the net.

To practise the lob:

- Hold the racket correctly and stand in a ready position.
- Move into the position quickly.
- Open the racket face to contact the ball as shown in Figure 21.1 a).
- Swing the racket upwards to drive the ball over the opponent near the net as shown in Figure 21.1 b), and Figure 21.1 c).
- Follow through to give the ball direction.

## 2. Stroke for distance



The serve is an example of a stroke for distance. It is used to drive the ball a long distance. To practise the stroke, follow the stages below:

- Hold the racket using the correct grip and stand in the ready position as shown in Figure 22.2 a).



- Toss the ball up using your left hand and swing the racket backwards.
- Drive the racket to hit the ball above the head as shown in Figure 22.1 c).
- Hit the ball and follow through as shown in Figure 22.1 d) to give the ball direction.

### 3. Stroke for spin

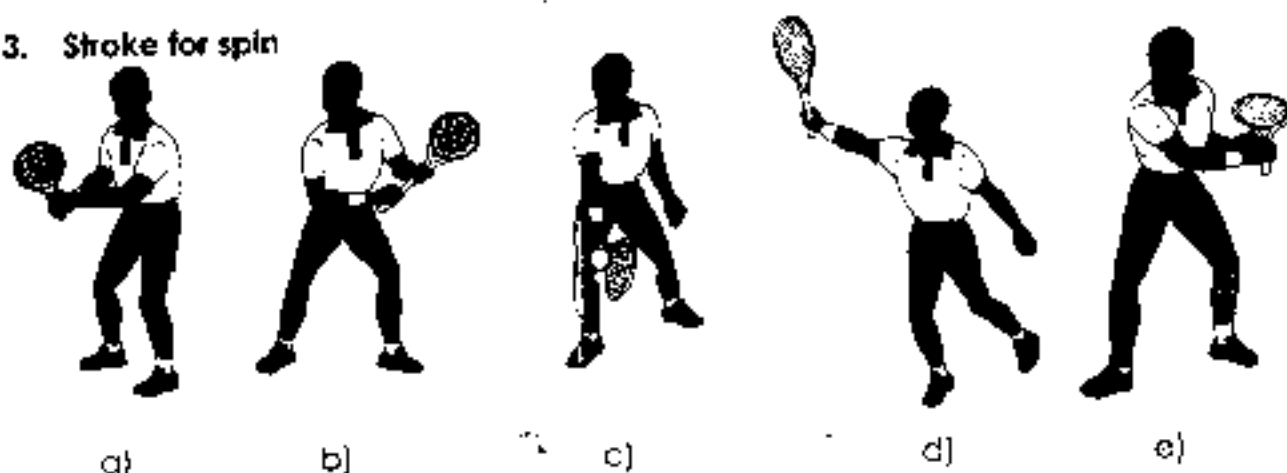


Figure 22.3 Spin stroke

The spin stroke causes the ball to rotate as it moves forward. It is one of the most difficult strokes for the opponent to return. To practise the spin, follow the stages below:

- Hold the racket using the correct grip and stand in the ready position as shown in Figure 22.3 a).
- Push the racket backwards above the level of the approaching ball.
- Open the racket face and swing the racket forward to contact the ball as shown in Figure 22.3 c).
- The racket must continue to follow the ball towards the target.

### 4. Stroke for power

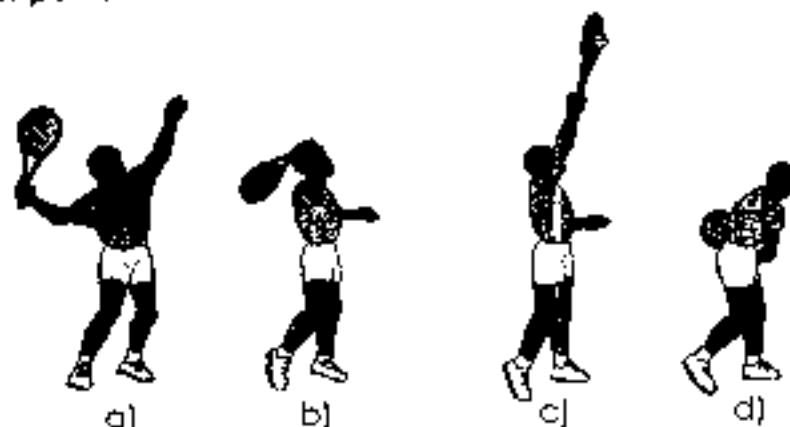


Figure 22.4 Smash stroke

The smash is an example of a power stroke which makes it difficult for the opponent to return. To practise the power stroke:

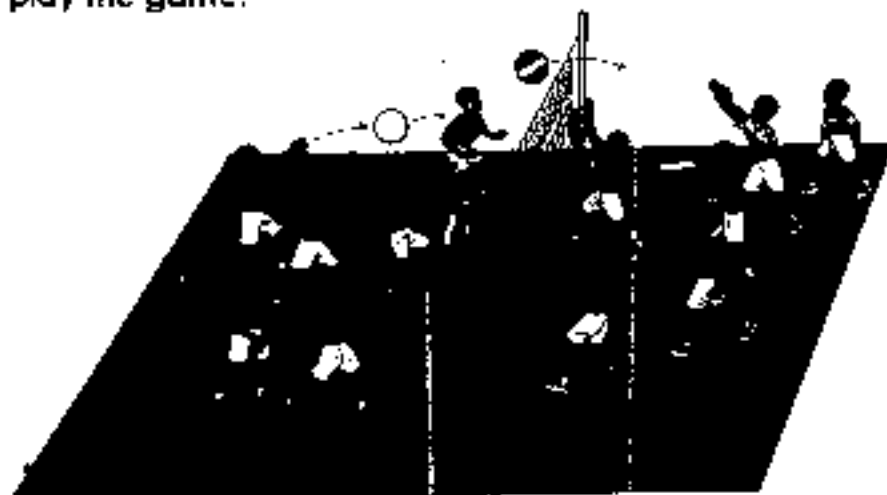
- Hold the racket correctly and stand in a ready position.
- Prepare the racket for the coming ball.
- Move quickly.
- Keep your head up and watch the ball.
- Stretch your hand as shown in Figure 22.4 c) to hit the ball and follow through.
- Return to the ready position.

An example of a net game that we can play is the 'battle ball'. To play the game, follow the steps given below.

**Name of game:** Battle ball

**Skills used in the game:** positioning, volleying, tossing, passing

**How to play the game:**



- Form two equal teams.
- Each team goes on one side of the net.
- Each team should have three volleyballs and the other team with an extra volleyball.
- On the signal "ball" players with a ball toss the ball up and over the net so that after each quarter of two minutes the team with fewer balls on its side is the winner.
- Exchange sides and keep on playing.

**Equipment needed to play the game:** 7 volleyballs, a net

**Number of players:** 6 per team

**Rules:**

1. Pass the ball over the net by volleying it
2. Only use hands to play the game
3. Do not hold on to the ball
4. You are not allowed to go to the other side of the net.



## Activity 3

Practise the strokes for distance and height.

## Task 1

1. Three examples of strokes used in tennis.
2. Explain how the stroke for height is done.
3. The smash is an example of a \_\_\_\_\_ stroke.
4. The stroke which causes the ball to rotate is called \_\_\_\_\_.
5. A high stroke used as a defence stroke to move the opponent away from the net is called the \_\_\_\_\_.
6. A serve is an example of a stroke for \_\_\_\_\_.

## Task 2

- Net games are games played where a net divides the playing area like tennis and volleyball
- Different strokes are used in net games that include forehand and backhand
- These strokes are for height, distance, spin and power

## Task 3

<b>strokes</b>	- ways of returning the ball in tennis
<b>lossing</b>	- throwing the ball upwards
<b>spinning</b>	- rotating of a ball after being struck
<b>opponent</b>	- the team or player you are playing against

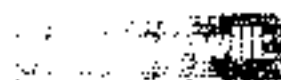
## Practical assessment

Demonstrate the following strokes:

1. Height
2. Spin
3. Distance
4. Power.

## Striking games

Learning Objectives



1. explore ways of enhancing grip
2. exhibit correct grips for the skills in striking
3. demonstrate stances for skills in striking game
4. demonstrate the orientation when striking target objects
5. distinguish between underhand and forehand movement patterns.

Striking games are played using rackets, bats and balls. Examples of the striking games are cricket, baseball and softball. There are different types of grips in striking games.

Striking games are played using rackets, bats and balls. Examples of the striking games are cricket, baseball and softball. There are different types of grips in striking games.



Striking games can be performed well if the **grip** skill is correctly mastered. A grip is a way of holding striking equipment such as rackets and bats to hit shots during a game.

### Gripping the ball in baseball

To practise the grip for baseball the following points have to be followed:

- Place index and middle finger across the wide **seams**. Seam is when you join two pieces of cloth or leather by sewing. A baseball has one continuous seam.
- Hold the ball on the inside edge of the thumb.
- Relax your hand.



Figure 14.1: Grip in baseball

Practise the skill by tossing the ball in the air and catching it.

### Gripping the ball in cricket

To practise the basic grip for cricket the following steps can be followed:

- Place the middle and the index finger apart on the seam.
- The thumb should be on the seam under the ball.
- Relax your hand.



### The bat grip for baseball

To practise the grip for baseball follow the steps below:

- Place the handle of the bat in your bottom hand.
- Place the end of the bat on the ground in front of your front foot.
- The index finger from your bottom hand should be bent around the bat.
- Hold the bat in your fingers trying to keep it out of the palm of your hand as much as possible.
- Grab the handle in your fingers using the top hand.
- Keep the bat as light as possible.



### The bat grip for cricket

To practise the basic grip for cricket the following steps can be followed:

- Lie the bat face down on the ground with the handle pointing towards you.
- Pick the bat with both hands in the middle of the handle.
- Hold your bat the way you would hold the axe.
- A V-shape is formed by the thumb and forefinger.



Diagram illustrating the V-shape formed by the thumb and forefinger.

### The batting stance

A correct stance is needed in striking games. It helps players to balance when striking the ball using a bat or a racket.





a)



b)



c)

- Stand with feet shoulder width apart facing sideways.
- Flex the knees and ankles.
- Front shoulder should point at pitcher.
- The weight of the body should be on the balls of feet.
- Rotate your hips inwards to get ready to hit the ball.
- Hit the ball and finish with follow through.



1. Demonstrate the following:
2. Grip for baseball bat
3. Grip for cricket ball
4. Batting stance for baseball

#### Advantages of a baseball grip

- a. The bat speed will be faster and the whole body will be relaxed.
- b. The bat will be in the right position to hit the ball.
- c. Hands will be able to change position quickly according to the movement of the ball.
- d. It increases chances of hitting the ball.

#### Disadvantages of a baseball grip

- a. It reduces the chances of hitting the ball.
- b. Chances of missing the ball are high.
- c. It can be dangerous because as you swing it may go off the hand and hit another player.

There are games that can help you to improve grip, stance, underarm throw and striking. See the Rotating cricket game on page 135.

**Name of game:** Rotating cricket

**Skills used in the game:** aiming, striking, gripping, catching, throwing

**How to play the game:**

- Players should be in the positions shown in Figure 23.6.
- Each player is allowed to throw the ball to the batter once.
- After throwing once, the players move from their positions once in a clockwise direction.
- The batter does not have to run after hitting the ball.
- If the batter hits the ball this counts as one score called a run.

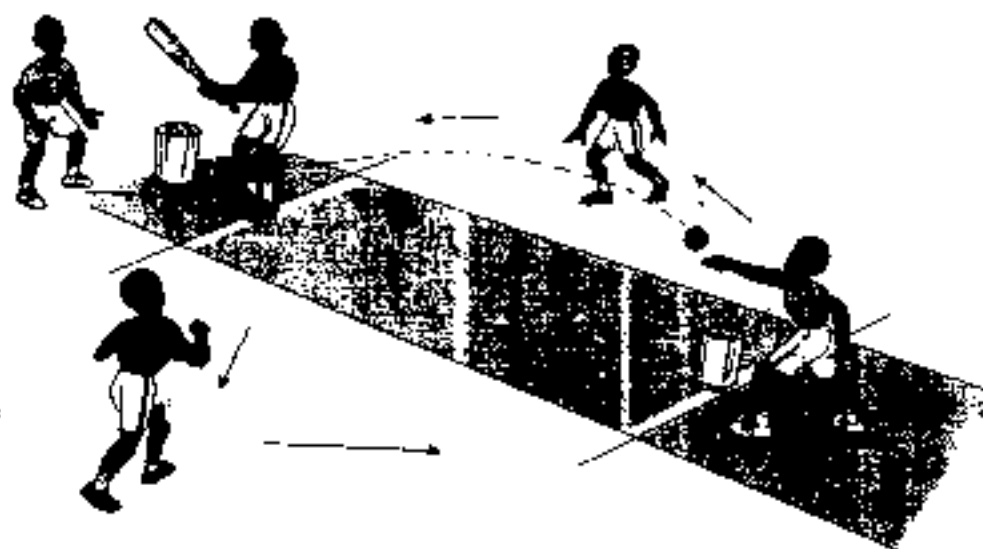


Figure 23.6 Rotating cricket

- If the batter hits a ball which drops in front of the other players he scores 2 runs.
- If he or she hits the ball that falls behind the other players he or she scores 4 runs.
- The batter can be dismissed if the ball is caught or the wickets are knocked by the ball.

**Equipment needed to play the game:** bat, balls

**Number of players:** 5

**Rules:**

1. Low balls below chest level should be thrown.



Demonstrate the 'the rotating cricke' game.

## Exercise 1

1. Name two skills used in striking games.
2. Name two games where the grip is used
3. Explain the baseball grip.
4. Which shape is formed by the thumb and forefinger in the cricket batting grip?
5. Give two advantages of a proper bat grip.
6. Give one disadvantage of a poor grip.
7. State the skills used in rotating cricket.
8. Explain the batting stance in cricket

- Striking games are played using rackets, bats and balls
- Correct grip of the ball and bat is important in striking games
- The correct stance helps the players to balance when striking the ball using a bat or a racket.

<b>grip</b>	- the way of holding equipment
<b>seam</b>	- the middle part of a cricket ball where it is joined
<b>underneath</b>	- below
<b>fielder</b>	- a player in games like cricket and baseball who catches the ball
<b>batsman</b>	- a player in a game like cricket who bats the ball.

## Assessment

In groups demonstrate the rotating cricket game.

Show the following:

- cricket ball grip
- cricket bat grip
- cricket bat stance

## Learning Objectives

### Learning Objectives

1. demonstrate cycling techniques in different environments
2. state the materials used in building a raft
3. construct water-related equipment
4. perform various water based activities.

## Introduction

There are different activities which we can do during our free time. We can travel to different places such as game parks, lakes, museums and mountainous areas. These activities are called adventures.

In groups, make a list of game parks, lakes, museums and mountainous areas in your province.



### Key Words

cyclists

mounting

dismounting

raft

Adventure games are in different forms. These include the excitement of exploring new places. When visiting new places you can do adventure games such as hiking or cycling a trail, crossing a river using a raft or canoeing or sailing.

### Cycling

Cycling is an adventure activity of riding a bicycle. Cycling is also called biking. It is the use of bicycles for transport, recreation and exercise or sport. People involved in cycling are called **cyclists**.

