

A reference book of Science & Technology, Health & Physical Education

Nirantar

Science & Technology

Health & Physical Education

Step-2



Authors

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Nirantar Prakashan

www.nirantarprakashan.com.np

Book : **Nirantar Science & Technology**

Health & Physical Education **Step - 2**

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Publisher : Nirantar Prakashan
Putalisadak, Kathmandu-29, Nepal

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First Edition : 2077

Second Edition : 2078

Third Edition : 2079 (Updated)

Design : Nirantar Desktop
Putalisadak, Kathmandu

Price : Rs.

Printed in Nepal.

Preface

Nirantar Science & Technology (Health & Physical Education) book aims at providing both theoretical and practical cognitivity to the students of far and wide having some flair to science, scientific facts and processes with ample activities considering their needs, level, aptitude, intelligence and age factor by creating interest through proper selection and gradation of the subject matter to be taught and learnt. The entire desk of authors and editors claims that the book has come to adopt a thematic and activity centred approach, abundant illustrations and so on in order to make an understanding of science more effective and comprehensive.

This book has been developed as reference material to develop the concept of science and technology from the youngest class and to support the learners of the upper classes. This book describes in detail the lessons related to the science, technology, health and physical studies.

The new version in your hand is solemnly dedicated to those scholars far and wide with a provision of richly sophisticated but only relevant pictures, diagrams, tables, charts, fact files, reasons and logics, etc. as the soul of science. Apart from these, several other efforts have been put forward collectively in order to make the book more concise and student friendly so as to address the requirement of a perfect book to many students and teachers who like to culminate real practice in science in the days to come. Besides this, our another attempt through this presentation is to eradicate some misconceptions to science appeared in the growing mind of students especially in the classroom context by illuminating them in terms of these salient features incorporated within each book of the series.

Home Assignments/Worksheets: The revision exercises at the end of every chapter can be given as home assignments after teaching particular concepts.

Varieties of Questions: Objective type questions like, true or false, fill in the blanks, choose the correct answer, etc. are given in the exercises at the end of every chapter in this book in order to fulfill the objectives of each lesson.

Activities: Numerous activities in the classroom can provide platform for active involvement of students in application of their theoretical knowledge and learning. Thus, interesting activities are given so as to arouse interest of the students in science.

Projects: Lots of activities in the book are dedicated to investigate research projects with information gathering and deducing. Some of these can be individual research projects and others assigned to group of students with an aim to make them more participatory.

Note to the Teacher: This helps the teachers to get some tips in teaching methodology of each lesson as this section attempts to provide teachers with some exposure to science.

Points to Remember: This section helps the students to understand the main points of each lesson.

Quick Reply: It helps the students to answer the quick understanding of the lesson.

Last, but not the least, our sincere thanks goes to **Nirantar Prakashan** for their keen interest in publishing this series of books. We are also thankful to Mr. Shambhu Pd. Pokhrel (School Chairperson), Mrs. Sujita Adhikari Pokhrel (Principal), Mr. Rudra Prashad Khanal (Vice Principal), Mr. Ram Shrestha (Science Teacher), Mr. Badri Neupane (Science Teacher), Mr. Bishnu Bhattarai (English Teacher) at different institutions for their constructive suggestions and support.

Any constructive suggestions and recommendations for the betterment of this series will be highly acknowledged.

- Authors

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ENVIRONMENT & SCIENCE





UNIT 1

THINGS AROUND US



Key Words

life	survive	energy	sunlight	food	shelter
nature	reproduce	towards	prepare	exchange	stomata
breathe	grow	plant	birth	move	

There are many things around us. They are living things and non-living things. **Things which are made by people are called man-made things.** Toy, pencil, car, bicycle, etc. are man made things. Things that are found in nature are called natural things. Tree, soil, water, rocks etc. are natural things.

Living Things



Non-Living Things



Living Things

Some of the things around us that have life in them are called **living things**.



bird



fish



goat



insect



tree



dog



rat

Do you know?

- Elephant is the largest animal on land.

Non-living Things

Some of the things around us do not have life in them. They are called **non-living things**.



stone



doll



table



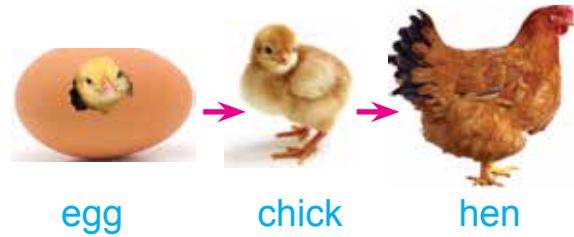
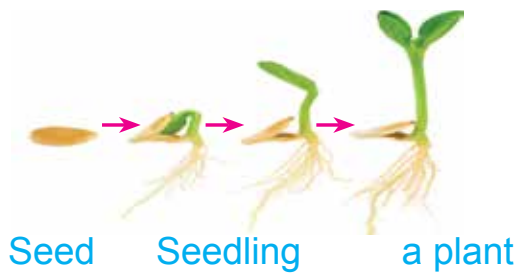
chair

Non-living things do not grow, breathe, move, feel and reproduce. They do not need food.

Living Things Grow

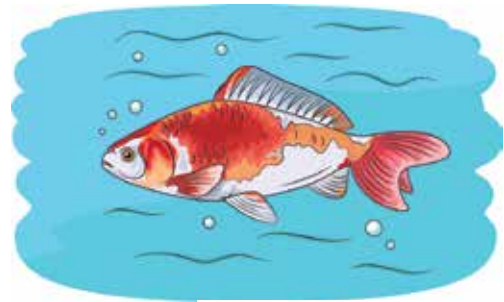
Plants and animals can grow. New plants can grow from the seeds of other plants. A baby grows into a child and a child grows into an adult.



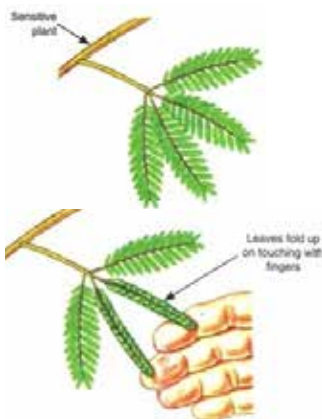


Living Things Move

Animals move from one place to another. Animals move around to get food to eat. They need food to live. Animals move with the help of wings, leg or fins. Snakes crawl on the ground.



Plants cannot move from one place to another. But different parts of a plant can move. Stems move towards sun light and roots move towards water. The sunflower turns its face towards the sun. When we touch the leaves of a touch-me not plant, the leaves fold together.

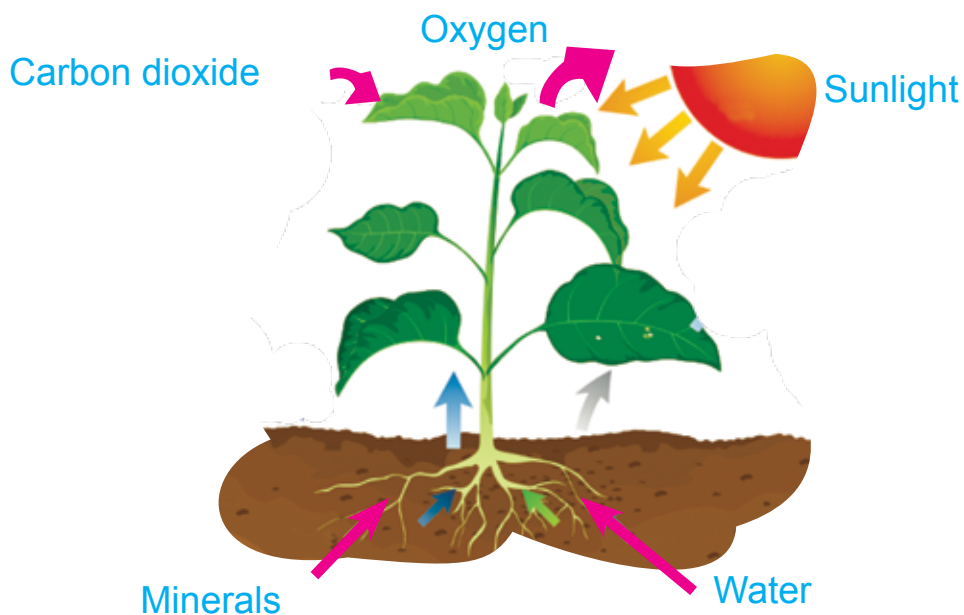


Do you know?

- We cannot live more than a minute without breathing.

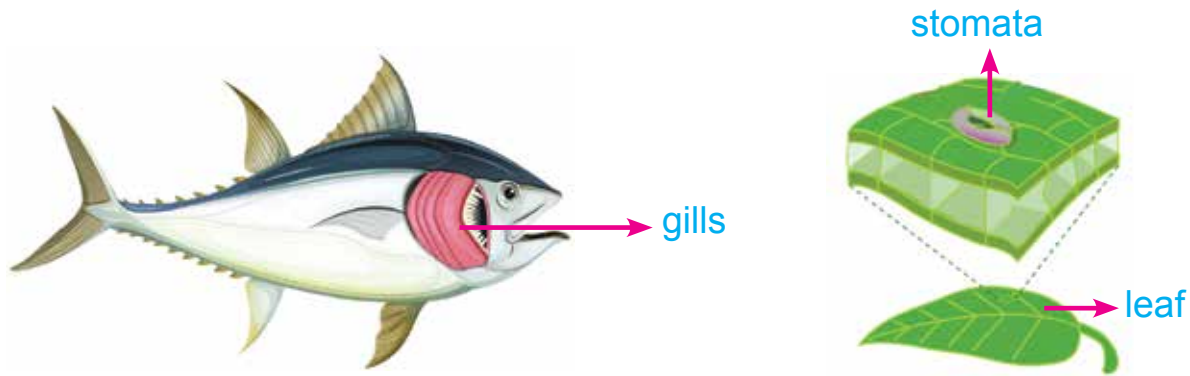
Living Things Need Food

All living things need food to grow and live. Food provides us energy needed to work and play. Similarly, animals and plants also need food to stay alive. Green plants prepare their own food by using carbon-dioxide, water and sunlight. Some animals eat plants or parts of plants whereas others eat the flesh of other animals.



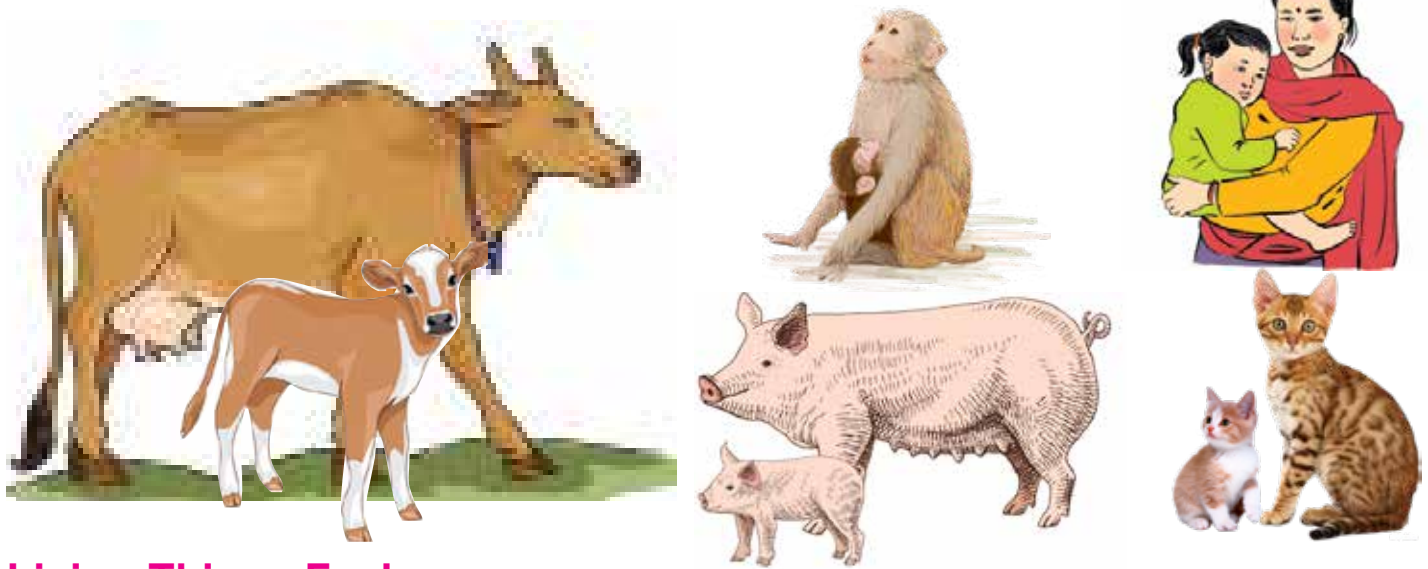
Living Things Breathe

All living things breathe air to live. Like us animals and plants also breathe to live. Plants have tiny holes in leaves for the exchange of air. Those holes are called **stomata**. We breathe through our lungs via nose. Fish breathe through gills. Frog breathes in water by the skin and on land through its lungs. Ants, grasshoppers, cockroaches etc. breathe through air holes in their bodies.



Living Things Reproduce

All living things reproduce. Humans, animals and plants reproduce their own kind. Animals reproduce by laying eggs or by giving birth to young ones. Snake, birds and insects reproduce by laying eggs. Birds lay eggs which are hatched into tiny birds. A cow gives birth to her calf. Bitch gives birth to puppies. Most plants reproduce from their seeds.



Living Things Feel

All Living things feel and react in different ways. We feel hot in summer and cold in winter. A dog can smell with the help of its nose. Animals have different sense organs such as skin, ears, nose, eyes and tongue. Even plants feel the changes. Plants look fresh when watered. They do not have sense organs but they feel changes around them. Sun flowers turn with the sun.





Quick Reply

- Name some natural things.
- Do plants prepare their food themselves?
- Name some animals which lay eggs.
- Name some animals which give direct birth to young ones.



Note to the Teacher

Discuss different characteristics of plants and animals which are found around us. Demonstrate the breathing activity with student show the audiovideo material to describe the characteristics of living beings.



Points to Remember

- Things that have life in them are called **living things**.
- Things that do not have life in them are called **non-living things**.
- Things which are made by man are called **man-made things**.
- Living things move, grow, breathe, reproduce, feel, need food and die.
- Non-living things cannot move, grow, breathe, reproduce feel or do not need food or die.

Glossary

shelter	: a place to live
stoma (pl. stomata)	: microscopic pores in the epidermis of plants; stomata help in gaseous exchange
crawl	: move slowly or gently in zigzag motion
survive	: continue to live
breathe	: draw air into, and expel out of eg. the lungs



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

organs life eggs stomata legs move man-made

1. Dogs move with the help of
2. Birds lay
3. Animals have sense
4. Plants breathe through
5. Non-living things do not have
6. Living beings in search of food and shelter.
7. Things that are made by people are called..... things.

B. Write 'T' for true or 'F' for false statements.

- | | |
|---|--------------------------|
| 1. Non-living things need help to move. | ☐ |
| 2. Animals reproduce their own kind. | ☐ |
| 3. A small chair grows into a big chair. | ☐ |
| 4. Fish breathe through their nose. | ☐ |
| 5. Plants reproduce new plants through seeds. | ☐ |
| 6. Birds and insects lay eggs. | ☐ |
| 7. Animals do not feel and react. | ☐ |

C. Match the followings:

Snake •

• jump

Fish •

• hen

Frog •

• crawl

Chick •

• fly

Bird •

• swim

Seed •

• breathe through stomata

Plants •

• breathe through lungs

Animals •

• grow into new plants

D. Tick (✓) the correct answer.

1. Green plants breathe through

i. gills ☐

ii. stomata ☐

iii. nose ☐

2. Gills are present in

i. birds ☐

ii. fish ☐

iii. man ☐

3. Lizard and snake move by

i. crawling ☐

ii. flying ☐

iii. jumping ☐

4. It gives birth to young ones.

i. hen ☐

ii. cow ☐

iii. duck ☐

E. Answer these questions.

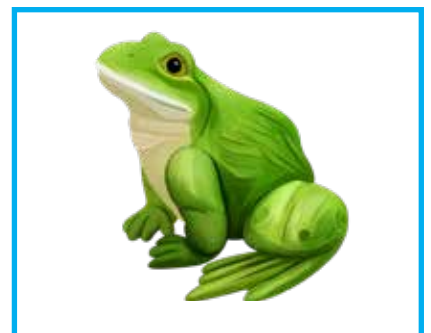
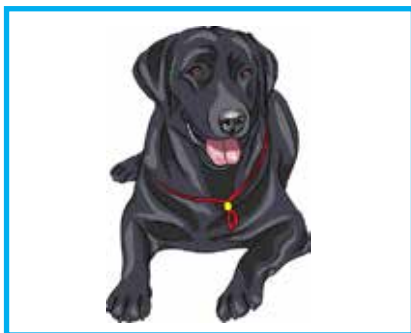
1. What are living things ?

2. Name three living things.

3. Name any four characteristics of living things.

4. Write differences between non-living and living things.
5. What are non-living things ?
6. What are man-made things ?
7. What are natural things ?
8. Name three non-living things.
9. Write any four characteristics of non-living things.
10. Write the breathing organ of different animals?
11. From which part do plants breathe ?
12. Name five sense organs of animals.

F. Observe the following pictures and mark 'L' for living things and 'NL' for non-living things.





G. Choose the best answer from the given alternatives.

- i. It has life in it.
 - a. man-made thing b. natural thing
 - c. living things d. non-living things
- ii. It is a living thing.
 - a. tree b. chair
 - c. car d. pen
- iii. It is a baby of a cow.
 - a. calf b. puppy
 - c. seed d. dog
- iv. It reproduces by egg.
 - a. hen b. dog
 - c. cow d. goat
- v. Living things need this gas to breathe.
 - a. oxygen b. carbon dioxide
 - c. nitrogen d. smoke

H. Name the following things and write them living or non-living.



I. Make meaningful words from the jumbled letters.

HFIS



LANPT



RFIE



ABTLE



ELAF



Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these living things? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Can you write their names?

a	b	c	d

Project Idea



1. Collect the pictures of different living and non-living things and paste them in your science exercise book.
2. Write the name of the living things of your surrounding in the given table.

plants	
flying animals	
land animals	
water animals	

3. Observe non-living and living things in and around your house and fill in the table given below.

Living things	Non-living things
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



UNIT 2

ANIMAL LIFE

Key Words

domestic pet wild different feathers strong
biggest direct reptiles covered

There are different types of animals around us. Among them, some animals are kept in our house whereas others live in forest or water.

Domestic Animals

Animals which live around or near by our homes are called **domestic animals**. Domestic animals are useful to us in many ways. Some animals such as cows, buffaloes, hens, ducks and sheep are kept at the farm. Some domestic animals are also known as farm animals. Animals such as dogs and cats are kept at home and are called pet animals. These animals are kept for fun. Dog guards our houses. We use horse, oxen and donkeys to carry our loads from one place to another.



cow



buffalo



goat



horse



duck

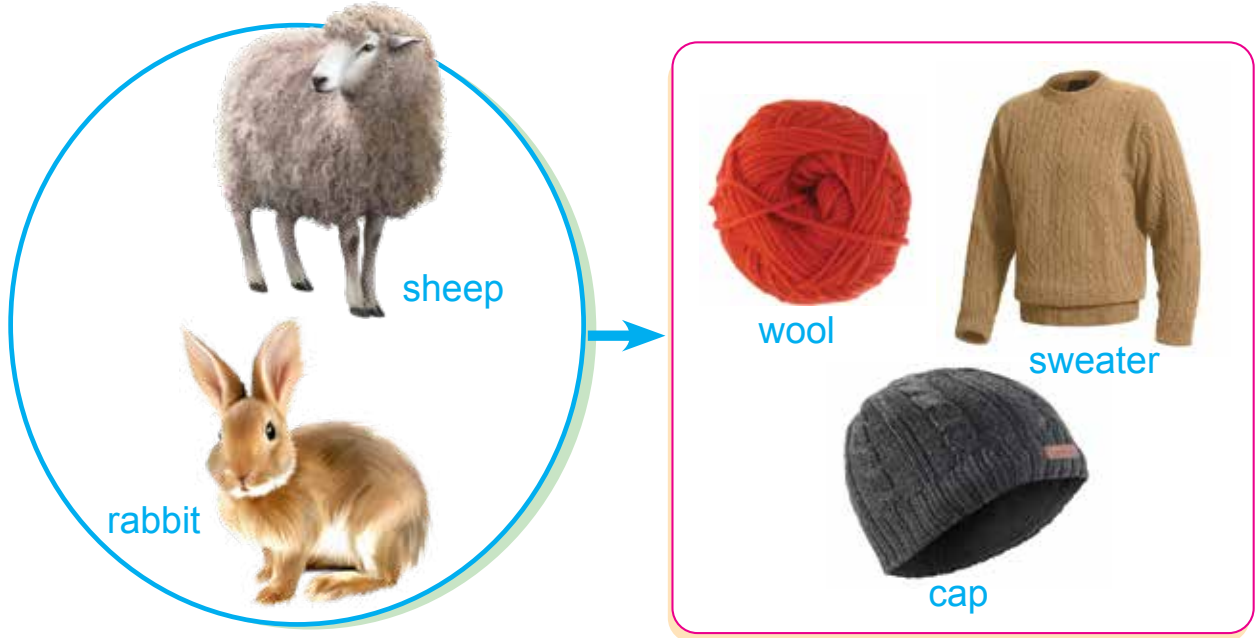


hen

Do you know?

- Parrot can imitate some human words.

Animals such as rabbits and sheep give us wool. The wool of these animals are used in making caps and sweater.



Leather is obtained from the skin of dead animals. It is used for making shoes, belts and bags.

Do you know?

- Egg of ostrich is the largest of all.



Wild Animals

Animals that live in the forest are called **wild animals**. They cannot be tamed. You can see some wild animals in zoo. Wild animals are fearful and dangerous. They are of different sizes. Elephants, rhinoceros and giraffes are very big animals.



elephant



rhinoceros



giraffe



lion



tiger



zebra

Deer, fox, wild boar, hyena and monkey are small animals.



deer



fox



bear



hyena



monkey

Rats, rabbits and squirrels are very small animals.



rat



rabbit



squirrel



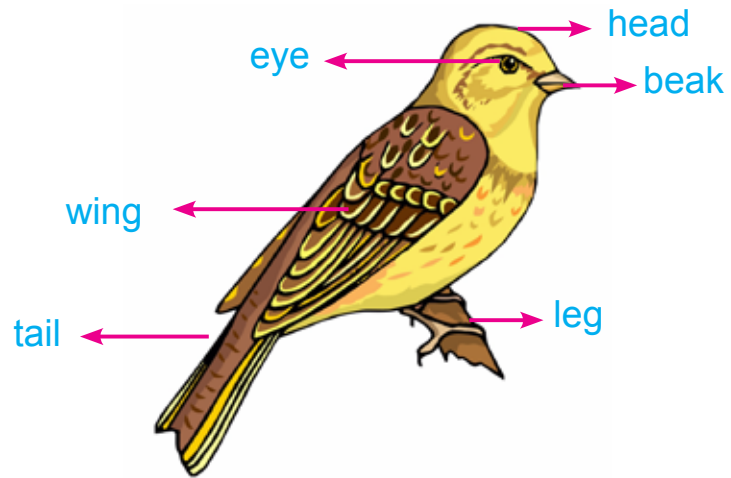
porcupine

Do you know?

- Dolphin is very intelligent animal.

