Integrated Science

4

1 The Green Plants : Producers of Food

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally:

Ans. 1. Some plants are able to make their food because they lack chlorophyll which is essential for food making.

2. Only green plants are able to make their own food because they have chlorophyll and can undergone a process called photosynthesis.

B. Name any two:

Ans. 1. (i) Cauliflower (ii) spinach.

2. (i) Carrot (ii) Radish.

3. (i) Apple (ii) Mango.

4. (i) Potato (ii) Ginger.

5. (i) Groundnut (ii) Peas.

C. Cross (✗) on the wrong word in each of the following:

Ans. 1. The energy from the sun is trapped in chlorophyll/~~stomata~~.

2. A plant makes food in its leaf/~~root~~.

3. ~~Cro~~ton/Dodder plant depends on other green plants for its food.

4. In photosynthesis a plant gives out oxygen/~~carbon~~ dioxide.

5. The small openings on leaves for taking in air are called stomata/~~chlorophyll~~.

D. Name the following:

Ans. 1. **Oxygen.**

2. **Water.**

3. **Fruits.**

4. **Alcohal , Iodine.**

Section 2: Summative Assessment (CCE Pattern)

E. Fill in the blanks:

Ans. 1. **Sunlight.**

2. **Producers.**

3. **Iodine.**

4. **Kitchen.**

5. **decaying matter.**

F. Write True of False:

Ans. 1. **T.**

2. **T**

3. **T**

4. **T**

5. **F**

G. Match the following:

Ans. 1. **Carbon dioxide.**

2. **Photosynthesis.**

3. **Leaf blade.**

4. **Starch.**

5. **Mould.**

H. Answer the following questions:

Ans. 1. A leaf to make its food uses sunlight, water from the soil and carbon dioxide from the air.

2. The food prepared by leaves is used to get energy and growth of the plant. The remaining food is stored in the form of starch in leaves, stem, roots or fruits.

3. Photosynthesis is process of making food by the plants. plants put together carbon dioxide and water in the presence of sunlight to make their food.

4. The plants store food made by them in their leaves, fruits , stems , roots and flowers . The food stored in this way is used by animals for the purpose of eating.

5. (i) Mushroom : They get their food from the decaying matters .
(ii) Dodder : They use the food prepared by other green plants.
(iii) Croton : These plants prepare their own food in the presence of sunlight.

6. The process of removing chlorophyll from green leaves to make them white is called bleach.

7. This can be done by the following activity:
a. Take a green leaf. Put it in a beaker of water . Let the water boil for a few minutes.
b. Take out the leaf. Put it in a test tube that contains alcohol. Hold the test tube with the help of holder. Dip it in the beaker containing water. Heat the water . Keep heating till the green color of the leaf disappears.
c. Place the leaf in a petri-dish. Put a few drops of iodine on the leaf with a dropper. The leaf will turn blue-black. This shows that starch is present in the leaf.

8. This is so because if the number of animals increases, plants may not be able to supply enough food and oxygen to all animals . Similarly , if there is an increase in the number of plants, the carbon- dioxide supplied by animals may not be enough for the plants. Thus, to maintain the balance in nature, we have to protect both plants and animals life.

Section 3: Activity (CCE Pattern)

Use the clues to fill in the boxes

Ans. 1. **Carbon.**
2. **Stomata.**
3. **Oxygen.**
4. **Chain.**
5. **Sunlight.**

Outdoor activities

Ans. 1. Do it yourself.
2. Do it yourself.

Unit 2 **Plants Life**

Plant : Adaptation

2

Multiple Choice Questions (MCQs) CCE Pattern

Tick (✓) the correct answer :

Ans. 1. **(b) needle-like leaves**
2. **(a) not having leaves**
3. **(c) broad leaves**
4. **(b) other organisms**

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following questions orally:

Ans. 1. The trees growing on mountains have needle. like leaves to easily slide of the snow from them.
2. The leaves are absent in cactus to prevent the loss of water through transpiration.