The bicycle is made up of the following parts:

**pedal** – used for cycling and are made of rubber or metal

**brakes** – used to reduce speed and stop the bicycle during cycling

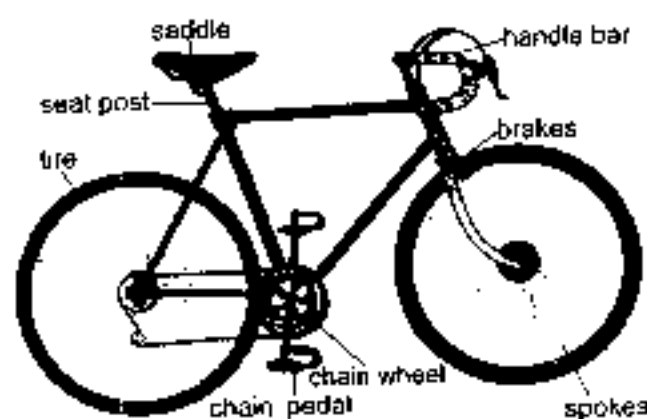
**spokes** – support the wheels

**saddle** – leather or plastic covered seats

**reflectors** – help the cyclist to be seen by other road users at night

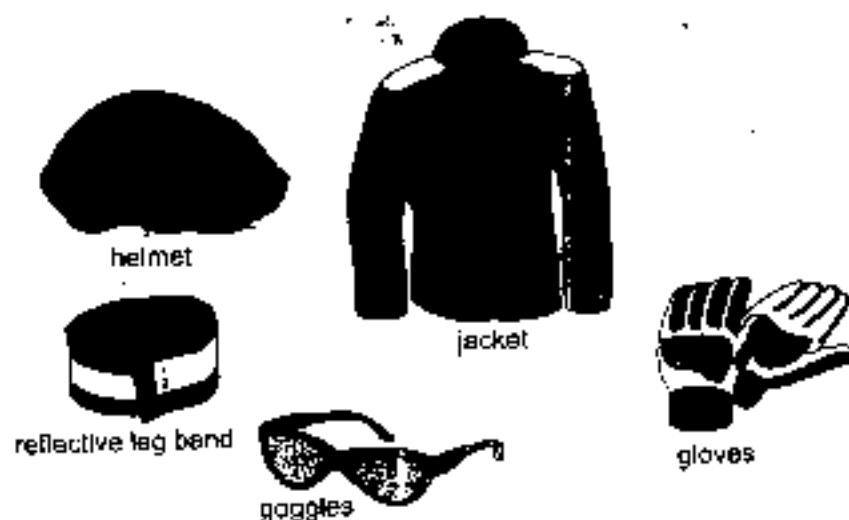
**handle bars** – for controlling the bicycle during cycling

All bicycles should have these parts because they are important for safety.



### Equipment needed for cycling

A bicycle is one of the machines used in cycling. Protective equipment such as helmet, gloves, shoes, jackets, shin or knee pads, goggles are needed for safety.



The following are safety requirements when using a bicycle.

- Wear a fitting helmet every time you ride. This reduces head and brain injuries during accidents.
- Wear gloves to protect your hands in the event of an accident.
- Protect your eyes by wearing goggles which do not break easily.
- Wear reflective jackets and trousers so that you can be easily seen by other road users.
- Wear reflective leg bands to keep long trousers away from the bicycle chain.

## Cycling techniques

When you learn to ride the bicycle for the first time, you need someone to assist you in balancing and controlling.

### 1. Mounting

**Mounting** is the skill of getting on top of the bicycle.

When mounting a bicycle hold the handlebars. Place one foot on the pedal and lift the other leg to place the foot onto the other pedal. Sit down on the saddle. Control your bicycle so that you will not fall.

### 2. Dismounting

**Dismounting** is getting off from the bicycle. To practise this skill you can use a stationary bicycle. Step down first with the higher foot followed by the lower foot. Practise removing the feet without looking at the pedals.

### 3. Control and balancing

Controlling and balance involves cycling on the road or in an open area where you are not likely to run into anything. To practise cycling along a straight path make use of empty plastic bottles to mark the lanes.

Practise the following activities:

- Cycle slowly along a lane. You need support from a friend if you cannot balance. Look forward as you cycle. Your feet should remain on the pedals and move only in a forward direction.



Figure 21.1 Mounting a bicycle



Figure 21.2 Dismounting a bicycle

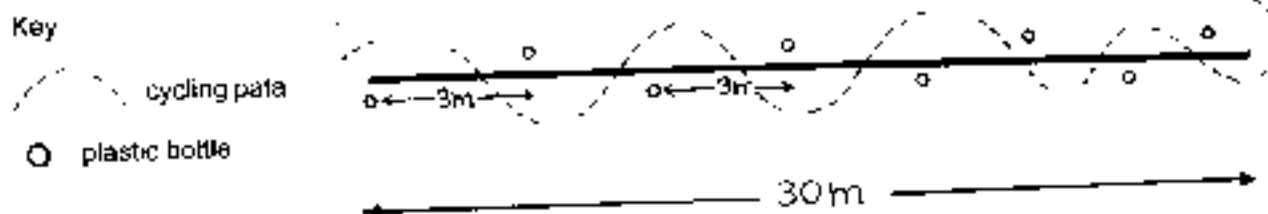


Figure 24.5

- Place empty plastic bottles 3m apart on each side of a thirty metre line. Cycle in and out of the line of empty bottles. As you cycle both front and rear wheels must not knock the bottles.

#### 4. Braking during cycling

To brake safely during cycling, keep the weight of your body far back in the saddle. Apply both brakes slowly at the same time until the bicycle stops.

#### 5. Checking traffic

When you ride along a road it is important to check traffic before taking any action like signalling to turn. To practise this activity cycle along a straight line and on signal from a partner look back over the right shoulder. Tell your partner how many fingers he is holding up.

To turn or stop always use hand signals to show the other road users your intentions as shown in Figure 24.6.



Figure 24.6

Signalling is very important because it alerts other road users of what you want to do and allow them time to react in the correct way.

#### 6. Road safety considerations

- You must obey all the road rules and traffic regulations
- Keep to the left side of the road or use a cycle track
- Avoid cycling at night but if you must do so wear reflective clothing and use lights and reflectors on your bicycle
- Watch for wet leaves, potholes, stones and broken glass on the road
- Be sure your brakes are working very well.

Figure 24.7

Ropes can be joined to form knots. The knots are used as joints in tent pitching, in mountain climbing and in building rafts. There are different types of knots that

can be used for different purposes. Examples of knots are the overhand square knot, sheet band and the lash.

The steps that can be followed in forming of an overhand knot are shown in the following pictures:

### Overhand knot

When a rope end is passed through the loop it forms the overhand knot. Pull the end enough to make it tight.

### The square knot

The square knot is used for tying two thin ropes of the same size together. This type of knot is used in first aid when tying bandages.

Put the two rope ends together, left over right. Twist the left hand rope over the right hand rope. See Figure 24.8 b).

Bring the rope ends up and these should be even with each other. Place the end in your right hand over the other and twist it behind through the bight.

Hold both ends with fingers and thumbs and pull ends out to form a knot. See Figure 24.8 c)

### Sheet bend

The sheet bend is mostly used when joining ropes of different thicknesses. It can also work well for ropes of equal thicknesses

Form a bight on the end of the thicker rope and hold it tightly in the left hand. Now pass the end of the thinner rope from below up through the bight.

Bring the end of the thinner rope over, around, and under the bight, then slip it under its own standing part where this enters the bight.

Both rope ends are now on the same side.

Hold the bight with one end and tighten the sheet bend by pulling in the other rope's standing part. Figure 24.9 shows the steps.



Figure 24.8 a) Overhand knot



a)



b)



c)

Figure 24.9 a) Sheet bend



a)



b)



c)



1. Demonstrate mounting a bicycle.
2. Demonstrate dismounting a bicycle.

1. Three examples of adventure activities.
2. What is the other name for cycling?
3. Draw the bicycle and label the following parts:
  - Pedal
  - Saddle
  - Handle bars
4. Name three equipment the cyclist needs for safety and state the safety provided by each of the cycling safety equipment.
5. Give 2 road rules a cyclist must follow.
6. Name two types of knots used for tying.

Lashing is binding or tying wooden poles or timber with a rope. The process of lashing can take the following steps:

Step 1:

- Turn the rope around the vertical pole twice and tie so that one end of the rope is longer.
- The longer end is wrapped over the crossing pole and on the bottom of the vertical pole and back.



Step 2:

- Pull the rope so that it passes on the back of the vertical pole and over the crossing pole and repeat.



Step 3:

- Continue wrapping the rope around the poles until you have three wrappings as shown in Figure 24.10 c).



Step 4:

- Prepare to make a tie



Step 5:

- Start your first tying stage  
Turn the rope around the two poles as shown in Figure 24.10 e).



Step 6:

- Complete three or four wrappings and complete with tying tightly.



Figure 24.10: Tying poles

A **raft** is water transport that can be used for water sport activities. It can be constructed using different floating materials.



Fig. 24.11

Materials which can be used to make a raft are:

- wooden pole or bamboo
- ropes and strings
- nails
- empty 20 litre plastic buckets

**How to construct a raft**

We can construct our raft at school or at a camping place using cheap available materials. To construct a raft you need the following:

- Four straight long poles 2-3 m long
- Three short poles 1-2 m
- Thick ropes and string

- 9 five litre plastic containers
- Pair of scissors
- Nails and a hammer
- Two wooden boards

#### Stage 1: Building the frame

- Lay the end of the shorter poles over the edge of the longer poles at right angles.
- Lash them together using the rope as shown in Figure 24.12 a) to form a rectangle.



#### Stage 2: Frame for the deck

- Lash two middle long poles over the shorter poles as shown in Figure 24.12 b).
- You should form a rectangle made up of four long poles crossed by three shorter ones laid on top of them.



#### Stage 3: Tying the containers onto the frame

- Make sure that you use plastic containers that are tightly sealed to avoid entry of water. This enables it to float well.
- Tie the nine empty containers on the long poles as shown in Figure 24.12 c) using ropes. Make sure that the containers are tied firmly.



#### Stage 4: Nailing boards to the deck

- Nail two boards to the frame using the nails and hammer on the long poles
- This forms a deck where people can sit during rafting. See Figure 24.12 d).



Figure 24.12 Steps of construction of raft

Test the raft by placing it in shallow water in order to find out its ability to float. More plastic containers can be added to improve the floating of the raft.

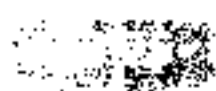
We can move the raft in water using paddles. The paddles are used to push the water which drives the raft forward.

### Activity 1

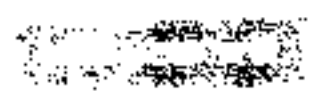
Construct a raft using materials that you can find like plastic bottles and poles.

### Exercise 2

1. What is lashing?
2. A \_\_\_\_\_ is water transport that can be used for water sports.
3. Name two materials which can be used to make a raft.
4. What name do we give to equipment used to drive a raft or a canoe?
5. What is the shape of the frame used for building a raft?



## Outdoor activities



1. perform various water based activities
2. demonstrate techniques of climbing and abseiling
3. demonstrate the belaying technique
4. use given clue to find places and objects.



We can construct rafts for use in performing water activities using locally available materials like poles and ropes.



### Key words

canoeing    sails    abseiling    belaying    orienteering    course

e.g.

**Canoeing** is an activity which involves moving a canoe using paddles. It is used as a sport or adventure activity.

The paddler who is the canoe driver sits facing the direction of travel when travelling short distances. The paddles are used to push water backwards. The movement of the water back allows the canoe to move forward as shown in Figure 25.1.



Figure 25.1: A person paddling a canoe.

It is a water sport that uses wind to push the **sails** in order to move the boat. Sails are made of pieces of cloth which are pushed by wind to drive the boat. The boat does not have an engine and is moved by the wind.



Figure 25.2: A small sailboat.



Sailing cruising is an activity done for recreation on holidays or weekends. The boat is controlled by pulling the rope attached to the sails. This helps to drive the boat into the intended direction.

### Activity 25.2: Climbing and abseiling

**Rock climbing** is an activity in which people climb up, down or across rocks or rock walls. The plan is to reach the top part on the rocks.

Rock climbing requires special type of equipment. The equipment provides safety and enables the ascending and descending easier. Climbing can be done on different rock surfaces as shown in Figure 25.3.



Figure 25.3 Rock climbing

**Abseiling** is an activity of descending a rock surface or other near vertical surface using a doubled rope coiled around the body and fixed at a higher point, for example, on a rock.

When abseiling the climbers must use the grip of their boots to control the descent down a fixed rope. The rope must be first tied on a rock. The rope must be rolled around the climber's body as he or she lets himself or herself down.



Figure 25.4 Abseiling

### Safety equipment used in rock climbing

The two most important climbing and abseiling equipment are the strong boots and ropes. The boots have nails that enable the climber to grip as he or she climbs or abseils.



Figure 25.5 Safety equipment used in rock climbing

Belaying is an important rock climbing skill. It enables safety in climbing. **Belaying** is the process of holding the climbing rope and a climber in the event of a fall with the rope threaded through a belaying device. The rope joins both the climber and the belayer for safety.

Climbing involves experienced and learning climbers. An example could be one in which there are three climbers the leader, second and the tail. The leader who is more experienced climbs first. When the leader has climbed about 10 metres he or she stops and support his feet firmly on a rock. He or she belays the rope by tying it onto a rock. The second climbs up to the second and also belays. The leader now climbs further and belays as shown in Figure 25.6 b]. The tail who is the third climber climbs to the second climber and belays. The climbers will continue in that order until they reach the top of the mountain.

3

Orienteering is an interesting adventure sport which provides chances to learn. It can involve a race following marked points on a map where you will have to find these check points on the ground. The person who finds all the check points in the right order in the shortest time is the winner. Check points are marked using white and orange flags and they are often hidden away making them fun to find.

Orienteering helps us to learn map symbols, use of a compass and estimate distances between places with accuracy. The most important equipment for orienteering is a map. There is need for us to learn how to read maps.

For orienteering the orienteers need to have the following equipment:

- Comfortable shoes for walking
- Comfortable clothing



Figure 25.6 a] Belaying device



Figure 25.6 b] Second climber



Figure 25.6 c] Map symbols

- Bottle drinks
- Maps
- compass

### Map reading

Map reading helps us during orienteering. It is important to be able to read a map. To read a map practise reading the map of your school by doing the following: Turn the map until what is in front of you on the ground is in front of you on the map. For example, if you are facing west the west side of the map should be away from you.

- Walk around the school reading the map and pointing out and naming features as you go.
- Practise keeping the map in the correct direction as you walk.
- Fold the map into a small easily held piece and hold your thumb on the map near where you are. This makes it easier to refer back to the map when you take your eyes off it.

The following picture shows how to hold a map during orienteering.



Figure 25.8: Holding the map

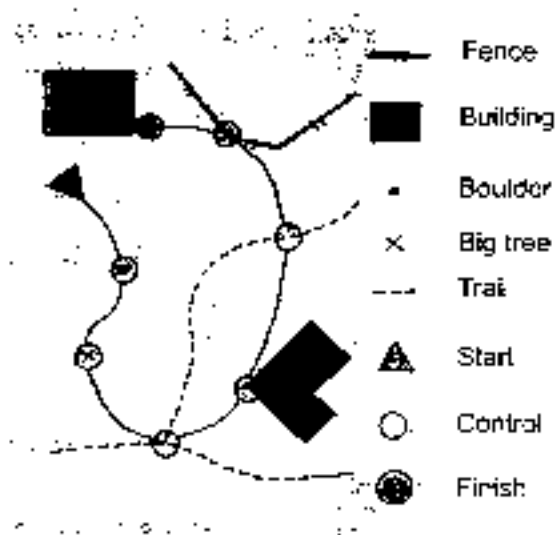
To practise map reading use the string course in the following activity.

During orienteering we either walk or run following marked course on the ground. A **course** is a marked area made up of controls with hidden flags. One of the courses used in orienteering is the string course.

### String course

The string course is a short orienteering course which is marked by continuous ribbon or rope. The map below shows an example of a string course orienteering map.

From the start the continuous ribbon called the string leads you along the course. When you reach the place circled on the map called controls you will find the flags. At each control you will find stickers for marking the correct box on the map. Follow the course finding different control until you reach the finish which is usually the same point as the start.







1. Draw the map of your school and provide a key showing the features on the map.
2. Colour the features or different places on the map using correct colours.



1. Canoeing is an activity which involves moving a canoe using \_\_\_\_\_.
2. What is mountaineering?
3. Name two safety equipment used in mountaineering.
4. \_\_\_\_\_ is part of the boat which is pushed by wind for the boat to move.
5. Explain two different ways of rock climbing.
6. What is abseiling?
7. The most important equipment for climbing and abseiling are \_\_\_\_\_ and \_\_\_\_\_.
8. A rock climbing skill which enables safety during climbing is \_\_\_\_\_.
9. Three climbers climbing a rock can be the \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
10. Orienteering helps us to \_\_\_\_\_ and \_\_\_\_\_.