Birds

Birds have wings and feathers. They have light body and strong muscles. Most birds can fly. Birds have a head, two eyes, two wings, two legs and a beak. Ostrich is the biggest bird in the world. The animals having wings, feathers and tails are birds. Most of the birds can fly. Some birds like ostrich and kiwi cannot fly.



ostrich



eagle



kiwi



owl



danfe



crow



sparrow



peacock



duck



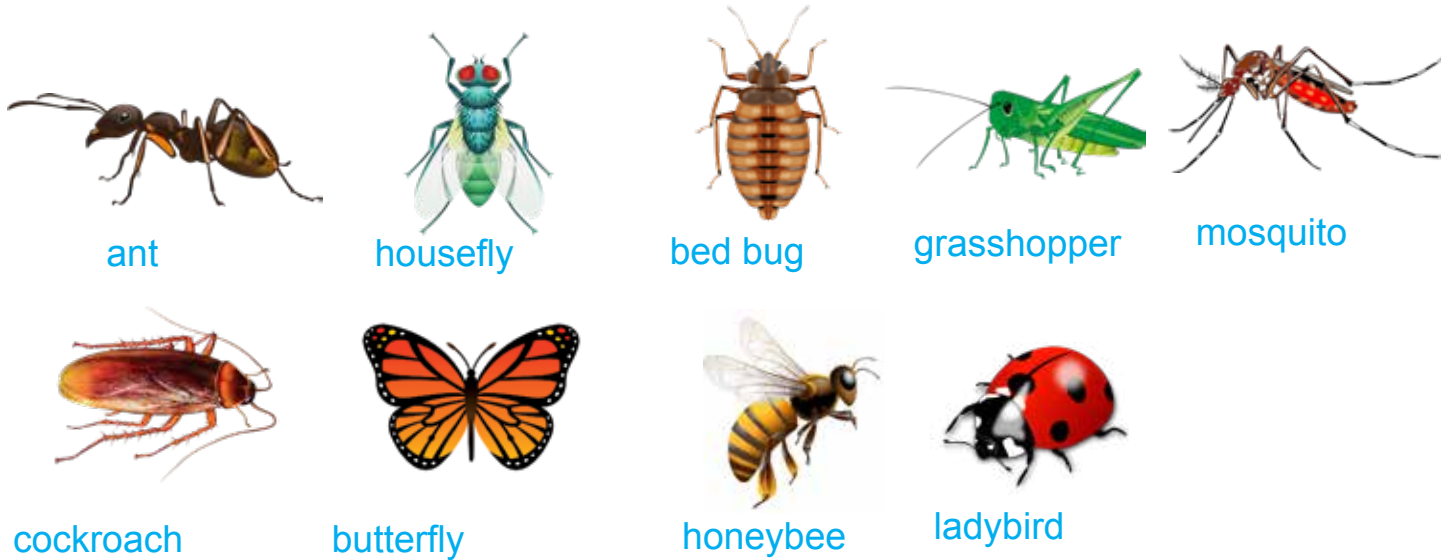
hen



pigeon

Insects

Very small animals having six legs are called **insects**. Most insects have wings. Wings help them to fly. Some insects do not have wings but walk with the help of their legs. All insects lay eggs.

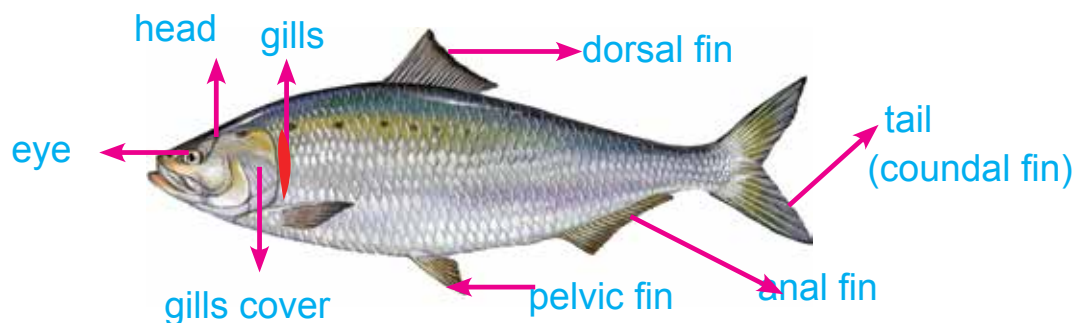


Silkworm gives us silk for making silk clothes.



Water Animals (Aquatic Animal)

The animals that live in water are called **water animals**. All water animals swim in water with the help of fins. Most of them lay eggs. Whales and dolphins give direct birth to their young ones because they are mammals.





starfish



dolphin



whale



octopus



prawn



jellyfish

Reptiles (Crawling Animals)

Animals that crawl on the ground are called **reptiles**. They lay eggs. Some reptiles live near water. The body of the reptile is covered with **scales**.



snake



lizard



crocodile

Amphibians

Animals that live both in water and on land are called **amphibians**. All amphibians lay eggs.



frog



salamander



newt



toad

Do you know?

- Ostrich is a bird which runs faster than a horse.



Quick Reply

- Name the largest bird.
- Name some animals you have seen.
- Which domestic and pet animals do you like the most?
- What does a fish have on its body?
- Which animals protect our house?



Points to Remember

- Animals which live around or nearby our homes are called **domestic animals**.
- Animals which we keep as fun are called **pet animals**.
- Animals which live in the forest are called **wild animals**.
- Very small animals having six legs are called **insects**.
- The animals which live in water is called **water animals**.
- The animals which crawl on the ground are called **reptiles**.
- Animals which live both in water and land are called **amphibians**.



Note to the Teacher

Discuss about different animals around your house. Differentiate between domestic and wild animals. Ask your students names of different animals and encourage them to write.

Glossary

- pet** : a domesticated animal kept for pleasure rather than utility
- feather**: the light horny waterproof structure forming external covering of birds
- leather**: an animal skin made smooth and flexible by removing the hair and then tanning
- scales** : external covering of animals e.g., fishes



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

elephant domestic six water wild

1. Cow is a
2. Fish lives in
3. Bear is a animal.
4. The size of an is big.
5. Insects havelegs.

B. Write 'T' for true and 'F' for false statements.

1. We get leather from the skins of some animals.
2. A lizard is a reptile.
3. Octopus is a land animal.
4. A lion is a pet animal.
5. Ostrich cannot fly.

☐
☐
☐
☐
☐

C. Match the followings:

Sheep •

• wild animal

Silkworm •

• gives us wool

Tiger •

• gives us silk

Caterpillar •

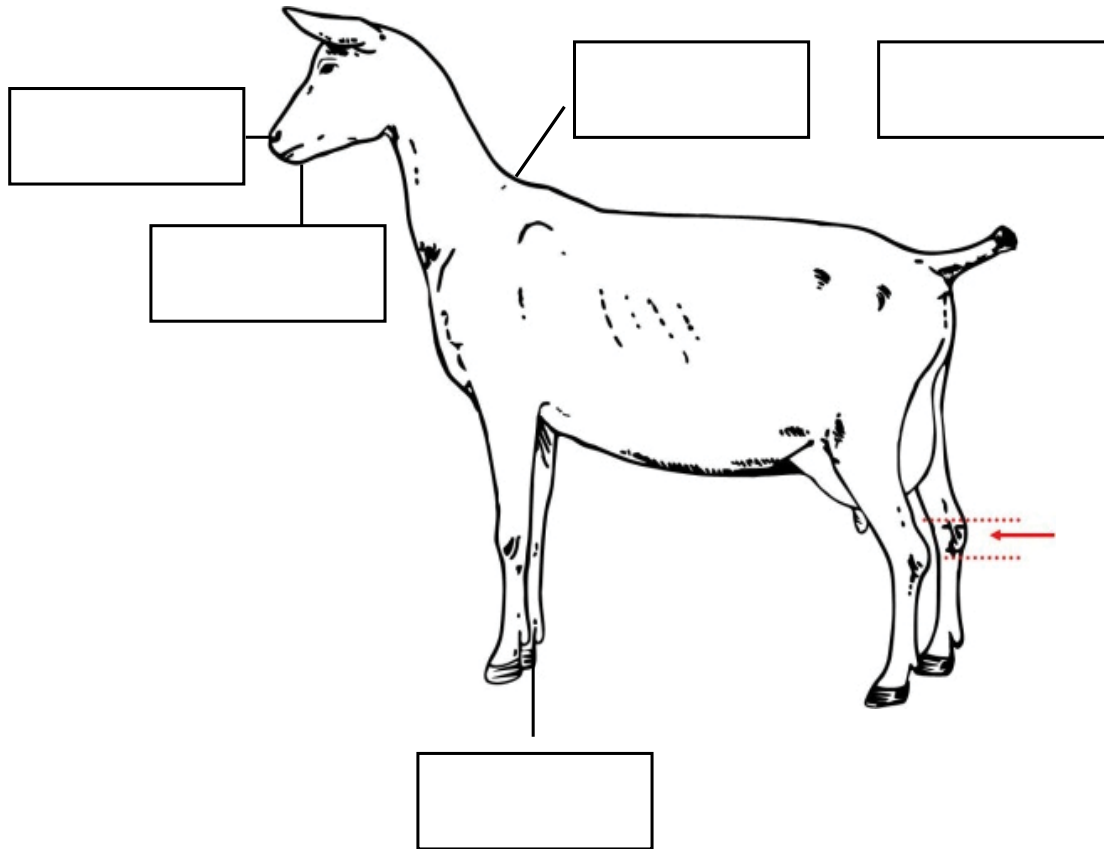
• crawl

Snake •

• insect



D. Copy the following animal and colour and label its different parts.

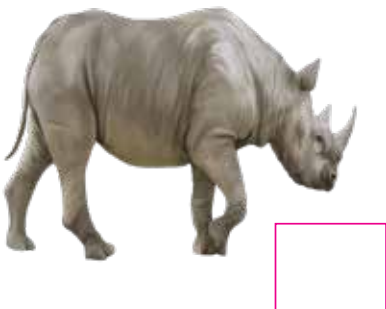
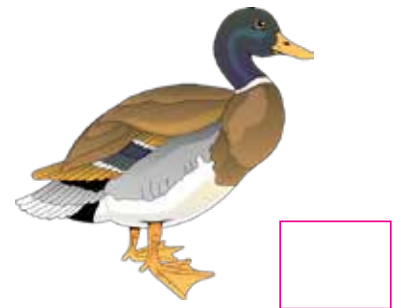
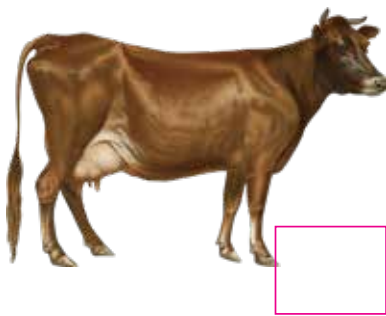


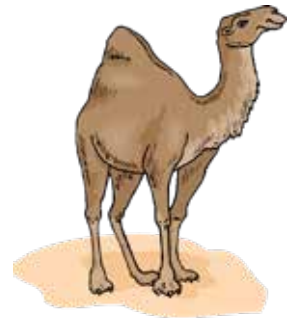
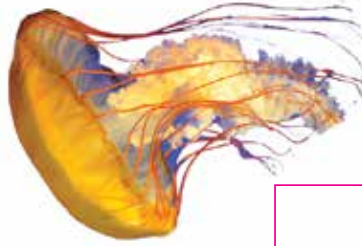
E. Answer these questions.

1. What is a domestic animal?
2. What is a pet animal?
3. What is a wild animal?
4. What is a bird?
5. What is a reptile?
6. What is an amphibian?
7. Name three domestic animals.
8. Name three wild animals.
9. Name three pet animals.
10. Name three water animals.

11. Name three birds.
12. Name three amphibians.
13. Name three animals that give us leather.
14. What is obtained from the skin of animals?
15. Which animals give us wool?
16. Which animal gives us silk?

F. Write 'W' for wild animals, 'WT' for water animals, 'D' for domestic animals, 'R' for reptiles and "B" for birds. birds.





G. There are seven farm animals hidden in this cross word search. Find them.

A	C	D	U	C	K	P	G
T	B	U	F	F	A	L	O
L	S	K	C	Z	R	M	A
P	C	H	O	R	S	E	T
I	O	E	W	T	U	R	K
V	M	N	S	H	E	E	P

H. Do you know me?

1. I am the ship of the desert.
2. I swing from trees with the help of my tail.
3. I have a horn on my nose.
4. I have a trunk but I do not store clothes in it.
5. I have a pouch in which my baby stays.

I. Choose the best answer from the given alternatives.

i. It lives in jungle.

a. tiger

b. cat

c. goat

d. dog

ii. It lives at our home.

a. dog

b. tiger

c. fox

d. eagle

iii. It is an insect.

a. house fly

b. eagle

c. hen

d. dog

iv. It is an amphibian.

a. snake

b. frog

c. eagle

d. crocodile

v. It gives us meat and egg.

a. hen

b. crocodile

c. goat

d. sheep

J. Name the following animals and write domestic or wild for them.



K. Make meaningful words from the jumbled letters.

TTBUERFLY



WOL



OGFR



RBEA



L. Give any two examples of :

i. Domestic animals

.....

ii. Wild animals

.....

iii. Pet animals

.....

iv. Animals with six legs

.....

v. Aquatic animals

.....

vi. Birds

.....

vii. Amphibians

.....

viii. Reptiles

.....

Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these animals? Respond with a tick (✓) or a cross (×)

a	b	c	d

3. Can you name the things we get from these animals?

a	b	c	d

Project Idea



1. Collect the pictures of some animals and birds useful to us and paste them in your science exercise copy.
2. Make a list of five domestic animals and write what we get from them.

S.N.	Name of animals	Product from the animals
1.		
2.		
3.		
4.		
5.		



UNIT 3

HOME AND FOOD OF ANIMAL



Key Words

domestic
swallow

wild
whole

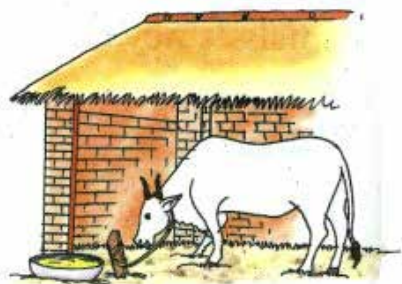
useful
clean

natural
worms

flat
circular

sharp
suck

All animals need homes to live in. Most animals have their own homes. Some animals live in the homes made by us. Some animals have natural homes.



cow in shed



dog in kennel



horse in stable



Pig in pen



hen in coop



goat in pen

Do you know?

- Bats live hanging upside down in a cave or branch of trees.

Some animals live in dens.



bear



tiger



lion

Some animals live under the trees.



elephant



zebra



Snakes live in holes.



Rabbit and rats live in burrows.

Most birds live in the nests made on trees.



Bird lives in nest.



Owl lives in the hollows of trees trunks.



Monkey lives on the branches of a tree.



Bees lives in hives.



Pig lives in sty.



Spider lives in web.



Camel lives in the desert.



Polar bear lives in very cold place.



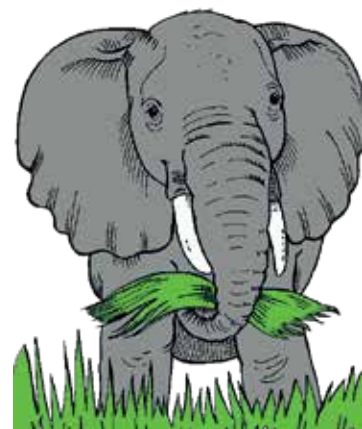
Fish lives in water.

Do you know?

- A spider produces net itself.

Food of Animals

All animals need food to live. Animals eat different types of food. Some animals eat plants. They have flat teeth.



Some animals eat the flesh of other animals. They have sharp teeth. They are called carnivorous animals.



Tiger



Crocodile

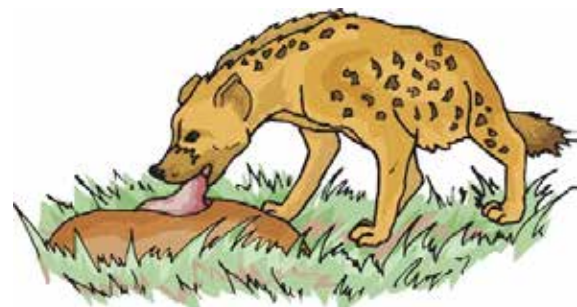


Leopard

Some animals eat the flesh of dead animals. These animals help to keep the environment clean. They are called scavengers.



Vulture



Hyena

Some animals swallow their food whole.



Snake



Frog

Some animals eat grains and seeds. They also eat small worms.



Rat



Hen



Sparrow

Some animals eat both plants and flesh of animals.



Bear



Cat

Some animals, like butterflies, suck nectar from flowers. Mosquitoes, lice and bedbugs have sharp mouth parts that help them to suck blood from the skin of the other animals.



Butterfly



Mosquito

A leech has a circular mouth that helps it to suck blood from other animals' body.



Leech

Do you know?

- Salamander can live on land as well as in water.



Quick Reply

- What type of teeth do plant eating animals have?
- Which animals have sharp teeth and claws?
- Which animals eat worms?
- What does a tiger eat?
- Tell any three homes of animals that you like the most.



Note to the Teacher

Make your students recognize homes of different animals and their food habits with the help of picture.



Points to Remember

- Some animals make their own homes, others do not.
- Wild animals live in the forest.
- Animals eat different types of food.
- Some animals eat plant whereas others eat the flesh of other animals or the flesh of dead animals.
- Some animals eat both plants and flesh of others.

Glossary

natural : found in our environment or existing in nature

lap : to take in (food or drink) with the tongue

swallow : to pass food through the food pipe to stomach





Exercise

A. Choose a word to fill the blanks in each of the following sentences.

cold hollows food nectar tears

1. Animals need to live.
2. Butterflies suck the to live.
3. Lionthe flesh of other animals.
4. Polar bear lives in..... places.
5. Owls live inof trees trunks.

B. Write 'T' for true and 'F' for false statements.

1. A monkey lives on the branches of trees.
2. A cow lives in a den.
3. Lion is a plant eating animal.
4. Snakes swallow their food whole.
5. A sparrow eats sugarcane.

☐
☐
☐
☐
☐

C. Match the followings:

Horse	coop
Bee	hole
Dog	kennel
Owl	den
Spider	hive
Snake	sty
Pig	stable
Bird	web
Lion	nest
Hen	hollow

D. Answer these questions.

1. Name three animals which eat plants.
2. Name three animals which kill and eat other animals.
3. Name three animals which eat dead animals that have been killed by other animals.
4. How do vultures help to keep the environment clean?
5. Why do animals need shelter?
6. Name three grain eating animals.
7. Why do animals need food?
8. Name three blood sucking insects.

E. Complete the table with the food items of the following animals.

Name of animals	Food items
-----------------	------------

dog	
-----	--

pigeon	
--------	--

snake	
-------	--

man	
-----	--

lice	
------	--



F. Match the animals with their eating habits.

Elephant swallow

Cat lapping

Fish grinding

Honeybee sucking

G. Tick (✓) the correct answer to complete the following statements.

a. Lion and tiger are called

i. water animals ii. wild animals iii. pet animals

b. Bees live in

i. hives ii. dens iii. hole

c. Animals swallow their food.....

i. camel ☐ ii. snake ☐ iii. tiger ☐

d. Leech, lice and bed bug suck

i. nectar ☐ ii. blood ☐ iii. nectar and blood ☐

e. Wild animals live in the

i. water ☐ ii. forest ☐ iii. air ☐

H. Choose the best answer from the given alternatives.

i. It lives in water.

a.fish

b. dog

c. monkey

d. goat

ii. It lives in a pen.

a. goat

b. ink

c. cow

d. buffalo

iii. It lives in sty.

a. pig

b. goat

c. cow

d. frog

iv. It lives in nest at tree.

a. snake

b. monkey

c. bird

d. rabbit

v. It lives in a den.

a. lion

c. snake

b. dog

d. goat

I. Make meaningful words from the jumbled letters.

AKESN



RSHOE



ERTIG



TGOA



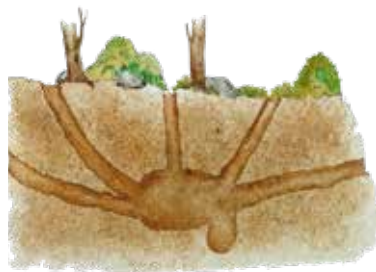
ALBUFFO



Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these shelters? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Can you write their names?

a	b	c	d

Project Idea



- Find the name of animals food and eating habits and discuss.
- Write in sentences about the eating habits of the following animals:
cow, pigeon, snake, frog, bear, leech, mosquito.
- Make a list of five animals and write their shelters.

S.N. Name of animals Shelter of animals

1		
2		
3		
4		
5		



UNIT 4

MOVEMENT OF ANIMALS



Key Words

search

shelter

movement

crawl

jump

swim

Animals move from one place to another in search of **food and shelter**. Most of the animals have legs for movement.



Earthworms and snakes do not have legs. They crawl on the land.



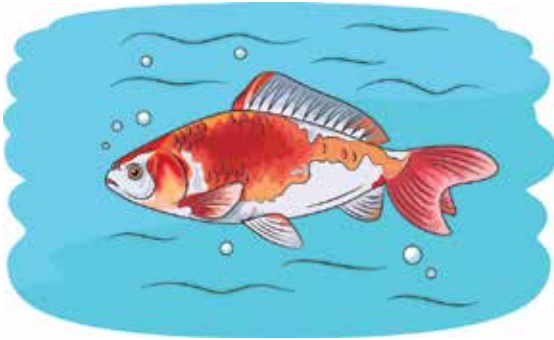
Monkeys, kangaroos, rabbits have legs and jump on the land. Monkey moves from one tree to another in search of food, shelter and for protection from enemies.



Fish, frogs, ducks swim in water.

Do you know?

- Elephant cannot jump.



Most of the birds and insects fly with the help of wings.
Birds fly in search of food and shelter.



Birds and some insects walk on the land with the help of legs.



Do you know?

- Skeletons of insects are outside of their body.

Do you know?

- Lizards can walk even in our ceilings and walls.



Quick Reply

- Name a bird which cannot fly?
- Name some insects which do not have wings.
- Which animals can run very fast on land?



Note to the Teacher

Make your students understand and differentiate between movements of different animals.



Points to Remember

- All animals move from one place to another.
- Snakes, crocodiles, tortoises and lizards crawl.
- Fish swim, monkeys jump and birds fly.
- Different parts of animals help them to move.
- Movement of animals helps them to survive and protect from enemies

Glossary

movement : to go from one place to another

kangaroos : animals specially found in Australia having pouch to keep their babies

search : the activity of looking thoroughly in order to find something or someone

wing : a part of animal's body used for flying or gliding



Exercise

A. Choose a word to fill in the blanks in each of the following sentences.

shelter legs crawl webbed food

1. Animals move from one place to another in search of and
2. A frog swims with the help of feet.
3. A tiger runs with the help of.....
4. Snakes.....on the ground.

B. Write 'T' for true and 'F' for false statements.

1. Fish swim with the help of fins. ☐
2. Legs help birds to fly. ☐
3. Bed bugs do not have wings. ☐
4. Ostrich can fly. ☐

C. Match the followings:

Snake •

swim

Dog •

fly

Rabbit •

run

Fish •

jump

Crow •

crawl

D. Answer these questions.

1. Name four ways of movements.
2. Why do birds fly?
3. How do birds fly?

4. How do fish swim?
5. How do monkeys move from one tree to another tree?
6. How do animals without legs move?
7. Name any two animals having following movements.

fly

swim

crawl

jump

walk

E. Choose the best answer from the given alternatives.

- i. It has very strong legs.

- | | |
|-----------|----------|
| a. horse | b. fish |
| c. spider | d. snake |

- ii. It swims with fins.

- | | |
|---------|---------|
| a. fish | b. duck |
| c. frog | d. hen |

- iii. It has wings but cannot fly.

- | | |
|------------|-----------|
| a. hen | b. duck |
| c. ostrich | d. donkey |

- iv. It has six legs.

- | | |
|---------|----------|
| a. fish | b. horse |
| c. ant | d. dog |

- v. It flies.

- | | |
|---------|----------|
| a. fish | b. horse |
| c. bird | d. cat |

F. Make meaningful words from the jumbled letters.

DALIZR



KEYMON



OINPEG



HTANELEP



TAN



Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these animals? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Can you write how they move?

a	b	c	d

Project Idea



Observe different movements of animals and write below:

Name of Animals	Ways of Movements
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____



UNIT 5

PLANT LIFE



Key Words

tree

stems

branches

shelter

seasonal

vegetable

climbers

support

stand

creepers

There are many kinds of plants around us. They are of different sizes and shapes. Some plants are very tall, some are very small.

Herbs (Very Small Plants)

Very small plants with weak stems are called **herbs**. They have green and soft stems. They live for few months. Most herbs are seasonal vegetables.



spinach



grass



tomato



mustard



brinjal



wheat

Shrubs (Small Plants)

Small and bushy plants are called **shrubs**. They have many branches. They live a life shorter than that of the trees. Shrubs grow close to the ground. Their stems are small and hard without trunk.



china rose



cotton



tea

Trees (Big Plants)

Do you know?