B. Give two examples of:

Ans. 1. (i) **Pine tree** (ii) **Deodar tree**
2. (i) **Cactus tree** (ii) **Babool tree**
3. (i) **Rhizophara** (ii) **Tamarix**
4. (i) **Hydrilla** (ii) **Tape gross**
5. (i) **Venus fly trap** (ii) **Pitcher plant**

C. What are they called?

Ans. 1. **Terrestuial plants.**
2. **Aquatic plants.**
3. **Insectivorous plants.**
4. **Evergreen plants.**

Section 2: Summative Assessment (CCE Pattern)

D. Fill in the blanks :

Ans. 1. **Habitat.**
2. **Cold weather and Slope of hill.**
3. **Conifers.**
4. **Fleshy and succulent.**
5. **Mangrove.**
6. **Fungi.**

E. Write True or False:

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

F. Match each terrestrial plant with the place where it grows.

Ans. 1. Coconut — **Coastal area**
2. Mango — **Plains**
3. Pepper — **Hot and damp area**
4. Cactus — **Desert**
5. Pine — **Hilly area**
6. Mangroves — **Marshy area**

G. Answer the following questions:

Ans. 1. It is plant's natural environment . Habitat is the place where plant lives . For example habitat of cactus is desert.
2. Terrestrial plants are those plants , which are live on land. conifer are evergreen, means they do not shed leaves. These trees are straight , tall and having slopping branches. The cone shape of tree helps snow to slide off easily. so they are adopted for cold weather . coniferous tree have thin, needle like and long leaves.
3. Desert plants have some special features to survive in the adverse Conditions of desert. The leaves of desert plants are converted into spiny thorns. it help them to stop excess water loss by transpiration.
Many desert plants have fleshy and succulent stem. They store excess water in their stem to use it in the absence or lack of water in future. A very important adaptation of desert plant is the presences of long roots. In desert , water level is very low. so the long and well developed roots help the plant to absorb

water from deep under the ground.

4. Plants that grow in water are called aquatic plants. Four characteristics of these plants are as follows :
   (i) All parts of these plants are soft.
   (ii) They have poorly developed root system.
   (iii) They have jelly like coating on stem and leaves to protect these parts from water.
   (iv) They have spongy on air filled stem and leaves.
5. The plants that grow in marshy areas called mangroves. Due to the presence of high water amount in the soil , the underground roots of mangroves are not able to get air from soil . So these plants have some breathing roots that grows above the soil.
6. Insectivorous plants eat insects to get minerals and nitrogen, They do so because they grow in soil with poor mineral composition and low nitrogen supply.

Section 3: Activity (CCE Pattern)

Fill up the following puzzle with the help of the clues given in the box.

Down

Ans. 1. **Wheat**.
2. **Bamboo**
5. **Teak**
6. **Pine**

Across

Ans. 3. **Sugarcane**
4. **Cotton**
7. **Acacia**

3 Reproduction in Animals

Multiple Choice Questions (MCQs) CCE Pattern

Tick (✓) the correct answer :

Ans. 1. **Yolk**
2. **Tadpoles**
3. **Cocoon**
4. **Platypus**

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following Questions orally :

Ans. 1. This is so because they give birth to their young ones instead of laying eggs.
2. This is so because it helped them to swim when inside water.
3. Birds sit on their eggs to keep them warm in order to hatch them.

B. Give one word for the following :

Ans. 1. **Reproduction**
2. **Pupa**
3. **Cocoon**
4. **Life - cycle**

C. Understand the relationship and complete the following as shown :

Ans. 1. **Caterpillar**

2. **Yolk**
3. **Pupa**
4. **Lay eggs**

Section 2: Summative Assessment (CCE Pattern)

D. Fill in the blanks :

Ans. 1. **Tadpoles**
2. **Mammals**
3. **Embryo**
4. **Nymph**
5. **Caterpillar**

E. Write True or False:

Ans. 1. **False**
2. **True**
3. **False**
4. **True**
5. **False**

F. Match the following:

Ans. 1. Yolk — **Egg**
2. Caterpillar — **Larva**
3. Cocoon — **Pupa**
4. Cockroach — **Nymph**
5. Housefly — **Maggot**