- Adventure games are done during free time and can involve cycling, mountain climbing, canoeing, rafting, and sailing.
- Cycling can be done along different types of roads and road rules must be followed.
- Cycling techniques such as mounting and dismounting must be practised before one becomes a good cyclist.
- Rafts can be used as a means of transport during camping.
- We can build our own rafts at school using different knots such as lashings.
- Lashings help the joints to be strong.
- Canoeing, sailing, climbing and abseiling mountains are some of the adventure activities.
- During adventure the use of safety equipment and following safety rules is very important.
- Orienteering is an activity which teaches us how to explore different places without getting lost.

#### Activity

- descending** – going downwards  
**mountaineering** – the sport of climbing mountains

<b>orienteering</b>	- activity where maps and compass are used to get to a place
<b>mount</b>	- climbing on top of a horse or a bicycle
<b>stirrup</b>	- a foot rest used by horse riders
<b>dismount</b>	- going down a horse or a bicycle
<b>biking</b>	- cycling
<b>camper</b>	- a person who camps especially in a tent or caravan
<b>signalling</b>	- indicating to another person using signs when driving or cycling
<b>fashings</b>	- a way of tying wooden poles with a rope
<b>raft</b>	- water transport built using wooden poles
<b>canoeing</b>	- a sporting activity that involves moving a canoe using paddles
<b>Sailing</b>	- a water sport that uses wind to push the sails in order to move the boat.
<b>Sails</b>	- pieces of strong cloth which are pushed by wind to drive the boat
<b>abseiling</b>	- the descending or going down a rock surface or other vertical surfaces using a doubled rope coiled around the body and fixed at a higher point
<b>belaying</b>	- the skill used in climbing ropes

### End of topic assessment

#### Multiple choice

Choose the correct answer.

- People who cycle are called \_\_\_\_\_.  
A. bicycles                      B. cyclists                      C. cycle                      D. bikes
- The part of a bicycle used to reduce speed and stop the bicycle during cycling is called \_\_\_\_\_.  
A. pedal                      B. reflector                      C. saddle                      D. brakes
- Equipment that helps protect the head when cycling is called \_\_\_\_\_.  
A. gloves                      B. goggles                      C. helmet                      D. reflectors
- The skill of getting off a bicycle is called \_\_\_\_\_.  
A. cycling                      B. mounting                      C. riding                      D. dismounting
- In cycling the skill of letting other road users know what you want to do is called \_\_\_\_\_.  
A. signalling                      B. waving                      C. cycling                      D. informing
- The sheet bend is mostly used when joining ropes of different or equal \_\_\_\_\_.  
A. lengths                      B. thickness                      C. colour                      D. sizes
- The following is equipment used in canoeing.  
A. Bicycle and helmet                      B. Climbing shoes and rope  
C. Canoe and paddles                      D. Map and compass

8. In rock climbing, the most experienced climber who goes first is called the \_\_\_\_\_.
- |         |           |           |            |
|---------|-----------|-----------|------------|
| A. tail | B. middle | C. leader | D. climber |
|---------|-----------|-----------|------------|
9. Every map should have a \_\_\_\_\_.
- |            |        |            |                |
|------------|--------|------------|----------------|
| A. sticker | B. key | C. control | D. check point |
|------------|--------|------------|----------------|
10. A compass is a device used to find \_\_\_\_\_.
- |                 |              |          |             |
|-----------------|--------------|----------|-------------|
| A. a checkpoint | B. direction | C. a map | D. a school |
|-----------------|--------------|----------|-------------|

### Structured questions

#### Answer the following questions.

1. What is the skill of getting onto the bicycle? [1]
2. Getting off the bicycle is called \_\_\_\_\_. [1]
3. What is the technique in the following picture called? [1]



4. State 4 equipment required in orienteering. [4]
5. The name of a rock climbing skill which enables safety during climbing is \_\_\_\_\_. [1]
6. Give any two safety equipment required for water sports or activities. [2]

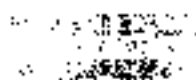
2D

## Locomotion and Gymnastics

### Locomotion

#### Learning Objectives

1. demonstrate ability to link movement themes with improved level of skill and variety
2. demonstrate balances on one point, two points and three points.



There are several activities that can be done in gymnastics, such as climbing, rolling, swinging, jumping and balancing.

#### Key words



locomotion      spotter      pike      pyramid      symmetrical  
asymmetrical      gymnastics routine

Gymnastics activities promote health and fitness. It also improves our knowledge of body movement and how body parts may be used in various physical activities such as games, mass displays, and aquatic skills. Gymnastics activities can be done on equipment such as mats, benches, ropes, bars, and boxes. Various activities which can be done on these apparatus include balancing, twisting, turning, climbing and rolling.

One of the most important activities in gymnastics is locomotion. **Locomotion** means travelling from one position to another using body parts in different ways. Examples of locomotion are skipping, rolling, hopping and crawling. In locomotion, equipment such as ropes, hula hoops, and cones are used.

#### Health and Safety in Gymnastics

When doing gymnastics health and safety is very important.

- Many activities require thick mats. The mats should be placed where

locomotion, dismounting from a piece of equipment and where the surface or floor is slippery and hard.

- The mats should be cleaned on a regular basis.
- Check all large apparatus to be sure it is safe for use.
- Children are not allowed to adjust or change the position of the equipment without the teacher's instruction.
- Equipment must be placed carefully and not too close together and close to walls.
- Chalk dust may be used on the palms of the hand to prevent slipping when gripping the apparatus.
- Follow gymnastics rules and regulations all the time.
- Do not wear clothes too loose or too tight as they will affect movement.
- Gymnastics slippers or bare feet must be used in gymnastics activities.
- Pockets should be empty and jewellery removed before activities.
- Start all activities with a warm up and end with a cool down.
- A supporting person called a **spotter** is needed to assist in most activities in gymnastics.

Safety falls are activities that can be practised and which help the gymnast to fall with control. This helps to prevent injuries in gymnastics.

## 1. Judo roll



- The roll is also called the shoulder roll.
- It is used as a safety roll in gymnastics to prevent injuries.

To do the judo roll:

- Squat down with your feet wide apart and one foot forward.
- Place one arm forward and tuck your head to your chest.
- Turn the head in the direction of the hand and roll forward.
- Keep the chin on your chest and land on the back of your shoulder.
- Finish in the standing position with one foot behind the other.

## 2. Break-fall



- Squat with the back to the mat and fall back with your back flat.
- As you fall move your arms sideways to break the fall.

Figure 1. Break-fall

## 1. Backward roll to a headstand



Figure 2

- Squat and put your hands behind your head in backward roll position. With the back facing the opposite side of the mat.
- Roll backward stretching the trunk and legs upwards.
- Support your body on head and hands.

## 2. Forward belly roll



Figure 3. Forward belly roll

- Stand feet shoulder width apart and fall forward.
- Arch your body to roll over your knees, tummy and chest to a headstand.
- Balance for some seconds and then do a forward roll.

### 3. Moving up and down the wall

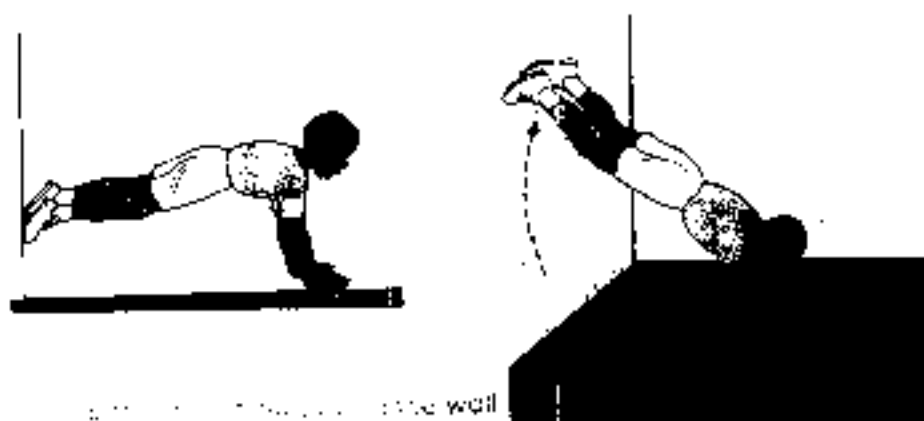


Illustration 3. Moving up and down the wall

- Squat on hands and toes with feet against the wall and head up.
- Put your weight on hands.
- Walk the feet up the wall and hands closer to the wall to the handstand position
- Walk down.

### 4. Handstand to a forward roll

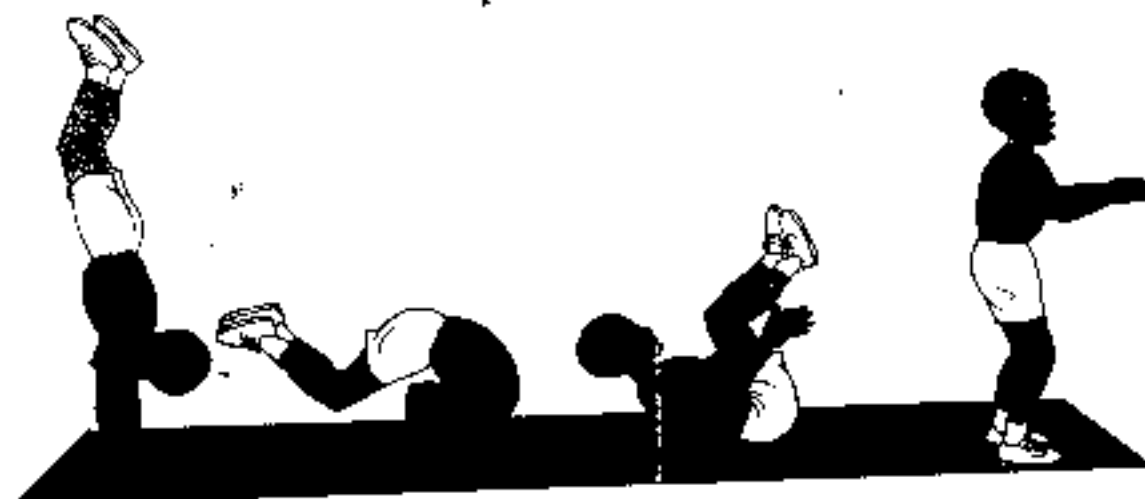


Illustration 4. Handstand to a forward roll

- Kick your legs up into a handstand.
- Balance for some seconds and lower your elbows.
- Tuck your head under and roll forward to a standing position.

### 5. Climbing the inclined bench

- Support one end of a bench with another bench or hook it onto a climbing ladder.
- Walk tip-toe forward, squat, spring and land on the mat.



Illustration: Climbing the ladder again

## 6. Ball balance



Illustration: Ball balance

- Squat on a bench facing each other.
- Raise arms sideways.
- Hold the ball head to head or chest to chest.
- Move up and down along the bench.

## 7. Forward to backward roll



Illustration: Forward roll

- Squat
- Forward roll and finish into a squat position
- Backward roll to finish in a squat position



Practise and demonstrate the following activities:

1. Judo roll
2. Handstand to a forward roll.

Answer all the questions.

1. Gymnastics activities promote \_\_\_\_\_ and \_\_\_\_\_.
2. Name three locomotion activities.
3. Give four health and safety gymnastic rules.
4. During a forward belly roll you have to stand feet \_\_\_\_\_ apart and fall forward.
5. Name the equipment used in a ball balance activity.

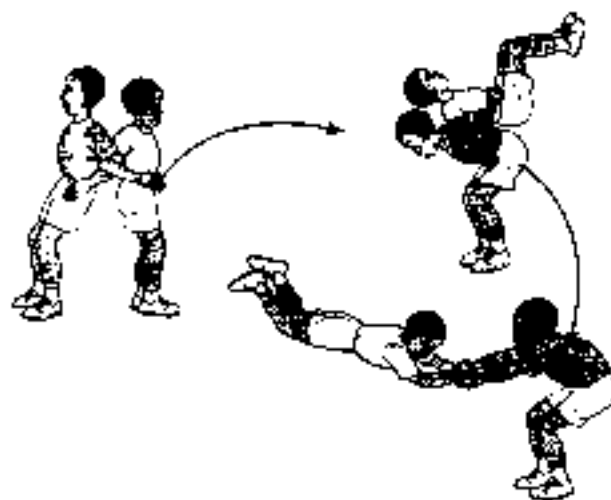
### 8. Forward roll with run



- Take a short run to the mat.
- Perform a forward roll into standing position.

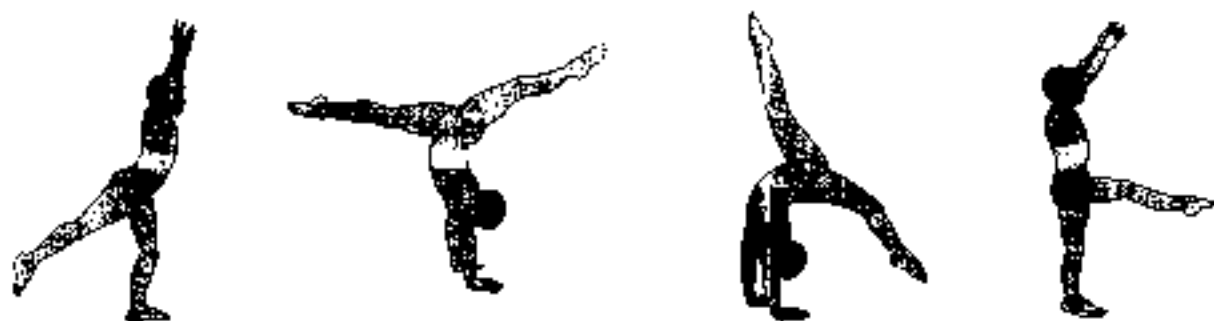
### 9. Back to back roll

- Stand back to back with your partner.
- Grab each other's hands with elbows to the front.
- One partner leans forward legs astride pull the other partner over the hips and back.
- The other partner rolls backward over on the back and land on feet on the mat.



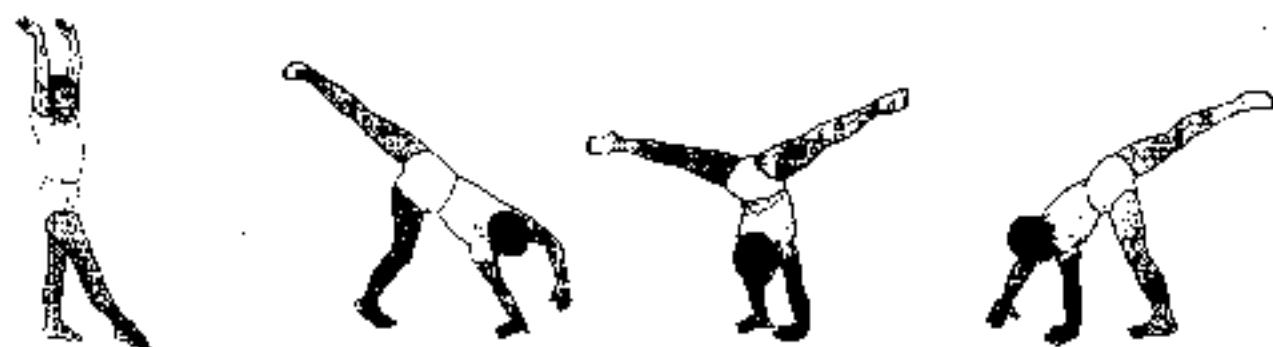
- Continue holding to hold on your partner's hands throughout the activity.
- Continue rolling over the back from one place to another.

## 10. Forward walk-over



- Stand facing the gymnastics mats
- Kick up into a handstand with the legs split one forward and the other back.
- Legs are lowered with the forward leg leading.
- Stand on one leg with hands up.
- Always keep toes and fingers pointed.

