

# Food and Nutrition 1

**In The Beginning ....**

See the picture below. Colour it fully and then answer the questions given below it.

- Ans.** 1. Bakery items, cold drinks, fruits, vegetables, chicken.  
 2. So that they are not infected by germs and look better from outside.  
 3. **Vegetable**—Potato, tomato, brinjal, couliflower, radish, carrot, bottle gourd.  
**Fruit**—Apple.

**Now Try These**

1. Circle the carbohydrate-rich foods and draw a square around the fatty foods.



Sweets   Egg   Cake   Lettuce   Oil   Milk   Butter   Fish

2. Who would need a more carbohydrate-rich diet? Underline.

**Ans.** Labourer   Old woman   Sportsperson   Office worker

**Now Try These**

Give two examples of food items that are rich in the nutrients given in the first column:

Ans. Nutrient	Sources
Carbohydrates	Bread   Wheat
Fats	Ghee   Butter
Proteins	Pulses   Eggs
Vitamins and minerals	Fish   Vegetables

**Now Try These**

Tick (✓) the correct answer :

- Ans.** 1. a.                      2. c.                      3. c.

## Exercise

**Section-1 Formative Assessment (CCE Pattern)**

**A. Oral Questions :**

- Ans.** 1. Food contains substances which provide energy for survival and growth of our body. These substances are called nutrients.  
 2. We need carbohydrates to get energy for work.  
 3. We must not eat too much of fried food because it is not good for our health.

**B. Tick (✓) the correct answer :**

- Ans.** 1. a.   2. c.   3. b.   4. a.   5. c.   6. b.

**C. Cancel the wrong option :**

- b
1. (~~Carbohydrates~~/~~Vitamins~~) give us energy.
  2. Extra food is stored as (~~muscle~~/~~fat~~) in our body.
  3. About three-fourths of our body is (~~fat~~/~~water~~).
  4. Proteins are (**Body-building food**/~~Energy~~ giving food).

**Section-2 Summative Assessment (CCE Pattern)**

**A. Fill in the blanks :**

- Ans.**
1. The process by which living beings obtain and utilize food for their growth and development is called **nutrition**.
  2. People like **sports persons** and **labourers** do a lot of physical work and therefore require more carbohydrate.
  3. **Proteins** are also called body-building foods.
  4. Our body store extra **fat** for future use.
  5. Green leafy vegetables are a rich source of **vitamins**.

**B. Write true or false :**

- b 1. T 2. F 3. T 4. F 5. T

**C. Answer the following questions :**

- Ans.**
1. We need food to survive. Our body uses the food we eat to obtain energy for various internal activities like respiration and digestion, and physical activities like playing and walking. Food also helps in the growth of our body. It protects us from many diseases.
  2. Carbohydrates are the nutrients which give us energy to do work. Some food items rich in carbohydrates are bread, oatmeal, rice, wheat, potato, sweets and chocolates.
  3. We need fats because they help us to keep our body warm. oil, butter, ghee, nuts are the some sources of fat.
  4. Vitamins are the nutrients which help our body to fight diseases. Minerals help in the formation of body components like bones, blood and teeth. Fresh fruits, vegetables, milk, meat and fish are rich in vitamins and minerals. Since vitamins and minerals help us to stay healthy and fit, they are also known as protective food.
  5. We need roughage because they helps to the proper functioning of the digestive system by moving wastes out of the body. Brown rice, oatmeal fruits. etc. are some food rich in roughage.
  6. A balance diet contains balanced amounts of all the nutrients-carbohydrates, fats, proteins vitamins and minerals together with roughage and water.

**Activity (CCE Pattern)**

- Ans.** Do yourself

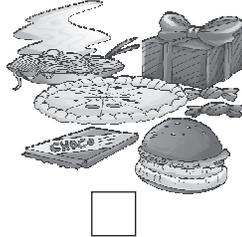
# Teeth and Digestion



## In The Beginning....

Dev is very hungry. He has two choices of food items to pick from. Tick the food item that would be good for him. Discuss the reasons.

Ans.



## Now Try These

A. Fill in the blanks:

- Ans. 1. Temporary teeth are also called **milk** teeth.  
2. The second set of teeth is called **Permanent** teeth.  
3. Number of teeth children have is **twenty-eight teeth**.

## Now Try These

Match the following:

- Ans. 1. Incisors — a. Grip and tear  
2. Canines — b. Grind and chew  
3. Molars — c. Cutting

## Now Try These

Fill in the blanks:

- Ans. 1. Food passes from oesophagus to the **stomach**  
2. Bile is produced by the **liver**  
3. Saliva is produced by the **salivary** glands.

## EXERCISE

### Section-1 Formative Assessment (CCE Pattern)

A. Oral Questions:

- Ans. 1. Teeth give proper shape to our face. They also help us to speak properly.  
2. Incisors, Canines, Premolars, Molars.  
3. The food we eat is used by our body to get energy to do work and also for growth. But the food we eat cannot be used as it is. It has to be broken down into very simple soluble forms. The simple food can then dissolve in the blood and be carried to all parts of our body. The process of breaking down of food into simpler form is called digestion.

B. Cancel the wrong option :

- Ans. 1. Number of teeth in a complete set of permanent teeth is (~~20~~/32).  
2. Teeth used for chewing and grinding are (canines/~~molars~~).

- The (~~pulp~~/~~enamel~~) is the innermost layer of the tooth.
- In the mouth, the food mixes with (~~acid~~/~~saliva~~).
- The bile from the liver mixes with the food in the (~~stomach~~/~~small intestine~~).

**C. Correct the following sentences :**

- Ans.**
- A small baby has tooth buds inside the **gums**.
  - The **shape** of teeth depends on their function.
  - The outermost part of the tooth is called **enamel**.
  - Saliva helps in the digestion of **carbohydrates**.
  - Bile helps to digest **fats**.
  - Water is absorbed in the **large** intestine.