G. Answer the followings questions:

Ans. 1. Living things reproduce so that their life forms remain in existence.
2. Animals reproduce by two different ways: by laying eggs and by giving birth to young ones.
3. In the centre of an egg is a yellow portion called yolk. It contains the developing baby called embryo. surrounding the yolk is a white position called albumin. It protects the embryo and provides water to it.
4. To hatch their eggs , one of the parent birds , usually the mother, sits on them to keep them warm . The baby birds start growing inside the eggs. After a few weeks, when the baby birds are fully developed, they break open the shell and come out.
5. A tadpole is a limbless tailed larva of a frog. It looks like a fish.
6. Animals which give birth to babies and feed them with their own milk are called mammals . They reproduce by giving birth to their young ones.

Section 3: Activity (CCE Pattern)

Know the animal world.

Across

Ans. 2. **Snake**
5. **Tadpole**
6. **Whale**
7. **Moulding**

Down

1. **Nymph**
2. **Snake**
3. **Mammal**
4. **Dolphin**

A. Answer the followings questions:

Ans. 1. Only green plants are able to make their own food because they have chlorophyll and can undergone a process called photosynthesis.
2. Leaves are absent in cactus to prevent the loss of water through transpiration .
3. Bird sit on their eggs to keep them warm in order to hatch them.

B. Tick (✓) the correct answer :

Ans. 1. **Chlorophyll**
2. **Cleaning**
3. **Cocoon**
4. **Other organisms**

C. What are they called?

Ans. 1. **Terrestrial plants**
2. **Aquatic plant**
3. **Insectivorous plants**
4. **Evergreen trees**

D. Complete the following relationship.

Ans. 1. **Maggot , Caterpillar**
2. **Lay eggs , gives birth to baby**
3. **Leaves , Yolk**
4. **Pupa , Tadpole**

E. Cross (✗) out the wrong word in each of the following :

Ans. 1. The energy from the sun is trapped in chlorophyll/~~stomata~~.
2. ~~Cr~~oton/Dodder plant depends on other green plants for its food.
3. A plant makes food in its leaf/~~root~~.
4. In photosynthesis a plant give out oxygen/~~carbon dioxide~~
5. The small openings on leaves for taking in air are called Stomata/~~Chlorophyll~~.

Unit 3 Health and Nutrition

4

Food, Nutrition and Health

Multiple Choice Question (MCQs) CCE Pattern

Tick (✓) the correct answer:

Ans. 1. **Steaming**
2. **Fruits**
3. **Milk**
4. **Grapes**
5. **Vitamin D**

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following questions orally:

Ans. 1. This is so because we need it to maintain our growth.
2. Fried food gives extra fat to our body which is harmful for us . Hence, we should not eat too much of fried

food.

B. Write two food items to eat, if you need the following:

Ans.
1. **Milk , Cheese**
2. **Sugar , Starch**
3. **Fruits, vegetables**
4. **Pulses , Spinach**
5. **Eggs , Meat**

C. Cross the odd one out. Give reason for your answer:

Ans.
1. Pulses - Pulses give us proteins , while others give us carbohydrates.
2. Fish - Fish is a source of proteins , while others are source of vitamins.
3. Meat - It is a source of protein whereas all others are source of fats.
4. Bread - It is a source of carbohydrate whereas all others are sources of proteins.