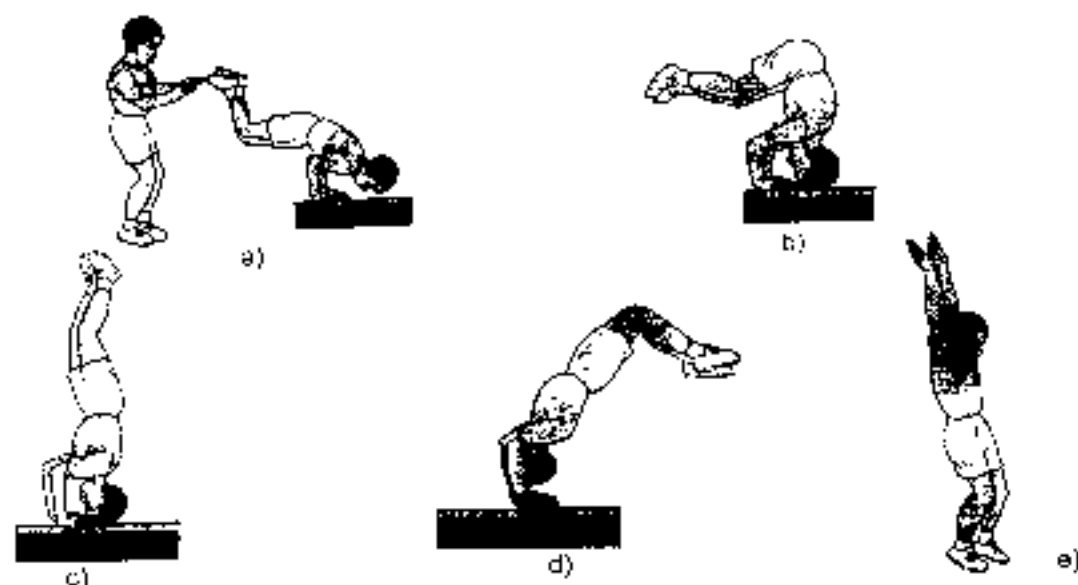
## 11. The cartwheel



- Stand sideways to the mat, feet astride
- Left side should face the mat
- Raise left hand and right hand out to the side
- Bend the body to the left side to put the left hand and then right hand in line on mat
- At the same time push the right leg up followed by the left leg
- Legs should be straight and apart
- Keep arms straight and head raise throughout the activity
- Land on the mat

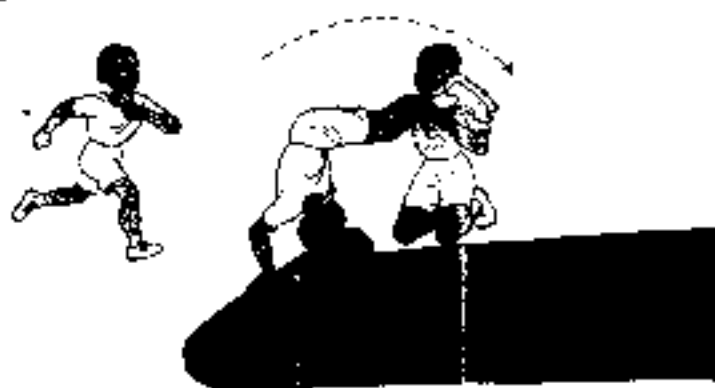


## 12. Headspring off the stacked mats



- Squat and swing the hands forward to put them shoulder width apart on the stacked mat
- The head should be in front of the hands on the mat
- Spring off both hands into a headstand position
- Keep legs straight and **pike**
- Roll forward and push the legs forward and downward
- Arch the back and push off the mat with hands
- Land on the mat in the squat position and stand

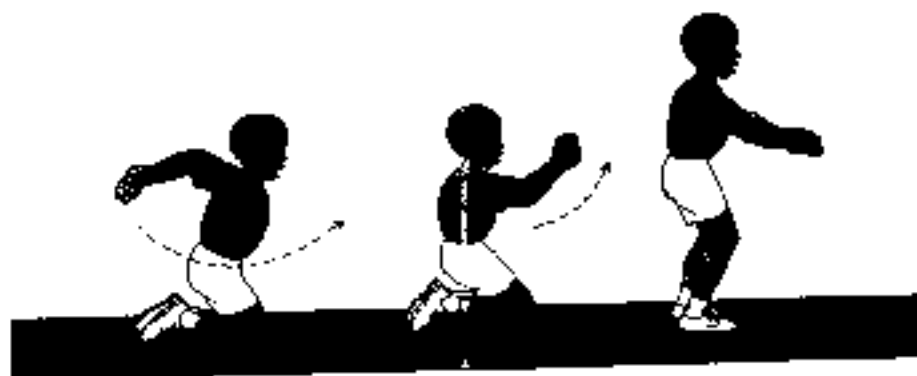
## 13. Headspring over a rolled mat



- Stand and put your hands on the rolled mat
- Swing your body and legs up keeping arms straight into a handstand position.
- Arch the back and push using hands as you swing over the rolled mat into a standing position.
- Keep the head back throughout the headspring.



#### 14. The upswing



- Kneel on the mat and look ahead.
- Swing both arms backwards then forward and upward.
- At the same time push with force using feet to bring the body into a crouch position on the feet.

#### 15. The Jack-knife jump



- Stand feet slightly apart
- Bend the knees
- Raise arms backward
- Jump and swing arms forward and upward
- Lift your legs and keep them straight and wide astride in the air
- Touch your toes with fingertips while in the air
- Bring the feet to the hands not the hands to the feet
- Bend your knees as you land.

#### 16. Balancing

**Pyramids** are balances which are done by two or more people. Different types of balances and body shapes are formed. During pyramid formation, stronger players must be used as supporters or bases of the pyramids. Shapes formed

during balances are described as symmetrical or asymmetrical. **Symmetrical** balances form shapes which are the same on both sides when divided into two parts. **Asymmetrical** balances form shapes which are not the same when divided into two parts.

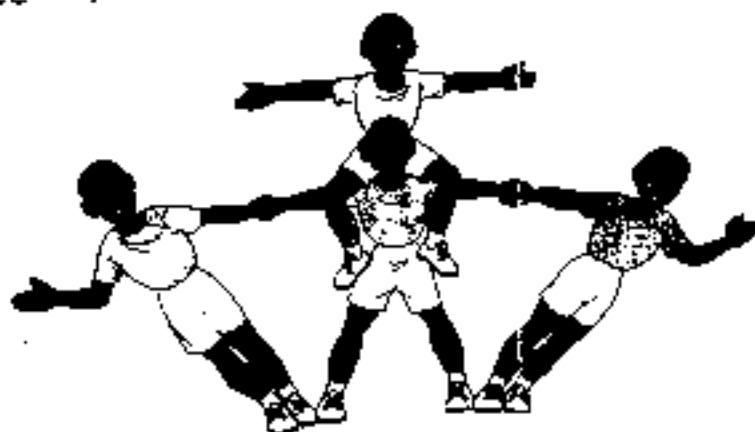
#### 26.18 Balance on thigh

##### 1. Balance on thigh



- Form groups of three with members of equal size.
- Build a pyramid with one gymnast balancing on the thighs of the other two as shown in Figure 26.18.

##### 2. W-balance



- In groups of four, build a pyramid which forms the W-shape.
- The strongest gymnast must form the base of the pyramid.

## 26.20. Moving supported handstand

### 1. Moving supported handstand

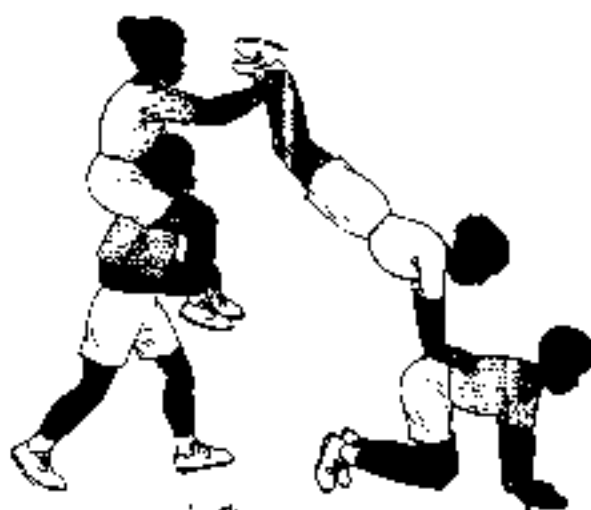


Figure 26.20. Moving supported handstand

- Form groups of four players of equal size.
- Build supported handstand pyramid as shown in Figure 26.20.
- Strong players should form the base of the group balance.
- Move as a pyramid from one point to another.

### 2. Walking chair



Figure 26.21. Walking chair

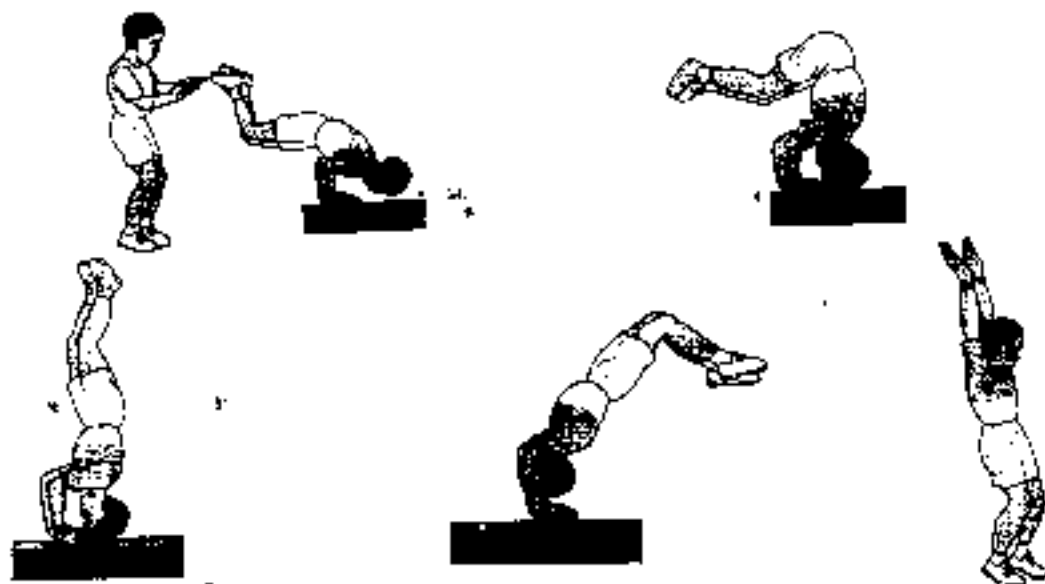
- In groups of five gymnasts of equal size.
- Build a pyramid as shown in Figure 26.21.
- Stronger players should be used as bases or supports.
- Hold the pyramid for five seconds.
- Try to move about 2 m in that position.

A **gymnastic routine** is a combination of gymnastics activities which are done following a pattern from one station to the last station.

Practise and demonstrate the following gymnastics routine:



**Station 1: Forward roll**



**Station 2: Head spring off stacked mats**



**Station 3: Jack-knife**



Station 4: Hand spring over a mat



Station 5: Cartwheel



Station 6: One judo roll



Design a gymnastics pattern made up of three movement skills, rolling, skipping, turning and balancing skills. Practise and demonstrate your pattern.



1. The body position where the legs are kept straight and toes pointed is called \_\_\_\_\_.
2. In a hand spring we use \_\_\_\_\_ to spring.
3. Which skill is needed in forming pyramids?
4. Balances which form shapes which are equal on both sides when divided into two parts are \_\_\_\_\_ balances.
5. Balances which form shapes which are different on both sides when divided into two parts are called \_\_\_\_\_ balances.
6. A combination of activities which form a pattern in gymnastics is called \_\_\_\_\_.

- Gymnastics activities promote health and fitness and improve body movement.
- Health and safety is important when doing gymnastics to avoid injuries and spread of diseases.
- Different locomotion activities which can be done in gymnastics are: safety falls, forward belly roll and back to back roll.
- All the skills we learn in gymnastics must help us in pyramid building.
- In building pyramids symmetrical and asymmetrical shapes are formed.
- After learning various gymnastic skills we should be able to form your own gymnastics routines and demonstrate the skills.

<b>locomotion</b>	- moving from one place to another using different ways
<b>shoulder width apart</b>	- standing with feet forming a distance the same as that of the shoulders
<b>springing</b>	- pushing off from the ground
<b>rear leg</b>	- the back leg
<b>plke</b>	- a position in which knees are straight and a tight bend at the hips while balancing on a bar
<b>pyramid</b>	- a shape formed by gymnasts by balancing by supporting each other
<b>symmetrical</b>	- a shape formed in gymnastics which divides the body into equal parts
<b>asymmetrical</b>	- a shape formed in gymnastics which cannot be divided into equal parts
<b>gymnastics routine</b>	- gymnastics pattern followed by a gymnast as he or she performs



Choose the correct answer.

1. Passing football is an example of \_\_\_\_\_ games.  
A. invasion                      B. target                      C. striking                      D. combat
2. One advantage of moving into space is that \_\_\_\_\_.  
A. it allows players to make decisions  
B. it allows opponents to know the next movement you plan  
C. affects the way the team plays  
D. it will not allow you to pass
3. One of the skills not used in invasion games is \_\_\_\_\_.  
A. batting                      B. passing                      C. throwing                      D. attacking
4. How many points are scored in a touchdown?  
A. 9                      B. 8                      C. 7                      D. 6
5. One position for baseball players is \_\_\_\_\_.  
A. fielder                      B. goalie                      C. keeper                      D. forward
6. The \_\_\_\_\_ throws the baseball to the batter.  
A. forward                      B. goalie                      C. fielder                      D. pitcher
7. A \_\_\_\_\_ is the name of equipment used in baseball and cricket.  
A. racket                      B. bat                      C. plate                      D. wicket
8. In \_\_\_\_\_ games, players score when they successfully throw or strike an object closer to a target.  
A. invasion                      B. target                      C. combat                      D. karate
9. \_\_\_\_\_ and \_\_\_\_\_ are examples of target games.  
A. Darts and pin bowling                      B. Darts and baseball  
C. Soccer and pin bowling                      D. Soccer and tennis
10. A bullseye is a common word in \_\_\_\_\_.  
A. baseball                      B. darts                      C. pin bowling                      D. soccer
11. The Japanese game which involves grabbing and pulling the opponent is called \_\_\_\_\_.  
A. karate                      B. darts                      C. judo                      D. tug of war
12. \_\_\_\_\_ is a balancing position in sports.  
A. Stance                      B. Pike                      C. Tackle                      D. Kicking
13. Which one is not a combat game?  
A. Judo                      B. Wrestling                      C. Karate                      D. Soccer
14. \_\_\_\_\_ is not a stroke in tennis.  
A. Forehand                      B. Volley                      C. Front crawl                      D. Backhand
15. The stroke which causes the ball to rotate is called \_\_\_\_\_.  
A. lob                      B. serve                      C. spin                      D. smash



16. This grip is used in \_\_\_\_\_.  
A. cricket                      B. baseball                      C. tennis                      D. pin bowling

17. Which shape is formed by the thumb and forefinger in the cricket batting grip?  
 A. W-shape      B. V-shape      C. Y-shape      D. T-shape
18. Which one is not an advantage of a proper bat grip?  
 A. Bat speed will be faster  
 B. Bat will be in the right position to hit the ball  
 C. It is difficult to hit the ball  
 D. Being able to change position quickly
19. \_\_\_\_\_ is not an example of adventure activities.  
 A. Cycling      B. Camping  
 C. Mountain climbing      D. Volleyball
20. \_\_\_\_\_ is not a part of a bicycle.  
 A. Harness      B. Saddle      C. Pedal      D. Brakes
21. Which one is not an example of road rules a cyclist must follow?  
 A. Always keep left      B. Avoid cycling at night  
 C. Playing on the road      D. Obey all the road rules
22. Equipment used to drive a raft or a canoe is called \_\_\_\_\_.  
 A. pedal      B. wheels      C. sticks      D. paddles
23. \_\_\_\_\_ is an activity of descending a vertical rock surface using a doubled rope.  
 A. Belaying      B. Canoeing      C. Sailing      D. Abseiling
24. If three people are climbing a rock surface, the last climber can be referred to as the \_\_\_\_\_.  
 A. camper      B. second      C. head      D. tail
25. \_\_\_\_\_ is the skill needed in forming pyramids.  
 A. Abseiling      B. Balancing      C. Belaying      D. Sailing
26. Balances which form shapes which are the same on both sides when divided into two parts are \_\_\_\_\_ balances.  
 A. symmetry      B. asymmetry      C. running      D. locomotion
27. Which type of attire can be used during gymnastics?  
 A. School shoes      B. Gymnastics slippers  
 C. Gum shoes      D. Loose clothes
28. A combination of activities which form a pattern in gymnastics is called a \_\_\_\_\_.  
 A. gymnastics routine      B. gymnastics balance  
 C. dancing      D. locomotion
29. A person who supports another person in gymnastics is called a \_\_\_\_\_.  
 A. camper      B. belayer      C. spotter      D. cyclist



30. In gymnastics this activity is called \_\_\_\_\_.  
 A. upswing      B. pike      C. headspring      D. cartwheel.

**Answer the following questions.**

1. The skill of getting onto the bicycle is \_\_\_\_\_. [1]
2. Getting off the bicycle is called \_\_\_\_\_. [1]
3. Canoeing is \_\_\_\_\_. [1]
4. Two safety equipment used in mountaineering are \_\_\_\_\_ and \_\_\_\_\_. [2]
5. The most important equipment for climbing and abseiling are \_\_\_\_\_ and \_\_\_\_\_. [2]
6. Orienteering helps us to \_\_\_\_\_ and \_\_\_\_\_. [2]
7. Balances which form shapes which are different on both sides when divided into two parts are called \_\_\_\_\_ balances. [1]
8. Reaction is \_\_\_\_\_. [1]
9. The centre part of a dart board is called \_\_\_\_\_. [1]
10. One disadvantage of moving into space is that it allows \_\_\_\_\_ to know the next movement. [1]
11. The smash is an example of a \_\_\_\_\_ stroke. [1]
12. A high stroke used as a defence stroke to move the opponent away from the net is called the \_\_\_\_\_. [1]

**Demonstrate the following:**

1. Design a gymnastics pattern made up of three movement skills, twisting and turning and two balancing skills. Practise and demonstrate your pattern.
2. With the help of a map provided by the teacher, find the places marked on the map and collect the hidden items. Do this activity in groups of ten.