- A watermelon has more than 100 seeds.

Tall and strong plants are called **trees**.

They have big and hard stems. Many trees have branches with leaves and fruits. They have strong roots under the ground. Trees live for many years.



mango



peepal



coconut



pine

Climbers

Weak plants which cannot stand on their own are called **climbers**. They need support to stand.



grape-vine



bean



money plant

Do you know?

- Bamboo is very tall plant but it is herb.

Creepers

Plants having long and weak stems are called as **creepers**. They creep on the ground. They live for one season only and spread on the ground.



pumpkin



watermelon



strawberry

Life of Plant

Most trees and shrubs live for many years. A banyan tree lives for hundreds of years. Plants like pea, brinjal and rice live only for a few months.

Do you know?

- Some trees live for thousand years.

Do you know?

- Banana plant is herb.



Quick Reply

- Do you eat herb plants?
- Name plants which live only a few months.
- Which plant lives for many years?
- Name vegetables which are grown in winter?
- What type of plant is tea?



Note to the Teacher

Visit a garden near by your school and discuss about different kinds of plants. Ask your students about types of plants you eat everyday. Explain plants of different shapes and sizes. Differentiate between herbs, shrubs, trees, climbers and creepers.



Points to Remember

- Tall and strong plants are called trees.
- Small and bushy plants are called shrubs.
- Very small plants with weak stem are called herbs.
- Weak plants which cannot stand on their own are called climbers.
- Plants having long weak stems and that creep on ground are called creepers.

Glossary

life	: time span of living organisms
creep	: to move slowly with the body close to the ground
grapevine	: a climbing plant on which grapes grow
banyan	: tree with long branches which send roots down to the ground forming secondary trunk



Exercise

A. Choose a word to fill the blanks in each of the following statements.

weak soft sunflower many hard

1. Trees havestems.
2. Shrubs have.....branches.
3. Creepers have stems.
4. Herbs have.....stems.
5. The lives only a few months.



B. Write 'T' true and 'F' for false statements.

1. The life of a herb is longer than a shrub plant.
2. Tea is a climber plant.
3. Banana is a tree.
4. Most of the plants are green in colour.
5. Watermelon is a creeper.

☐
☐
☐
☐
☐

C. Match the followings.

Climber •

• no branches

Tree •

• herb

Tomato •

• bean

Coconut tree •

• pumpkin

Creeper •

• neem

D. Answer these questions.

1. Name three herbs.
2. Name three shrubs.
3. Name three trees.
4. Name three climber plants.
5. Name three creeper plants.
6. Define the followings:
 - a. Herb
 - b. Shrub.....
 - c. Tree
 - d. Climber.....
 - e. Creeper.....
7. Why do climbers need support to grow straight?
8. Why can all trees stand straight?

E. Write 'T' for tree, 'S' for shrub, 'H' for herb and 'C' for climber.



F. Tick (✓) the correct answer to fill the blank.

1. Trees live for
i. many years ii. many days iii. a few months
2. Cucumber, pea and bean are examples of
i. tree ii. climber iii. shrubs
3. Cactus is an example of a plant.
i. thorny ii. strong iii. bushy
4. Neem, banyan and mango are
i. herbs ii. shrubs iii. trees
5. Very small plants with soft stems are called.....
i. herbs ii. climbers iii. creepers

G. Circle the trees from the following list.

pumpkin	watermelon	pine	neem
lemon	apple	rose	cactus
banyan	cotton	mango	sunflower

H. Choose the best answer from the given alternatives.

- i. It is a tree.
a. peepal b. grape vine c. pumpkin d. rose
- ii. It is a herb.
a. tomato b. jasmine c. watermelon d. banana
- iii. It is a shrub.
a. hibiscus b. potato c. banyan d. pumpkin
- iv. It is a climber.
a. money plant b. pumpkins c. bottle gourd d. pine
- v. It is a creeper.
a. watermelon b. hibiscus c. dhupi d. potato

I. Name the following plants as climber, creeper, herb, shrub, thorny and tree.



J. Make meaningful words from the jumbled letters.

LSITU



NBEA



MOTOAT



FECOFE



ONLEM



Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these plants? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Can you write their names?

a	b	c	d

Project Idea



Identify plants and name them under the headings.

bean, rose, mango, radish, wheat, coconut, peepal, gram, hibiscus, tea, grapevine, cucumber.

	Trees	Shrubs	Herbs	Climbers
1.				
2.				
3.				

UNIT 6

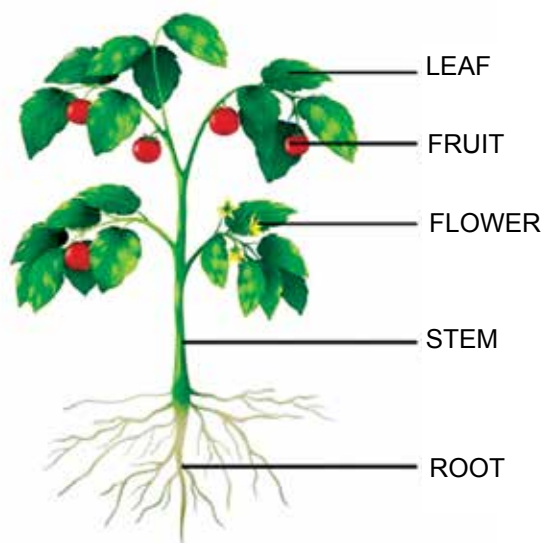
PARTS OF A PLANT



Key Words

consist below absorb minerals attached
generally different attractive shape pleasant

There are different parts of a plant. The parts of the plant that grows under the soil is known as the **root system**. The part that grows above the soil is known as the **shoot system**. Shoot system consists of stems, leaves, flowers and fruits.



Root

The part of a plant below the soil is called the **root**. The roots absorb water and minerals from the soil. They fix plant firmly in soil.

Stem

The part of a plant grows above the soil is called as **stem**. The branches develop on the stem. Leaves, flowers and fruits are attached to the stems or branches.



Leaf

Leaves grow on the branches. **Green** part of a plant which prepares food from sunlight is known as **leaves**. They are generally green in colour. Different plants have different types of leaves.



paddy



peepal



pumpkin

Leaves are of different shapes and sizes. Leaves make food for the plants.

Do you know?

- We eat the stem of potato as vegetable.

Flower

Most plants bear flower. The most attractive and beautiful parts of the plants which develop fruits is known as **flowers**. They are of different sizes and shapes. Flowers are of different colours. Flowers give pleasant smell.



jasmine



lotus



sunflower



rose



marigold



hibiscus



dahlia



poppy

Fruit

Flowers develop into fruits. Different plants have different types of fruits. Fruits have different tastes. **The part of a plant which is fleshy, juicy and having seeds is known as fruit.**



orange



papaya



guava



mango



grapes

Fruits have seeds inside them. The seeds grow into new plants.



mango



papaya



orange

Do you know?

- Root has a cap called root cap.



Quick Reply

- Name some flowers you like the most.
- Which part of a plant is beautiful and attractive?
- How many seeds are found in a mango fruit?



Note to the Teacher

Tell the different parts of a plant with their function. Make your students to identify root, stem, leaves, flowers and fruits of a plant. Bring a plant in a classroom and discuss.



Points to Remember

- A plant has five different parts i.e root, stem, leaf, flower and fruit.
- Every part of a plant has different functions.
- Most flowers develop into fruits.
- Fruits have seeds inside them.

Glossary

- shoot** : the part of plant that grows above the soil
- stem** : the main long thin part of a plant above the ground from which the leaves or flowers grow
- mineral** : a substance that is naturally present in the earth and is not formed from animals or plants
- fleshy** : having a lot of soft parts (flesh) e.g: fleshy fruit
- seed** : the small hard part produced by a plant, from which a new plant can grow



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

attractive root shoot many beautiful food

1. Leaves are known factory of plants.
2. Watermelon has seeds inside it.
3. Flowers are and
4. The grow below the soil.
5. The part of the plant above the ground is

B. Write 'T' for true and 'F' for false statements.

1. Stem fixes the plant to the soil. ☐
2. A fruit grows from a flower. ☐
3. The papaya fruit contains many seeds. ☐
4. Fruits have only one taste. ☐
5. Some fruits are eaten as vegetables. ☐

C. Match the followings:

Flower	tasty and fleshy
Leaf	part above soil
Root	part below soil
Fruit	colourful and attractive
Stem	green

D. Answer these questions.

1. Name any four parts of a plant.
2. Why is a leaf an important part of a plant?
3. Write the work of the following plant parts.

Root

Stem



Leaf

Flower.....

4. Name two:

Fruits that you eat

Roots that you eat

Leaves that you eat

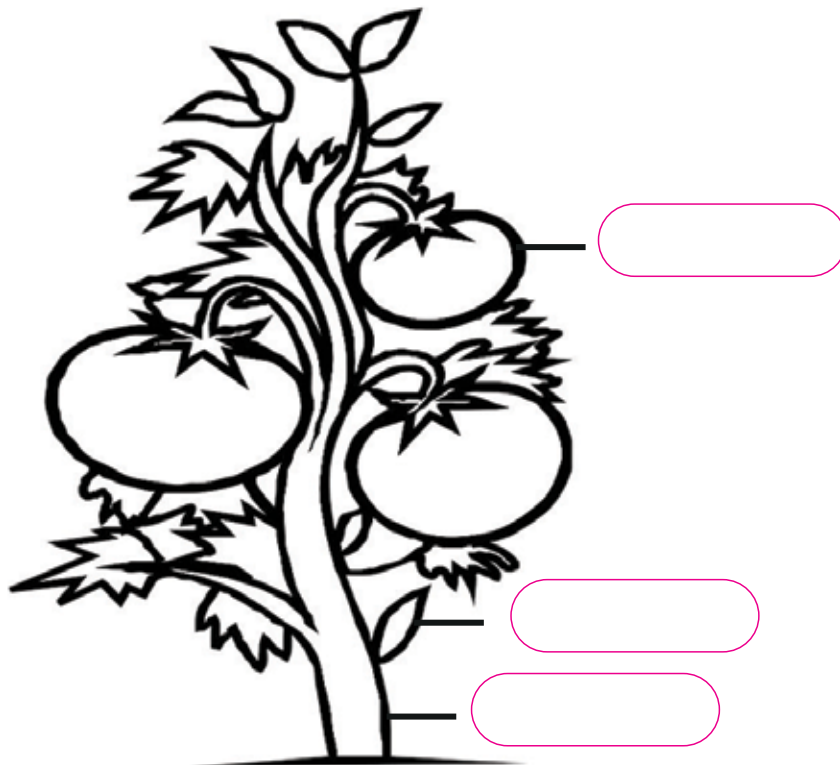
Food grains that you eat

5. Define the followings:

a. Root system b. Root c. Stem

d. Leaf e. Flower

E. Colour the given picture and label its different parts.



F. In the word search, there are some things we get from plants. Find them and write their names in the correct places.

P	I	N	E	A	P	P	L	E	I	K
U	W	H	E	A	T	T	C	F	R	P
L	B	A	S	S	O	K	O	R	I	N
S	E	A	P	P	L	E	C	Y	C	G
C	A	U	L	I	F	L	O	W	E	R
O	N	N	T	N	O	S	N	N	B	A
R	S	A	W	A	L	N	U	T	E	P
N	I	N	E	C	N	S	T	Z	Q	E
B	C	A	S	H	E	W	N	U	T	S

Fruits	Nuts	Vegetables	Grains

G. Tick (✓) the correct answer to fill in blanks.

1. The colourful part of a plant is called

i. root ☐

ii. shoot ☐

iii. flower ☐

2. Seeds are present inside the

i. fruits ☐

ii. flowers ☐

iii. leaves ☐

3. Root grow

i. inside soil ☐

ii. outside soil ☐

iii. in both ☐



4. Most of the leaves are

i. green ☐ ii. white ☐ iii. yellow ☐

5. Water and minerals are absorb from the soil by

i. stem ☐ ii. leaf ☐ iii. root ☐

H. Choose the best answer from the given alternatives.

i. It grows above the soil.

a. stem b. root c. root hair d. main root

ii. It grows under the soil.

a. root b. stem c. leaf d. flower

iii. It attracts insects.

a. flower b. leaf c. root d. stem

iv. It produces food.

a. leaf b. root c. stem d. flower

v. It changes into new plant.

a. fruit b. leaf c. seed d. stem

I. Match the following.

Above the soil •

• root

Below the soil •

• stem

Bears branches •

• flower

Attracts insects •

• green

Leaf •

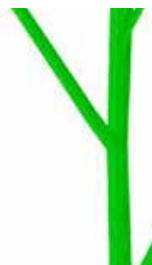
• shoot

J. Make meaningful words from the jumbled letters.

OORT



EMST



PLEAP



LSOTU



LOWESUNFR



Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these parts of plants? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Can you write their names?

a	b	c	d

Project Idea



Bring a plant and observe its different parts.



FOODS FROM PLANTS AND ANIMALS



Key Words

cereals
provides
milk

grains
medicine
underground

drink
honey
cooking

spices
nutritions
understand

useful
meat

Plants and animals are useful to us in many ways.

Foods from Plants

Most of our food comes from plants. We eat roots of some plants.



carrot



sweet potato



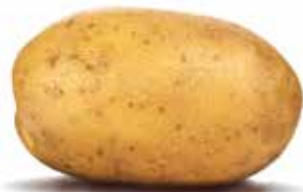
radish



beet root

Stems

We eat stem of some plants. Some plants have underground stem.



potato



ginger



garlic



onion

We get sugar from the stem of sugarcane plant.



sugarcane stem



sugar

Do you know?

- We eat the stem of ginger.

Leaves

We eat leaves of some plants as vegetables.



cabbage



spinach



lettuce

Some plants leaves are used for making drinks.



tea plant



tea leaves



tea dust



a cup of tea

Flowers

We eat flowers of some plants as vegetables.



cauliflower



broccoli



banana flower

Fruits

We eat fruits of some plants.



apple



grapes



orange



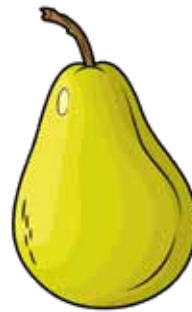
banana



pineapple



guava



pear



pomegranate

We eat fruits of some plants as vegetables.



brinjal



pumpkin



tomato



cucumber

Seeds

We eat seeds of some plants.



beans

Do you know?

- Non-living things do not need food.



pea



soyabean

The seeds of some plants are known as grains.



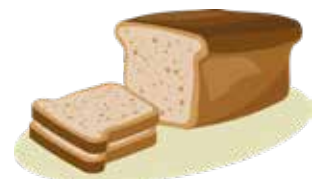
wheat



seeds



flour



bread



roti



rice plant



seeds



rice



maize plant



corn



popcorn

Seeds of coffee are used for making drinks.



We eat cooking oil from the seeds of some plants.



Plants give us spices.

Some plants are used as spices. Spices are used for making food and drinks tasty.



turmeric



ginger



black pepper



cardamom



cloves



chilli

Plants give us medicine.

Plants provide us many types of medicine. Some examples are shown below.



neem



tulsi



parsley



peeper mint



garlic



ginger

Plants give food to animals.

Some animals eat the leaves of plants (grasses) and grains.



Food from Animals

Animals are useful to us in many ways.

Milk from Animals

Some domestic animals give us milk. We make curd, butter, ghee, cheese, sweets and cream from milk. Milk giving animals are called **milch animals**.

Do you know?

- All fruit contains some natural sugar.



cow

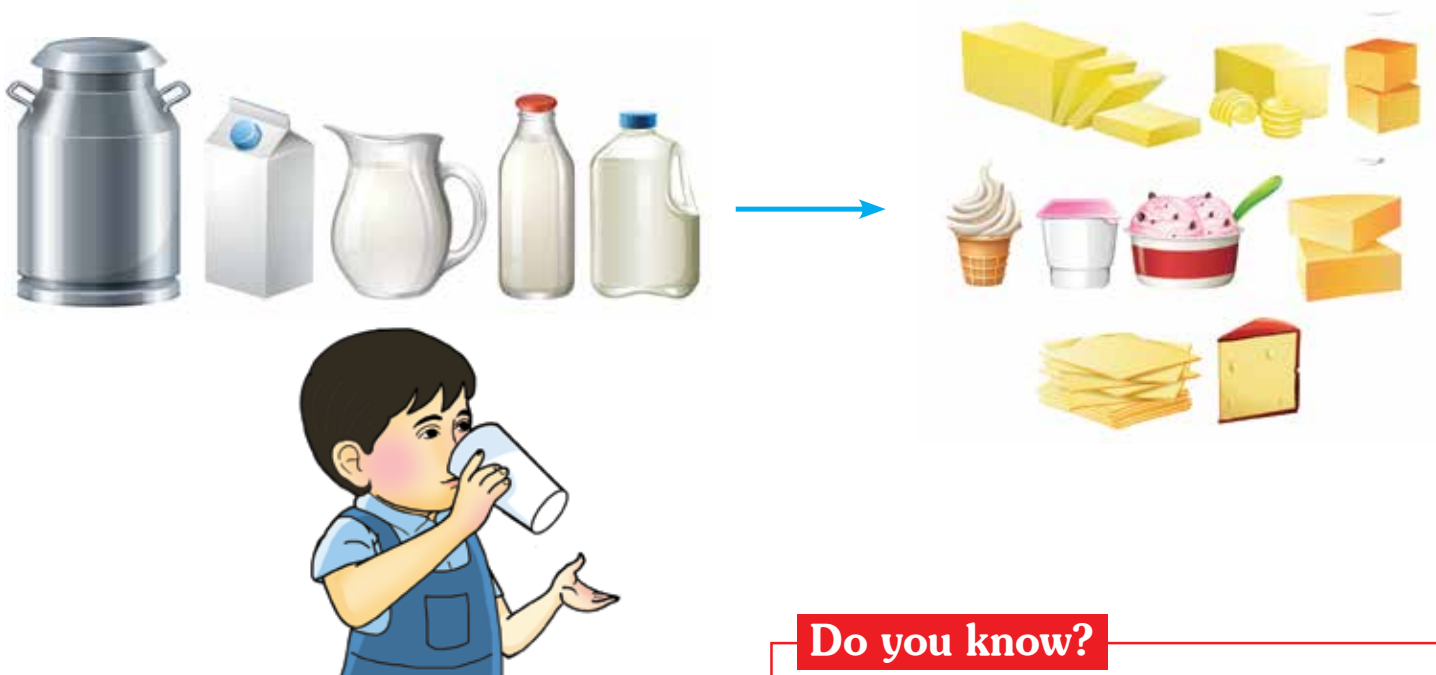


buffalo

Do you know?

- Eggs contain the highest quality protein you can buy.

We get milk from cow, buffalo and goat. We should drink milk everyday. Milk provides calcium to make our bone stronger.

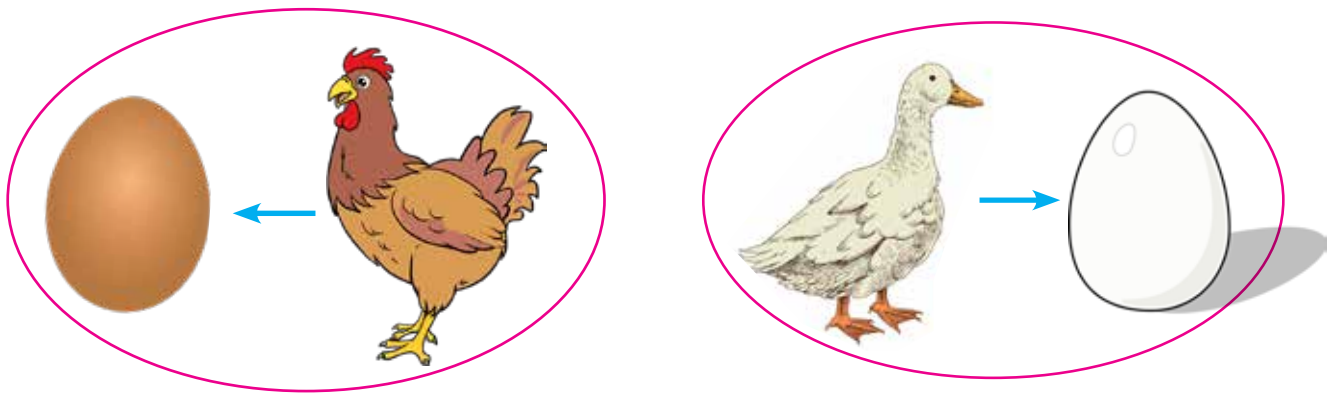


Do you know?

- Honey is 80% sugar and 20% water.

Eggs from Birds

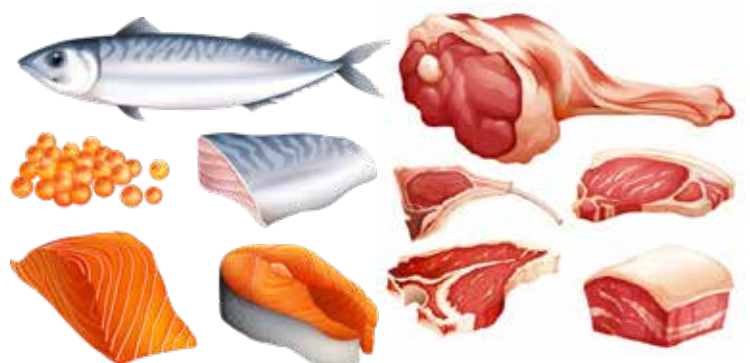
Ducks and hens give us eggs. Egg helps us to grow faster.

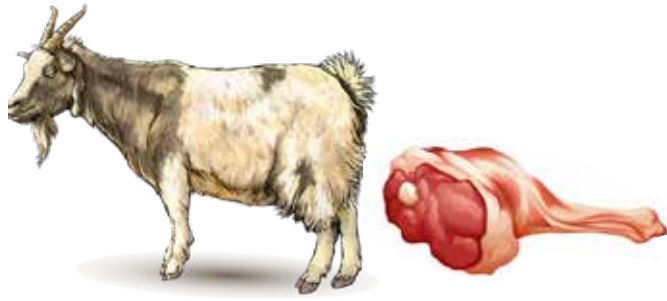


Meat from Animals

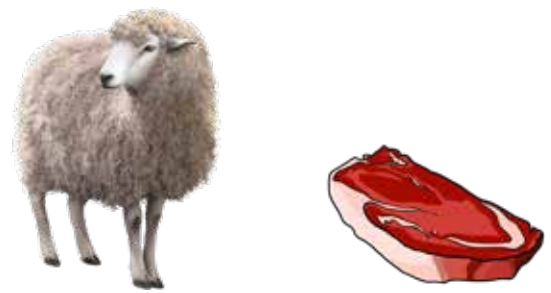
We eat the flesh of some animals. Fish, chicken, goat, sheep, pig give us meat.

We cook their meat to eat.

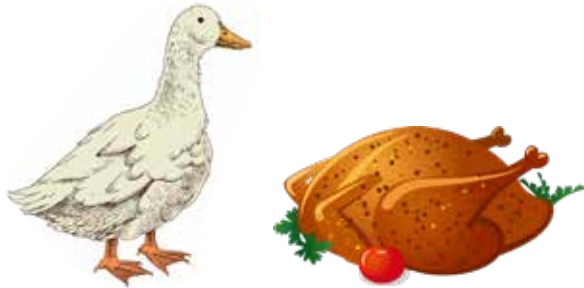




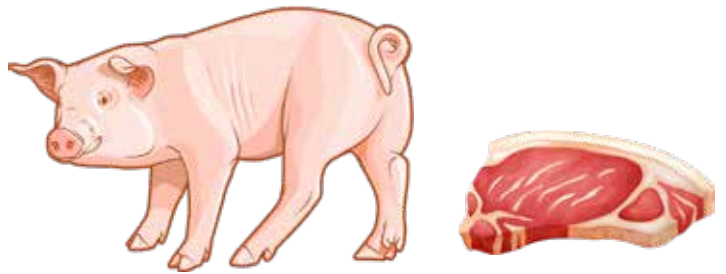
goat → goat meat



sheep → sheep meat



duck → duck meat



pig → pig meat

Honey from Honey Bees

We get honey from honey bees. Honey is very useful nutritious food.



bee hives



bee



honey



Quick Reply

- Which animal's meat do you eat at home?
- What do we get from hen?
- From which part of the plant can we get cooking oil?
- Which part of a carrot is eaten?