D. Name these nutrients :

Ans.
1. **Foods**
2. **Carbohydrates**
3. **Minerals**
4. **Proteins**
5. **Fats**

Section 2: Summative Assessment (CCE Pattern)

E. Fill in the blanks :

Ans.
1. **Fats.**
2. **Protective.**
3. **Spoil.**
4. **Grow**
5. **A**

F. Write True of False:

Ans.
1. **False**
2. **True**
3. **False**
4. **True**
5. **False**

G. Match the following columns:

Ans.
1. Starch — **Found in potatoes and rice**
2. Vitamin 'A' — **Needed for healthy eyes and skin**
3. Protein — **Found in peas and milk**
4. Fats — **Give more energy than carbohydrates**
5. Fibres — **Found in green vegetables.**

H. Answer the following questions :

Ans.
1. We need food to stay healthy and to get energy to do our work efficiently.
2. Carbohydrates , fats , proteins and vitamins are different types of food nutrients.
3. A proteins - diet food is necessary for growing children because proteins help us to grow. They repair the damaged parts of our body which are weakened due to sickness or injury.
4. Milk is considered as a complete food because it contains carbohydrates , fats, proteins ,vitamins, minerals and water.
5. The body needs Carbohydrates to get energy for doing work.
6. Dietary fibers help in moving the waste through the digestive system . It this way they help in digestion.
7. We cook food to make it soft , tasty and easy to digest. Also it kills the germs present in food. over

cooking is harmful in the sense that it can spoil the food and its taste.

8. When we keep food for a longer time, it is called food preservation.
9. Food can be preserved by the following ways: Refrigeration , boiling , canning, pickling(using salt) jellying (using sugar) , drying.

Section 3: Activity (CCE Pattern)

Do it yourself

5 A Balanced Diet and Digestion of Food

Multiple Choice (MCQs) CEE Pattern

Tick (✓) the correct answer:

Ans. 1. **Food - pipe**
2. **Mouth**
3. **Mouth**
4. **Fresh diet**
5. **Large intestine**

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following question orally:

Ans. 1. We should chew our food well to make it easy for our body to digest it.
2. If we take only one kind of foods, our growth will be hampered due to deficiency of nutrients as we will get only kind of nutrients.

B. What will happen in the following situations :

Ans. 1. We will fall ill.
2. The vitamins present in the fruits will wash away.
3. It will go bad in taste.
4. The pickles will not preserve for a long time.
5. Our teeth will be affected by the germs.

C. Write the functions of the following in relation to digestion of food:

Ans. 1. Mouth : Here the food is broken down into smaller pieces, and grind into a paste . The saliva present in our mouth mixes with the food and make it soft .
2. Stomach : Here, the muscles present in it squeeze the food and mix it with the digestive juices which further break down the proteins in food.
3. Lever and pancreas : These provide special digestive juices which mix with the juices present in the small intestine, and break down the food further to complete the process of digestion.

D. Each box in the diagram represents an organ of the human body. Name the organ to describe the path of food in the body.

Ans. 1. Food pipe
2. Stomach
3. Small intestine
4. Large intestine
5. Anus

Section 2: Summative Assessment (CCE Pattern)

E. Fill in the blanks:

Ans. 1. **Bile**
2. **acid**
3. **Saliva**
4. **Water , stool**
5. **Juice**
6. **end , anus**

F. Match the following :

Ans.

1.	Balanced diet	—	**A diet containing all the essential nutrients.**
2.	Digestion of food	—	**Breaking down of food into simpler substances**
3.	Saliva	—	**Produced by salivary glands**
4.	Swallowing	—	**Pushing down of food**
5.	Fruits and vegetables	—	**Fiber - rich food**

G. Answer the following questions :

Ans.
1. A diet that contains all the nutrients in the right amount is called a balanced diet. It is important to have a balanced diet because it helps in keeping our body healthy and away from diseases.
2. The nutrients in our food are broken into simpler substance and are absorbed by the blood. This process is called digestion. The main digestive organs of our body are mouth ,food pipe , stomach , small intestine , large intestine , pancreas , gall bladder and anus.
3. The saliva is produced by the salivary glands. It make the food soft so that it can can be swallowed easily. Saliva also breaks dawn the stratch present in food into easily digestible substance.
4. When we eat food, it is broken dawn into smaller pieces by our front teeth. The back teeth grind the food to a paste which moves with the saliva in the mouth.
5. In the small intestine some more digestive juices called bile get mixed with the food. Digestive juices come to small intestine from liver and pancreas. The process of digestion gets complete in the small intestine.
6. Food gets to the different parts of the body with the help of blood.
7. Food preservation is the method of keeping food fresh and free from germs. Boiling, canning, pickling, jellying and drying are the different methods of food preservation.
8. The undigested food is thrown out of the body as stools through the end part of the large intestine called anus.