1. play music as a percussion band
2. combine percussion and other musical instrument
3. sing theme related songs
4. dance to theme related recorded music.

Percussion instrument can be played to give background music for Mass Display performances.



percussion instruments

Mass Displays are physical activities which are done by large groups of people working together. The Mass Displays activities are made up of music, art and arena choreography. Mass displays activities are usually planned to be performed on special days such as Independence Day, school open days and sports competitions. Mass Displays are done in order to:

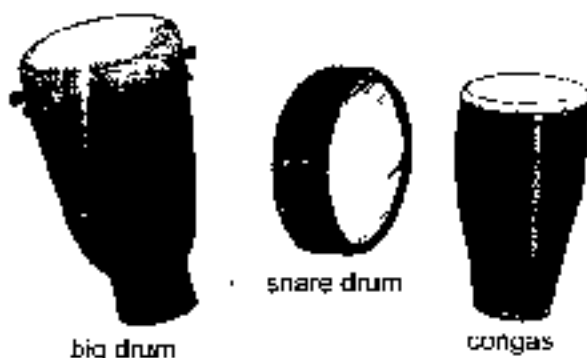
- provide edutainment to the audience
- promote fitness and health for the performers
- teach about our history and development
- promote unity and peace
- celebrate a particular achievement/event
- inspire the audience
- motivate/cheerlead sport athletes

## What is a background music?

Background music is the type of music used during Mass Displays. This music can be played from the radio or by bands that play different musical instruments. **Percussion Instruments** can provide music for Mass display performances. The music used for performances can either be the traditional songs or the modern music. The music has to be related to the activities that the performers will be doing. For example, when performance is on agriculture in Zimbabwe, the type of music might include traditional songs like "Torai mapodza muchirima".

### Percussion Instruments

People playing the different instruments can be combined to form a band. The percussion band plays instruments and sings. Percussion band music has to be related to the performances done. Different types of drums are used as percussion instrument for background music. These drums produce different sounds which can be used to guide the movement of the performers.



big drum

snare drum

congas



Play the different drums with the other members of your group. Each member plays one of the instruments below. Sing a familiar song as you play the instruments.



cymbals



rattles



triangle



clappers



jingles



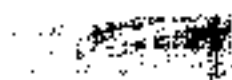
tambourine

### Other Percussion Instruments

Percussion music is usually played to a song. The song is usually written down showing how the different instruments are played. The percussion instruments

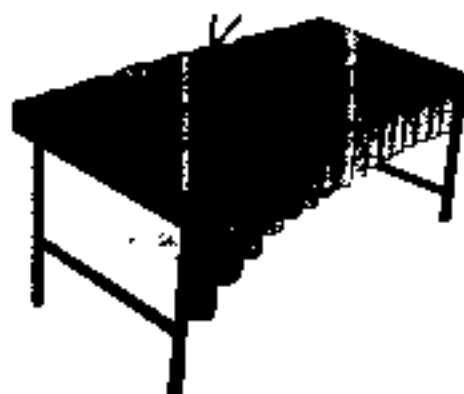
shown in Figure 27.2 produce different sounds. The instruments are played by different members in a band.

View videos of a percussion band. See how learners dance according to sounds made by the instruments.



1. Draw a percussion instrument of your choice.
2. Make your chosen percussion instrument.

## Marimba



Marimbas are another type of percussion instruments. The set of marimba instruments is made up of marimbas of different sizes. The combination of the different sizes of marimbas can make a marimba band. Marimbas can also be combined with the other percussion instruments.

### Activity 27.2

Play your instruments as a group following the patterns in the picture below. Form groups of 12 members. Two members must choose the same instrument. For example, clappers. Play the instruments as a band.

There are other musical instruments that we can play as we perform Mass Display activities. These instruments can provide good background music. Examples of musical instruments that can be played are the brass instruments that are usually played by the police band.

## Brass instruments



saxophone



trombone



trumpet

Figure 27.4 shows some of the examples of brass instruments that can be played for Mass Displays. In Zimbabwe most of the Mass Displays performances at national level are done using background music provided by brass bands. The police brass band or army brass band provides the music. At your schools you can learn to play these instruments for your own Mass Displays performances. The brass instruments can be played by blowing air into them.



The brass band is using different types of brass instruments. They are playing the saxophone, the trumpet and the trombone.

## Woodwinds



recorder



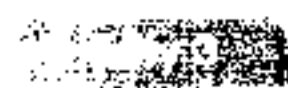
flute



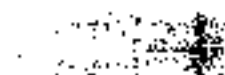
clarinet



The other set of instruments that can be played for Mass Displays performances are in the class of woodwinds. Figure 27.6 shows examples of woodwinds instruments. These instruments are also played by blowing air into them. Woodwind instruments can be played by a band.



Form a band of ten members. Sing a song of your choice while the other members play the woodwind instruments.



1. \_\_\_\_\_ and \_\_\_\_\_ are examples of percussion instruments.
2. Brass instruments include \_\_\_\_\_ and \_\_\_\_\_.
3. Draw and label two woodwind instruments.



1. design shapes and symbols for background art
2. decorate shapes and symbols
3. mount shapes and symbols
4. display background art depicting themes.

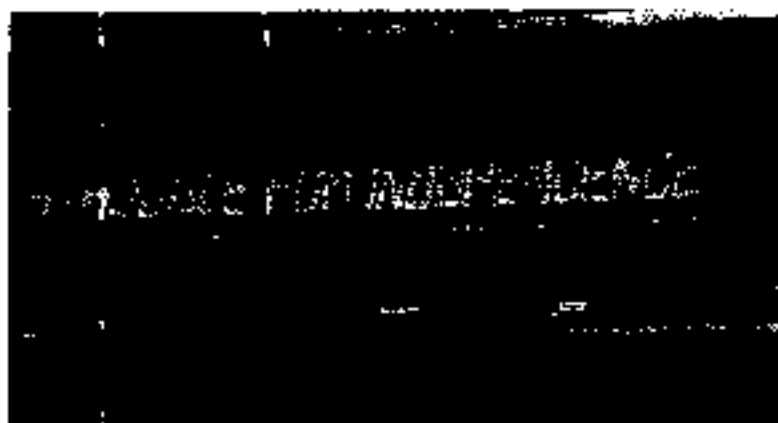
Background art is used to give meaning to activities in Mass Displays. The purpose of background art is to give more information on the gymnastics and music that will be played.



grid

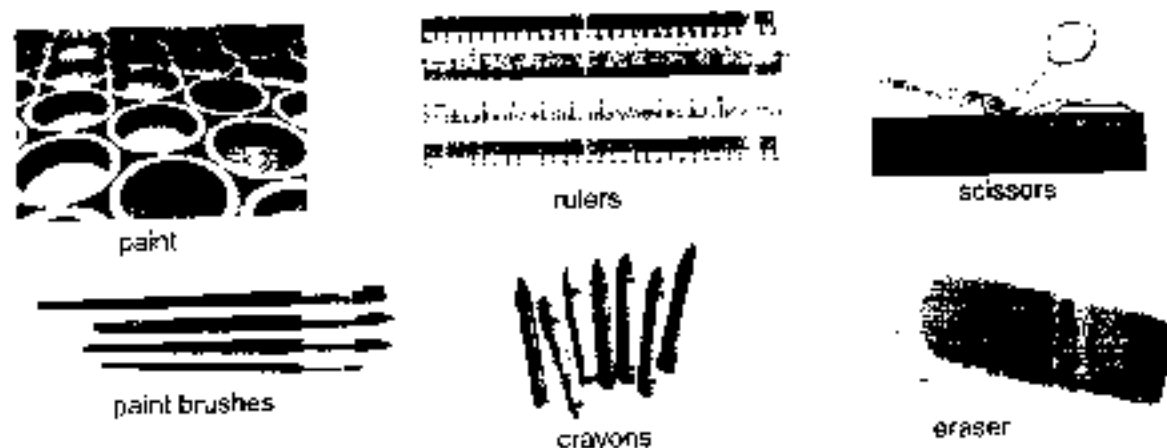
theme

In Mass Displays music, art and gymnastic routines are used to give meaning to the performance. Background art is an important component that the audience see to get the meaning of the performance. The background art is displayed in the form of banners and posters. The background art can be displayed on books and pieces of cloth.



Performers can display background art by opening coloured books with different shapes and pictures. Figure 28.1 shows different parts of a picture joined to form one large picture. The words 'STRUGGLE FOR INDEPENDENCE' are formed on the colours in the picture.

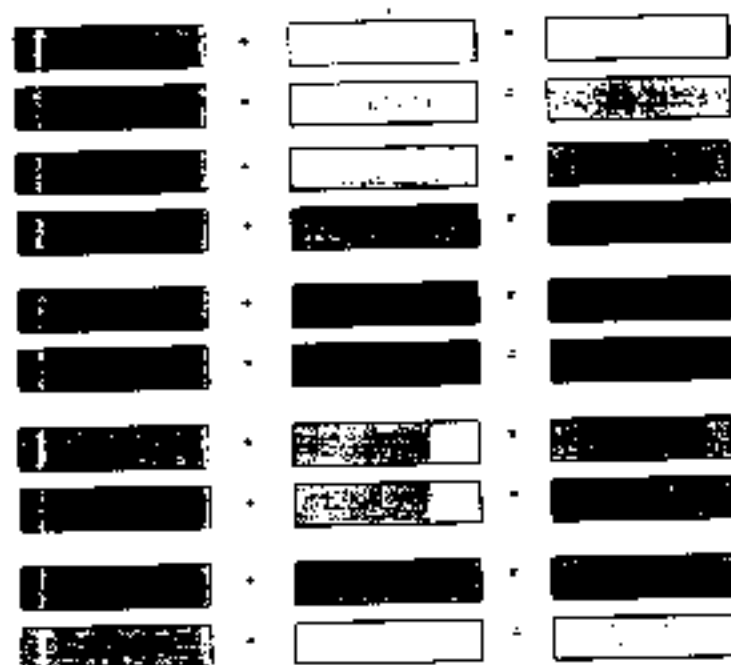
Materials used to make background art.



The materials shown in Figure 28.2 are used in designing background art. Decorations on background art can be done using paints, crayons and pencils.

Designing and decorating in art involves the use of different colours. The colours used include the primary and secondary colours. Primary colours are yellow, blue and red. When the primary colours are mixed, they form secondary colours. You can create more colours by mixing the different primary and secondary colours. Mixing colours also creates different shades of the colours that you have already made.

Figure 28.3 shows the different shades of colours that can be formed by mixing colours. Some of the colours formed are either dark or light.



Practise mixing colours to form different shades and colours. Use the mixed colours to decorate the pictures of your choice.

### 28.4. Repeat patterns using a ruler

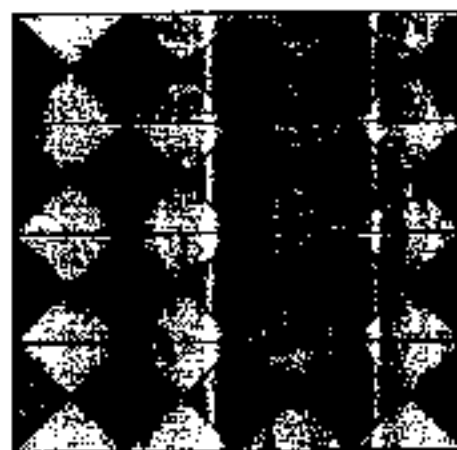


Figure 28.4. Repeat patterns

Divide your piece of white paper into 16 or equal squares. Draw the designs of repeat patterns using a ruler as shown in Figure 28.4. Choose one pattern you like and paint the shapes using different colours.

Shapes of different sizes and designs can be made by printing using potatoes, leaves or other materials and paint on paper or cloth. These materials produce different prints used as background art. See Figure 28.5 of a leaf print.



Figure 28.5. Leaf print

Draw an object of your choice. In the example shown in Figure 28.6, a glass was drawn. To come up with the outline of the glass use a rectangular frame. After drawing the outline of the glass, use a pencil to shade the glass to come up with a well decorated object.



a)



b)

### 28.7



a)



b)

- The first step in drawing the flower is to make an outline as shown in Figure 28.7a).
- Then make stencils of three items: a leaf, a flower and a triangle.
- Use the stencils in designing a flower on the first picture you have drawn.
- Shade the pictures using a pencil or paint using the desired colours see Figure 28.7b).
- Display the artwork you have produced.

### 28.8 Grids

Grids are squares used to make sure accurate drawings can be designed. The grids are drawn using light pencils so that they can be easily rubbed at the end.



a)

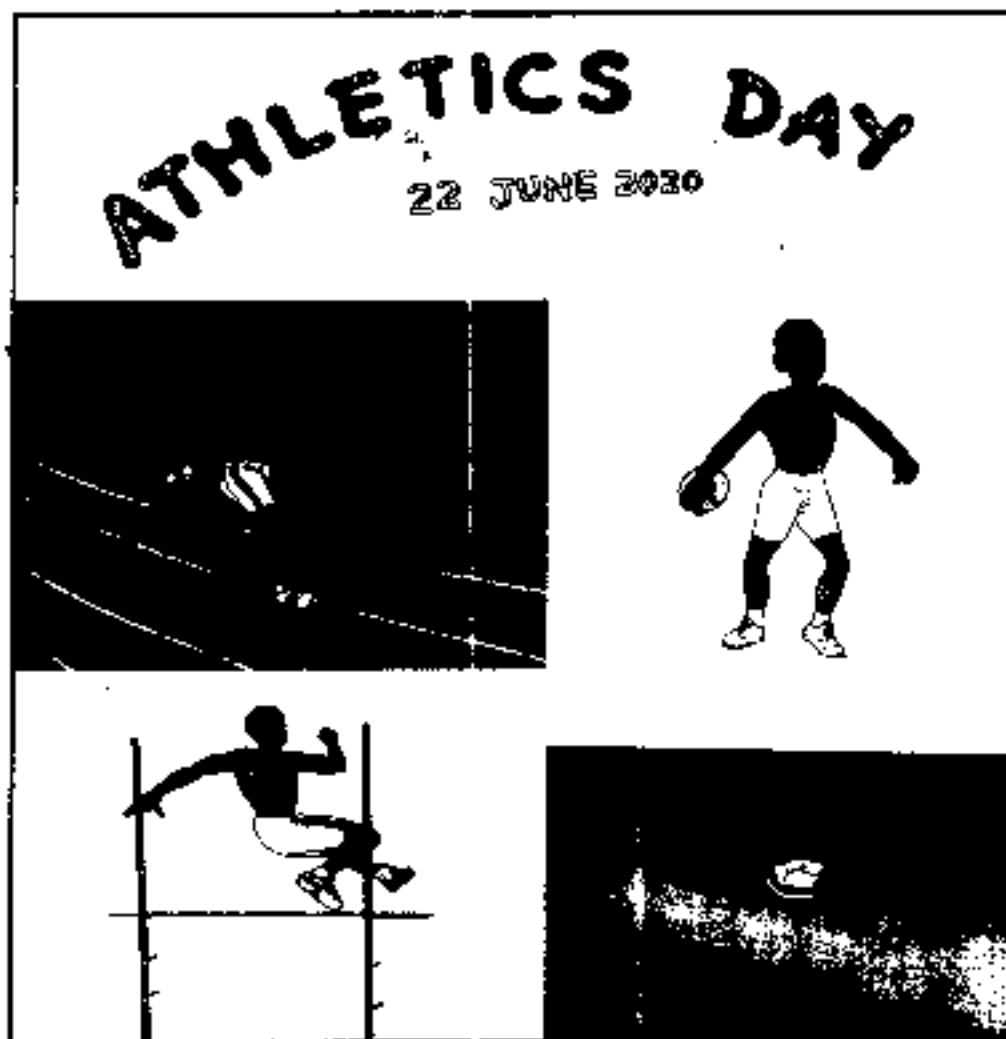


b)

- Draw one face as in grids shown in Figure 28.8a).
- Make sure each part of the face is in the correct grid.
- Rub off the lines that form the grids.
- Shade the face using a dark pencil.
- Display your artwork.