**Section-2 Summative Assessment (CCE Pattern)**

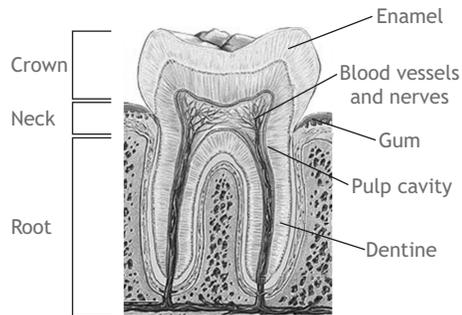
**A. Match the following:**

- |                    |       |                     |
|--------------------|-------|---------------------|
| 1. Incisor         | _____ | a. Food pipe        |
| 2. Mouth           | _____ | b. Bile             |
| 3. Small intestine | _____ | c. Teeth            |
| 4. Oesophagus      | _____ | d. Saliva           |
| 5. Liver           | _____ | e. Long coiled tube |

**B. Answer the following questions :**

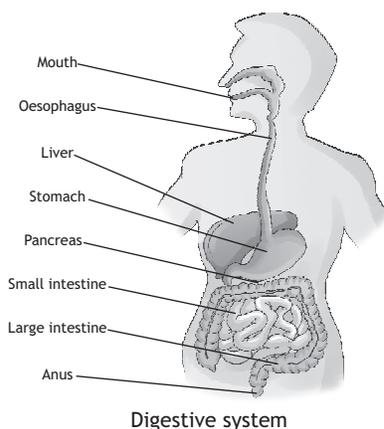
- Ans.**
- We have four types of teeth incisors for cutting, canines for gripping and tearing, and premolars and molars for grinding and chewing the food.

**Ans. 2. The structure of a tooth**



- It is a rot or cause to rot through the action of bacteria and fungi. The state and process of tooth decaying.
- Brush your teeth correctly and properly.
  - Do not eat too much of sticky foods, sweets and soft drinks.
  - Eat food that contains calcium and vitamins A, C and D . foods like milk, cheese, fruits and green leafy vegetables are good for teeth. Apples and raw carrots are considered very good for teeth.
  - Visit your dentist at least once in six months.
- The process of breaking down of food into simpler form is called digestion.
- In the stomach :** The food enters the alimentary canal. It passes through the oesophagus to the stomach. The stomach is a muscular bag. In the

stomach, the food is churned and digestive juices are added. The food turns into a semi- liquid mixture. Here the proteins are broken into simpler form.



7. **In the large intestine :** The undigested food passes into another tube called the large intestine. Here, water is absorbed from the undigested food. Whatever is left over is thrown out of the body through an opening called anus.
8. (a) **Molars :** The four teeth at the front of each jaw are specially made for cutting the food. They are called incisors.  
 (b) **Incisors :** There are two pointed teeth, one on each side of the incisors. Their work is to grip and tear the food. They are called canines.  
 (c) **Canines :** The remaining teeth are flat, grinding and chewing teeth. They are called premolars and molars. There are four premolars- two on each side of a jaw. Behind these are the molars which are broader than the premolars. There are six molars in each jaw- three on each side.

**Activity (CCE Pattern)**

**Ans.** Do yourself

## Producers of Food : The Green Plants



**Now Try These**

**Tick (✓) the correct answer :**

**Ans.** 1. (a)                      2. (c)                      3. (b)

### Exercise

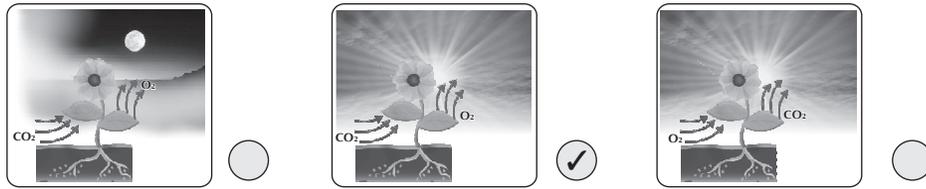
**Section-1 Formative Assessment (CCE Pattern)**

**A. Oral Questions :**

- Ans.**
1. Only green plants are able to make their own food because they have a green pigment called chlorophyll in their leaves. It helps the plant to manufacture the food.
  2. Due to the lack of sunlight the plant could not prepare its food. Hence it will die or faint.

**D. Which of the following shows the process of photosynthesis correctly :**

**Ans.**



**Section-2 Summative Assessment (CCE Pattern)**

**A. Fill in the blanks :**

- Ans.**
1. Leaf **blade** is the flat part of a leaf.
  2. The **stomata** helps in the exchange of gases.
  3. Only green plants can make their own **food**.
  4. **Cactus** is generally found in the desert area.
  5. Plants are **living** things.

**B. Write true or false :**

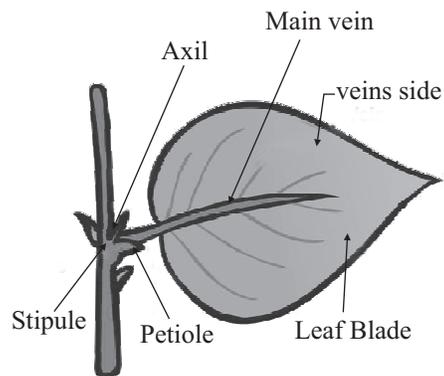
- Ans.** 1.F 2.F 3.T 4.T 5.F

**C. Match the following :**

- |             |                                       |                     |
|-------------|---------------------------------------|---------------------|
| <b>Ans.</b> | 1. The process is preparing food      | (i) photosynthesis  |
|             | 2. The flat surface of the leaf       | (ii) leaf blade     |
|             | 3. A non-green plant                  | (iii) mould         |
|             | 4. Gas required during photosynthesis | (iv) carbon dioxide |
|             | 5. Prepared food is stored as         | (v) starch          |

**G. Answer the following questions :**

- Ans.**
1. In a leaf there is a main vein running along the centre of the leaf. It is called mid ribs. It has a number of side veins. The flat part of a leaf is called leaf blade. A leaf also has many kidney shaped openings called stomata. The stomata helps in the exchange of gases. The cells of the leaves contain a green coloured pigment called chlorophyll. It traps the energy from the sunlight and helps the plant to manufacture its food.



**A Leaf and Its Parts**

2. Plants are the only living things that can make their own food. Plants make their food in the presence of sunlight, water from the soil and carbon dioxide from the air. The process of making food is known as photosynthesis. The word photosynthesis consists of two words photo and synthesis. 'Photo' means 'light' and 'synthesis' means 'to put together'. Thus, plants put together carbon dioxide and water in the presence of sunlight to make their food.