Section 3: Activity (CCE Pattern)

Do it yourself

Unit 4 **Teeth and Their Care**

6

Teeth and Microbes

Multiple Choice (MCQs) CEE Pattern

Tick (✓) the correct answer:

Ans. 1. none
2. thirty-two
3. canines
4. bacteria

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following question orally:

Ans.
1. Birds, reptiles, fish and insects are the animals which do not have any kind of teeth.
2. It is so because too much of sweets affects our teeth.

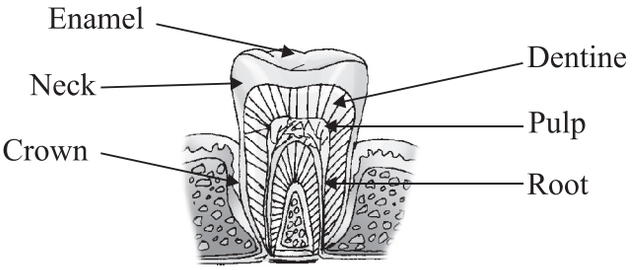
B. Name the following :

1.	Incisors	cannines	cremolar	molar
2.	Enamel	Dentine	pulp	
3.	Warmth	Moisture	Food	Air
4.	Bacteria	Viruses	Protozoa	Fungi
5.	Typhoid	Small pox	Malaria	ring worm

C. Give one word for the following :

1. Toothpaste
2. Incisors
3. Plague
4. Pulp
5. Dentist

D. The picture show you the parts of a tooth. Label the parts shown by the arrows.



Section 2: Summative Assessment (CCE Pattern)

E. Fill in the blanks:

Ans.
1. Crown
2. Fungi
3. Protozoa
4. Cavity
5. enamel
6. Germs
7. brush
8. Cement

F. Write True or False :

Ans.

1.	✗	2.	✗	3.	✓
4.	✓	5.	✓	6.	✗

G. Match the following columns :

1.	Dentist	—	**a person who checks and looks after teeth**
2.	Dentine	—	**the part of a tooth which is like a bone**
3.	Incisor	—	**a tooth used for cutting food**
4.	Decay	—	**rotting of the tooth**
5.	Crown	—	**the part of a tooth sting out of the gum**
6.	Pulp	—	**the soft inner part of a tooth**

H. Match the teeth with their functions :

1. bite food
2. grind food and convert it into a fine paste
3. tear food

I. Answer the following questions :

Ans.
1. It is called milkteeth.
2. Permanent teeth begin to grow after the falling off of the milk teeth, when the child is about 6 years old.

3. Incisors.
4. We can keep our teeth clean and strong by brushing it twice. Also for this we should eat green vegetables in enough quantity.
5. Microbes are tiny living things. Bacteria, viruses, protozoa and fungi are different kinds of microbes.
6. The part of the tooth that is seen above the gum is covered with enamel and is called crown. The surface of the crown is made of the hardest substance in your body, called **enamel**. It is very difficult to scratch the surface of this layer.
   Beneath the enamel is the **dentine**. It is not so hard. Inside the dentine is a soft portion, which has blood vessels and nerves. It is called **pulp**.
7. Some microbes cause diseases in human beings. These disease-causing microbes are called germs.
   Three uses of microbes are as following :
   Some bacteria change milk into curd.
   Some bacteria produce vitamins in our body.
   Some fungi, called yeast, help to bake soft bread.
8. It we do not brush our teeth regularly, they will grow pale and ultimately fall off. This is so because the germs will grow in them in the absence of brushing. Germs will give rise to cavities and this will loose teeth from their place.

Section 3: Activity (CCE Pattern)

Complete the crossword with the help of clues given below.