Note to the Teacher

Explain different foods which are obtained from plants and animals. Discuss the fruits, roots, leaves and seeds that we are eating everyday at home and school. Make your students understand about the different foods which are obtained from animals and their importance.



Points to Remember

- Plants and animals are useful to us in many ways.
- Fruits, stems, leaves and roots are eaten as vegetables.
- Plants give us medicine.
- We get milk from cow and buffalo.
- We get eggs from hen and duck.
- We get meat from chicken, duck, goat, sheep and pig.

Glossary

- cheese** : a type of food made from milk that can be either soft or hard
- coffee** : a hot drink made from coffee powder and boiling water
- nutritious** : food containing many of substances which help the body to grow
- yogurt** : a thick white liquid food, made by adding bacteria to milk



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

nutritious oils tea seeds sugarcane neem coffee

1. We get medicine from the plant.
2. We eat of many plants as our main food.
3. Honey is very useful food.

4. We get from plants for cooking foods.
5. Leaves of and seeds ofare used for preparing drinks.
6. Sugar is obtained from the stem ofjuice.

B. Write 'T' for true and 'F' for false statements.

1. We get cooking oil from the mustard seeds. ☐
2. Fruit of cucumber is eaten raw as vegetable. ☐
3. Dry fruits are used while making biscuits and cakes. ☐
4. Everybody we should drink milk. ☐
5. We get milk from hen and duck. ☐
6. Ducks and hens give us meat only. ☐

C. Match the followings:

Honey bee •

• eggs

Hen •

• meat

Sunflower seeds •

• leafy vegetables

Goat •

• honey

Spinach •

• cooking oil



D. Answer these questions.

1. Name the parts of plants used as food.
2. Name any three plants that are used as medicines.
3. Name any three plants with edible stem.
4. Name any three plants with edible leaves.
5. Name any three plants with edible roots.
6. Name any three plants with edible flowers.
7. Name any three fruits.
8. Name any three fruits which are eaten as vegetables.
9. Name any three plants which give us cooking oil.
10. Name any three animals which give us milk.
11. What do you understand by milch animals?
12. Name any three animals which give us meat.
13. Name three things which we get from milk.

E. Tick (✓) the correct alternative to complete the following statements.

1. We get meat, milk and eggs from
i. animals ☐ ii. plants ☐ iii. animals and plants ☐
2. Butter, cheese, ghee and curd are made from.....
i. meat ☐ ii. milk ☐ iii. eggs ☐
3. Rice, maize and barley are grouped in
i. cereals ☐ ii. pulses ☐ iii. cereals and pulses ☐
4. Hen and duck give us
i. egg ☐ ii. meat ☐ iii. egg and meat ☐

5. We get sugar from

i. sugarcane ☐

ii. neem ☐

iii. tulasi ☐

5. Cooking oil is made from

i. mustard seeds ☐

ii. rice seeds ☐

iii. gram seeds ☐

F. Choose the best answer from the given alternatives.

i. We eat leaf of this plant.

a. lettuce

b. cauliflower

c. bean

d. mango

ii. We eat root of this plant.

a. carrot

b. mango

c. sugarcane

d. lettuce

iii. We get milk from this animal.

a. hen

b. dog

c. cat

d. cow

iv. This animal gives us eggs.

a. hen

b. cat

c. dog

d. cow

v. It is underground stem.

a. potato

b. sugarcane

c. lettuce

d. mustard

G. Match the following.

Eggs

milk

Buffalo

leaves

Spinach

grains

Maize

meat

Goat

hen



H. Make meaningful words from the jumbled letters.

ERBUTT



EHN



ABBCAGE



PAYPAA



EABN



I. Name any two:

i. Animals used for meat

a. _____

b. _____

ii. egg giving animals

a. _____

b. _____

iii. Milk giving animals

a. _____

b. _____

iv. Leaves used as vegetables

a. _____

b. _____

v. Stems used as vegetable

a. _____

b. _____

vi. Roots used as vegetables

a. _____

b. _____

vii. Flowers used as vegetables.

a. _____

b. _____

Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you eaten these food items? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Can you write their names?

a	b	c	d

Project Idea



1. Draw pictures of some animals and their products in your science exercise copy.
2. Collect some pictures of domestic animals and discuss how they are useful to us?
3. Complete the table below:

Name of food	Made from	Obtained from
1. Bread	wheat	plant

4. Write 'P' for foods which are obtained from plants and 'A' for foods which are obtained from animals.

cauliflower

soyabean

yogurt

radish

wheat

cooking

butter

ghee

potato

honey

meat

fish

flower

beans

papaya

pear

orange

apple

maize

egg



UNIT 8

OUR ENVIRONMENT

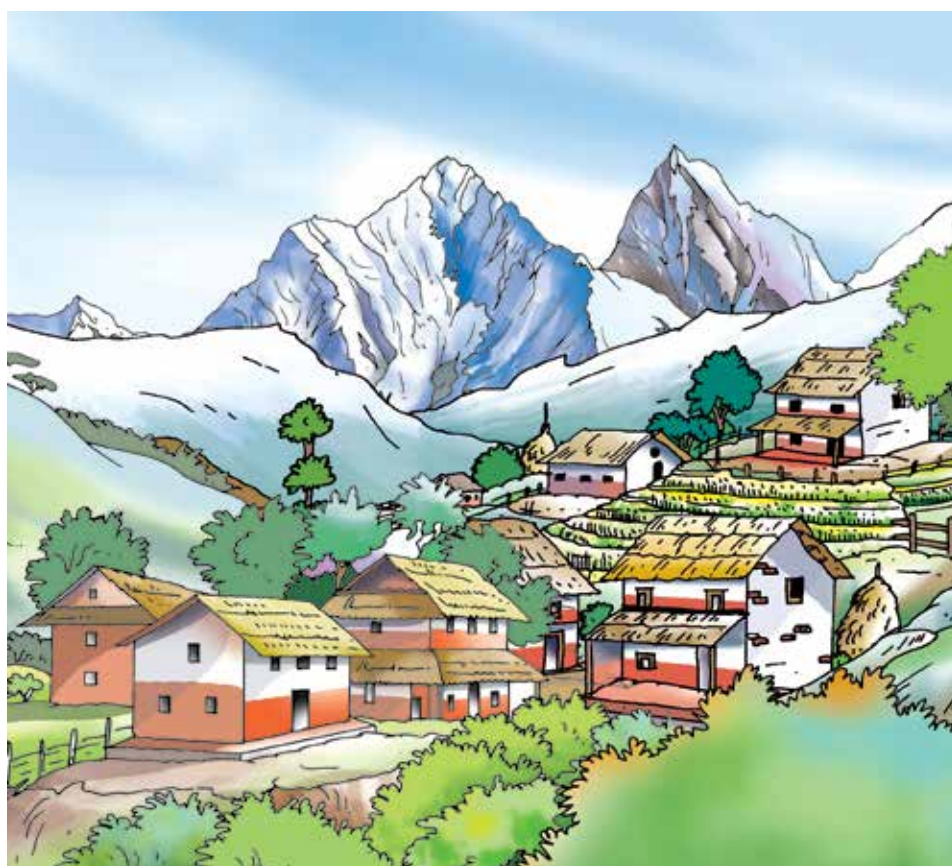


Key Words

environment	surrounding	clean	fresh	dirty
protect	impure	breathing	diseases	essential
throwing	urinate	toilets	filter	produce
fertile	waste	materials		

The environment is our surroundings. Plants, animals, water, soil, air, people and houses make up our environment. It should be clean and fresh.

Wrong activities make our environment dirty. Dirty environment is unhealthy for us. We should live in clean environment. We should not make our environment polluted.



Fresh Air

We cannot live without air. Impure air makes us sick. The air becomes dirty by dust and smoke. Breathing dirty air causes many diseases and it could even cause death. Smoke from cars, buses, motorcycles and factories also make air dirty.

We should always breathe in fresh air which is free from dust and smoke. We should wear mask in dusty environment. We should grow many plants to help in keeping the air around us clean.



Do you know?

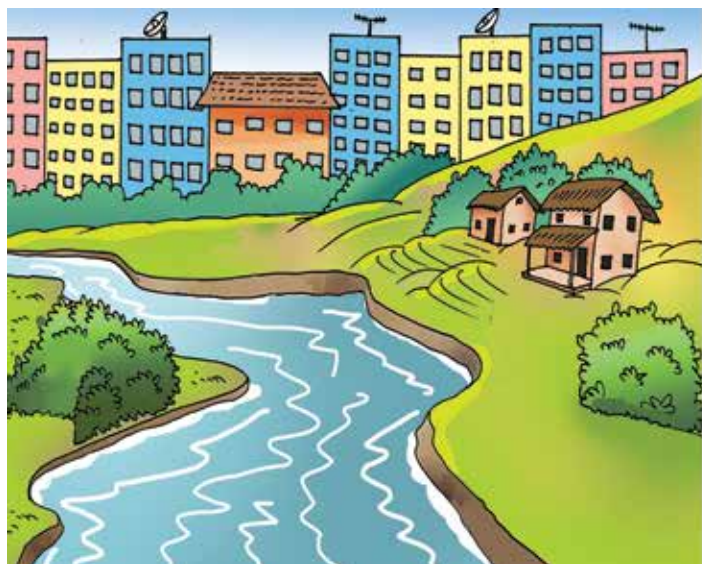
- Humans are also the part of the environment.

Drinking Water

Water is essential for our body. We must drink clean and pure water. Throwing waste materials from homes, factories, hotels and hospitals into water sources makes water dirty. Drinking dirty water causes many diseases in people and animals. We should not urinate near the sources of water. We should use toilets.

Do you know?

- Dirty air damages our blood.



We need to purify water before we drink. We should drink boiled and filtered water.



Land

We live on land. We cultivate land to get food. People throw waste materials on the land and on the streets which produce bad smells making land dirty.



We should not throw polythene bags, rubber, glass and iron pieces on land. We should throw wastes in dust bins.

When these waste materials cover the land, the land becomes infertile. Infertile land does not produce crops. We should always dispose the waste in the appropriate places.



Quick Reply

- Name two things that make air dirty.
- Name two things that make water dirty.
- Name two things that make land dirty.



Note to the Teacher

Discuss the type of environment near the school and house. Visit a nearby good environment and dirty environment areas and help students to know about the importance of clean environment.



Points to Remember

- Our surrounding is called environment.
- The air becomes dirty by dust and smoke.
- Burning firewood, vehicles and factories release smoke in the air.
- The water becomes dirty by throwing waste materials from our homes, factories, hotels and hospitals into the water.
- The land becomes dirty by throwing wastes onto the land.
- Polythene bags, rubber glass and iron pieces make the land infertile.
- We should keep our surroundings clean.



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

boiled filtered clean waste dirty environment activities

1. Our surrounding is called our _____.
2. We should not throw _____ in rivers.
3. Breathing _____ air causes diseases.
4. Our _____ can make our surroundings dirty.
5. Everybody wants to live in a _____ environment.
6. We should drink _____ and _____ water.

B. Write 'T' for true and 'F' for false statements.

1. Dirty land is good for health. ☐
2. It is good to throw the polythene bags in an open space. ☐
3. Infertile land does not produce much crops. ☐

4. Waste materials could be kept in dustbins.
5. We fall sick by inhaling fresh air.

☐
☐

C. Answer these questions.

1. Write two causes that make our surroundings dirty.
2. Why should we collect and throw wastes properly?
3. Write two ways to make surroundings clean.
4. What type of air should we breathe in?
5. How is water made dirty?
6. What causes air dirty?
7. What causes water dirty?
8. What causes land dirty?
9. What should you do to make your classroom clean?
10. Where should we throw wastes?

D. Observe the following pictures, discuss and answer the following questions.



1. What are the causes of environmental pollution?
.....
2. What should be done to make our environment clean?
.....
3. What are the benefits of clean environment?
.....
4. What are the bad effects of harmful environment?
.....

E. Tick (✓) the correct alternative to complete the following statements.

1. is essential for our body
a. water ☐ b. land ☐ c. dirty water ☐
2. We should use for urinate.
a. river ☐ b. road ☐ c. toilet ☐
3. Infertile land does not produce
a. animals ☐ b. water ☐ c. crops ☐
4. Impure air makes us
a. healthy ☐ b. sick ☐ c. clean ☐

F. Name the following figures.



G. Make meaningful words from the jumbled letters.

KESMO



ASTPLIC



NPOD



CROK



SBU



Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these things? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Does this picture match to your surroundings?

a	b	c	d

Project Idea



Visit nearby places and find out the causes of air, water and land dirty.



UNIT 9

OBJECTS AROUND US

Key Words

Identified	taste	soft	object	shapes
spherical	oval	envelope	rectangular	cylindrical
circular	hard	perfume	salty	sweet

There are many things around us. Objects can be identified by different shapes, sizes, colour, smell or taste. Objects can be hard or soft also.

Shapes of objects

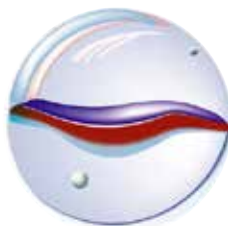
Objects are of many shapes.

Spherical

Some objects such as marble or football or basketball are spherical in shapes.



football



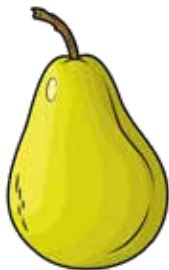
marble



basketball

Oval

Some objects such as pears, mangoes and eggs are oval in shapes.



pear



mango



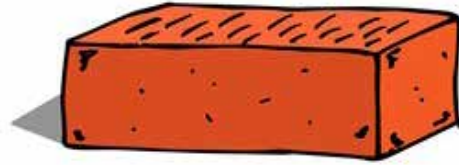
egg

Rectangular

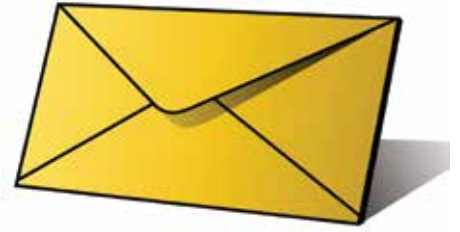
Some objects such as eraser, book, table, brick or envelope are rectangular in shape.



eraser



brick



envelope

Cylindrical

Some objects such as glass, bucket and bottle are cylindrical in shapes.



bucket



water bottle



glass

Do you know?

- Fire is neither solid, liquid nor a gas.

Circular

Some objects such as bangle ring, tube and tyre are circular in shapes.



bangle



tube



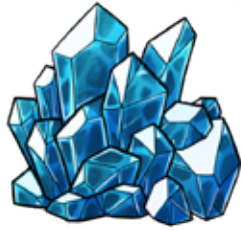
tyre

Irregular shape

Some objects do not have fixed shapes which are known as irregular shape.



rock



minerals



stone

Size of objects

Some objects are big and some are small in sizes.
Train, truck, bus, aeroplane are big.



bus



truck



aeroplane

Pin, eraser and pencil are some small objects.



pin



eraser



pencil

Hard and Soft Substances

Some objects are hard and others are soft. We need to touch the objects to know its softness or hardness. Our skin helps us to differentiate between hard and soft objects.

Hard objects

Pencil, spoon, table, chair, ring are some hard objects.



spoon



ring



table



chair

Soft objects

Objects which are made up of fiber, leather are soft.



socks



eraser



jacket



shirt

Colour

Objects remain in different colours. Our eyes help us to see the things around us and identify the colour of things. Leaf is green, gold is yellow and silver is white in colour.



leaf



gold



silver

Do you know?

- Chocolate is rotten food.

Do you know?

- Sun looks small but it is humungous.

Smell

Smell of different objects are different. Some objects such as flowers, fruits, foods and perfume have pleasant smell.

Some objects such as waste materials, garbage, animals wastes, rotten fruits and vegetables, urine give bad smells.

Our nose helps us to know the smell of different things.



Do you know?

- States of matter change while heating and cooling the matters.

Taste

Salt is salty, chocolate and sugar are sweet in taste. Lemon is sour in taste. Many medicines are bitter in taste.



Quick Reply

- Name some hard and soft substances that are available in your house.
- Which part of our body helps us to know hard or soft objects, smell and taste of things?
- What is the shape of a pumpkin?



Note to the Teacher

Divide students into different groups and tell them to collect objects of different shapes and discuss their shapes. Ask students to identify different organs of our body different colours, smell, taste, hard and soft objects.





Points to Remember

- Objects are of many shapes.
- Some objects are big and some are small in sizes.
- We need to touch the objects to know its softness or hardness.
- Objects remain in different colours.
- Smell of different objects are different.

Glossary

perfume : a liquid substance which is used to produce pleasant smell

garbage : things that are no longer useful, food waste.

envelope : an closing cover for letter, card, etc.

identify : to recognize somebody / something and be able to say who or what they are



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

circular hard spherical oval rectangular

1. Basketball is in shape.
2. A book is in shape.
3. The wheel of a bus is in shape.
4. Rocks are to touch.
5. Eggs are in shape.

B. Write 'T' for true and 'F' for false statements.

1. Iron is soft. ☐
2. Skin helps us to identify the colour of objects. ☐
3. Ripe fruits is softer than raw fruits. ☐
4. Marbles are rectangular in shapes. ☐
5. Pin is a small object. ☐

C. Match the followings:

Ears	•	•	hot/cold
Tongue	•	•	colours
Skin	•	•	smell
Eyes	•	•	taste
Nose	•	•	sound

D. Answer these questions.

1. Name any three circular objects.
.....
2. Name any three soft objects.
.....
3. Name any three hard objects.
.....
4. Name any three small objects.
.....

5. Name any three big objects.

.....

6. Name any three irregular objects.

.....

7. Name any three objects of good smell.

.....

8. Name any three cylindrical objects.

.....

E. Tick (✓) the correct answer.

1. How many states of matter are there?

a. one ☐

b. two ☐

c. three ☐

2. Which of the following is round object?

a. television ☐

b. football ☐

c. chair ☐

3. What is the shape of bangle?

a. cylindrical ☐

b. circular ☐

c. Irregular ☐

4. What is the shape of piece of stone?

a. irregular ☐

b. cylindrical ☐

c. rectangular ☐

5. What is the shape of pen, pencil and wooden log?

a. circular ☐

b. cylindrical ☐

c. rectangular ☐

6. Name any three objects which are:

recangular	cylindrical	irregular	oval shape	spherical

F. Choose the best answer from the given alternatives.

- i. It flows from higher level to lower level.
a. solid b. liquid c. gas d. rock
- ii. It is solid.
a. water b. ice c. vapour d. juice
- iii. It is liquid.
a. milk b. smoke c. bench d. box
- iv. It is gas.
a. smoke b. rain c. river d. house
- v. It is soft.
a. rock b. bench c. cloth d. pencil

G. Make meaningful words from the jumbled letters.

BAFOOTLL



GLEBAN



AORNGE



RICBK



KBOO



H. Name the shape of following figures.









Warm up activity



a.

b.

c.

d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these things? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Can you write their shapes?

a	b	c	d

Project Idea

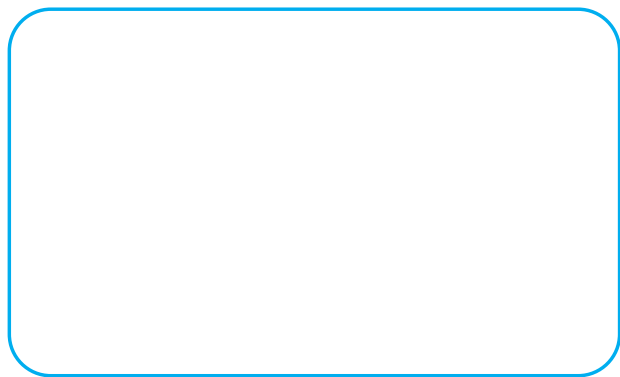


1. Separate the following into soft and hard objects.
unripe mango, tomato, cotton, flower, ripped, banana, wood, pencil, table, sweater, stone, iron.

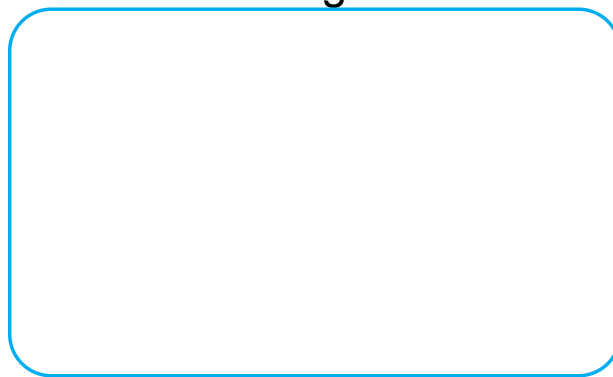
Soft objects	Hard objects
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

2. Name the foods you have eaten and seen. Separate the colours, hardness and softness, taste and smell of those foods.
3. Draw the following shapes.

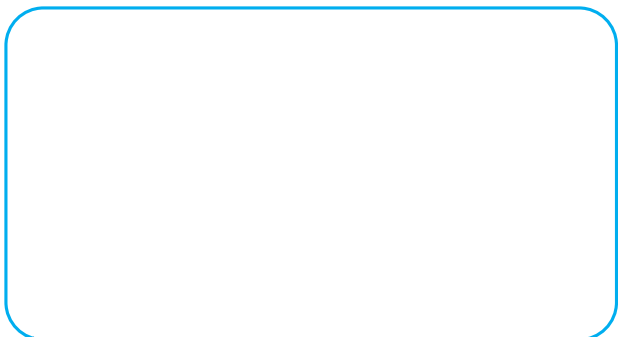
a. Round



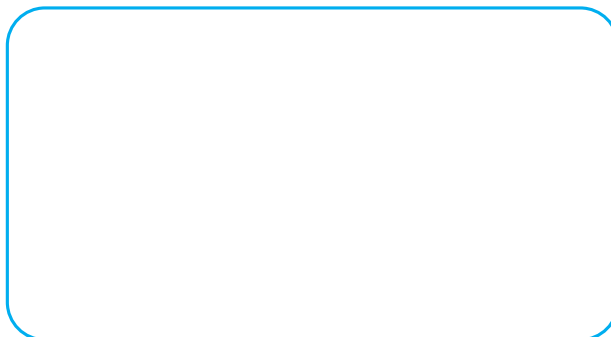
b. Rectangular



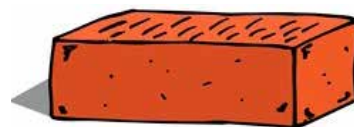
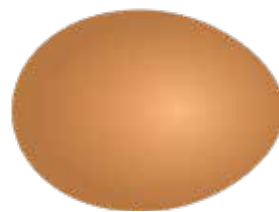
c. Circular



d. Cylindrical



4. Identify the given shapes and write their names.



UNIT 10

SOURCES OF HEAT AND LIGHT



Key Words

energy
warmth
festival

important
burning
firewood

sources
germinate
source

electricity
winter
batteries

heater
dry
light

Heat and light are very important for all living things. There are many sources of heat and light. Some of them are natural and some of them are man-made. The sun is the main source of heat and light.

Heat Energy

There are many sources of heat energy. The sun is the main source of heat energy. Electric heaters are used to cook food and to get warmth during winter.



heater



fire



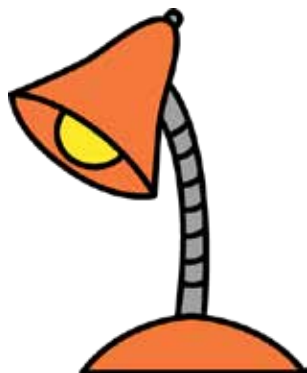
dung-cake

We also get heat by burning firewood.

We can also get heat by burning dung-cake. Dung cake is made from cow dung.

Source of Light

The sun is the major source of light on the earth. Lamps and candles are used to get light at night.



lamp

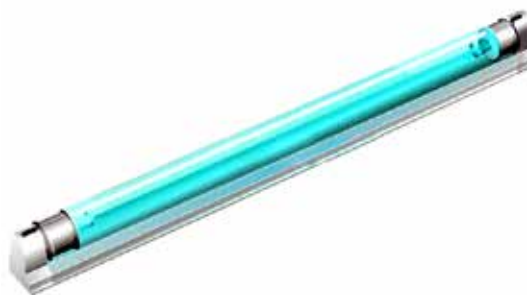


burning candle

We also get light by using electric bulbs and tube lights.



bulb



tubelight

Torch light is also used to get light. It works with the help of batteries.



torch light

Do you know?