- In the presence of sunlight, green leaves put together water and carbon dioxide and convert them into simpler sugar that acts as food for the plant. As such the leaves of plants are known as the food factories of a plant.
- Animals and plants are dependent on each other in several ways. Green plants are the main producers of food. Besides they also give out oxygen, which is needed by animals to breathe. Animals in return give out carbon dioxide, which is needed by plants for synthesis. Also, animals help plants in the formation of fruit and in spreading their seeds.

**Activity (CCE Pattern)**

**Ans.** Do yourself

## How Plants Survive



**In The Beginning....**

Given below are names of three common plants and picture of three natural surroundings. Match each plant to the place where you think it grows. one has been done for you.

**Ans.** Lotus plant      Cactus plant      Mango tree

**Now Try These**

Mark 'T' for terrestrial habitats and 'A' for aquatic habitats.

**Ans.** Mountain T      Sea A      River A      Ocean A  
 Desert T      Pond A      Seashore A      Plains T

**Now Try These**

**A. Give two examples for each of the following :**

**Ans.** 1. Floating plants      Water hyacinth,      Duckweed  
 2. Fixed plants      Lotus,      Water lily  
 3. Underwater plants      Hydrilla,      Tap grass  
 4. Insectivorous plants      Pitcher plant,      Venus flytrap  
 5. Saprophytic      Mushroom,      Fungi

**B. Match the following :**

**Ans.** 1. Aquatic plants with roots hanging in water — Insectivorous plants  
 2. Aquatic plants with fixed roots — Underwater plants  
 3. Aquatic plants growing under the water — Saprophytic plants  
 4. Plants that eat insects — Floating plants  
 5. Plants that depend on dead plants and animals — Fixed plants

## EXERCISE

### Section-1 Formative Assessment (CCE Pattern)

#### A. Oral Questions :

- Ans.** 1. Cactus is a desert plant. The leaves of cacti turn into spines or thorns, so that there is very little loss of water through them.  
2. Mango, Banyan and Neem.  
3. Floats are structures found at the base of leaves. They have spaces to hold air- this helps the plant to bob on water.  
4. Plants are found almost in all parts of the Earth. They grow in places where sunlight and water are available. Plants are found on land and in water. Plants that grow on land are called terrestrial plants. Those that grow in water are called aquatic plants. Terrestrial and aquatic are examples of habitats or places where plants live.

#### B. Tick (✓) the correct option :

- Ans.** 1. b. mushroom                      2. d. fleshy                      3. b. stomata

#### C. Name one plant for each that adapts itself to the following conditions :

- Ans.** 1. Dryness                      **Cactus**  
2. Cold and snow                      **Pine**  
3. Wetness                      **Lotus**

#### D. Compare the adaptations of desert plants and conifers using the words given below :

<b>Ans.</b> Plant part	Desert plants	Conifers
Leaves	spines	Needle-like
Stem	fleshy	woody
Roots	shallow	deep

### Section-2 Summative Assessment (CCE Pattern)

#### A. Fill in the blank :

- Ans.** 1. Mangroves have **aerial** roots.  
2. Rubber is a(n) **evergreen** plant.  
3. Spruce is a **conifer** plant.  
4. Water hyacinth is a **floating** aquatic plant.  
5. Insectivorous plants trap **insects** and digest them to obtain **nutrients**.

#### B. Match the following :

- Ans.** 1. Mushroom ————— a. aerial roots  
2. Lotus ————— b. underwater plant  
3. Tape grass ————— c. floating plants  
4. Water Hyacinth ————— d. parasite  
5. Mangrove ————— e. fixed plants

#### C. Give reasons for the following :

- Ans.** 1. Because water is available to desert plants mostly in the form of dew.  
2. Because it produces a crown of pinnacle compound yellow- green leaves is called fronds.

3. leaves change in to spines due to hot and dryness and a very little rainfall.
4. To withstand the cold winter conditions. The trees have a stem with thick bark.

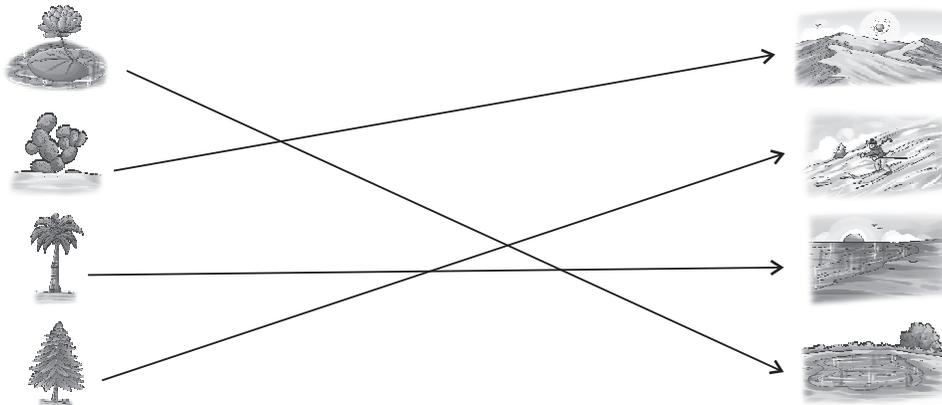
**D. Answer the following questions :**

- Ans.**
1. The ability to adjust to environment conditions in order to increase chances of survival is called adaptation.
  2. In hills and mountains, it is very cold in winter. Plants that grow in such places must adapt themselves to survive the cold and snowfall. Pine, spruce, cedar and fir are some trees that grow in cold places. Water hyacinth is a floating aquatic plant. Its roots do not anchor it to the bottom of the water body. Floats are structures found at the base of leaves. They have spaces to hold air this helps the plant to bob on water.
  3. Petroleum jelly is waxy and waterproof. It forms a thin layer over the leaves and prevents water from rotting the leaves. Aquatic plants naturally have a waxy coating to keep them away from rotting.
  4. These trees are also known as conifers. They produce cones instead of flowers. The cones have seeds. They are evergreen as they bear leaves throughout the year.
  5. Water hyacinth is a floating aquatic plant. Its roots do not anchor it to the bottom of the water body. Floats are structures found at the base of leaves. They have spaces to hold air this helps the plant to bob on water.
  6. The climate in plains is warm. Trees like mango, banyan and neem grow in plains. They shed their leaves in winter to protect themselves from cold. They are called deciduous trees. Some trees like coconut, rubber, teak and sugarcane grow in hot and wet climate. They are evergreen trees so do not shed their leaves in winter.
  7. Lotus is fixed or rooted aquatic plants. This means their roots reach down through the depth to anchor them at the bed of the water body. The leaves are broad and flat. This allows them to float on water.