1. GRIND
2. DENTINE
3. ROOT
4. THIRTYTWO
5. CUT
6. CANINE

One of these sets of teeth belongs to Arun who is four years old while the other set belongs to his mother who is thirty-six years old. Identify the correct set and give reasons for your answer.

Set A

Arun's Mother's teeth because they are thirty-two in number.

Set B

Arun's teeth because these are milk teeth.

Formative Assessment-2

A. Answer the following questions orally :

Ans.
1. Friend food gives extra fat to our body which is harmful for us. Hence, We should not eat too much of friend food.
2. We should chew our food well to make it easy for our body to digest it.
3. Birds, reptiles, fresh and insects are the animals which do not have any kind of teeth.

B. Tick (✓) the correct answer :

1. grapes
2. food-pine
3. bacteria
4. milk

C. Give one word for the following :

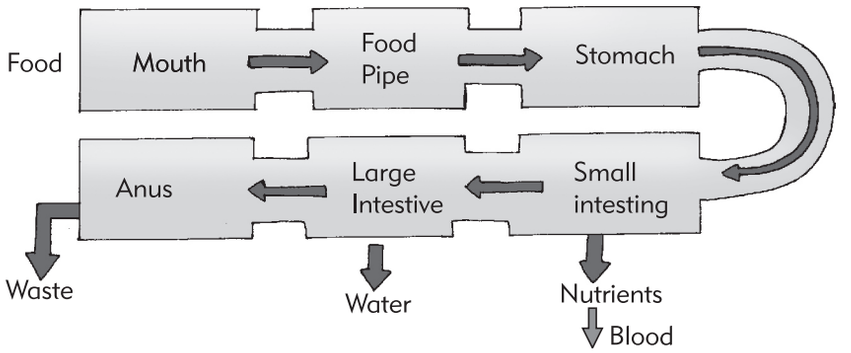
1. Tooth paste
2. Incisors

3. Dentist
4. Plaque
5. Pulp

D. Name these nutrients :

1. Carbohydrates
2. Proteins
3. Vitamins
4. Fats
5. Food

E. Each box in the diagram represents an organ of the human body. Name the organ to describe the path of food in the body.



Summative Assessment-1

A. Fill in the blanks :

1. Fleshy, succulent
2. Crown
3. embryo
4. energy given
5. end

B. Write True or False :

1. ✗
2. ✗
3. ✓
4. ✓
5. ✓

C. Match the following :

1. Starch — **found in potatoes and rice**
2. Vitamin 'A' — **needed for healthy eyes and skin**
3. Protein — **found in peas and milk**
4. Fats — **give more energy than carbohydrates**
5. Fibres — **found in green vegetables**

D. Match the teeth with their functions :

1. Incisors — **bite food**
2. Premolars and molars — **grind food and convert it into a fine paste**
3. Canine — **tear food**

E. Answer the following questions :

1. The plants store food made by them in their leaves, fruits, stems, roots and flowers. The food stored in this way is used by animals for the purpose of eating.
2. A diet that contains all the nutrients in the right amount, is called a balanced diet. It is good to take a balanced diet because it helps in keeping our body healthy and away from diseases.
3. Some microbes cause diseases in human beigns. These desease causing microbes are called germs.
   Three uses of microbes are as following :
   Some bacteria change milk into curd.
   Some bacteria produce vitamins in our body.
   Some fungi, called yeast, help to bake soft bread.
4. The plants that grow in marshy areas are called mangroves. Due to the presence of high water amount in the soil, the underground roots of mangroves are not able to get air from soil. So these plants have some breathing roots that grow above the soil.
5. Animals which give birth to babies and feed them with their own milk are called mammals. They reproduce by giving birth to their young ones.
6. Food can be preserved by the following ways :
   Refrigeration, boiling, canning, pickling (using salt), jellying (using sugar), drying.

Unit 5 Mater and Materials

7

Matter and Materials

Multiple Choice (MCQs) CEE Pattern

Tick (✓) the correct answer:

Ans. 1. three
2. loosely packed
3. saturated

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following question orally:

Ans. 1. It is so because the heat of the sun evaporates the water present in the clothes.
2. No weather phenomena would have taken place in that case.