- Ancestors used to rub woods or stones to make fire.

Uses of Heat and Light

Uses of heat

We use heat to cook food.



Do you know?

- Heat changes seeds into seedlings.

We use heat to dry our crops and clothes.



We use heat to get warmth in winter season.



Uses of light

We use light at night to see things.

Do you know?

- There are lights which we cannot see.



We use light to read books.

We use light to decorate our house during festival.



Plants also need light to germinate and grow.





Note to the Teacher

Make students clear about the different sources of heat and light. Uses of heat and light should be clearly explained.



Points to Remember

- There are many sources of heat and light.
- The sun is the main natural sources of heat and light.
- All the plants need heat and light to grow and prepare food.
- Heaters and bulbs are the man made sources of heat and light.
- We cannot live without heat and light.

Glossary

germinate : to grow seed

decorate : to make something look more attractive by applying something new

firewood : wood used to make a fire, wood used as fuel.

energy : the ability of doing work

electricity : a form of energy that is used for many purposes now-a-days



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

read dung-cake dry sun warm

1. Theis the main sources of heat and light.
2. Days areduring sunny days.
3. We use.....to cook food in villages.
4. We use heat toour crops.
5. Light is used to book.

B. Write 'T' for true and 'F' for false statements.

1. Animals need heat and light to germinate.
2. Firewood is obtained from electricity.
3. Light is used to dry wet clothes.
4. Rainbow is seen in winter season.
5. Heat is used to make our body warm.

☐
☐
☐
☐
☐

C. Match the followings:

Dung-cake •

• trees

Torch light •

• main sources of heat and light

Firewood •

• battery

Sun •

• sources of cow dung

D. Answer these questions.

1. What does the sun give us?
2. Name any three sources of heat.

3. Name any three sources of light.
4. How do we get heat from firewood?
5. How is a dung-cake made?
6. Name any three uses of heat.
7. Name any three uses of light.
8. Why would we like to sit under the sun during winter?

E. Choose the best answer from the given alternatives.

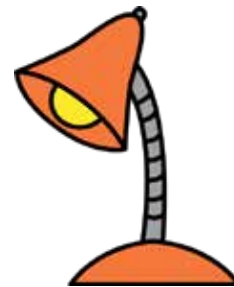
- i. It helps us to see.
a.light b. heat c. sound d. brick
- ii. It helps us to cook food.
a.heat b. light c. sound d. tap
- iii. It is the main source of heat.
a.sun b. heater c. iron d. fire
- iv. It produces heat from electricity.
a.heater b. fire-wood c. sun d. coal
- v. It is the source of light.
a.tube light b. heater c. fire-wood d. paper

F. Name the following figures.



G. Make meaningful words from the jumbled letters.

MPLA



UBLB



NCADLE



OWEFLR



SETOV



Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these sources of heat? Respond with a tick (✓) or a cross (×).

a	b	c	d

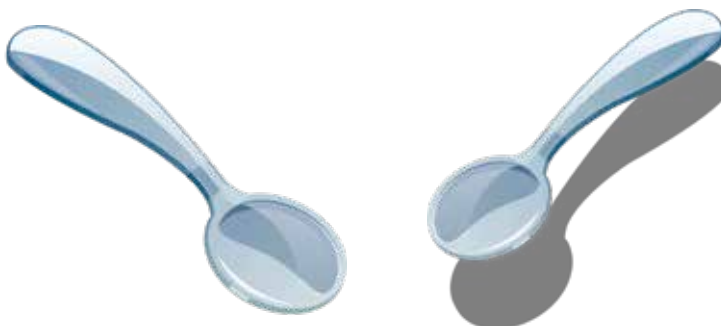
3. Can you write their names?

a	b	c	d

Project Idea



1. Take two spoons. Place one spoon in the sun and the other in the shade. After some time touch the spoons. Which spoon is warmer? Why?



2. Observe the germination of seeds with and without heat and light.
Write what you have observed in short.

.....

.....

.....

.....

.....

3. Make a list of things that produce heat and light in your house.

Source of light	Source of heat



THE SKY

Key Words

bright	sunshine	rainbow	shadow	position
afternoon	bottom	surrounding	atmosphere	flat
mountains	desert	streams	towards	portion
compare	earth	sun	plains	path

We see different objects in the sky. We live in the earth. The earth is covered by a layer of air. This layer of air looks blue due to the sunlight during the day.



The Sun

The sun is a big hot ball of fire. It gives us heat and light. The sun rises in the east and sets in the west. There is no sunshine at night. The sun makes the days warm and bright.



sunshine



sunset

The sunlight has different colours. We can see these different colours when the rainbow is formed. There are seven colours in sunlight. They are violet, indigo, blue, green, yellow, orange and red. In short form, we write it as **VIBGYOR**. These colours of sunlight are seen during rainy seasons in the form of rainbow. During cloudy days, sunlight is covered by clouds and weather becomes cold.



Shadow

A shadow is formed when light cannot pass through an object. When our bodies block the path of the light a shadow is formed on the opposite side to the light.

The shadow changes its length due to the change in position of the sun in the sky.



morning



afternoon



evening

At noon, the sun is right above our heads and shadows become shorter. In the morning and evening the shadows are longer. A shadow always falls on the opposite side to the light.

Different objects show different shadow shapes.



The Earth

The earth is a place where all living things live. The shape of the earth is like that of an orange. It is round but a little flat at the top and bottom.



orange



earth

A thick layer of air surrounding the earth is known as atmosphere. The surface of the earth is made up of land and water.

Plains

A plain is a flat land. Plains are low land structures of the earth. They are found in lower heights than mountains and hills. They are generally fertile.



Do you know?

- Sun is closer in summer season and farther in winter season from our earth.

Mountains and Hills

In some places the land rises to form hills. When the land rises very high it is called a **mountain**. Our country is mostly covered with mountains and hills.



hills



mountains

Desert

A land which is covered by sand is known as **desert**. It gets very little rain. Strong winds blow in a desert. It becomes very hot during the day and cold during the night.



desert

Sea

A very larger part of the earth is covered with sea water. Sea water is salty. Different types of living and non-living things are found in the sea. Our country is not touched by any sea. Therefore, our country is called **land locked country**.



sea

River and Streams

Rain water that flows on land forms streams. Many streams join together to flow towards sea. Rivers are formed by joining different streams. Nepal has many rivers and streams.



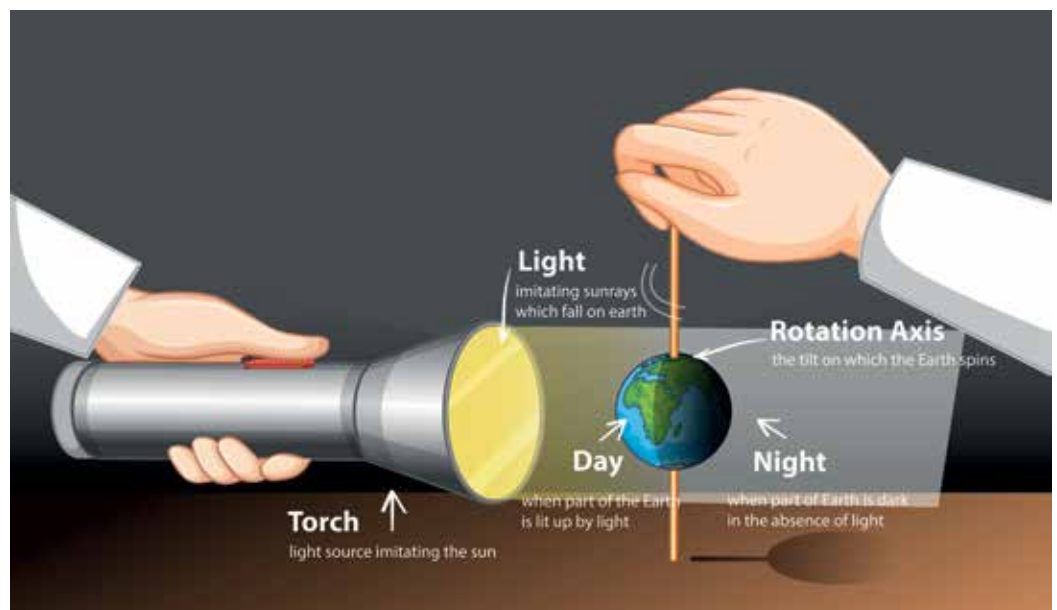
Ponds and Lakes

Ponds and lakes are filled with water. The water in a pond or a lake does not flow as in river. Nepal has many beautiful and attractive lakes such as Phewa lake, Rara lake, Ghodaghodi lake, Tilicho lake, etc.



Day and Night

It takes 24 hours for the earth to complete one rotation on its own axis.

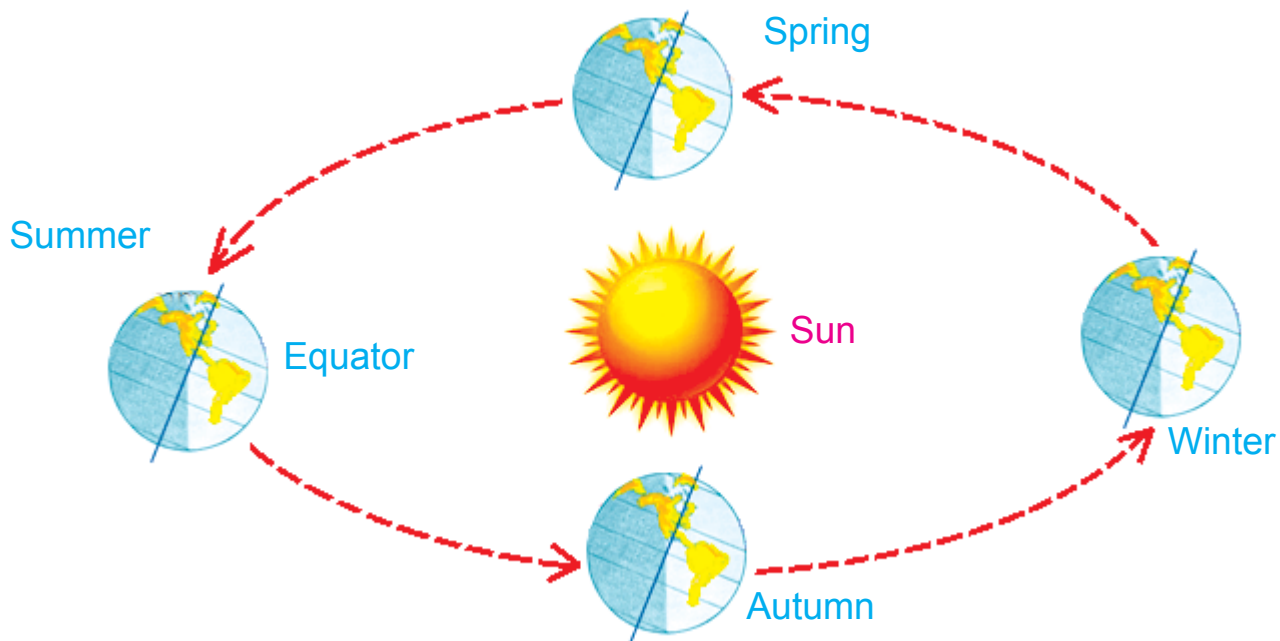


Take a ball. Label “A” in the front portion of the ball and label “B” at the back portion of it.

Keep the ball on at one side of a table. Fix a torch at side of the table. Put out all lights and light on the torch. What will you see?

The half portion of the ball that is facing the torch (portion “A”) is bright which shows day.

The portion “B” on the back is dark which indicates night. Now, slowly rotate the ball. The lighted portion goes away towards the darkness and the dark portion comes towards the torch and gets light. The ball can be compared with the earth and the torch with the sun.



The earth revolves around the sun. The earth rotates from west to east. The sun facing side of the earth has day and the other has night. The earth takes 24 hours to complete a rotation about its axis. So, one day and one night take 24 hours to complete. Day and night are caused by the rotation of the earth. Seasons change due to the revolution of earth around the sun.

Do you know?

- Earth is the only planet which has life.



Quick Reply

- Name two things we get from the sun.
- Does the sun have its own light?
- When does our body's shadow become short or long?
- Can we live without the sun?
- When do we see the stars and the moon?



Note to the Teacher

Use a torch light and observe the shadows of different objects. Explain about the sky cause of day and night. Make your students familiar about the surface of the earth.



Points to Remember

- The sun is a large, hot ball which gives heat and light.
- The sun rises in the east and sets in the west.
- A shadow is formed when something comes into the path of light.
- The earth is round but flat at the top and the bottom.
- All living things live on the earth's surface.
- Day and night are caused due to the rotation of the earth on its own axis.

Glossary

germinate	: to grow seed
decorate	: to make something look more attractive by applying something new
firewood	: wood used to make a fire, wood used as fuel.
energy	: the ability of doing work
electricity	: a form of energy that is used for many purposes nowadays.



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

hills shadow sun east surface

1. The sun rises in the
2. The earth revolves around the
3. A is formed on the opposite side of the light.
4. The of the earth consists of land and water.
5. In some places of the earth the land rises to form

B. Write 'T' for true and 'F' for false statements.

1. Light is essential for the formation of shadow. ☐
2. The shadow of an object is longer in the morning. ☐
3. The earth is completely round in shape. ☐
4. Our earth is covered by sea water and mountains only. ☐
5. A land which is covered by sand only is known as desert. ☐

C. Match the followings:

Sun •

• bright part of the earth

Day •

• salty water

Night •

• layer of air

Sea •

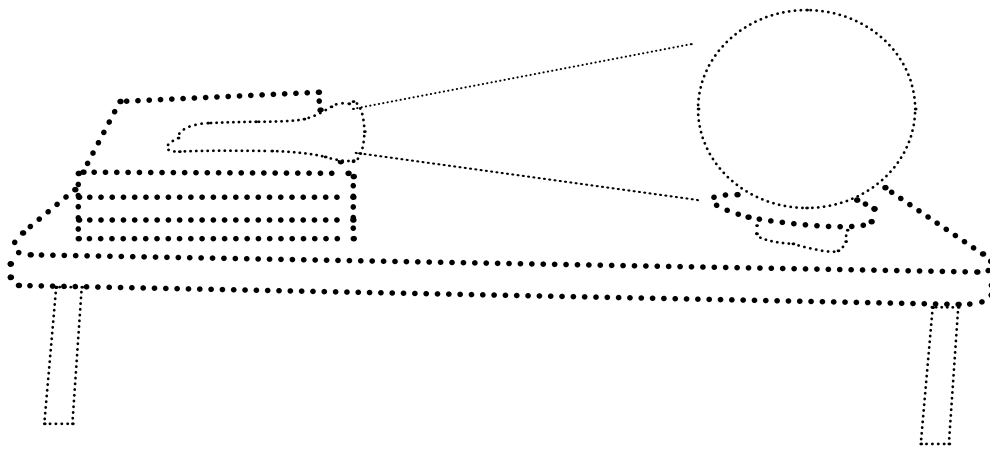
• dark part of the earth

Atmosphere •

• heat and light

D. Answer these questions.

1. What type of weather is found during sunny day ?
2. Why do we feel cold during cloudy day ?
3. Why do we like to stay under the sun during winter ?
4. How is rainbow formed ?
5. Name the different colours of the light.
6. How is a shadow formed ?
7. How does the day and night occur?
8. How do the seasons change ?
9. What is the shape of the earth ?
10. What is the surface of the earth made up of ?
11. What is atmosphere ?
12. How much time does the earth take to complete one rotation on its own axis ?
13. Join the dots and colour.



14. Draw a rainbow and label different colours.

E. Tick (✓) the correct answer.

1. The shape of the earth is.....
a. round ☐ b. flat ☐ c. oval ☐
2. Rotation of the earth causes
a. day and night ☐ b. change of seasons ☐ c. both ☐
3. A very high hill with slopes is called a.....
a. mountain ☐ b. hill ☐ c. plain ☐
4. The gives us heat and light
a. sun ☐ b. moon ☐ c. earth ☐
5. A land which is covered by sand is known as
a. mountain ☐ b. hill ☐ c. desert ☐

F. Choose the best answer from the given alternatives.

- i. It is a big ball of fire.
a. moon b. sun c. earth d. football
- ii. It is hot during this day.
a. sunny day b. cloudy day c. rainy day d. windy day
- iii. Sun rises from this direction.
a. east b. west c. north d. south
- iv. Two-thirds of the earth is covered by.....
a. water b. air c. land d. leaf
- v. There arehours in a day.
a. 24 b. 8 c. 12 d. 7

G. Make meaningful words from the jumbled letters.

NDLA



TERWA



BEGLO



STFORE



ADOSHW



Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen these things? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Can you write their names?

a	b	c	d

Project Idea



1. Use a torch light or a burning candle and observe the shadows of different objects.
2. Take water in a plate or a dish. Put a few drops of cooking oil in water. Now, keep the plate under the sunlight. Observe the different colours in the water.
3. Take a long stick and fix it at a place where there is sun shine through out the whole day. Measure the size of shadows every after an hour.

HEALTH EDUCATION



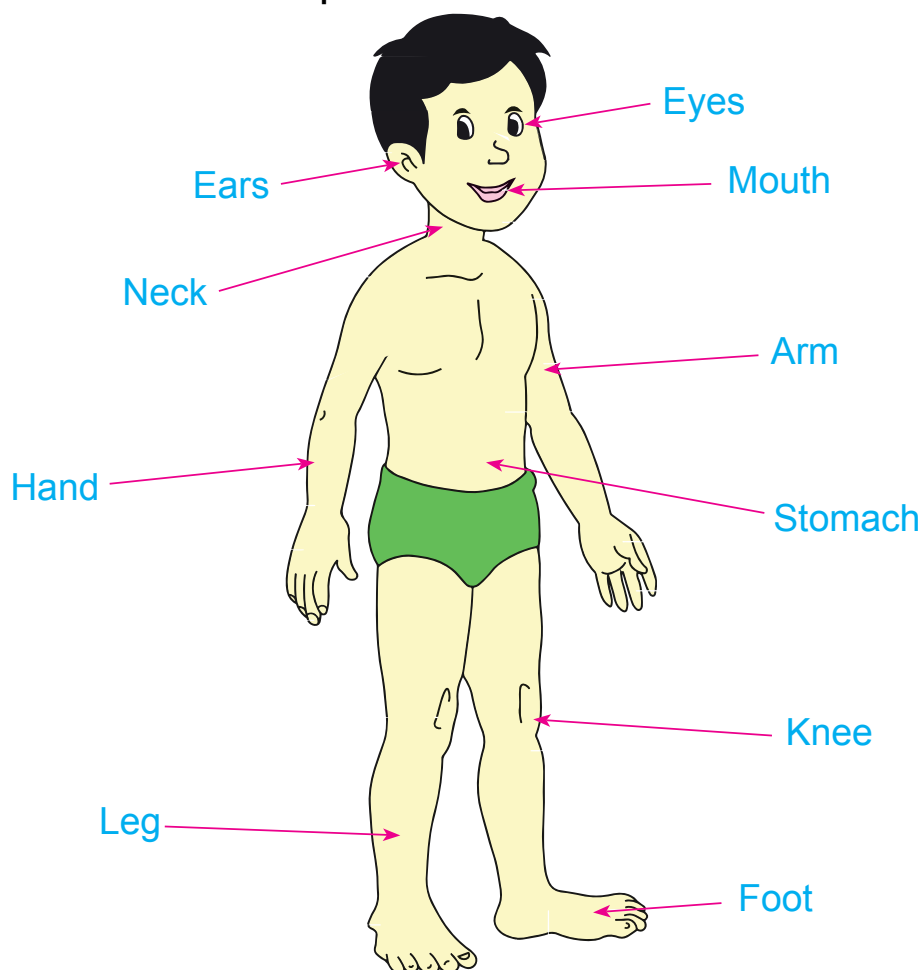
UNIT 12

CLEANLINESS

Key Words

hygiene	bite	chewing	breathe	remove
materials	throw	collected	disposed	appropriate
separate	spreading	insect	care	

We have different parts in our body. The practice of keeping our body and body parts clean is known as personal cleanliness or hygiene. We have two legs and two hands. We also have two ears, two eyes, a nose and a mouth. These are the parts of our head.



Care of Hands

We use our hands to do many works. We must wash our hands before and after taking food. We must also wash our hands with soap and water after going to the toilet.



Do you know?

- Dirty nail is the main cause of illness.

Care of Nails

We must trim our finger nails. We should trim them time to time with the help of nail cutter. We should not bite nails with teeth. Dirty nails consist of germs and dirt.



Care of Mouth and Teeth

We chew food in our mouth with the help of teeth. Teeth are necessary for chewing different types of food. We should use a tooth brush and tooth paste to clean our teeth everyday. We must brush our teeth in the morning and before going to bed. We must clean our tongue also with tongue cleaner.



Care of Nose and Ears

We must keep our nose clean. We smell and breathe through our nose. We must use a clean handkerchief to clean our nose. We should not clean our nose with a finger.

Do you know?

- Even dettol can kill 99% of germs only.



We hear with our ears. We must keep our ears clean. We should use cotton buds and a soft towel to remove dirt from the ears. We should never clean ears with sharp objects.

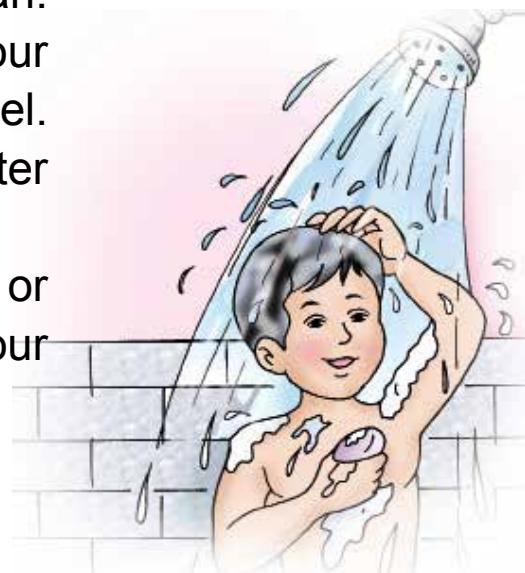


Care of Body and Hair

The body is covered with skin. The skin helps us to feel the things. We should keep our skin clean. We should use soap and clean water to clean our body. We should wipe our body with a clean towel. It is necessary to change our undergarments after taking a bath.

We must wash our hair to keep it clean. Soap or shampoo and clean water are needed to wash our hair.

We must also comb our hair daily.



Care of Eyes

Eyes help us to see around us and read books. We must keep our eyes clean. We should wash our eyes with clean water. We should not rub our eyes.

To keep our body clean and healthy, we must have some materials.





soap



shampoo



tooth brush



nail cutter



tooth paste



towel



handkerchief



comb



hair oil



water

Surrounding Cleanliness

Our surroundings make our environment. Making our surroundings neat and clean is known as surrounding cleanliness. Everybody wants to live in a clean environment.

We must make our house always clean.

Some of our activities make our surroundings dirty. Clean





surroundings help to keep us healthy. We should not throw the waste materials and contaminated water wherever we like. Waste materials should be collected and disposed at appropriate places.

The wastes from vegetables, fruits and paper, plastics should be kept in separate dustbins.

We should make non-moving water to flow. This helps to stop diseases spreading insects to breed.

We must keep our toilet clean. Water should be used to clean toilet and after it is used. We should use slippers while using toilet.

We must keep our school clean. We should sweep the floor and keep dust and waste materials in the dustbin. We should wipe the dust of desks, benches, chairs before we use them.

We should grow plants surrounding our house and school. It is necessary to take care plants and surrounding.

Do you know?

- Hands are more responsible for spreading germs.



Quick Reply

- Name different parts of our head.
- Which part of our body helps us to feel things?
- What helps us to taste things?
- Where should we put waste?



Note to the Teacher

Make your students understand about the importance of personal cleanliness. Help students to know the ways to take care of different body parts. Encourage students to help in making house and school clean. Separate students in different groups and participate them to clean surrounding with the help of cleaning materials.