**Activity (CCE Pattern)**

**Match the plants on their left to the scene where they belong on the right :**

**Ans.**



# Adaptations— How Animals Survive 5



## Now Try These

Give two examples for each of the following :

- |      |                        |          |            |
|------|------------------------|----------|------------|
| Ans. | 1. Terrestrial animals | Horse    | Cow        |
|      | 2. Aquatic animal      | Whale    | Turtle     |
|      | 3. Amphibian           | Toad     | Salamander |
|      | 4. Aerial animal       | Crow     | Eagle      |
|      | 5. Arboreal animal     | Squirrel | Monkey     |

## Now Try These

Tick (✓) the correct answer :

- Ans. 1. (c)                      2. (a)                      3. (b)

## EXERCISE

### Section-1 Formative Assessment (CCE Pattern)

#### A. Oral Questions :

- Ans. 1. This causes the lack of food. It disturb the flow of food and energy. It also destroy the food chain and ecosystem.  
2. Rhinoceros.  
3. Monkeys need strong arms and legs to climb trees.

#### B. Tick the correct answer :

- Ans. 1. A fish breathes with the help of its nose/gills.  
2. Penguins store fat/protein in their body.  
3. The padded feet protect the camel from the hot sand/air.  
4. The place where an animal lives is called its house/habitat.  
5. The poles/desert are the coldest places on earth.

#### C. Unscramble the following and write the correct words :

- Ans. 1. Survive                      2. Desert                      3. Padded  
4. Adaptation                      5. Habitat                      6. Migration.

### Section-2 Summative Assessment (CCE Pattern)

#### A. Fill in the blanks :

- Ans. 1. The camel lives in desert.  
2. Animals that live on land are called terrestrial.  
3. The natural place where an animal lives is called its habitat.  
4. A fish breathes with the help of its gills.  
5. The process of changing to suit the surroundings is called adaption .

#### B. Write true or false :

- Ans. 1. F    2. T    3. F    4. F    5. F

#### C. Match the following :

- |      |                       |                |
|------|-----------------------|----------------|
| Ans. | 1. An amphibian       | (i) Salamander |
|      | 2. Aquatic animal     | (ii) Whale     |
|      | 3. Terrestrial animal | (iii) Camel    |

4. Arboreal animal (iv) Squirrel  
 5. Aerial animal (v) Bat

**D. Answer the following questions :**

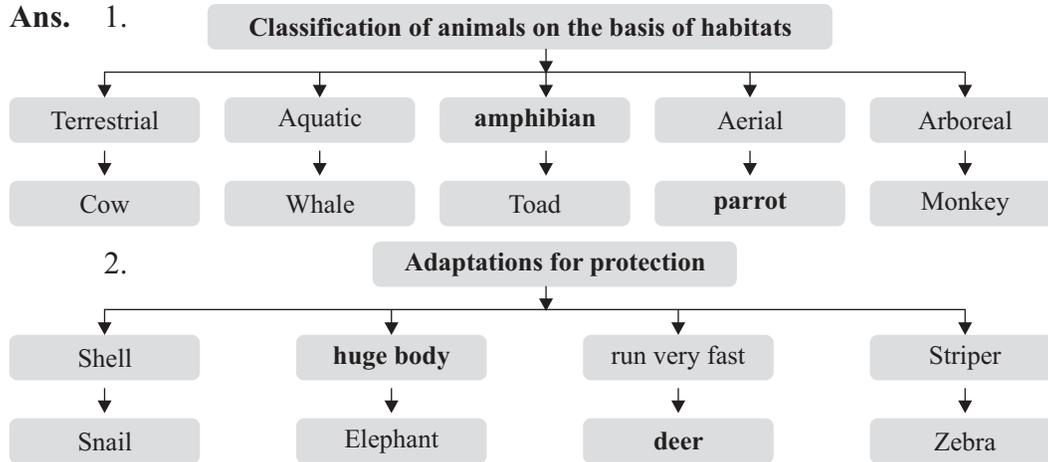
- Ans.** 1. Some animals can live both on land and in water. These animals are called amphibians. Frog, salamander and toad are the examples of amphibians.  
 2. The natural place where an animal lives is called its habitat. The process of changing to suit the surroundings is called adaptation. In this process a plant or an animal adapts or changes itself to suit its surroundings.  
 3. The cuttle fish has an ink sac on its body. When it senses danger, it releases the ink, making the water blue. The many is not able to see anything and the fish swims to safety.  
 4. **(i) Migration :** Animals that live in very cold places, find it difficult to survive in winters. So they leave their homes and travel to warmer places. When winter ends they travel back home. This is called migration.  
**(ii) Hibernation :** Some snakes and frogs can not survive in the cold winter. So they eat a lot during summers and store the extra food in their body as fat. When winter comes, they sleep in caves or underground holes. This is called hibernation.

**Activity (CCE Pattern)**

- **Make a collage using pictures and names of any one of these groups :**

**Ans.** Do yourself.

**Complete the following web charts :**



## The Right Clothes to Wear



**In The Beginning....**

Sort the given list of clothes into summer clothes and winter clothes. One has been done for you.

Ans.



T-shirt



Gloves



Jacket



Shorts

**Winter Clothes**

Jacket

Gloves

**Summer Clothes**

T- shirt

shorts

**Now Try These**

Tick (✓) the correct statement and put a cross (x) against the wrong one :

Ans. 1. ✓ 2. x 3. x 4. ✓ 5. x

## Exercise

**Section-1 Formative Assessment (CCE Pattern)**

**A. Oral Questions :**

- Ans. 1. Good clothes make us look smart. They protect our body from dust, heat, cold, rain and insect bites. If we wear long- sleeved clothes at night, we can protect ourselves from mosquito bites. Clothes, therefore, protect us from insect bites too.
2. Natural and synthetic fibres.
3. Clothes need good care, especially silk and woollen clothes because some insects feed on these clothes. Therefore, once the season is over they must be put in the sun or dry- cleaned. They should then be packed. Moth balls or dried neem leaves should be placed with woollen clothes. These keep insects away. Proper care of clothes makes them last longer.
4. Cotton and jute fibres.