### Poster Design

Posters can be designed in different sizes using shapes and symbols. In *Mass Displays*, they educate the audience on what is being performed. In the example shown in Figure 28.9 the theme is 'Athletics Day'. The poster shows the different activities that can be done in athletics.



### Activity 1

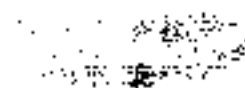
Design a poster for your school's sports day.

## 1. Movement and rhythm shapes



1. perform rhythmic variations in movement.

... ..



We can enter the arena in Mass Displays using different ways. One of the ways of entering the arena in Mass Displays is the file formation.

... ..



rhythm

arena

file formation

Movements performed in Mass Displays follow the rhythm of music and can be repeated over and over. **Rhythm** is the repeated pattern of sound. The sound can be from percussion instruments like drums and cymbals or other musical instruments available. A band can also provide the music for the performances.

There are a variety of movements that can be performed in Mass Displays. Activities that can be performed are presented in the following section for you to practise in groups.

### 1. Movement and rhythm shapes

- Stand in files giving each other enough space.
- March following the beat from the drum played by the teacher to do the following movements.
- Stop marching and stretch high and wide as the wall.
- March forward eight steps and stop.

- Fall and spread yourself wide as shown in Figure 29.1 c).
- Curl up into a tight ball for four counts facing upwards.
- Curl on one side only and then on the other side.
- On the loud drum beat jump up with your hands above your head like an arrow.
- On next drum beat, fall and be narrow and sharp on the floor. See Figure 29.1 f).
- Stand up and start marching again.

## 2. Rhythm running and playing

- Mark out a circular running track.
- Stand around the track in free space.
- Listen to the music as you walk on the same spot and play jingles in time to the music.
- Walk in a clockwise direction as you play to the beat of the music.
- Now jog to the next beat.
- When you hear the command 'Twos', pair up with a partner as you jog around the track. Keep in step with each other and in time with the music as you run. See Figure 29.2.
- On the signal 'Fours', form groups of four and run besides each other in time with the music.
- On the signal cool down slow down to a walk with your group but keep in time to the music.

## 3. Rhythm using ribbons

- Make rhythm ribbons by attaching two to four metres of plastic or silk ribbons to a stick 50cm long. Figure 29.3 a).
- Hold your ribbon and stand facing the leader.
- Swing ribbon from side to side like car wipers at the same time following the music beat. Figure 29.3 b).
- Swing ribbon in circles overhead like a helicopter in time to music. Figure 29.3 c).

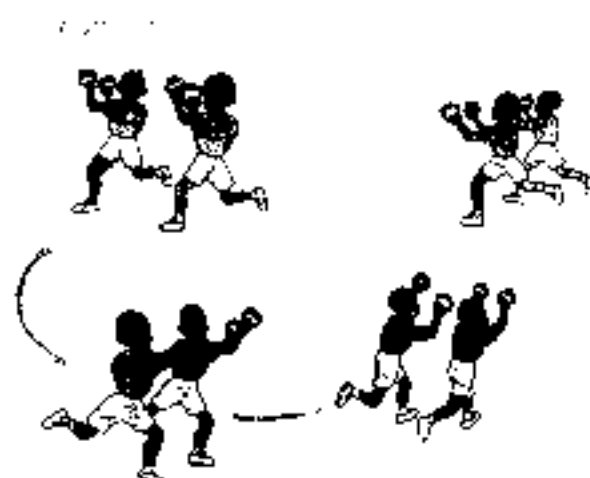
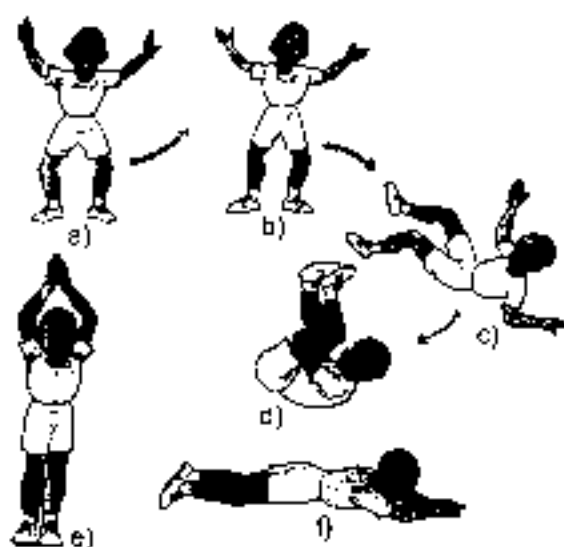


Figure 29.2

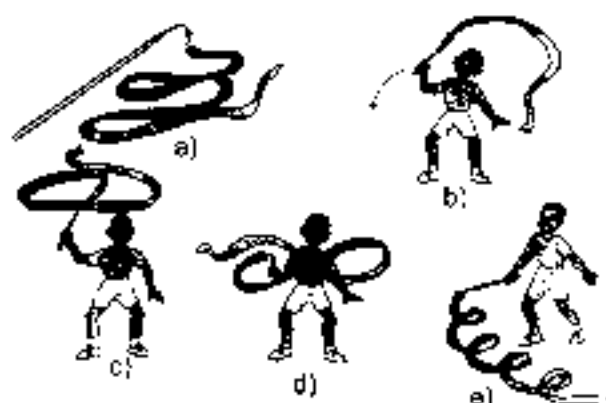


Figure 29.3



- Make the figure-8 in front like a butterfly. See Figure 29.3 a).
- Make the figure-8 over head.
- Make spirals from left to right and then from right to left like a snake. See Figure 29.3 e).
- Now combine the swinging of the ribbon with marching.
- All ribbon movements should be done in time to music.



Form your own rhythm and movement activities in your groups. Perform the movements following music of your own choice.

## Choreography

- i. perform various physical exercises combined with arena movements.

Mass Displays is made up of a variety of movements to show the theme being displayed. Choreography is movements that are demonstrated by performers in Mass Displays.



### Key Words

signal  
theme

gymnastics  
audience

formations

choreography

**Choreography** is the way movements are done during dancing. Movement is done to the music and different movement patterns are used.

The dancers are dancing in a file formation and their movement is the same. In Mass Displays the dancers dance to music that is appropriate to the theme. The dancers must combine different dancing styles.



Figure 30.1: Same movement

The dancers in Figure 30.2 are jumping and moving in different patterns. This type of dancing helps to keep the body fit. The dancers are putting on suitable clothes for this type of dance.



Figure 30.2: Different movements

The other physical exercises that can be done in Mass Displays include the following:

## 1. Dancing hoops

- Get a hoop and hold it horizontally overhead.
- Lower the hoop four times following the beat of music.
- Bend to the right, straighten and bend to the left.
- Repeat four times.
- Place hoop on the floor and step inside. See Figure 30.3 c).
- Jog ten times.
- Hop on your right foot in and out of your hoop in a clockwise direction eight times.
- Change hopping foot and repeat in the opposite direction eight times.
- Side kick around your hoops for eight steps in one direction and then eight steps in another direction. See Figure 30.3 e).



Figure 30.3. Dancers performing exercises with hoops.

## 2. Rope exercises

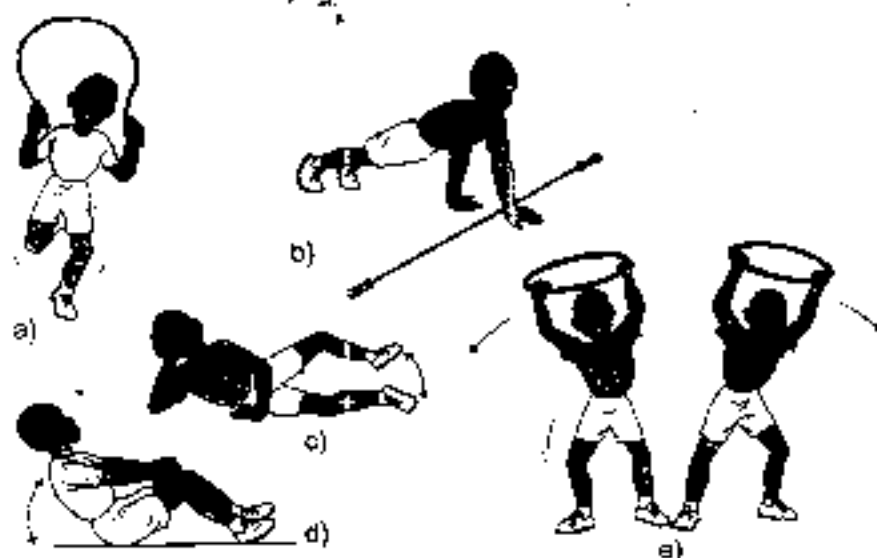


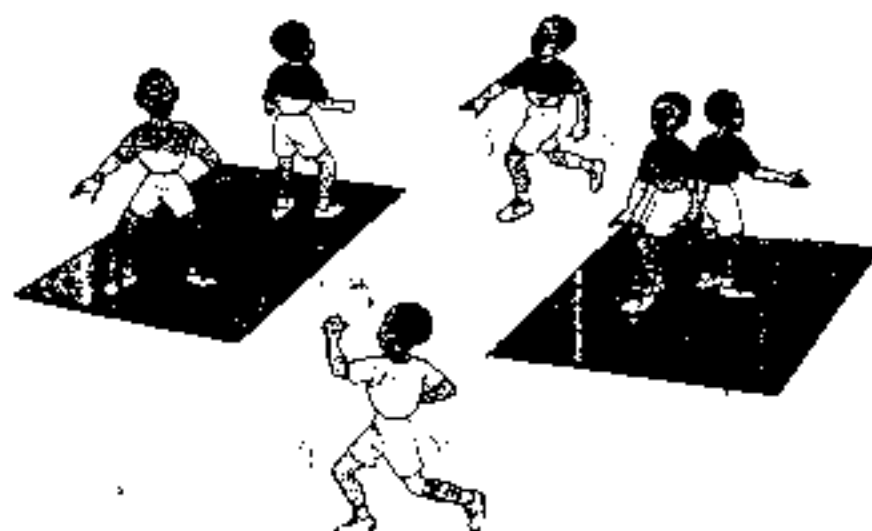
Figure 30.4. Rope exercises.

- Hold a skipping rope on a free space.
- Jump using the skipping rope to the beat of music.
- Stretch rope along the floor and do push ups to the beat of music. Figure 30.4 b).
- Jump the rope again.
- Drop the rope and do crab kicks in crab walking position. Figure 30.4 c).
- Do a rope stretch side to side holding the rope side to side.
- Jump the rope.

- Drop the rope and do the side leg-lifts on the floor.
- Jump the rope again.
- Hold folded rope and do curl ups. See Figure 30.4e).
- Jump the rope.
- Do another rope stretch sideways.

All these exercises are done continuously following the beat of music.

### 3. Mat exercises



- Get a mat and place it on your own free space.
- Stand near your mat.
- When the music starts, run around the mat without touching it.
- When the music stops, jump onto a mat and remain there until you hear the music again.
- Hop around the mat and when the music stops do a forward roll on the mat.
- Run around the mat and when the music stops, perform a cartwheel on the mat.
- Walk around while the teacher joins the mats
- Form a column and stretch a piece of cloth above you.
- Form a wavy movement by starting from a crouching position to a standing position.
- The movement up and down must be done slowly so that a wavy movement can be formed.

### Activity 1

1. Design traditional dance movement patterns using appropriate equipment like sticks and clay pots.

## Formations

you will:

1. display themes through formations.

In Mass Displays we use different types of formations. Formations are patterns used for movements in Mass Displays. These formations are used in different stages of the performance.

Key words

column formation      file formation

Formations are ways in which groups of performers or things are arranged into different shapes or patterns. These formations are used in Mass Displays to make displays more interesting. They help in describing what the performers will be doing. For example, if they want to show a harvesting act, they stand in different formations and perform the digging using hoes.

Formations are divided into two types which are simple formations and the complex formations.

### 1. Simple formations

The simple formations are used to maintain order during the Mass Display performances. Examples of the simple formations are:

- File formation – this is when performers stand in a straight line one behind the other.



File formation

- Column/linear formation – this is when performers stand in a straight line side by side.



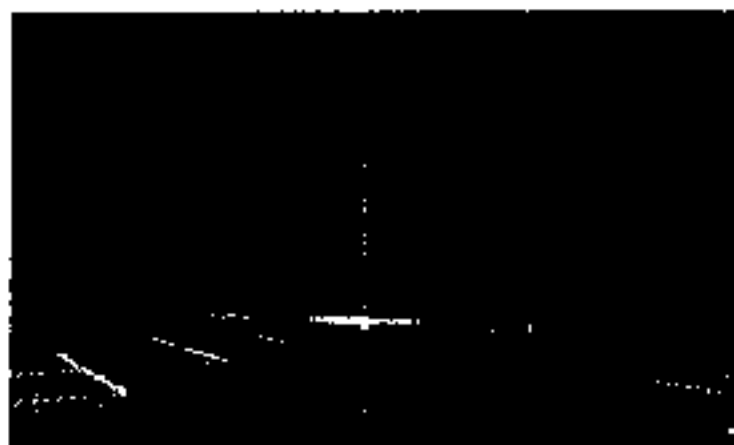
#### • Circle formation

- Circle formation – this is when performers stand forming a circle.



#### • Square/Curve formation

- Square formation – this is when performers stand forming a square.



#### • Diamond formation

## 2. Complex formations

These are difficult formations where performers form different shapes using simple formations. Performers form the complex formations by bending, sitting and carrying each other. Examples of complex formations are:

### Star formation

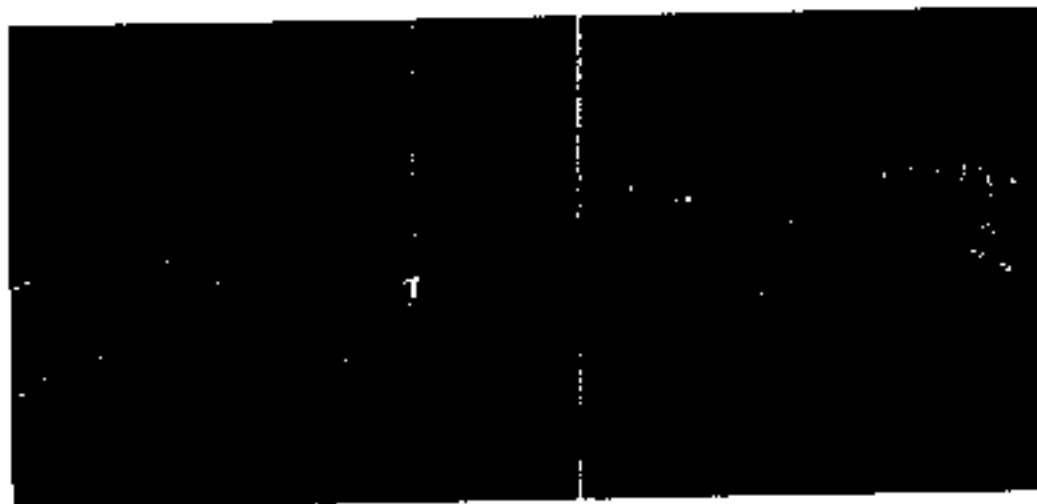
The star formation is made up of columns and files. The performers can make use of different colours or equipment to design a star formation.