Points to Remember

- The practice of keeping our body and body parts clean is called personal cleanliness or hygiene.
- We should always wear neat and clean clothes after taking a bath.
- Making our surrounding neat and clean is known as surrounding cleanliness.
- Our some activities make our surrounding dirty.
- We should keep our environment neat and clean.

Glossary

dustbin	: a large container with lid, used for putting waste materials
hygiene	: a science of establishment and maintenance of good health
breed	: reproduce
undergarment	: cloth worn under other clothes



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

water bath dustbin shampoo ears clean

1. We should keep our house
2. We must put waste things in the
3. We should takeregularly.
4. We should use and to clean our hair.
5. Cotton buds should be used to clean our.....

B. Write 'T' for true and 'F' for false statements.

1. We must keep our classroom neat and tidy.
2. It is good to bite our nails.
3. Plants help to make environment fresh.
4. Water should be made flow properly.
5. We should spit everywhere.
6. We must put water in the toilet after use.

☐
☐
☐
☐
☐
☐

C. Match the followings:

Nail cutter •

• tooth brush, tooth paste

Soap water •

• help to care hair

Comb •

• trimming nail

Wastes •

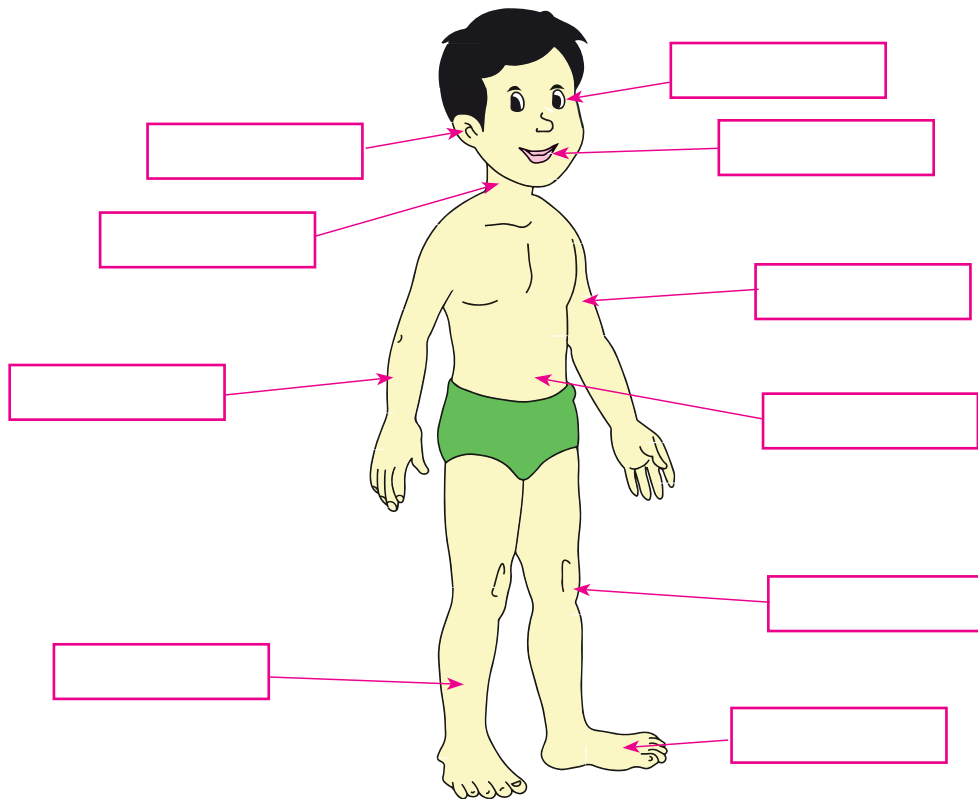
• cleaning body

Teeth •

• dustbins

D. Answer these questions.

1. What is personal cleanliness?
2. What is surrounding cleanliness?
3. We use soap and clean water while taking bath. Why?
4. How should we take care of our nails?
5. How should we take care of our teeth?
6. Why is it important to flow the non-moving water?
7. How do you keep your house and school clean?
8. Why is surrounding cleanliness important?
9. Write any two causes that make our surrounding dirty.
10. Why should we collect and throw waste properly?
11. Write two ways to make surrounding clean.
12. Label the different parts our body.



E. Tick (✓) the correct answer.

1. We should brush our teeth a day.
a. one ☐ b. twice ☐ c. thrice ☐
2. We should use to clean our ears.
a. pencil ☐ b. pen ☐ c. cotton ear buds ☐
3. We should cut our nail by using a
a. nail cutter ☐ b. blade ☐ c. knife ☐
4. We should wash our hair by using
a. soap ☐ b. shampoo ☐
c. water and shampoo ☐
5. Our body is covered with
a. skin ☐ b. eyes ☐ c. nose ☐

F. Name the things which are given below.



G. Look at the picture below and answer the following questions.



1. What do you see in the above picture?
2. Why is the girl using handkerchief?
3. What is coming out from the chimney of factories?
4. Why is a man falling down?
5. What are being mixed in river water?

H. Look at the picture below and write their uses.



I. Look at the pictures below and write what you have noticed.



J. Choose the best answer from the given alternatives.

- i. It is used to cut nail.
a. nail-cutter b. comb c. tooth brush d. towel
- ii. It is used to brush teeth.
a. nail-cutter b. comb c. tooth brush d. sweets
- iii. It is used to wipe our body.
a. tooth brush b. nail cutter c. scissors d. towel
- iv. It is used to manage hair.
a. tooth brush b. comb c. nail-cutter d. towel
- v. It damages our teeth.
a. tooth paste b. tooth brush c. scissors d. sweet

K. Make meaningful words from the jumbled letters.

ETTEH



OSEN



YEE



ERA



MCOB



L. Write one way to clean the following parts.

- i. Skin ii. Nose iii. Hair
iv. Eye v. Hands vi. Nails vii. Ears

Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Do you really do these activities regularly? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Is it good habit?

a	b	c	d

Project Idea



1. Discuss with each other and write 'Yes' or 'No' in the given statements.

- We should clean our nose with shirt.
- We should use finger to clean our nose.
- It is easy to clean our hair.
- We should not rub our eyes.
- Tooth brush and paste should be used while brushing teeth.
- Surrounding cleanliness makes us free from diseases.

POSTURE

Key Words

Stand up	posture	correct	upright	forward
bend	properly	rest	sleep	straight

The way a person stands up, sits or walks is known as **posture**. Correct posture is needed to keep our body in proper shape.

We should sit and stand straight. We should walk upright. We should keep our chest up and not bend our shoulders forward. Never study lying on a bed. Good posture gives a proper shape to our body and keeps us healthy.

Stand Correctly

Stand with chest out, back straight and chin up. Keep your feet flat on the ground.



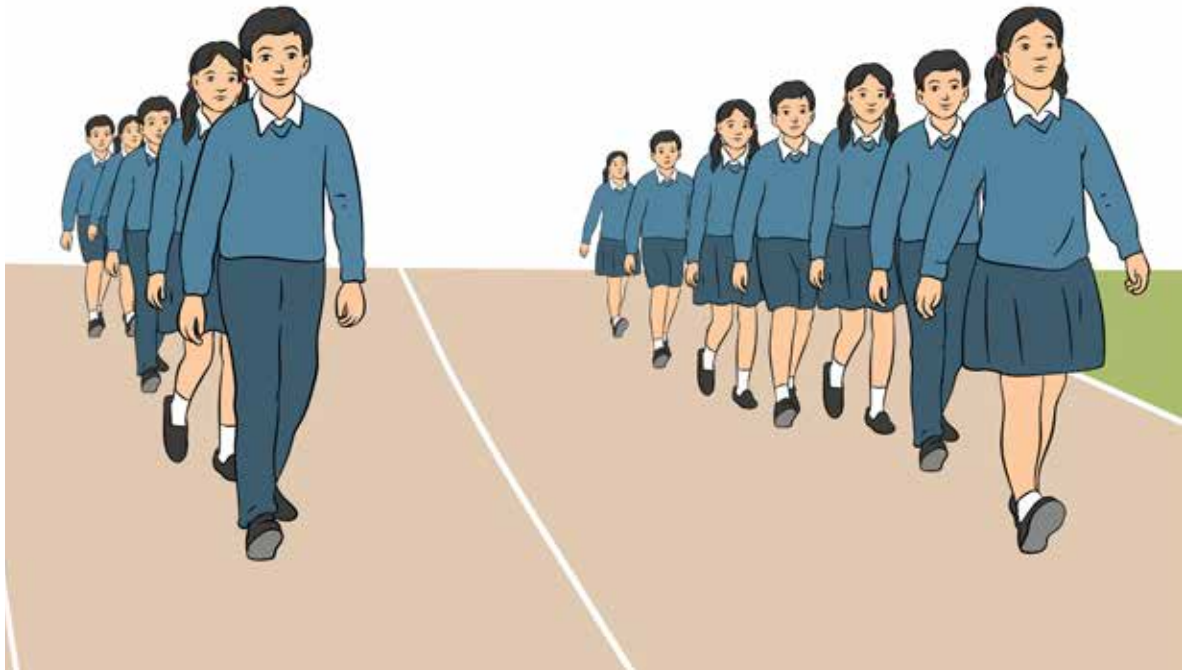
Sit Correctly

Keep your back straight. Keep your chest up. Shoulders should not be bent.



Walk Correctly

Walk with straight shoulders. Hold your head high, let your arm swing properly.



Rest and Sleep

We should take rest and sleep on the correct times. We should not sleep by bending our legs. High pillow should not be used.



Note to the Teacher

Observe different postures of students like walking, sitting and standing. Help students to follow correct posture.



Points to Remember

- A good posture helps us to stay healthy and smart.
- The way a person stands up, sits or walks is known as posture.
- We should follow correct posture while sitting, standing, walking and sleeping.

Glossary

upright	: positioned to be straight up
sleep	: the natural state of rest during which our eyes are closed and we become unconscious
properly	: a way that is correct and or appropriate
trim	: to make something neater, smaller, better, etc. by cutting parts from it



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

straight study posture sleep

1. A goodis needed for a healthy body.
2. Walk with your back
3. We should at the correct time.
4. Never.....lying on bed.

B. Write 'T' for true and 'F' for false statements.

1. While walking we should jump. ☐
2. We should sleep by bending our legs. ☐
3. We must keep our back straight while walking. ☐
4. Wrong posture is harmful for our health. ☐
5. It is not necessary to take rest. ☐

C. Match the followings:

Stand •

• swing your arm freely.

Rest and sleep •

• back straight in the chair

Walking •

• chest out and belly in.

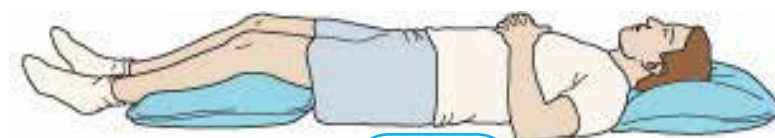
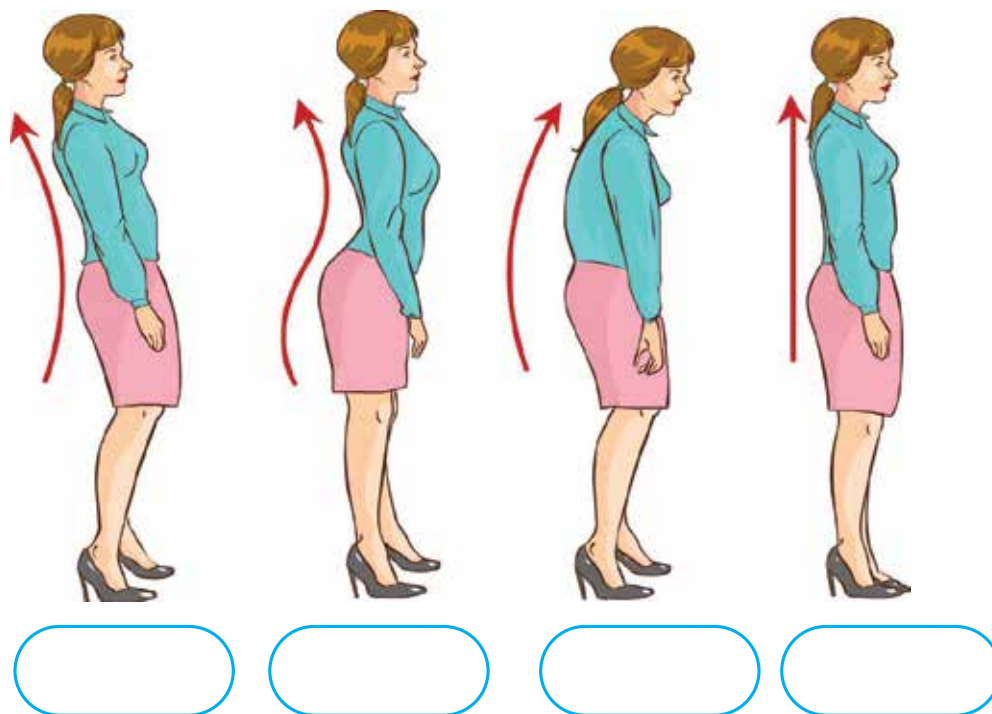
Sitting •

• help body to relax

D. Answer these questions.

1. What is posture?
2. Why is a good posture important?
3. What does good posture indicate?
4. Name any two wrong postures of the body?
5. Write down the importance of right postures.

E. Write 'Yes' for correct and 'No' for wrong postures.



F. Choose the best answer from the given alternatives.

i. It gives us good health.....

a. proper posture

b. bad posture

b. heavy work

d. lazy habits

ii. We have to make our back straight while

a. sleeping

b. running

b. sitting

d. jumping

iii. We should stretch our legs while.....

a. sleeping

b. walking

b. jumping

d. standing

iv. Our body is made of

a. muscles

b. bones

b. bones and muscles

d. rock and soil

v. A proper posture makes body

a. healthy

b. unhealthy

b. weak

d. sick

G. Make meaningful words from the jumbled letters.

MSCULE



BNEO



ITS



WAKL



POTSRUE



Warm up activity



a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen people doing this? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Do you do it yourself?

a	b	c	d



UNIT 14

OUR FOOD AND HEALTH



Key Words

builds
enough

protection
chew

proper
properly

fixed
boiled

germs sick
filter

Food keeps us alive. We need different types of food to stay healthy and become strong.

Food for energy

Some foods give us energy to work, study and play. These foods are called energy giving foods. Some of them are shown below.



butter



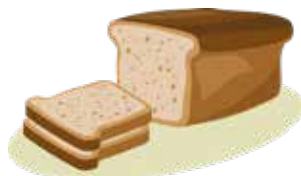
oil



potato



roti



bread



rice



sugar



ghee



Food for Body Building

Some foods build our bones and muscles and help our body to grow. These foods are called body building foods. Some of them are given below.



meat



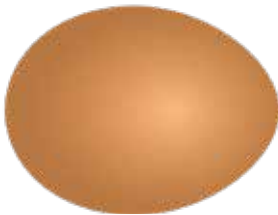
peas



fish



grams



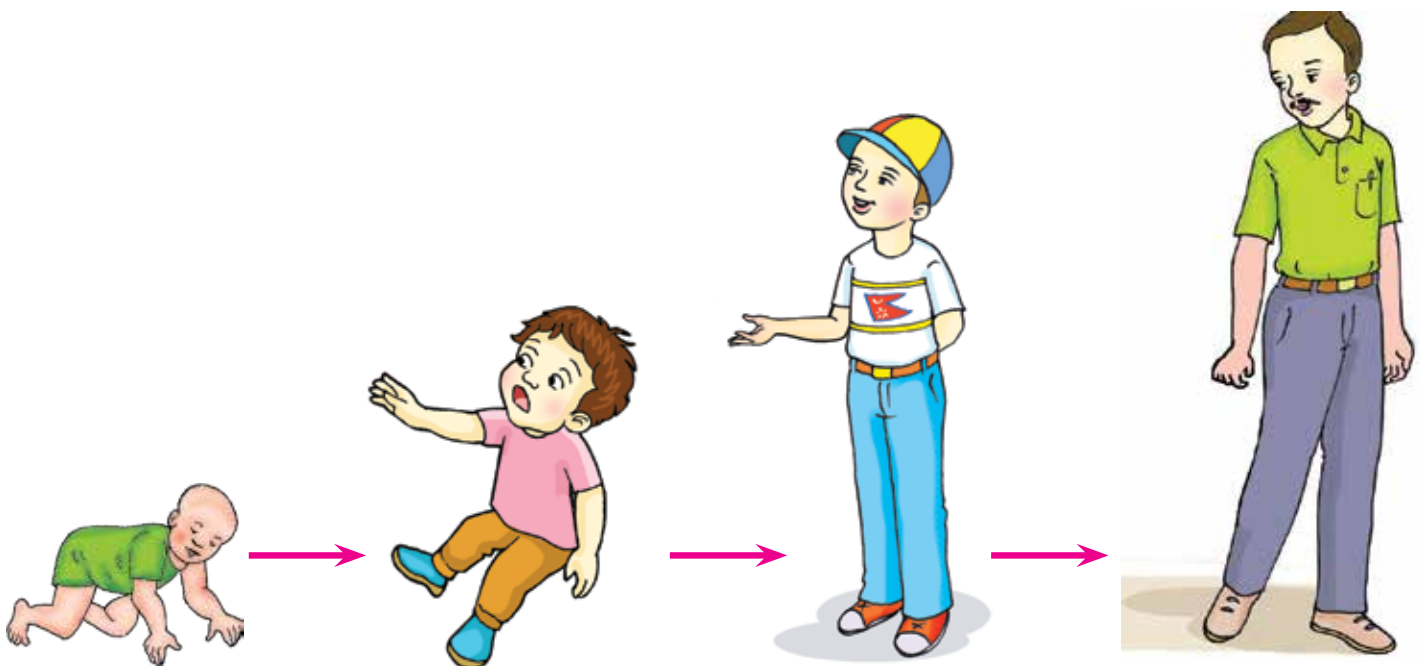
egg



milk



chicken



Food for Protection

Some foods protect our body from disease and keep us healthy. We need to eat these foods daily. These foods are called protective foods. Some of them are shown below.



fruits



vegetables



milk

Healthy Ways of Eating

- Eat your meals at a proper fixed meal time.
- Do not eat uncovered food. It may have dust, dirt or germs in it. It can make you sick.
- Eat enough food but do not over eat.
- Eat slowly and chew your food properly.
- Wash your hands before and after eating.
- Eat food from a clean plate.
- Never share the same tiffin with other friends at school.
- Do not pick up and eat food from the ground.
- Fruits and vegetables should be washed before we eat them.

Drinking Water

We can not live without water. We must drink plenty of clean water everyday. Drinking clean water makes us fit and healthy. Drinking water should be boiled, filtered and should be kept in a clean pot.





Quick Reply

- Name three vegetables you like the most.
- Name three fruits you like the most.
- Do you drink milk?
- What time do you eat your morning and evening meal?
- Name the food you ate yesterday and today.



Points to Remember

- We need food to stay alive.
- Some foods build our bones muscles and help to grow our bodies. They are known as body building foods.
- Some foods give us heat and energy to play and study, they are known as body-building foods.
- Some foods protect our bodies from diseases and keep us healthy. They are known as protective foods.
- We must drink plenty of water.



Note to the Teacher

Discuss the different types of food and their importance. Encourage students to eat clean and fresh foods. Tell them to drink clean water.

Glossary

- foods** : substances consisting essential components required for proper health
- protection:** to keep ourself away from harm
- germs** : disease causing very small organisms



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

clean dirty energy fresh body-building diseases

1. We should eat and food.
2. Sweets are giving food.
3. Meat and milk are food.
4. We should not eat foods.
5. Fruits and vegetables protects us from different

B. Write 'T' for true and 'F' for false statements.

1. Carrot and radish are eaten raw. ☐
2. Fruits should be eaten after washing properly. ☐
3. Covered food keeps the flies away . ☐
4. We should eat different kinds of food. ☐
5. It is not necessary to drink boiled water. ☐

C. Match the followings:

Over eating •

Fruits •

Clean and fresh food •

Milk, meats grams •

• harmful

• healthy body

• building food.

• protective food

D. Answer these questions.

1. Why do we need food?
2. Why should we eat different kinds of food everyday?
3. Why is it not good to eat uncovered food?
4. What do we use energy for?



5. What should we do before and after eating meal?
6. Write four rules of healthy eating.
7. What is body-building food?
8. What is energy-giving food?
9. What is protective food? Why should we drink clean water?
10. What will happen if we eat dirty foods?

E. Write 'B' for body building 'E' for energy giving and 'P' for protective foods.







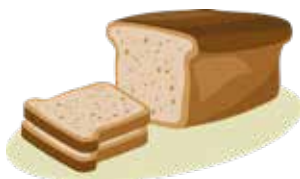




















Project Idea



1. Make a list of foods you eat and separate these foods into three categories.
2. Write the names of different foods we eat during our festivals.
3. Collect the pictures of different foods. Paste them in your science exercise book and separate them into body-building, protective and energy-giving foods.



UNIT 15

DISEASES AND HEALTH CENTRES



Key Words

sickness	environment	transferred	harmful	cough
consult	safe	treatment	facilities	carry
vaccinations	provide	available		

The conditions of sickness of our body is known as diseases. We may become sick due to germs, dusts, dirty water, dirty food and dirty environment. There are two types of diseases. They are communicable and non-communicable diseases.

Communicable Diseases

The diseases that can be transferred from one person to another are known as communicable diseases. Germs and harmful worms are transferred from stool, urine, spit, mucus, air or dirty foods of sick person. When we cough or sneeze we must cover our mouth with a handkerchief. We should not go close to a sick person. Some communicable diseases are typhoid, jaundice, common cold, tuberculosis, dysentery, diarrhoea roundworms, measles or scabies.



Do you know?

- Diarrhoea kills many children in Nepal every year.

Non-communicable Diseases

The diseases that cannot be transferred from one person to another are known as non-communicable diseases. Some non-communicable diseases are malnutrition, cancer, goiter, headache, blood pressure, night blindness or scurvy. Goiter can be prevented by taking salt consisting of iodine.



goiter



malnutrition



scurvy



headache



blood pressure

Health Centers

When we get sick, we should go to the hospital or health post or sub-health post and consult a doctor immediately. Doctors and nurses help us to cure and become safe from diseases.



doctor



nurse



medicines

Hospital

The places where treatment of many diseases are done are called **hospitals**. Hospitals have many health facilities, many doctors and nurses work in hospitals. Vaccinations, minor and major operation facilities are available in hospitals.



Ambulance service is also available in many hospitals. Ambulances are used to carry sick people in health centres.

Health Post

The places which provide less facilities to sick person than hospital is known as **health posts**. Vaccinations and other treatment of sick persons can be done at health posts.



Do you know?

- We should use our elbow while sneezing than hands.

Sub-Health Post

Sub- health posts are found in the villages. Few doctors nurses and other health personnels work in sub-health posts. Vaccinations and some other treatment of simple diseases are done at sub-health posts. The places which provide very less facilities to the sick persons than health posts is known as **sub-health post**.

In villages, ambulances are not available so stretcher or some other local methods are used to carry sick persons.



Do you know?

- Sub-health post does not have doctors.



Quick Reply

- Name any two communicable diseases.
- Name any two non-communicable diseases.
- Name any two health centres of your area.



Note to the Teacher

Tell your students some communicable diseases and their mode of transmission. Give a short descriptions of some common diseases. Make them understand about the facilities available in different health centres.



Points to Remember

- The conditions of sickness of our body is known as diseases.
- The diseases that can be transferred from one person to another are known as communicable diseases.
- The diseases that cannot be transferred from one person to another are known as non-communicable diseases.
- Hospitals, health posts and sub health posts provide us health services.

Glossary

- cough** : sudden expulsion (removal) of air from the lungs that clears the air passages
- sneeze** : an action consisting of involuntary expulsion of air from the nose
- sickness** : impairment and uncomfortable in our body caused after attack by germs or other factors
- ambulance** : an emergency vehicle that takes people to and from hospitals
- scurvy** : a disease caused by lack of vitamin 'C' and characterised by spongy gums, loosening teeth, etc.