**B. Give two examples of each :**

- |  |             |                 |
|--|-------------|-----------------|
| Ans. 1. Countries and their National dresses           | Saree       | Kimono          |
| 2. Certain insects feed on these clothes               | Silver fish | Moth            |
| 3. Things used to protect woollen clothes from insects | moth bells  | dry neem leaves |

**C. Tick (✓) the correct option :**

- Ans. 1. c. dust and insect bites                      2. b. Kimono                      3. a. Linen

**Section-2 Summative Assessment (CCE Pattern)**

**A. Fill in the blanks :**

- Ans. 1. A **raincoat** protects us from rain.
2. Thick and warm clothes protect us from the **winter**.
3. Light coloured clothes make us feel **cool**.
4. The national dress of an Indian woman is the **saree**.
5. **Synthetic** is a man-made fibre.

**B. Match the following :**

- Ans.**
- |                      |   |            |
|----------------------|---|------------|
| 1. cotton            | — | synthetic  |
| 2. sheep             | — | natural    |
| 3. Rayon             | — | summer     |
| 4. Warm clothes      | — | kill germs |
| 5. Dried neem leaves | — | winter     |

**C. Write the reasons for the following :**

- Ans.** 1. Summer      2. Yes , summer season      3. Winter      4. Winter
- Cotton clothes are usually worn in summer because summer has hot weather and cotton clothes allow the body heat to escape. Cotton clothes absorb sweat also.
  - White or light coloured clothes suit the hot weather because they reflect the heat and keep the body cool.
  - We should keep mothballs between the folds of woollen clothes because these keep insects away.
  - We wear socks and shoes to protect our feet from dust, heat, cold, germs and worms. Walking barefoot can cause cuts and various germs and worms may get into the cut and cause infection.

**D. Answer the following questions :**

- Ans.**
- Good clothes make us look smart. They protect our body from dust, heat, cold, rain and insect bites. If we wear long- sleeved clothes at night, we can protect ourselves from mosquito bites. Clothes, therefore, protect us from insect bites too.
  - Natural fibres are obtained from plants or animals eg. Cotton, jute, linen etc.
    - Synthetic fibres are man-made. Special chemicals made from by-products of petroleum are used for making synthetic fibre. clothes made from these fibres are called synthetic clothes.
  - A Soldier wears a uniform made from tough material so that it does not tear easily.
  - We wear socks and shoes to protect our feet from dust, heat, cold, germs and worms.
  - Clothes need good care, especially silk and woollen clothes because some insects feed on these clothes. Therefore, once the season is over they must be put in the sun or dry- cleaned. They should then be packed. Moth balls or dried neem leaves should be placed with woollen clothes. These keep insects away. Proper care of clothes makes them last longer.
  - Clothes need good care, especially silk and woollen clothes because some insects feed on these clothes. Therefore, once the season is over they must be put in the sun or dry-cleaned. They should then be packed. Moth balls or dried neem leaves should be placed with woollen clothes. These keep insects away. Proper care of clothes makes them last longer.

**Activity (CCE Pattern)**

**Ans.** Do yourself

# Matter-Solids, Liquids and Gases



## In The Beginning ....

Look at the pictures, Write S for solid, L for liquid, and G for gas in the box given below the pictures.

Ans. 1.



Dice

S

2.



Air inside the balloons

G

3.



Water

L

## Think and Write

Pictures of some solids are given below. Write H for the solids which are hard and S for the solids which are soft.

Ans.



H



H



H



S



S



H

## Now Try These

Tick (✓) the correct answer :

Ans. 1. (a)                      2. (c)                      3. (b)

## Exercise

### Section-1 Formative Assessment (CCE Pattern)

#### A. Oral Questions :

- Ans. 1. In liquid the molecules have more space because the molecules of a liquid are loosely packed.
2. Because due to the heat of sun, water of the clothes evaporate and the clothe dry faster.



## Now Try These

**A. Read the clues to unscramble the letter, and write the answer. One has been done for you :**

- Ans.** 1. A push or a pull acting on an object **FORCE** ORFCE.  
2. The force that pulls every object towards the centre of the Earth **GRAVITY** VTVIGRA.  
3. The Force that resists the motion or movement of an object **FRICTION** RITIONFT.

**B. Choose the correct option :**

- Ans.** 1. It keeps you on the ground. **Gravity**  
2. It stops a moving object. **Friction**  
3. It worn out the soles of our shoes. **Friction**

**C. Name the type of force responsible for the following :**

- Ans.** 1. Gravitation Force                      2. Frictional Force  
3. Gravitational Force                      4. Frictional Force  
5. Frictional Force

## Now Try These

**A. Match the columns :**

- | <b>Ans. Column A</b> |   | <b>Column B</b>                                 |
|----------------------|---|---|
| Lever                | - | Used for moving heavy objects with less effort. |
| Wheel and axle       | - | Used in a bicycle.                              |
| Pulley               | - | Used for lifting or lowering heavy objects.     |
| Inclined plane       | - | Used for pushing heavy objects up or down.      |
| Screw                | - | Used for holding objects together.              |

**B. Fill in the blanks by choosing the correct option.**

- Ans.** 1. **Energy** is the ability to do work.  
2. **Sun, wind** and **water** are some common sources of energy.  
3. We get solar energy in the form of **heat** and **light**.  
4. Wind energy can turn **wind mills**.  
5. The energy we get from water is called **hydro** energy.

## Exercise

### Section-1 Formative Assessment (CCE Pattern)

**A. Oral Questions :**

- Ans.** 1. (i) Mechanical force                      (ii) Electrostatic force.  
2. When we use force on an object and the object moves through a distance we say that work is done.  
3. Solar cooker and calculator.

**B. Choose the correct option :**

- Ans.** 1. We need this to move an object **Force**.