Star formation

### S-shaped formation

The s-shaped formation is a more challenging formation that forms several s-shapes.



S-shaped formation

The formation is formed by many performers coming together.

## The use of signals in formations

Signals from the teacher or a group leader can be used to organise performers into different formations. The teacher can use words and hand signals to give the performers instructions on the formations to come up with formations and groups. Examples of activities that can be done by the performers to practise following the signals are:

### 1. Groups

- Stand in a file.
- When the teacher calls a number, you form groups of the number called out. For example, the number '2' the whole class forms groups of three.
- When the number three is called out, all members form the group with the number of players

### 2. Files

- Stand outside the arena.
- When the leader extends the arms forward, this means run and sit cross-legged in files
- When the leader extends arms sideways, this means stand in columns.

## Themes and formations

Performers in Mass Displays can combine formations in order to show the meaning of their performances. They can combine several simple formations to form words related to the theme of their performance.

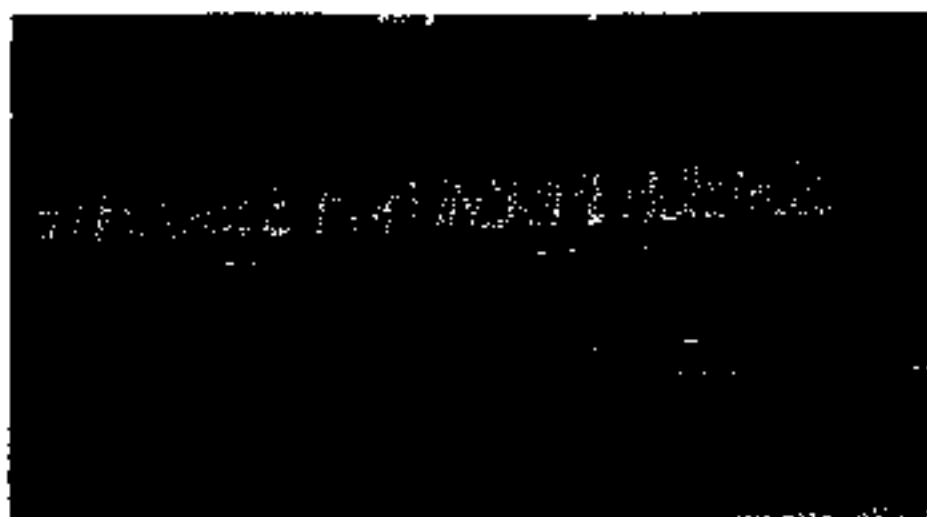


Figure 31.1 A mass display performance for Independence celebration

Figure 31.1 shows performers demonstrating an Independence day theme. In order to showcase the theme they combine different formations. These formations are related to the background art.



1. What are the formations that can be seen in the Independence day theme shown by the performers in Figure 31.1?
2. Design the formations for an Independence day theme.

Plan as a class the positions that each member should take to form the words of the theme 'Independence celebration'.

1. \_\_\_\_\_ and \_\_\_\_\_ are woodwind musical instruments.
2. We can play a flute using \_\_\_\_\_.
3. Write the importance of Mass Displays.
4. The type of art used in Mass Display is called \_\_\_\_\_.



5. What is the name of the instrument shown in the picture?
6. The primary colours are \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
7. The squares used to make accurate drawings in art are called \_\_\_\_\_.
8. \_\_\_\_\_ is the repeated pattern of sound.
9. \_\_\_\_\_ and \_\_\_\_\_ are formations used in Mass Displays.
10. Give one example of a complex formation.
11. What is choreography?
12. Write down any two themes that can be used in Mass Displays.

- Mass Displays are physical activities done by large groups of people to entertain and educate an audience.
- The physical performances are done with the aid of background art, and music.
- The music for Mass Displays can be provided by percussion instruments, and other musical instruments like the brass and woodwind instruments.
- Different movement patterns can be done using equipment to provide beautiful performances.
- Mass Display performances on the arena are done in different formations.
- The formations have to be linked to the background art to bring out the theme of the performance.

<b>background music</b>	– music used to control movement and formations in Mass Displays
<b>background art</b>	– the art used to give the meaning of the performances
<b>arena</b>	– a marked area where Mass Displays are done
<b>choreography</b>	– movements or activities done by performers in the arena
<b>designing</b>	– creating something in a desired way
<b>decorating</b>	– making something look more attractive by adding some pictures and designs
<b>wavy movements</b>	– movements that are similar to waves that are performed by one or more people
<b>hand signal</b>	– signs made by moving hands to give instructions
<b>theme</b>	– the main idea shown in a performance in Mass Display
<b>audience</b>	– the people watching a performance
<b>column formation</b>	– the formation where people stand side by side
<b>file formation</b>	– a formation where people stand one behind the other
<b>complex formations</b>	– these are difficult types of formations which involve a combination of many formations

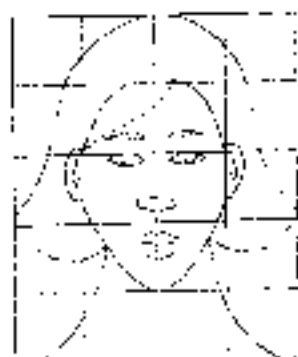
## End of topic assessment

### Part 1: Multiple choice

Choose the correct answer.

- Which one is not a percussion instrument?  
 A. Trumpet                      B. Jingle                      C. Drum                      D. Marimba
- Which one is an example of a brass instrument?  
 A. Saxophone                      B. Flute                      C. Triangle                      D. Jingle

3. A \_\_\_\_\_ is an example of a woodwind instrument.  
 A. triangle                      B. recorder                      C. mallet                      D. drum
4. A \_\_\_\_\_ and \_\_\_\_\_ are instruments that can be played by blowing air into them.  
 A. Brass and woodwind  
 B. Brass and percussion  
 C. Percussion and brass  
 D. Woodwind and percussion



5. The picture shows a drawing done using \_\_\_\_\_.  
 A. shapes                      B. grids                      C. circles                      D. triangles
6. \_\_\_\_\_ is an example of a primary colour.  
 A. Red                      B. Green                      C. White                      D. Grey
7. \_\_\_\_\_ is the repeated pattern of sound.  
 A. Percussion                      B. Movement                      C. Rhythm                      D. Formations
8. \_\_\_\_\_ is the way movements are done during dances?  
 A. Background art                      B. Background music  
 C. Arena acts                      D. Choreography
9. \_\_\_\_\_ and \_\_\_\_\_ are examples of simple formations.  
 A. File and star                      B. Column and flower  
 C. Column and file                      D. Flower and star
10. Hand signals can be used to give \_\_\_\_\_ to performers in Mass Displays.  
 A. entertainment                      B. instructions  
 C. music                      D. art
11. All performances in Mass Displays are guided by a chosen \_\_\_\_\_.  
 A. theme                      B. dance                      C. music                      D. formation
12. A combination of formations can be used on the arena to form \_\_\_\_\_ that show the theme.  
 A. bands                      B. music                      C. lines                      D. words

### Structured questions

**Answer the following questions.**

- \_\_\_\_\_ and \_\_\_\_\_ are examples of percussion instruments.
- A marimba is a type of \_\_\_\_\_ instruments.

3. \_\_\_\_\_ and \_\_\_\_\_ are brass instruments.
4. A flute and a clarinet are examples of \_\_\_\_\_ musical instruments.
5. Background art can be displayed in the form of \_\_\_\_\_ and \_\_\_\_\_.
6. Background art can be decorated using different coloured \_\_\_\_\_.
7. Simple formations are used in performances to maintain \_\_\_\_\_ during performances.
8. One example of complex formations is the \_\_\_\_\_ formation.
9. The leader or the teacher can use the voice or the \_\_\_\_\_ to give instructions in Mass Displays.
10. In a Mass Displays performance the music, art, choreography and arena acts must follow a given \_\_\_\_\_.

### **Practical assessment**

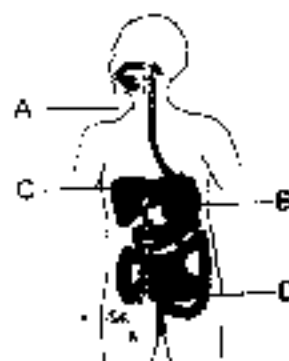
- I. a) In groups, design a Mass Displays performance using the following:
  - a theme of your choice,
  - background art
  - background music
  - arena activities
  - formations
- b) Perform the activities that you have designed in groups.

## End of term 1 assessment

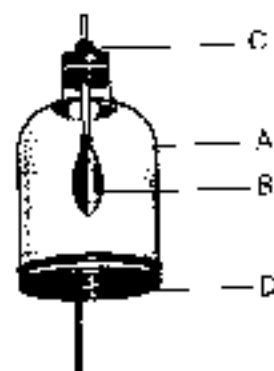
### Instructions

1. Answer all questions.
2. Choose the correct answer.

1. A series of organs joined together to store and transport food form the \_\_\_\_\_.  
 A. breathing system  
 B. eating system  
 C. digestion system  
 D. storing system  
 Use the picture of the digestive system to answer question 2.



2. Which organ A, B, C or D is the small intestine?
  3. Saliva is mixed with food in the mouth so that it can move smoothly down the \_\_\_\_\_.  
 A. gullet  
 B. oxygen  
 C. liver  
 D. small intestine
  4. The \_\_\_\_\_ stores more food in the digestive system.  
 A. gullet  
 B. liver  
 C. stomach  
 D. small intestine
  5. Faeces from the body after digestion are removed through the \_\_\_\_\_.  
 A. anus  
 B. small intestine  
 C. stomach  
 D. mouth
- The model below represents the breathing system.



6. In the picture, the lungs are represented by the letter \_\_\_\_\_.

7. The muscle that separates the chest and abdomen is called the \_\_\_\_\_.  
 A. ribs                      B. diaphragm              C. air sac              D. windpipe
8. Air in the lungs is stored by the \_\_\_\_\_.  
 A. ribs                      B. windpipe              C. bronchus              D. air sac
9. The other name for the trachea is the \_\_\_\_\_.  
 A. throat                      B. mouth                      C. windpipe              D. voice box
10. Breathing is the movement of air in and out of the body through the \_\_\_\_\_.  
 A. ears                      B. eyes                      C. nose                      D. blood
11. The name of the gas in the air that people need is \_\_\_\_\_.  
 A. oxygen                      B. water vapour  
 C. steam                      D. carbon dioxide
12. The \_\_\_\_\_ in the nose helps to clean air.  
 A. saliva                      B. mucus                      C. bone                      D. hair
13. Which activity helps to improve health and fitness?  
 A. Reading                      B. Writing                      C. Drawing                      D. Cycling



14. The physical activity shown in the picture is called \_\_\_\_\_.  
 A. horse riding              B. jogging                      C. pounding                      D. skipping
15. Which one is not a rule used when camping?  
 A. Campfires must be supervised              B. Behave well  
 C. No smoking                      D. Littering is allowed
16. A bowl is used in \_\_\_\_\_.  
 A. netball                      B. soccer                      C. boxing                      D. hopscotch
17. In shot put, after throwing, the athlete must leave the throwing area only from the \_\_\_\_\_ of the circle.  
 A. back                      B. front                      C. right                      D. left
18. In the swimming pool we are not allowed to \_\_\_\_\_.  
 A. dive                      B. eat                      C. submerge                      D. float
19. Hiking is a \_\_\_\_\_ sport.  
 A. walking                      B. mountaineering  
 C. running                      D. dancing
20. In 2018, the first Friday of every month in Zimbabwe was declared the \_\_\_\_\_.  
 A. Women's Day                      B. National Aids Day  
 C. National Clean-up Day                      D. Teachers' Day

21. A book where you record all the physical activities done every day is the

- A. dictionary      B. diary      C. Bible      D. atlas



22. What is the name of this disease?

- A. Typhoid      B. Goitre      C. Diabetes      D. Rickets

23. Lack of exercise can result in \_\_\_\_\_.

- A. typhoid      B. goitre      C. rickets      D. obesity

24. The deficiency disease caused by lack of proteins is \_\_\_\_\_.

- A. goitre      B. marasmus  
C. rickets      D. kwashiorkor

25. A fracture is a broken \_\_\_\_\_.

- A. stick      B. wood      C. bone      D. teeth

26. A dislocation takes place on a \_\_\_\_\_.

- A. muscle      B. joint      C. bone      D. mouth

27. \_\_\_\_\_ is an example of a dangerous water body.

- A. Borehole      B. Fenced swimming pool  
C. Protected well      D. Disused gravel pit

28. Gravel pits have underwater \_\_\_\_\_ which may cause drowning.

- A. mud      B. light      C. fish      D. air

29. The water source safe for swimming is a \_\_\_\_\_.

- A. sewage pond      B. swimming pool      C. gravel pit      D. river

30. Which one is not a swimming pool precaution?

- A. Keeping the pool clean      B. Do not swallow pool water  
C. Swallow the water if you are thirsty      D. Keep pets out of the pool

31. Which one is not a survival technique in water?

- A. Treading water      B. Floating on the back  
C. Swimming using a side stroke      D. Wearing shoes during swimming

32. You can enter the deep end of the swimming pool by \_\_\_\_\_.

- A. diving      B. rolling  
C. tumble turning      D. being pushed by friends

33. What is the name of the diving position?

- A. Sitting  
B. Kneeling  
C. Squating  
D. Standing



34. The start used in middle and long distance is the \_\_\_\_\_.  
 A. sprint start      B. flying start      C. crouch start      D. serve stance
35. During the set position, you must raise the \_\_\_\_\_ slightly higher than the shoulders.  
 A. legs      B. hands      C. head      D. hip
36. How many members form a team in a 4 x 100 m relay race?  
 A. Four      B. Five      C. Six      D. Seven



A.



B.



C.



D.