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

village sick communicable health

1. Diarrhoea is a disease.
2. Stretcher is used to carry people.
3. Hospitals are service centres.
4. Sub health posts are found in

B. Write 'T' for true and 'F' for false statements.

1. Flies carry germs and spread diseases. ☐
2. Blood pressure is a communicable disease. ☐
3. People should meet with police whenever they become sick. ☐

4. We should take medicines always on correct time. ☐
5. Non communicable diseases are not harmful for health. ☐

C. Match the followings:

Health post • protect us from diseases

Doctor • treat sick people

Nurse • carry sick people

Ambulance • female take care sick people

Vaccine • person who checks sick people

D. Answer these questions.

1. What is a disease?
2. What are communicable diseases?
3. What are non-communicable diseases?
4. Name any three non-communicable diseases.
5. What do you understand by hospital?
6. What do you understand by health post?
7. What do you understand by sub- health post?
8. How are scabies, diarrhoea and measles transferred?
9. How can you protect yourself from goiter?

E. Observe the following pictures and write what you have noticed.



F. Choose the best answer from the given alternatives.

i. It has many doctors.

a. hospital

b. clinic

c. health post

d. sub-health post

ii. It has only one doctor.

a. hospital

b. cinema hall

c. health post

d. sub-health post

iii. It is communicable disease.

a. diarrhoea

b. cancer

c. broken hand

d. heart attack

iv. It is non-communicable disease.

a. cancer

b. diarrhoea

c. common cold

d. polio

v. It helps to carry patient in villages.

a. doko

b. ambulance

c. car

d. taxi

G. Name the following figures.



H. Make meaningful words from the jumbled letters.

ORDOCT



SENUR



ANAMBULCE



TALHOSPI



MGER



Warm up activity

a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen people doing this? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Do you do it yourself?

a	b	c	d

UNIT 16

SAFETY



Key Words

safety

traffic

accident

electricity

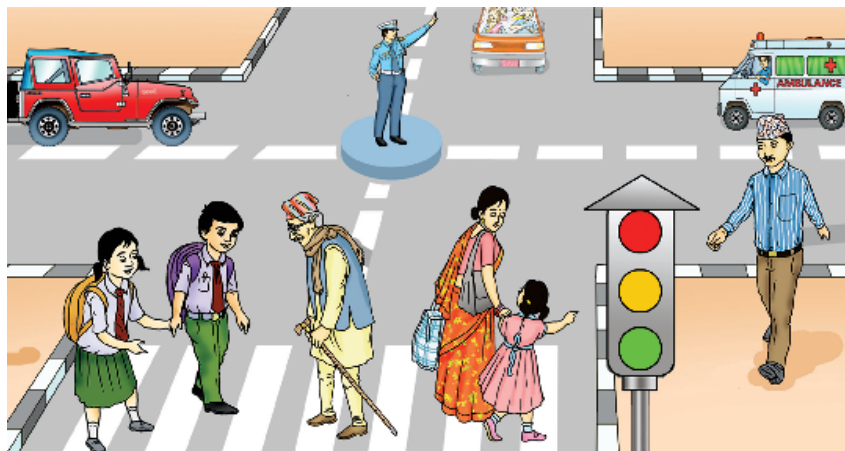
first aid

zebra crossing

We must take care of ourselves while working, running and playing. Accidents can happen anywhere and at anytime. We should follow safety rules to avoid accidents.

On the Road

Always walk on the footpath. Cross the road only at the zebra crossing. Wait for the traffic to stop before crossing the road. Never run while crossing the road.



In the Bus

Do not get in or get off a moving bus. Do not put arm or head out of a moving bus. Stand in line while waiting for the bus. Do not disturb the driver while he/she is driving.



At Home

Do not play with sharp instruments, matchsticks or electricity. Never touch electric fans that are switched on and rotating, you may get hurt. It is not safe to touch electric wires and plugs.



Playing with sharp or pointed objects can also hurt you. Be kind to pets and other animals.



At School

Do not run inside the classroom. Walk slowly in a line while climbing up the stairs. Do not jump on the desks or benches.

Do you know?

- Majority of people who die in accident are male.



At Play

Never play on the road or play rough. Play in a safe place like a playground or in a park.



Do not fly kites from the roof of a house.



In the Swimming Pool

Do not swim alone. Use your swimming tube.

Do not swim just after meals.



First Aid

If someone gets hurt, you should inform your teacher or parents immediately or find an elder person in order to get help. **The first help given to an injured person until the doctor arrives is known as first aid.**





Quick Reply

- To which side of the road should we do cycling?
- What should we use to cross the road?
- Is it necessary to follow safety rules?
- Why shouldn't we play with sharp things?



Note to the Teacher

Encourage students to follow safety rules at school, at home while playing and while riding bicycles on the road. Make your students aware about the possible accidents.



Points to Remember

- Follow safety rules and be safe.
- Always walk on the footpath.
- Cross the road only at a zebra crossing.
- Do not play with sharp objects, pointed objects with fire or electric wires.
- If someone gets hurt then inform your teacher or an elder person.

Glossary

safety	: free from harm or danger
accident	: sudden, unforeseen and unplanned event
zebra crossing	: a path which is painted with stripes on a street or road and marks the place where we can safely cross the road
immediately	: as soon as



Exercise

A. Choose a word to fill the blanks in each of the following sentences.

play	electric wires	sharp	dangerous
zebra crossing	footpath	plugs	

1. Always walk on the
2. Cross the road at the
3. Do not on the road.
4. It is not safe to touch and
5. We should not play with objects.
6. Flying kites from a rooftop is.....

B. Write 'T' for true and 'F' for false statements.

1. It is safe to run while crossing the road. ☐
2. We should play with a knife. ☐
3. We can put our hands out of a moving bus. ☐
4. It is good to fight with each other while playing. ☐
5. First aid box should be kept at home. ☐
6. We must run across the road. ☐

C. Answer these questions.

1. Name two safety rules to be followed on the road.
2. Name any two safety rules to be followed at home.
3. Name any two safety rules to be followed while playing.
4. Name any two safety rules to be followed while riding a vehicle.
5. Where should we play?
6. What should we do if someone gets hurt?
7. What is first aid?
8. Why is it important to follow safety rules?

D. Look at the pictures below and write what you have noticed.

Pic. A



Pic. B



E. Choose the best answer from the given alternatives.

- i. We should cross road from.....
 - a. zebra crossing
 - b. zebra park
 - b. right side
 - d. left side
- ii. Playing with it causes fire.....
 - a. match stick
 - b. knife
 - b. handkerchief
 - d. kite
- iii. It may kill us.
 - a. pen
 - b. electric shock
 - b. lunch
 - d. potato
- iv. We should not.....in the road.
 - a. play
 - b. walk
 - b. drive
 - d. walk slowly
- v. We should follow.....
 - a. safety rules
 - b. traffic rules
 - b. both a and b
 - d. road

F. Make meaningful words from the jumbled letters.

NDBAAGE



ORSSCISS



USB



RACROSZEBSING



TKIE



Warm up activity

a.



b.



c.



d.



1. Can you identify the given diagrams? Express your response with a tick (✓) or a cross (×).

a	b	c	d

2. Have you really seen people doing this? Respond with a tick (✓) or a cross (×).

a	b	c	d

3. Do you do it yourself?

a	b	c	d

Project Idea



Collect and paste the pictures of different accidents in your science exercise book.

PHYSICAL EDUCATION



UNIT 17

WALKING, RUNNING, JUMPING AND THROWING

Key Words

skip

throwing

walking

running

jumping

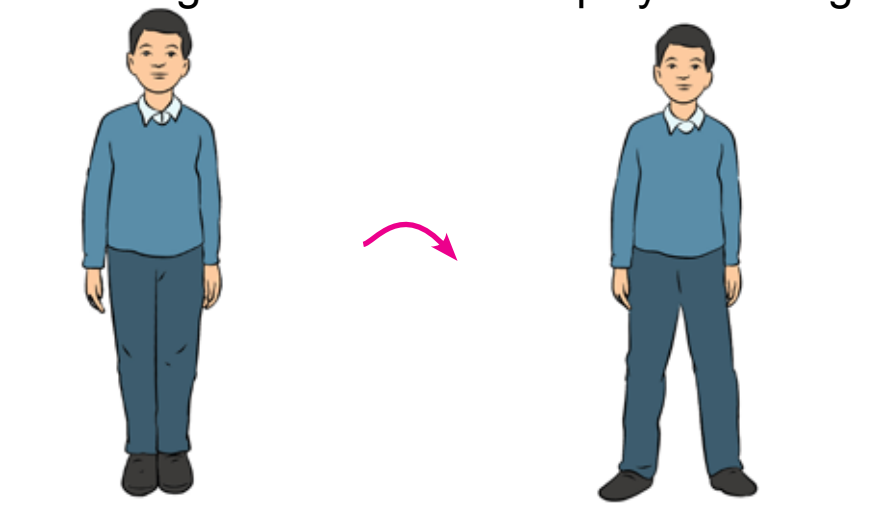
Walking

We should stand straight while walking. The movement of hands and feet should be in opposite direction.

The students stand at the starting line and get ready for side walking.

The players are divided into groups of 4 to 5. They stand in line behind the starting line.

At the signal 'Go', the first player of each group takes a side step from the left, brings the right foot and again takes the side step. They continue their steps up to the finish line and come back with simple running and touch off the player waiting for their turn.



Running

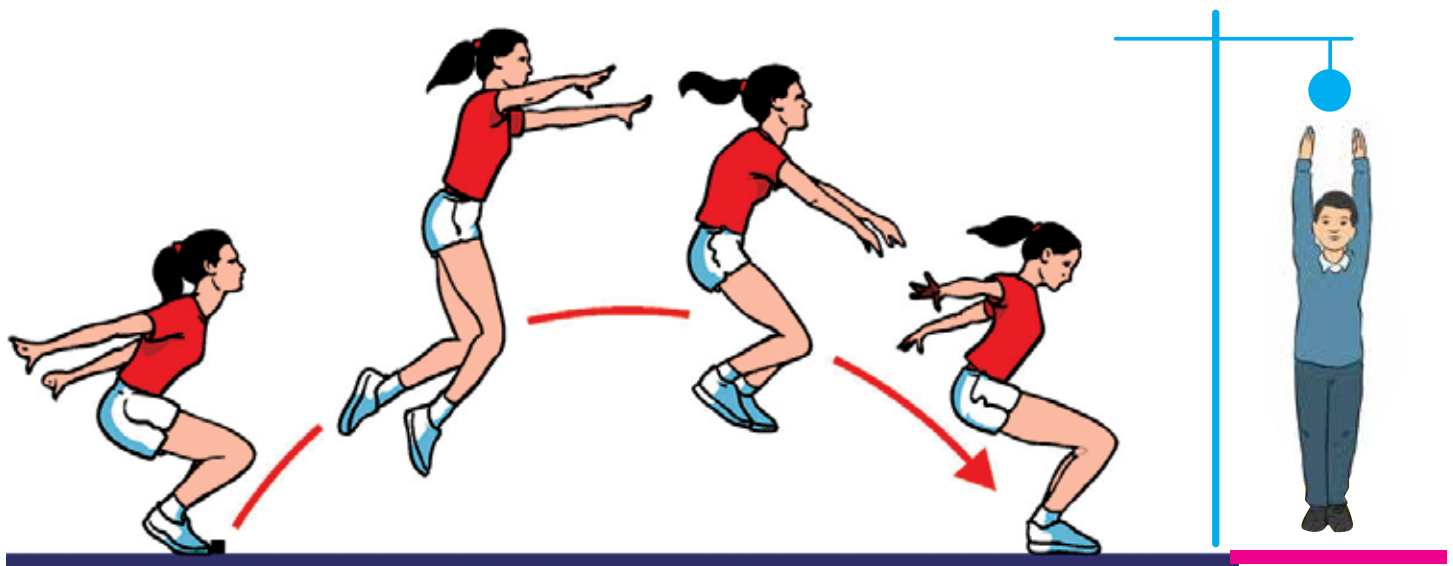
Runner should be ready to run by keeping their left leg forward at the starting point. When the runners hear 'Get set' and the 'Go', then they start running and reach the finishing line. Students can run 15m and 25m.



Jumping

Students should jump over a thin rope or without a rope. Students should jump after running three to six steps.

They should jump one by one and they should bend their legs while landing.

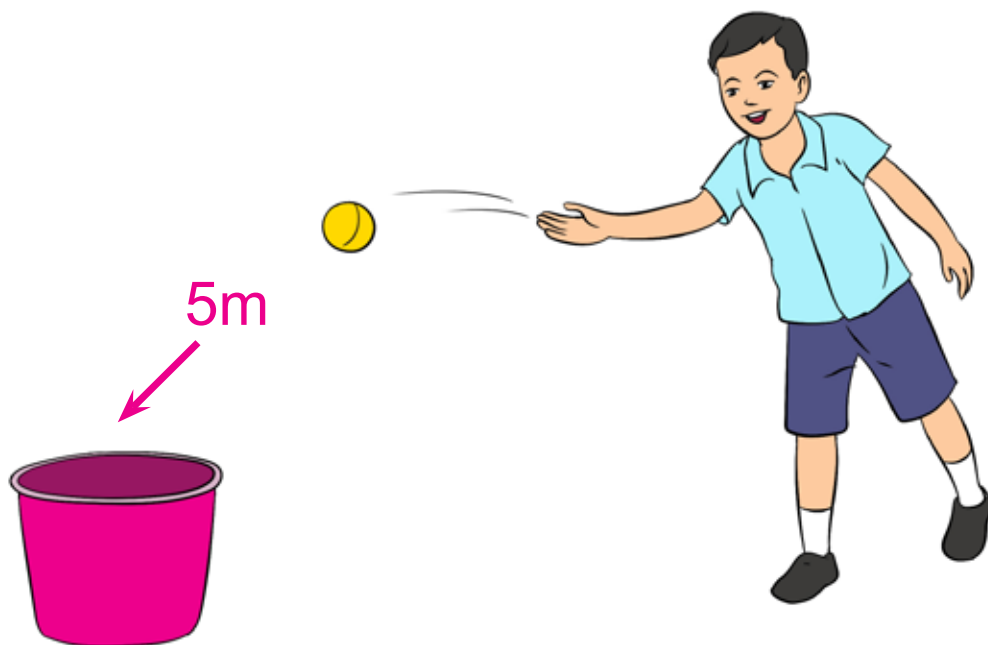


Students should skip over the rope forward and backward.



Throwing

Students should throw a ball from a distance into a bucket by standing at a fixed place.





Exercise

Answer these questions.

1. How can you do proper walking?
2. What should you do while jumping?
3. How can you do proper running?
4. How can throwing be performed?
5. How can side walking be done?
6. Why should students jump over a thin rope?



Note to the Teacher

Make your students perform all the above activities. Encourage students to do warm up exercise before activities. All students should participate equally.

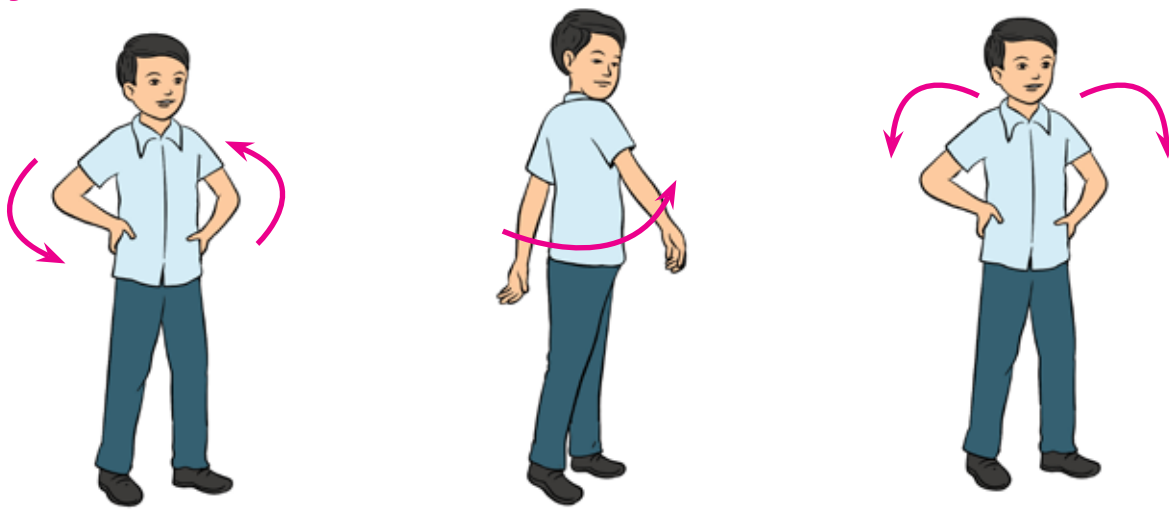
Glossary

- landing** : the process of returning to the ground or another surface after a flight
- touch off** : to provoke or initiate with sudden intensity.
- step** : a movement made by lifting our foot and putting it down in a different place
- signal** : instruction or symbol given to initiate and stop something (e.g.: games)

EXTENDING, BENDING AND ROTATING

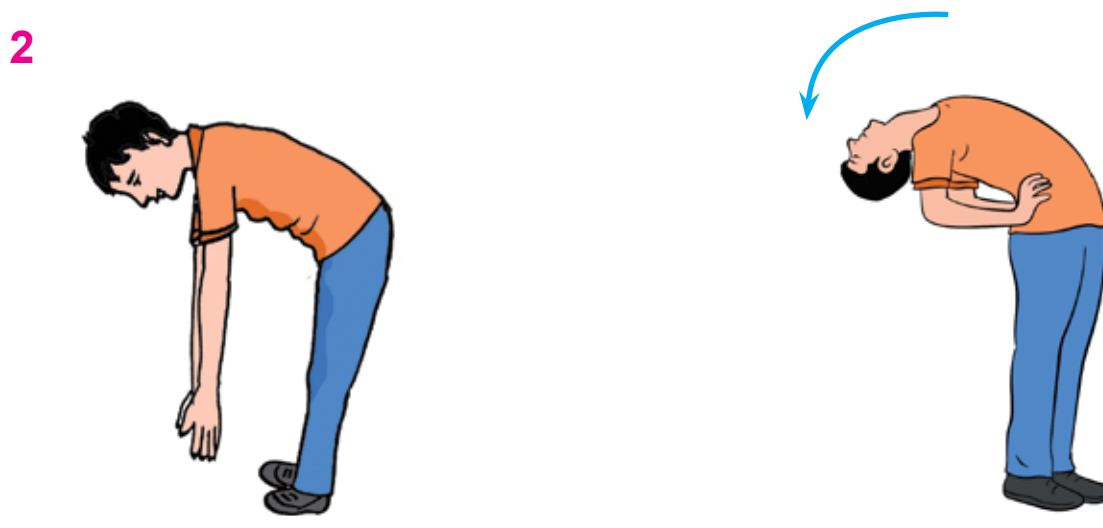
Physical exercises are necessary before playing any game. Extending, bending and rotating are known as stretching exercises.

Activity 1



Students should practice these exercises by moving 4/4 times according to the pictures above i.e head moving, waist moving and shoulders moving.

Activity 2



Students should practice this activity by bending and stretching of body as shown in the pictures.

Activity 3

By leaning the back of our body with each other we can move our body up and down.



Activity 4

Students can keep their hands at rest on the ground and raise their feet up.



Activity 5

Students can go up and down with three friends by leaning the back of their body with each other. They can move their bodies up and down.



Activity 6

Students can rotate their body with the help of a bar as shown in the pictures.





Note to the Teacher

*Make your students perform above activities only in the presence of a teacher.
Never tell students to do it alone.*

Glossary

- bending** : movement that causes the formation of a curve
shoulder : the part of body between the neck and the upper arm
leaning : an inclination to do something



Exercise

Answer these questions.

1. Name the exercises of stretching.
2. Which above exercise do you like the most?
3. What do you need to do before playing any game?
4. Have you enjoyed doing stretching exercises?

PHYSICAL TRAINING (PT)

Physical training keeps our body fit and healthy. There are several activities in physical training. We need to practise P.T. every day.

Activity 1: Exercise of Hands

Raise both hands up and bring both hands down at the side. Stand straight with both hands by the side. Finally, stand in attention position with the hands crossed.

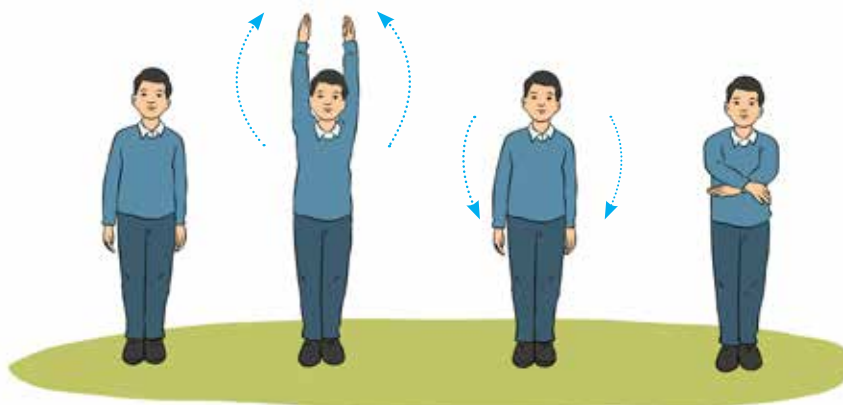


Fig. 1

Activity 2: Exercise of Hands of Legs

Bend your knees with crossed hands. Raise the heel and stretch both arms sideways. Finally, stand with the hands crossed.

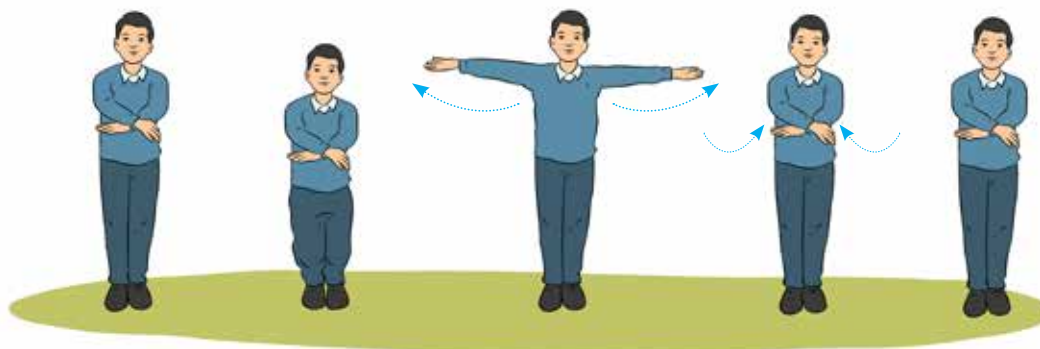


Fig. 2

Activity 3: Exercise of Shoulders

Cross your hands and cross around the fore head. Bring hands downwards and keep them stretched at the side. Bring the stretched hands downwards and cross them around the stomach. Finally, stand with the hands crossed.

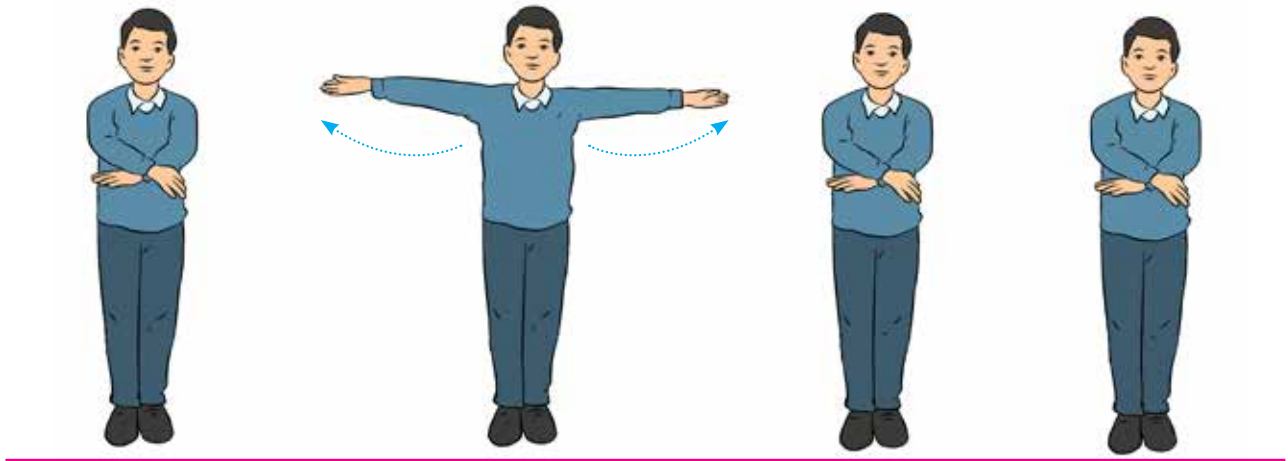


Fig. 3

Activity 4: Exercise of Hands and Chest

Keep the left foot to the side, while raising crossed hands and keeping them stretched.