2. It keeps you on the ground **gravity**.
3. It causes a moving object to stop **friction**.
4. Basic tools which help us to work **simple machines**.
5. A simple machine in the form of a bar resting on a support **lever**.
6. A simple machine made up of a wheel with a rope **pulley**.
7. A slope over which heavy objects can be pushed up or down **inclined plane**.
8. It is used in a bicycle **wheel and axle**.

**C. Name the kind of energy used in :**

- Ans.**
- |                      |                      |
|----------------------|----------------------|
| 1. Electrical energy | 2. Chemical energy   |
| 3. Solar energy      | 4. Mechanical energy |
| 5. Muscular energy   |                      |

**Section-2 Summative Assessment (CCE Pattern)**

**A. Fill in the blanks :**

- Ans.**
1. **Energy** is the ability to do work.
  2. A push or a pull acting on an object is called **force**.
  3. A **screw jack** is used to raise, lower or move loads.
  4. **Sun** is the main source of energy on the Earth.
  5. The energy we get from wind is called **Wind Energy**.

**B. Write True or False :**

- Ans.** 1.T 2.F 3.T 4.F 5.T

**C. Define the following terms :**

- Ans.**
1. **Force**-A push or a pull acting on an object is called force.
  2. **Energy**-Energy is the ability to do work.
  3. **Solar energy**-The energy we get from the sun is called solar energy .
  4. **Wind energy**-The energy we get from wind is called wind energy.
  5. **Hydro energy**-The energy we get from water is called hydro energy.

**D. Give reasons for the following :**

- Ans.**
1. When anything is thrown in the air, it comes down after travelling some distance. This is due to a force called gravity. It is the Earth's gravity that keeps you on the ground. This is because the Earth's gravity pulls everything towards its centre.
  2. Friction causes a moving object to stop. A force that acts between the object and the surface to either slow it down or stop it completely is called force of friction. Objects with smooth surface (like ice) have less friction while objects with rough surface (like carpets) have more friction. The soles of our shoes get worn out because of friction.

**E. Write the functions of the different kinds of energy :**

- Ans.**
1. **Electrical energy**-Electrical gadgets such as fan, iron, bulb, television and Air conditioner work with the help of this energy.
  2. **Atomic energy**-Atomic energy can be used to produce electricity.
  3. **Heat energy**-Heat energy helps to move engine, aeroplanes and rockets.

**A. Answer the following question :**

- Ans.**
- (i) To move an object  
(ii) To stop an object from moving condition.
  - (i) Gravity (ii) Friction
  - When anything is thrown in the air, it comes down after travelling some distance. This is due to a force called gravity. It is the Earth's gravity that keeps you on the ground. This is because the Earth's gravity pulls everything towards its centre.
  - A force that acts between the object and the surface to either slow it down or stop it completely is called force of friction. Objects with smooth surface (like ice) have less friction while objects with rough surface (like carpets) have more friction. The soles of our shoes get worn out because of friction. Friction causes a moving object to stop.
  - Simple machines have the following uses :
    - They make our work easier.
    - They help us to do our work faster.
    - They help us to do our work with less force.
  - Simple machines are the lever, pulley, inclined plane.
  - A lever is simply a bar resting on a support on which it can turn. It is usually used to move heavy objects with less effort. It is also used for cutting things and opening Lids. Scissors, Hammers, and Bottle openers are some examples of levers.
  - It is usually used for holding objects together. Some screws are also used for lifting things.
  - Work is said to be done only when the object where force is applied moves through a distance.
  - (i) Electrical energy, (ii) Chemical energy,  
(iii) Heat energy.

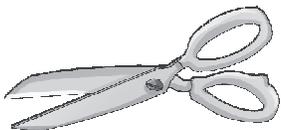
**Activity (CCE Pattern)**

- When you throw a ball in the air, it falls down. Can you tell why ?**

**Ans.** This is due to a force called gravity.

- Identify the simple machines in the pictures, and write their names in the space given below.**

**Ans.**



Scissors



Nail



Pulley

- Look for machines that you see in your house. Write which form of energy each one uses and to what form each one gets converted into. One has been done for you.**

Ans.	Name of the machine	Energy used	Converted to
	Cooking stove	Chemical	Heat
	Solar Cooker	Solar	Heat
	Cell	Chemical	Mechanical
	Burning of coal	Chemical	Heat

## Safety First



### Now Try These

Tick (✓) the correct answer :

Ans. 1. (a)                      2. (a)                      3. (b)

## Exercise

### Section-1 Formative Assessment (CCE Pattern)

#### A. Oral Questions :

- Ans. 1. Because vehicles comes from our right side and we should cross the road when it is clear.
2. Many accidents can occur in kitchen and bathrooms. If there is no proper light. It may be harmful for us and accidents may happen.
3. We should not crowd around a fainted person because he may be nervous due to the crowd. It disturb the comfort and calm of that person.

#### B. Tick (✓) the correct answer :

- Ans. 1. Turn off the regulator of the **gas cylinder**/cycle.
2. Do not play with **sharp objects**/toys.
3. Use the road/**footpath** to walk.
4. The first medical help the person gets is called **first aid**/treatment.
5. By applying **antiseptic lotion**/water we can prevent the infection caused by germ.

### Section-2 Summative Assessment (CCE Pattern)

#### A. Fill in the blanks :

- Ans. 1. Be **careful** while crossing the road.
2. Accidents always happen all of a **sudden**.
3. A few **precautions** can take care of some unwanted incidents.
4. Do not fight with your **Friends**.
5. Do not **walk** on the road.

#### B. Write true and false :

Ans. 1.T 2.T 3.F 4.T 5.F

#### C. Answer the following questions :

- Ans. 1. We should not listen to music while riding a bicycle because it can keep away us from hearing the sound or horn of a moving vehicle.
2. Whenever a person is hurt, the first medical help the person gets is called first aid. It is the immediate help given to a person before the arrival of doctor.