37. Which implement is used in shot put?
38. In race walking the athletes must never have both \_\_\_\_\_ off the ground.  
 A. elbows      B. hands      C. feet      D. knees
39. A race run over different places like hills, grass and rivers is called \_\_\_\_\_.  
 A. hurdles      B. cross-country  
 C. sprint      D. middle distance
40. Hop, step and jump are stages of \_\_\_\_\_ jump.  
 A. pole vault      B. long      C. high      D. triple

[40 marks]

### Answer all the questions

- The windpipe is part of the \_\_\_\_\_ system. [1]
- The function of the large intestine is to absorb \_\_\_\_\_ and \_\_\_\_\_. [2]
- Draw the breathing system and label the following parts  
 a) Nose  
 b) Windpipe  
 c) Lungs  
 d) Diaphragm [4]
- Three diseases caused by poor sanitary conditions are \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_. [3]
- Typhoid is caused by germs called \_\_\_\_\_. [1]
- Bilharzia is caused by \_\_\_\_\_ found in stagnant water in areas like dams and rivers. [1]



7. The type of the injury shown in the picture is \_\_\_\_\_. [1]



8. The two types of diving positions are \_\_\_\_\_ and \_\_\_\_\_. [2]
9. A safer way of learning the diving skill is to use the \_\_\_\_\_ of the pool. [1]
10. Examples of dangerous water bodies for swimming are \_\_\_\_\_ and \_\_\_\_\_. [2]
11. \_\_\_\_\_ and \_\_\_\_\_ are examples of buoyancy aids used for safety in swimming. [2]
12. The skill of turning under water is called \_\_\_\_\_. [1]
13. Two types of horizontal jumps are \_\_\_\_\_ and \_\_\_\_\_. [2]
14. Draw a javelin and label the following parts [2]
- Head
  - Shaft
  - Grip
15. The starting technique used in sprints is the \_\_\_\_\_. [1]
- [25 marks]

**Demonstrate the following:**

1. The sprint start technique. [5 marks]
2. Javelin grip and throwing. [5 marks]
3. Side stroke. [5 marks]
4. Kneeling diving. [5 marks]

## End of term test assessment

### Instructions

1. Answer all questions.

2. Choose the correct answer.

- Which one is an external body part?  
A. Stomach                      B. Liver                      C. Intestine                      D. Skin
- A source of water that transport water from a dam to fields is called ....  
A. dam                                      B. river  
C. swimming pool                      D. water canal
- Soccer is an example of ..... games.  
A. invasion                      B. target                      C. striking                      D. combat
- One advantage of moving into space is that .....  
A. it allows players to make decisions  
B. it allows opponents to know the next movement you plan  
C. affects the way the team plays  
D. it will not allow you to pass
- One of the skills not used in invasion games is .....  
A. batting                      B. passing                      C. throwing                      D. attacking
- One of the playing positions for baseball players is as a .....  
A. goalie                      B. catcher                      C. keeper                      D. forward
- The ..... hits the ball using a bat in baseball.  
A. forward                      B. batter                      C. fielder                      D. pitcher
- A ..... is the name of the equipment used in tennis.  
A. racket                      B. bat                      C. plate                      D. wicket
- In target games players score when they successfully throw or strike an object closer to a .....  
A. hand                      B. target                      C. combat                      D. leg
- Target games are .....  
A. darts and pin bowling                      B. darts and baseball  
C. soccer and pin bowling                      D. soccer and tennis
- The equipment with a part called the bullseye is used in .....  
A. baseball                      B. darts                      C. pin bowling                      D. soccer
- ..... is a Japanese combat game.  
A. Cricket                      B. Judo                      C. Darts                      D. Tug of war
- In order to balance in most games we must use the correct .....  
A. stance                      B. pike                      C. tackle                      D. kicking
- ..... is not a stroke in tennis.  
A. Forehand                      B. Volley                      C. Front crawl                      D. Backhand
- The ..... stroke causes the ball to rotate in tennis.  
A. lob                      B. serve                      C. spin                      D. smash



16. This grip is used in \_\_\_\_\_.  
 A. cricket B. baseball C. tennis D. pin bowling
17. Which shape is formed by the thumb and forefinger in the cricket batting grip?  
 A. W-shape B. V-shape C. Y-shape D. T-shape
18. To practise the basic grip for baseball bat you must place the hand of the bat in your \_\_\_\_\_.  
 A. bottom B. top C. back D. front
19. The middle part of a cricket ball has a joint called \_\_\_\_\_.  
 A. ribbon B. seam C. mark D. line
20. In adventure activities a raft is used for \_\_\_\_\_.  
 A. transport B. climbing C. hiking D. cycling
21. Another name for cycling is \_\_\_\_\_.  
 A. hiking B. biking C. rafting D. abseiling
22. On a bicycle brakes are used to \_\_\_\_\_.  
 A. support cyclist B. reduce speed  
 C. increase speed D. turn the bike
23. The skill of getting onto the saddle of a bicycle is called \_\_\_\_\_.  
 A. hiking B. biking C. mounting D. dismounting
24. Paddles are used to drive a \_\_\_\_\_.  
 A. car B. bicycle C. canoe D. motorbike
25. \_\_\_\_\_ is an activity of descending a vertical rock surface using a doubled rope.  
 A. belaying B. canoeing C. sailing D. abseiling



26. What is the name of the knot shown in the picture above?  
 A. Sheet bend B. Square C. Overhand D. Lash
27. The technique used in binding wooden poles with a rope is \_\_\_\_\_.  
 A. tying B. lashing C. wrapping D. crossing
28. We use \_\_\_\_\_ to play marimba.  
 A. mallet B. metal C. triangle D. jingle
29. \_\_\_\_\_ is the water sport that uses wind to move the boat.  
 A. Canoeing B. Rafting C. Sailing D. Swimming

30. Which one is not an example of safety equipment for climbing mountains?  
 A. Helmet B. Boots with nails C. Sails D. Ropes
31. \_\_\_\_\_ is the process of holding rope and the climber to avoid falling.  
 A. Balancing B. Abseiling C. Sailing D. Belaying
32. Which skill is needed in forming pyramids?  
 A. Abseiling B. Balancing C. Belaying D. Sailing
33. During orienteering, a \_\_\_\_\_ is used to find direction.  
 A. compass B. ruler C. map D. flag
34. Balances which form shapes which are the same on both sides when divided into two parts are \_\_\_\_\_ balances.  
 A. symmetry B. asymmetry C. running D. locomotion
35. An area marked using a ribbon or rope for orienteering is called a \_\_\_\_\_ course.  
 A. string B. short C. long D. flag
36. In gymnastics, locomotion means \_\_\_\_\_.  
 A. balancing on one leg  
 B. travelling from one point to another  
 C. balancing on hands  
 D. balancing in groups
37. A combination of activities which form a pattern in gymnastics is called \_\_\_\_\_.  
 A. balance B. routine C. dancing D. locomotion



38. This type of balance is called a \_\_\_\_\_.  
 A. handstand B. pyramid  
 C. walkover D. jack-knife jump
39. A person who supports another person in gymnastics is called a \_\_\_\_\_.  
 A. spotter B. belayer C. sailor D. cyclist



40. In gymnastics this activity is called \_\_\_\_\_.  
 A. forward walkover B. forward roll C. headspring D. head balance

[40 marks]

**Answer all the questions.**

1. The skill of getting off the bicycle is \_ \_ \_ \_ \_ . [1]
2. When sailing the boat uses \_ \_ \_ \_ \_ pushed by wind in order to move. [1]
3. The most important equipment for climbing and abseiling are \_ \_ \_ \_ \_ and \_ \_ \_ \_ \_ . [2]
4. We can use \_ \_ \_ \_ \_ and \_ \_ \_ \_ \_ during orienteering. [2]
5. Two examples of striking games are \_ \_ \_ \_ \_ and \_ \_ \_ \_ \_ . [2]
6. Asymmetrical balances form \_ \_ \_ \_ \_ which are not the same when divided into two. [1]
7. Two types of material that can be used to make a raft are \_ \_ \_ \_ \_ and \_ \_ \_ \_ \_ . [2]
8. How many players take part in the game of rotating cricket? [1]
9. The two rules used in battle game are \_ \_ \_ \_ \_ and \_ \_ \_ \_ \_ . [2]
10. The two skills which can be used in judo are \_ \_ \_ \_ \_ and \_ \_ \_ \_ \_ . [2]
11. Invasion games involve \_ \_ \_ \_ \_ and \_ \_ \_ \_ \_ . [2]
12. One principle of defending in invasion games is \_ \_ \_ \_ \_ . [1]
13. The centre part of a dart board is called \_ \_ \_ \_ \_ . [1]
14. One of the skills used in pin bowling is called \_ \_ \_ \_ \_ . [1]
15. A high stroke used as a defence stroke to move the opponent away from the net is called the \_ \_ \_ \_ \_ . [1]

[22 marks]

1. Design a gymnastics pattern made up of five movement skills, balancing and body shapes. Demonstrate your pattern in not more than 8 minutes. [20 marks]
2. Demonstrate pin bowling using the underarm skill (holding the ball, stepping forward with the opposite leg, underarm throwing, targeting). [5 marks]
3. Demonstrate the serve for tennis ball (holding the racket using correct grip, tossing the ball, driving the racket to hit the ball and hitting and follow through). [5 marks]

## End of term 3 assessment

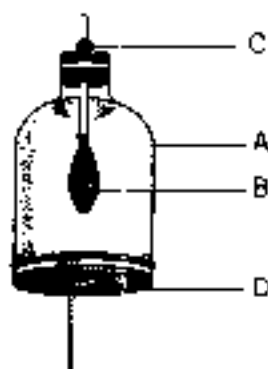
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### Instructions

1. Answer all questions

2. Choose the correct answer.

Use the picture of a model of the breathing system to answer question 1.



- In the picture above, the rib cage is represented by the letter \_\_\_\_\_.
- The muscle that is found below the lungs is called the \_\_\_\_\_.  
A. ribs                      B. diaphragm              C. air sac              D. windpipe
- Air in the lungs is stored by the \_\_\_\_\_.  
A. ribs                      B. windpipe              C. bronchus              D. air sac
- The part of the body which pumps blood is the \_\_\_\_\_.  
A. ribs                      B. heart                      C. brain                      D. lungs
- Food is moved from the mouth to the stomach through the \_\_\_\_\_.  
A. trachea                      B. gullet                      C. liver                      D. intestine
- The purpose of bones in our body is to \_\_\_\_\_.  
A. support the body              B. carry blood              C. break food              D. carry oxygen
- Which activity helps to improve health and fitness?  
A. Reading                      B. Running                      C. Drawing                      D. Writing
- Physical activities help to improve \_\_\_\_\_.  
A. blood                      B. obesity                      C. height                      D. fitness
- Which of the following is a water activity?  
A. Camping                      B. Orienting                      C. Canoeing                      D. Hiking
- Diseases caused by lack of nutrients are called \_\_\_\_\_ diseases.  
A. deficiency                      B. contact                      C. infectious                      D. killer
- Which one is not an infectious disease?  
A. Cholera                      B. Dysentery                      C. Typhoid                      D. Obesity
- In the gymnasium, the athletes are not allowed to wear ... \_\_\_\_\_.  
A. clothes                      B. gymnastics shoes  
C. rings and necklaces                      D. leotards

13. The temperature of water in the gravel pit is so cold that it can cause \_\_\_\_\_.  
 A. malaria B. cholera C. cold shock D. obesity
14. A distance run by one athlete in relay is called \_\_\_\_\_.  
 A. baton B. relay C. leg D. baul
15. When swimming we must keep \_\_\_\_\_ equipment close to the swimming pool all the time.  
 A. riding B. cycling C. lifesaving D. orienteering
16. Which one is not a stroke in swimming?  
 A. Backhand B. Breast stroke C. Front crawl D. Back crawl
17. Water polo is a \_\_\_\_\_ sport.  
 A. aquatic B. striking C. combat D. target



18. What is the name of the stroke shown in the picture above?  
 A. Breast stroke B. Back crawl C. Front crawl D. Side stroke
19. In athletics a race where athletes run over obstacles is called \_\_\_\_\_.  
 A. relay B. high jump C. hurdles D. long jump
20. During the set position, you must raise the \_\_\_\_\_ slightly higher than the shoulders.  
 A. legs B. hands C. head D. hip



A.



B.



C.



D.

21. Which implement is used in javelin?  
 A. pole vault B. long jump C. high jump D. triple jump
22. The type of jump made up of three jumps is the \_\_\_\_\_.  
 A. pole vault B. long jump C. high jump D. triple jump
23. Darts are an example of \_\_\_\_\_ games.  
 A. invasion B. target C. striking D. combat
24. Which one is not a skill used in striking games?  
 A. Throwing B. Catching C. Batting D. Kicking
25. The \_\_\_\_\_ strikes the ball using a bat in baseball.  
 A. batter B. goalie C. fielder D. pitcher
26. In invasion games, players attack and \_\_\_\_\_.  
 A. dance B. swim C. climb D. defend
27. The wicket keeper uses the \_\_\_\_\_ stance to see all the balls closer to a target.  
 A. flying start B. crouch C. serve D. attack

28. The Japanese game which involves kicking and punching the opponent is called ..

- A. karate                      B. darts                      C. judo                      D. tug of war

29. .... is not an example of adventure activities.

- A. Cycling                      B. Camping  
C. Mountain climbing                      D. Athletics

30. To show that you want to turn when signalling, you use ..... signals.

- A. hand                      B. leg                      C. head                      D. foot

31. What name do we give to equipment used to drive a raft or a canoe?

- A. Pedal                      B. Wheels                      C. Sticks                      D. Paddles

32. .... is an activity of descending a vertical rock surface using a doubled rope.

- A. Belaying                      B. Canoeing                      C. Sailing                      D. Abseiling

33. Never light a fire inside a ..... during camping.

- A. tent                      B. pit                      C. house                      D. container

34. Which one is not a type of knot for tying?

- A. Overhand                      B. Square knot                      C. Lashing                      D. Sheet bend

35. Which skill is needed in forming pyramids?

- A. Abseiling                      B. Balancing                      C. Belaying                      D. Sailing



36. This is an example of a ..... balance.

- A. symmetry                      B. asymmetry                      C. running                      D. locomotion

37. A combination of activities which form a pattern in gymnastics is called .....

- A. gymnastics routine                      B. gymnastics balance  
C. dancing                      D. locomotion



38. In gymnastics, this activity is called .....

- A. upswing                      B. forward roll                      C. headspring                      D. cartwheel

39. The importance of learning gymnastics is to .....

- A. improve fitness                      B. treat diseases  
C. increase obesity                      D. to increase height

40. Which one is not a percussion instrument?

- A. Flute                      B. Jingle                      C. Drum                      D. Triangle



41. Which one is an example of a brass instrument?  
 A. Triangle B. Tambourine C. trumpet D. Jingle
42. \_\_\_\_\_ is not a secondary colour.  
 A. Green B. Purple C. Orange D. Yellow
43. \_\_\_\_\_ is an example of a primary colour.  
 A. Red B. Pink C. White D. Orange
44. \_\_\_\_\_ is the repeated pattern of sound?  
 A. Percussion B. Movement C. Rhythm D. Formation
45. \_\_\_\_\_ is the way movements are done during dances.  
 A. Background art B. Background music  
 C. Arena acts D. Choreography
46. A \_\_\_\_\_ is an examples of complex formations.  
 A. file B. column C. square D. star



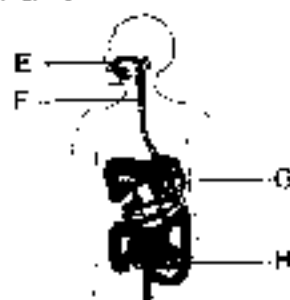
47. The picture shows an example of a \_\_\_\_\_ formation.  
 A. flower B. square C. star D. file
48. Hand signals can be used to give \_\_\_\_\_ to performers in Mass Displays.  
 A. entertainment B. instructions C. music D. art
49. Mass Displays is used to \_\_\_\_\_ people.  
 A. educate B. treat C. fight D. draw
50. A \_\_\_\_\_ is used to design Mass Displays activities.  
 A. play B. theme C. line D. word

[50 marks]

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Answer all the questions.

- The stomach is part of the \_\_\_\_\_ system. [1]
- The function of the lungs is to \_\_\_\_\_. [1]
- Draw the digestive system and label the following parts.



[4]

4. To prepare the body for games you must do \_\_\_\_\_ [1]
5. Two types of the injuries in sport are \_\_\_\_\_ and \_\_\_\_\_. [2]
6. It is dangerous to dive on the \_\_\_\_\_ end of the pool. [1]
7. Examples of dangerous water bodies for swimming are \_\_\_\_\_ and \_\_\_\_\_. [2]
8. Two types of throws are \_\_\_\_\_ and \_\_\_\_\_. [2]
9. The skill of getting on the bicycle is \_\_\_\_\_. [2]
10. Sails are pushed by \_\_\_\_\_ in order to move the boat. [1]
11. The most important equipment for climbing and abseiling are \_\_\_\_\_ and \_\_\_\_\_. [2]
12. \_\_\_\_\_ and \_\_\_\_\_ are used during orienteering. [2]
13. Two examples of combat games are \_\_\_\_\_ and \_\_\_\_\_. [2]
14. The equipment used in baseball are \_\_\_\_\_ and \_\_\_\_\_. [2]
15. The centre part of a dart board is called \_\_\_\_\_. [1]
16. \_\_\_\_\_ and \_\_\_\_\_ are brass instruments. [2]
17. Movement of the body from one position to another in gymnastics is called \_\_\_\_\_. [1]
18. Background art can be displayed in the form of \_\_\_\_\_ and \_\_\_\_\_. [2]
19. Background art can be decorated using different coloured \_\_\_\_\_. [1]
20. In a Mass Displays performance the music, art, choreography and arena acts must follow a given \_\_\_\_\_. [1]

[32 marks]

1. Design a gymnastics pattern made up of five movement skills, symmetrical and asymmetrical balancing and body shapes. Demonstrate your pattern in not more than 8 minutes.
2. Demonstrate the following:
  - (a) The sprint start technique.
  - (b) discus grip and throwing.
  - (c) back crawl in swimming