Bring both hands downwards, keep them crossed.

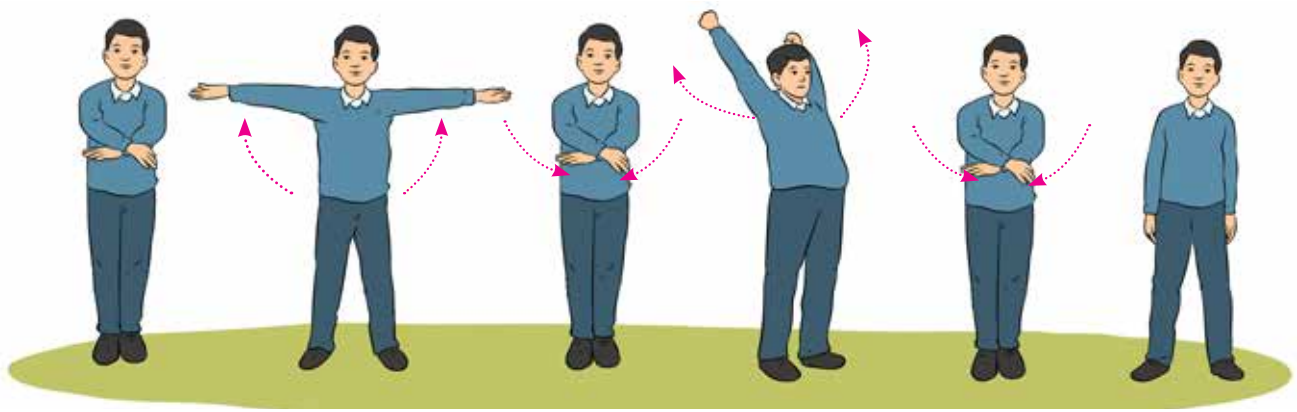


Fig. 4

Activity 5: Exercise of Hands and Shoulders

Raise the right hand from the right and bend towards the left. Raise the body and keep the right hand on the side. Do not bend your legs.

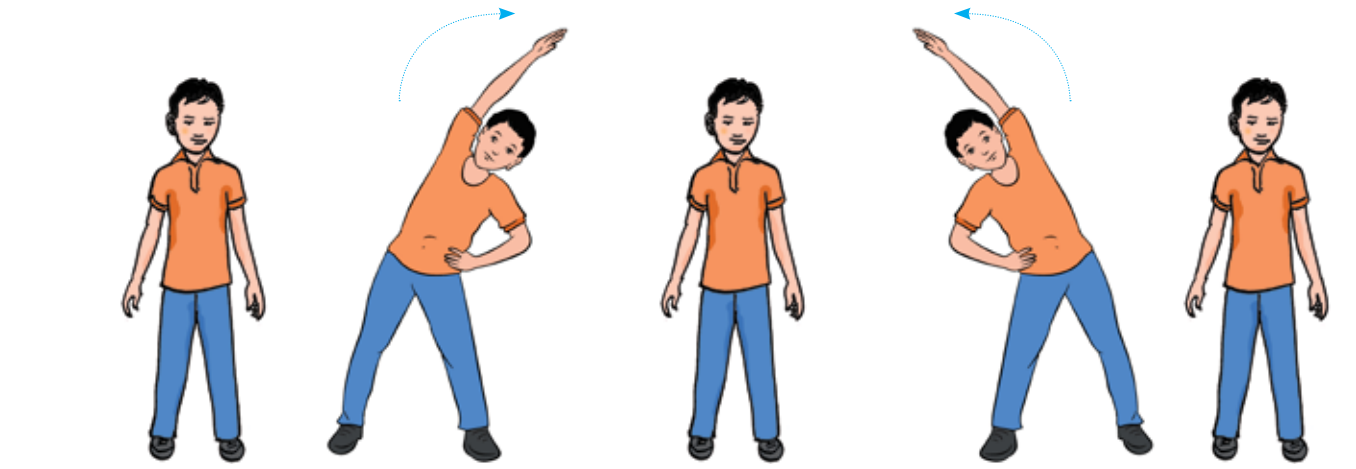


Fig. 5

Activity 6: Exercise of Waist

Keep both of their hands straight downwards and bend body towards the front. Raise the body upwards, bend the body backward and stand as in the first position.

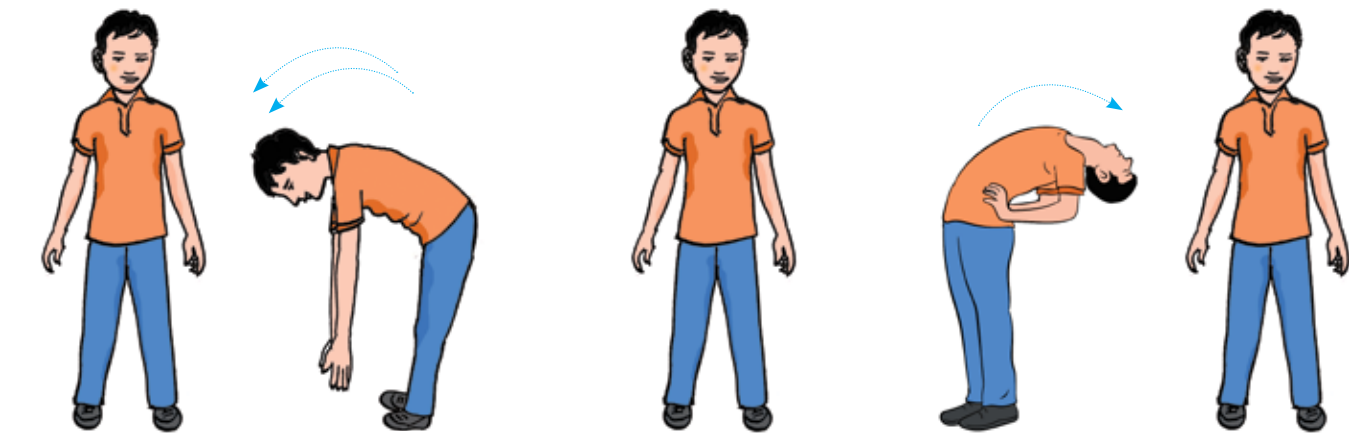


Fig. 6

Activity 7: Exercise of Feet

Twist both hands towards left and right turn by turn. Follow as shown in pictures.

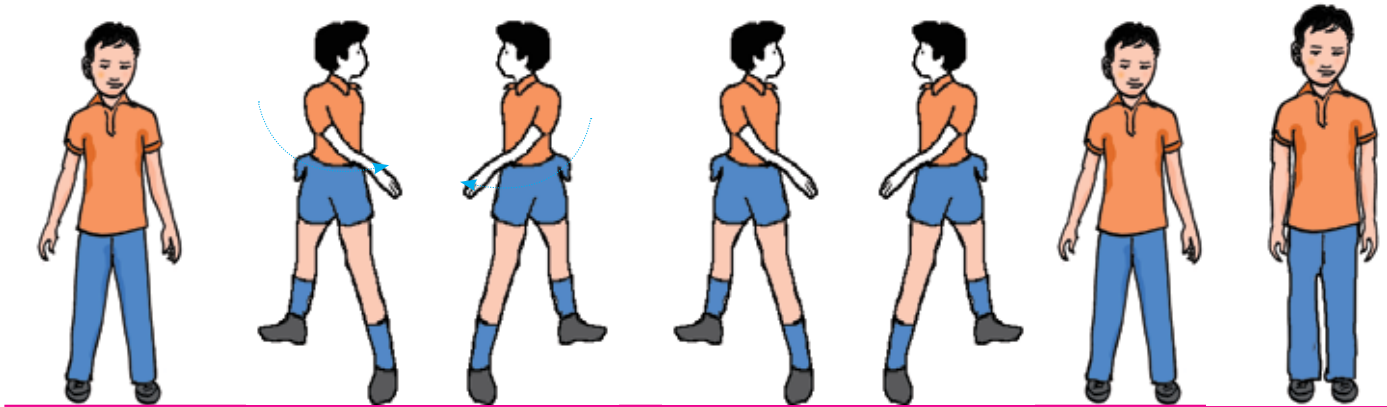


Fig. 7



Note to the Teacher

Encourage your students to perform all the activities of physical training.

Glossary

- twist** : to bend or turn something in order to change shape
- waist** : typically narrow part of the body between the hips and chest or upper back
- fit** : physically healthy and strong



Exercise

Answer these questions.

1. What will be the position of heels and hands with the count two of figure one?
2. How will you perform count three of figure four?
3. Which physical training do you like the most?
4. How can you do the exercise of hands and waist?
5. Explain the exercise of shoulders.



DRILL

We need a drum or *madal* while doing drill. Students need to follow command given by the group leader or the teacher.

Attention

Students should place their heels together in line with toes slightly apart. They should stand straight with the hands pointing straight downwards. Students should not move their bodies.



Stand at Ease

Students should move the left leg 25 cm to 30 cm to the left, first by raising the leg 15 cm up. Both hands should be kept to the back. Right hand should rest on the palm of the left hand.



Stand Easy (Rest)

This drill is a short rest. Students can stand in more relaxed position. Bring both hands in the sides keeping body straight.





Note to the Teacher

Give command while performing drill. Make sure all students are comfortable while performing drill.

Glossary

- drill** : the repeated physical activity done under the command of commander
- madal** : a famous Nepali musical instrument



Exercise

Answer these questions.

1. How is attention performed?
2. How is stand at ease done?
3. How is stand easy done?
4. Which musical instrument is needed to perform drill?

SIMPLE GAMES

The games which is played by applying some easy rules are known as **simple games**. We all become happy while playing simple games.

Activity 1

Mark a certain area. One students should chase many students and try to touch one of them but they should not go out from the given area. When the chasing student touches another student, then that student has to chase the other student.



Activity 2

Japanese Chasing

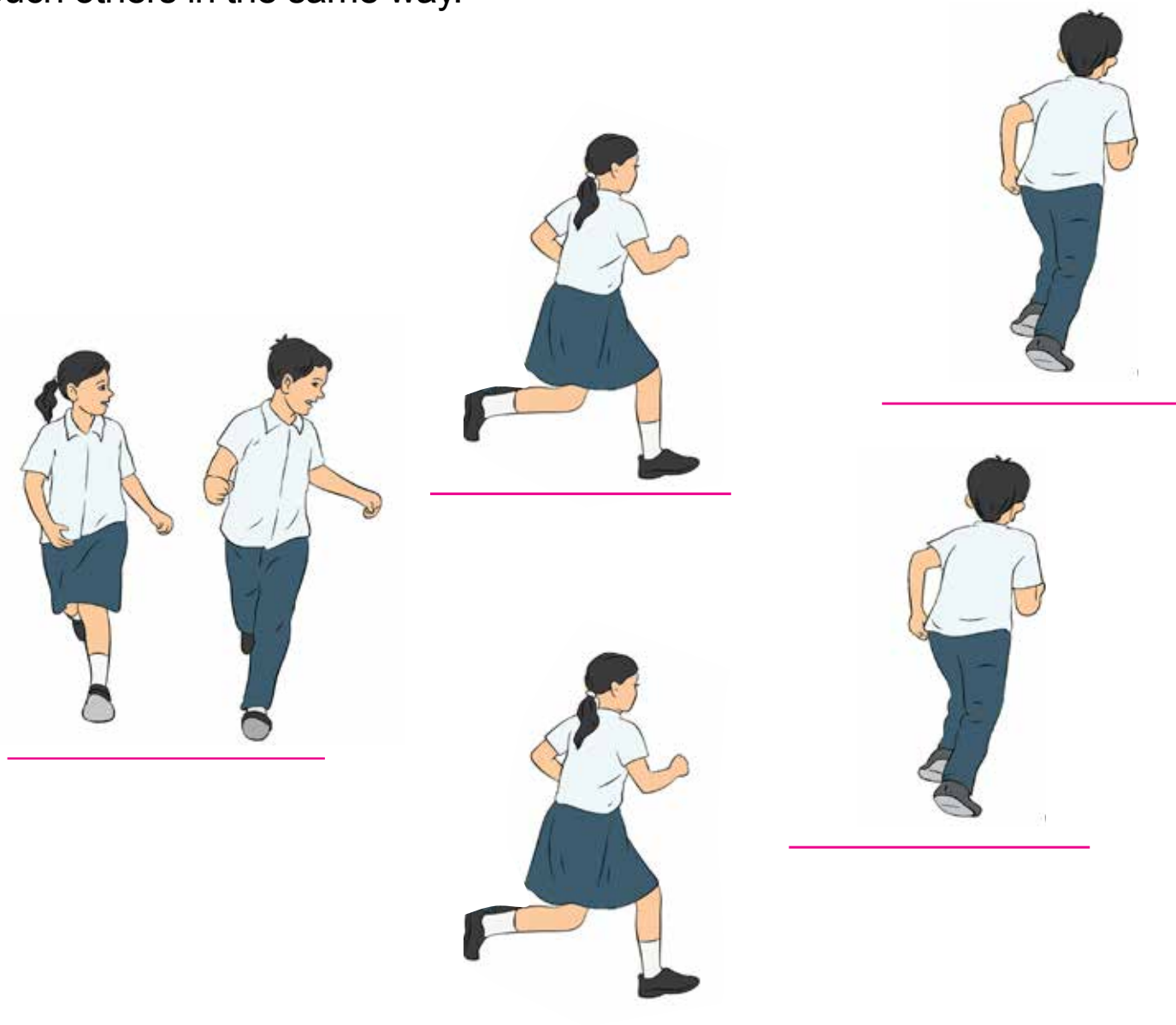
A student should start chasing by raising hands up and try to touch another student. Next students should chase and try to touch other students by putting the hands on the body parts where students are touched.



Activity 3

Dog escape

This game is also played within a certain area. One student becomes a dog and sits outside the area like a dog. After getting signal from a teacher, he/she enters inside the area and tries to touch others. Once that student touches another student then the next student becomes a dog and tries to touch others in the same way.





Note to the Teacher

Make your students participate in all simple games.

Glossary

rule : a statement providing conduct for actions

chasing : to run after someone (e.g. in games)

escape : to get away from different condition



Exercise

Answer these questions.

1. What do you understand by simple games?
2. How is dog escape game played?
3. What is the difference between simple and Japanese chasing?
4. How is simple chasing played?
5. How is Japanese chasing played?

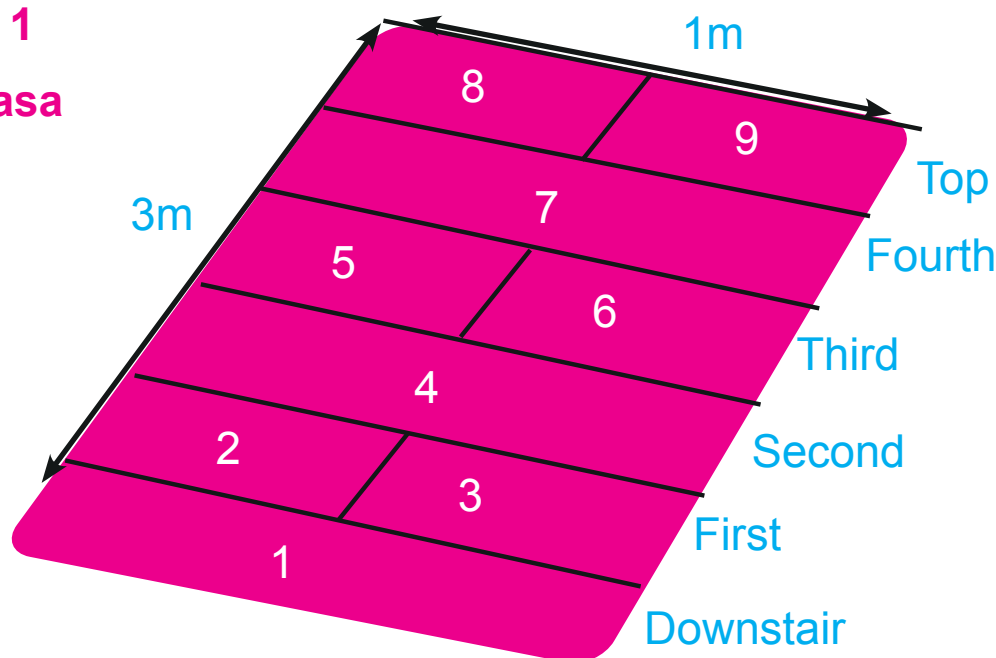
LOCAL GAMES

Games which are played in our own places with simple rules are called **local games**.

Local games help us to become fit and active.

Activity 1

Ghai- Kasa



Students can play this game by making different stories of a house on the ground while playing this game. We can play this game in different ways.

Activity 2

Breaking the pile of stone

It is a well known game of Nepal. It is played in two groups, players of the first group hit the pile of stones with a ball one after another. The players from other team keep the ball to hit the players of the first group if the pile is broken. If the first group is able to pile up the stones, then they will be declared the winner.



Note to the Teacher

Help your students to understand these local games and let them play.

Glossary

pile : a number of things that have been placed on top of each other
declare : to announce someone (e.g.: as a winner)

Answer these questions.

1. What are local games?
2. Name three local games.
3. How is ghai- kasa played?
4. How is hitting the pile of stones games played?

ACTING GAMES

Students can do acting of some animals, walking style or eating style, etc.

We can act like some animals while playing acting games.



Walking like a duck



Jumping like a frog



Jumping like a rabbit



Flying like a eagle



Note to the Teacher

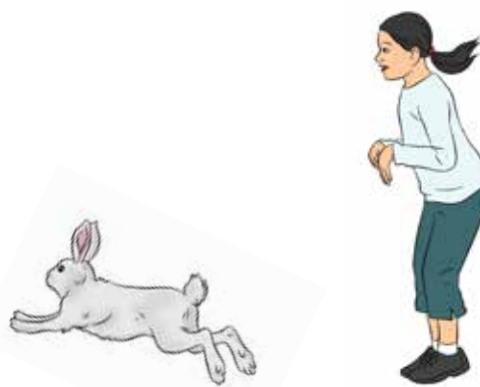
Encourage students to perform all the acting games which are mentioned above.

STORY GAMES

Students can do acting like characters of a story. We can enjoy while playing story games. Some are given below:



Lion is roaring.



Rabbit is running.



Tortoise is walking slowly.



Rabbit is sleeping.



Note to the Teacher

Tell your students some simple stories of animals such as lion and rabbit, tortoise and rabbit, duck and fox, etc. Help students to perform according to the story.

GAMES OF BALL

Games of ball can be played by different ways. Observe the pictures and practise.

Activity 1



Throw a ball on the wall and catch it when it bounces back.

Activity 2



Throw catch and pass the ball to hit the player of middle. The inside players become out if they are hit.

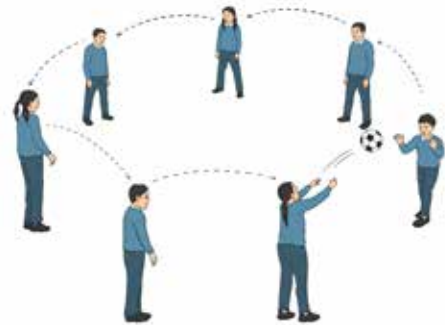
Activity 3

Hit the ball on the ground in the center of the circle as shown in the picture.



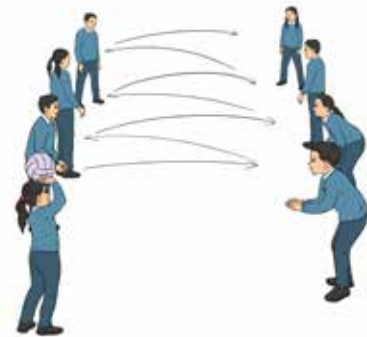
Activity 4

Stand in a circle and pass the ball as shown in the picture.



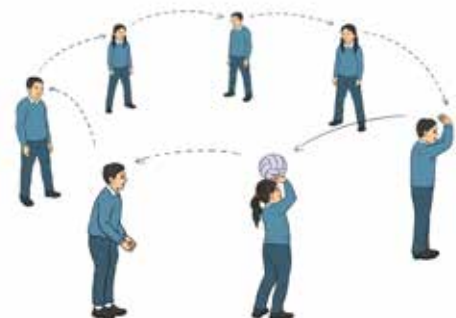
Activity 5

To throw and catch the ball in zig zag pattern.



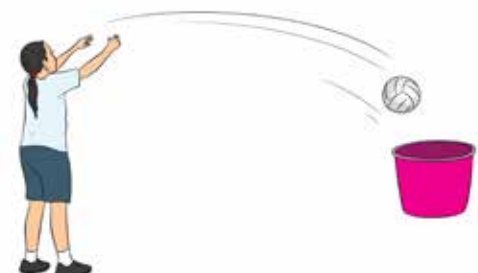
Activity 6

Stand in a circular path then throw the ball backwards and catch it.



Activity 7

Try to practise by putting a ball into a basket from a little distance.



Activity 8

Throw and catch the ball to practice relay game.



Note to the Teacher

Warm up exercise should be done before playing ball games. Teacher should demonstrate before students start to play.

Glossary

- palm** : the inner surface of the hand between the wrist and the fingers
roll : to move across the ground or another by turning over and over
stretch: to raise arms and legs to make muscles strong

ROLLING AND BALANCING

Rolling activity can be performed by different ways. Rolling can be done independently.

Activity 1

Front Rolling



To perform front rolling we should sit on our feet. Keep our palm on the ground and slowly roll forward with the help of hands and head. Now, push body forward. Stand with both feet. We can also perform it by stretching our legs.

Balancing

Balancing work makes our body fit and active. We should practice keeping our body in a balance position.

Activity 1

Practice to stand with only one leg and the hands are expanded.



Activity 2

Practise doing up and down in a pair using only one leg.



Note to the Teacher

Make your students do rolling only in a soft ground. Observe continuously the performance of students. Help your students to do this only 2 or 3 times then other games can be played. Balancing work should be done only for a short time period in the beginning. Balancing from different legs should be done.

Glossary

- palm** : the inner surface of the hand between the wrist and the fingers
- roll** : to move across the ground or another by turning over and over

Test Paper

FM: 100

Answer all the questions.

A. Fill in the blanks.

(1x10=10)

1. Dogs move with the help of.....
2. Bear is aanimal.
3. Polar bear lives inplace.
4. Butterflies sucks the.....of flowers.
5. A frog swims with the help offeet.
6. Herbs have.....stems.
7. Watermelon has.....seeds inside it.
8. Milk is very useful food.
9. Everybody wants to live aenvironment.
10. A book isin shape.

B. Write 'T' for true and 'F' for false statements.

(1x10=10)

1. Iron is soft object.
2. Animals need heat and light to germinate.



3. The earth is completely round in shape.
4. It is good to bite our nails.
5. Water should be made flow properly.
6. We should spit everywhere.
7. We should jump while walking.
8. It is necessary to take rest.
9. Carrot is eaten raw.
10. Blood pressure is a communicable disease.

C. Match the followings:

(1x5+1x5 =10)

- | | |
|-----------------|--------------------------------|
| 1. Health post | protect us from diseases. |
| Doctor | treat sick people |
| Nurse | carry sick people |
| Ambulance | takes a sick people |
| Vaccine | checks sick people |
| 2. Dung cake | trees |
| Torch light | main sources of heat and light |
| Firewood | battery |
| Sun | sources of heat |
| Electric heater | cow dung |

D. Answer the following questions.

(6x10=60)

1. Name any four characteristics of living things.
2. What are domestic and wild animals?
3. Why do animals need shelter?
4. Why do climbers need support to grow straight?
5. Name any three flowers with edible flowers.
6. How is water made dirty?
7. What do you understand by hospital?
8. What should we do if someone gets hurt?
9. How can you do proper running?
10. How is dog escape game played?

E. Draw a diagram of a plant and label all its parts.

(5+1x5)