3. If somebody gets a minor burn, we should do the following things :
  - (i) Wash the burnt area with running water.
  - (ii) Put an ice pack on the burnt area, or dip it in cold water till the skin irritation is gone.
  - (iii) Then put an antiseptic cream like Burnol on the affected area.
4. We should take the following precautions to avoid falling down at home :
  - (i) Do not climb on shelves, windows, tables etc.
  - (ii) Do not leave our toys on the floor.
  - (iii) Be careful of slippery floors.
5. Make him lie down with his head lower than the body, so that the supply of blood to the brain increases.  
 Never panic. Send for an adult or call a doctor.  
 Loosen the victim's clothing.  
 Keep the victim protected from flies and dust.  
 Do not crowd around the victim.  
 Make sure the victim is comfortable and calm him down.
6. A first aid box usually has the following things :
 

(i) First aid book	(vi) A pair of forceps
(ii) Cotton roll	(vii) A thermometer
(iii) Clean cloth pieces	(viii) A soapo
(iv) Some band-aids	(ix) A pencil torch
(v) A scissors	(x) Antiseptic solution etc.

**Activity (CCE Pattern)**

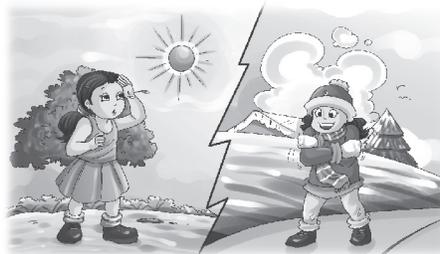
**Ans.** Do yourself

## Air, Water and Weather

10 

**In The Beginning....**

Take hints from the pictures given below and complete the sentences.



Summer

Winter

- Ans.** 1. The days are hot during **Summer**.  
 2. The days are cold during **Winter**.

**Now Try These**

**Fill in the blanks :**

- Ans.** 1. Our Earth is surrounded by a layer of air called **atmosphere**.



2. **Evaporation**-The process in which water changes its physical form liquid into gas.
3. **Condensation**-The process of water vapour changing to liquid water is called condensation.
4. **Dew**-In winters, when water vapour condenses on cold objects like leaves, flowers and windowpanes, dew is formed.
5. **Fog**-In winter, the water vapour in the air condenses on dust particles and forms a cloud just above the ground. This is called fog.
6. **Rain**-The water droplets in the cloud condense to form bigger drops of water which come down to the earth as rain.
7. **Hail**-When it is cold, the raindrops freeze and turn into ice.
8. **Sedimentation**-The process in which the impurities settle down at the bottom is called sedimentation.
9. **Decantation**-The method of collecting clear water is called Decantation.
10. **Filtration**-The process of removing impurities in water through a filter paper is called filtration.

**A. Answer the following questions :**

- Ans.**
1. During the day, the land gets warmer faster than the water. The air above the land too becomes warm and rises up. The cool air from the sea moves in towards the land and takes its place. This is called sea breeze.
  2. Weather is the state of the atmosphere of a place at a particular time in relation to heat, cloudiness, dryness, sunshine, wind and rain. The weather can be hot, cold, dry, windy, rainy or humid.
  3. Weather should be suitable for the proper growth of crops. Sudden changes in weather damage the crops. Lack of rains and long hot and dry periods destroy the crops. If there is a storm, the fruits fall off. Hailstones damage the blossoms, fruits, ears of grain, etc. so, a suitable weather is necessary for the growth and development of crops.
  4. Factors Affecting rate a Evaporation
 

**Temperature :** Higher the temperature, faster is the rate of evaporation. Our clothes dry faster in hot Sun than in the shade.

**Wind :** Wet clothes will dry faster under a fan blowing air on them than the clothes which are kept for drying in still air.

**Surface area :** A wet cloth, which is spread out will dry faster than a wet cloth, which is folded because a larger area is exposed for drying.
  5. **Sedimentation**-Take some muddy water in a glass container (like a beaker). Leave it undisturbed for some time. You will find that some of the sand and clay particles have settled down at the bottom, leaving clear water on top. This process in which the impurities settle down at the bottom is called sedimentation.
 

**Decantation**-Now pick up the beaker gently and pour off the clear water

into another vessel. This method of collecting clear water is called decantation.

6. **Evaporation**-The process in which water change its physical form from liquid into gas is called evaporation. Water gets evaporated due to the heat of the sun and forms clouds causing rain evaporation on takes place constantly in nature, but the rate of evaporation is not always same.

**Condensation**-The process of water vapour changing to liquid water is called condensation.

7. • We should not waste water by letting taps drip.  
• We should avoid draining water unnecessarily when cleaning cars, balconies, kitchens or driveways.  
• Drinking water should be stored in clean and covered containers.  
• Water used in the kitchen for washing fruits and vegetable can be reused for watering plants.  
• Taps should not be left running while brushing or shaving.
8. In winters, when water vapour condenses on cold objects like leaves, flowers and windowpanes, dew is formed. When it is extremely cold, the dew freezes into tiny white crystals called frost.

**Activity (CCE Pattern)**

- Draw an object in each box which depicts three different types of weather on three different day.



Summer



Winter



A wind blowing

- Rohit and Mohit are discussing water cycle. Rohit says, 'We get rains because of evaporation'. Mohit say, 'We get rains because of condensation'.

Who is right ? Or, are both of them right, or both wrong?

What would you tell them to help in settle their disagreement ?

**Ans.** Both of them right in nature, evaporation and condensation of water cause rains.

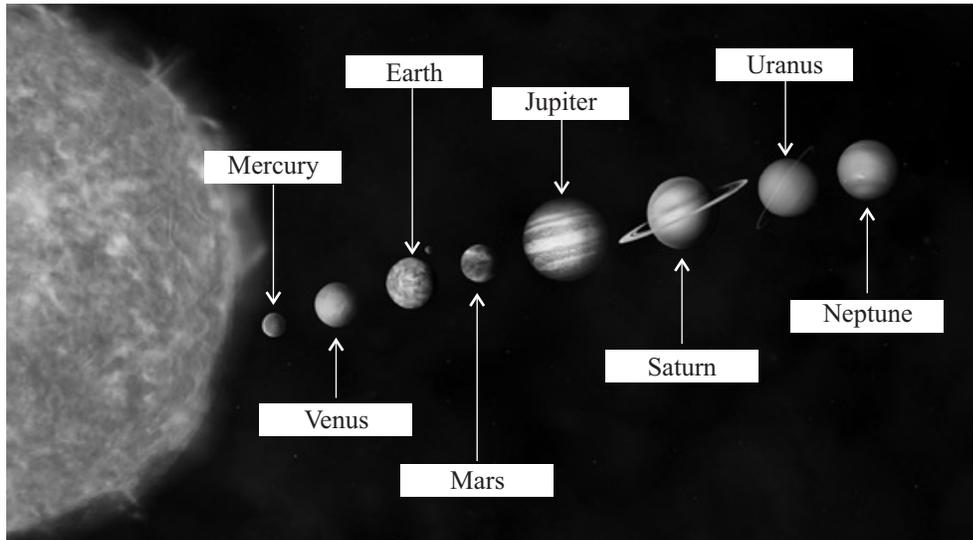
- Show the journey of a water drop in the water cycle by drawing a series of pictures.

**Ans.** Do yourself.

## In The Beginning....

Ali has drawn a picture of the solar system. Can you help him label the planets?

Ans.



## Now Try These

Tick (✓) the correct answer :

Ans. 1. (c)                      2. (a)

## EXERCISE

### Section-1 Formative Assessment (CCE Pattern)

#### A. Oral Questions :

- Ans. 1. If the earth stopped rotation on its axis, the day and night would not occur.  
 2. Because earth is the only planet which has air and water. Without air and water life cannot be possible.

#### B. Tick (✓) the correct answer :

- Ans. 1. The **sun**/moon is a huge ball of gases.  
 2. Our solar system has nine/**eight** planets.  
 3. The movement of the earth around the sun is called rotation/**revolution**.  
 4. The earth revolves around the **sun**/moon.

### Section-2 Summative Assessment (CCE Pattern)

#### A. Write the true and false :

Ans. 1.F 2.T 3.T 4.F 5.F

#### B. Answer the following questions :

- Ans. 1. The sun, the eight planets and their satellites (moons) and other heavenly bodies like comets, and asteroids form the solar system.  
 2. The spinning of the earth around its own axis is called rotation. The earth

completes, one rotation in 24 hours. The earth moves around the sun. The movement of the earth around the sun is called revolution. Earth takes  $365\frac{1}{4}$  days to complete one revolution.

3. Satellites are the small bodies that revolve around planets. Some planets have their own satellites. The moon is the natural satellite of the earth.
4. The hemisphere which is tilted towards, the sun gets the direct sunrays, so it is warmer. It has longer days and shorter nights. It has summer. At this time the other hemisphere that is away from the sun, gets slanting sunrays. It has shorter days and longer nights. It has winter.

**Activity (CCE Pattern)**

**Ans.** Do yourself

## Protecting the Environment

12 

**In The Beginning ....**



Elephant



Tiger



Pine tree

**Now Try These**

**A. Name the following :**

- Ans.** 1. The loss of forests due to cutting of trees in large numbers **Deforestation**.  
2. The process of planting trees in large numbers **Afforestation**.

**B. Write 'T' for the correct statements and F for the wrong one. Correct the wrong statement (s).**

- Ans.** 1. T                      2. F                      3. T                      4. T

## Exercise

**Section-1 Formative Assessment (CCE Pattern)**

**A. Oral Questions :**

- Ans.** 1. Cutting down of trees in large numbers is called deforestation.  
2. People discuss the environmental problems on this day and talk about ways to save environment.  
3. We need to protect animals because they are useful to us in many ways. We get milk from cows, buffaloes and goats. We get wool from sheep. Horses, donkey, camels and oxen help in carrying heavy loads. We get eggs from hen and duck.

**B. Tick (✓) the correct option :**





## Now Try These

Tick (✓) the correct answer :

- Ans. 1. (b)                      2. (c)                      3. (b)

## Exercise

### Section-1 Formative Assessment (CCE Pattern)

#### A. Oral Questions :

- Ans. 1. There are two types of natural resources. These are :  
 (i) Renewable resources.                      (ii) Non-renewable resources.  
 2. Forests are very important for us because we get fruits, timber, medicines and many other useful products from them.  
 3. Gold, silver, iron, copper, zinc, led etc. are of some useful metals.

#### B. Unscramble the following and write the correct words :

- Ans. 1. Natural                      2. Renewable                      3. Minerals  
 4. Petroleum                      5. Forest

### Section-2 Summative Assessment (CCE Pattern)

#### A. Fill in the blanks :

- Ans. 1. Renewable resources can be **recycled**.  
 2. Soil provides **nutrients** that help plants to grow.  
 3. **Life** cannot exist without water.  
 4. Wind energy can be put to use with the help of **windmills**.  
 5. We get **coal** and **petroleum** from under the ground.

#### B. Match the following :

- |                            |                                  |
|----------------------------|----------------------------------|
| Ans. 1. Renewable resource | (i) <b>Water</b>                 |
| 2. Non-renewable resource  | (ii) <b>Coal</b>                 |
| 3. Wind-energy             | (iii) <b>Wind mills</b>          |
| 4. Low energy light bulbs  | (iv) <b>CFLs</b>                 |
| 5. Solar energy            | (v) <b>Photo-sensitive cells</b> |

#### C. Write the true or false :

- Ans. 1.T 2.F 3.T 4.T 5.F

#### D. Answer the following questions :

- Ans. 1. We get food, medicines, wood etc. from plants. Coal and petroleum are dug out of the earth. All these are useful to us and are called resources. Resources given to us by nature are called natural resources.  
 2. Coal and petroleum are non-renewable resource. These resources are limited and will be exhausted one day due to their extensive use. So it is necessary to conserve these resources. To conserve it we should not waste these resources. We should utilize these resources carefully and when it is necessary.  
 3. A renewable resource is something that we use to make everyday products that is replaced faster than we use it up. Sunlight, air, soil and

water are renewable resources.

A non-renewable resources is something that we use to make everyday products that is replaced much more slowly than we consume it. These resources include forests, minerals, coal and petroleum.

4. Minerals are substances found naturally in earth. They make up the rocks that cover the earth. Many metals can be obtained from minerals.
5. Metals are very useful and are used for making chains, nuts, pipes, cylinders, tools and railway tracks, stainless steel and utensils and many other things.

**Activity (CCE Pattern)**

**Ans.** Do yourself