B. Write the state in which matter exists in the following :

Ans. 1. Gas 2. solid
3. Solid 4. Liquid
5. Solid 6. Solid
7. Gas 8. Solid

C. Classify the following into water soluble and insoluble groups :

Ans. Soluble— Sugar, common salt, potassium permanganate, washing soda, blue vitirol
Insoluble— marble, sand, soil, chalk, sulphur

Section 2: Summative Assessment (CCE Pattern)

D. Fill in the blanks:

Ans. 1. oil
2. space, weight
3. three
4. boiled

5. salute, solvent

E. Write True or False :

Ans. 1. ✓
2. ✗
3. ✗
4. ✓
5. ✓

F. Match the following and write two examples for each :

Ans. 1.	fixed shape and	Wood	Marble
2.	but fixed volume	Milk	Oil
3.	neither fixed shape	Water vapour	Oxygen

G. Answer the following questions :

Ans. 1. Matter is a substance that has weight and occupies space.
2. A solid has a definite shape. It does not free flow. A liquid, on the other hand, don't have a definite shape. A liquid also free frlow sideways and down wards.
3. A gas always takes up all the available space. This shows that a gas does not have a fixed volume.
4. (i) Sugar is soluble in water. Hence, a sugar solution will be formed.
(ii) Sand is not soluble in water. Hence, no solution will be formed.
5. It is so because sugar is soluble in water. The molecules of sugar will take the empty spaces between the molecules of water. As a result, the volume of water will remain the same.

Section 3: Activity (CCE Pattern)

H. For this experiment you will need four glass tumbler marked A, B, C, D, four spoons, water, sugar, sand, salt and chalk powder.

This experiment shows that sugar and salt are soluble in water whereas sand and chalk powder are not.

Unit 5 **Matter and Materials**

8

Clothes We Wear

Multiple Choice (MCQs) CEE Pattern

Tick (✓) the correct answer:

Ans. 1. synthetic fibres
2. light-coloured
3. wool
4. kimono

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following question orally:

Ans. 1. This is so because they can absorb sweat from the feet easily in comparison to the socks made of nylon.
2. It is so because natural fibres absorb sweat and dust easily and are washeable.

B. Tick (✓) which of the following are best suited for summers :

light- coloured clothes
thin clothes
loose clothes

C. Give two examples of each :

1. India-saree Japan-kimono

2. Silverfish moths
3. Neem leaves Moth balls

Section 2: Summative Assessment (CCE Pattern)

D. Fill in the blanks:

Ans. 1. insects
2. Nylon, polyster
3. silverfish
4. uniform
5. silkworm
6. , ironed
7. decent
8. cotton

E. Write True or False :

1. ✗
2. ✗
3. ✓
4. ✗
5. ✗
6. ✓
7. ✓
8. ✓

F. Match the following columns :

1. Summer season — **loose fitting clothes**
2. Natural fibre — **cotton**
3. Early man — **leaves**
4. Winter season — **warm clothes**
5. Nurse — **white uniform**

G. Write the reasons for the following :

1. Cotton clothes keep our body cool by refecting back the sunlight. They also absorb the sweat quickly.
2. Dark coloured clothes absorb the sunlight. Also they do not allow the body heat to escape.
3. Our woollen clothes attract insect like silverish and moths towards them. These insects harm our woollen clothes. Thus, to protect these clothes e put mothballs with our woollen clothes.

H. Answer the following questions :

Ans. 1. Clothes protect us from heat, cold, winds and dust of summer, rain and bites of insects.
2. The early men used to protect their body from heat and cold by covering it with leaves of trees and skin of the animals.
3. We wear three types of clothes on the basis of season, occasion and special job-protective, decorative and uniform.
4. Natural fibres are obtained from natural sources. They absorb sweat. Synthetic fibres are made from chemicals. Thye do not absorb sweat.
5. Hats, turbans and caps.
6. We wear light-coloured clothes made from cotton or linen in summer.
7. We wear socks and shoes to protect our feet from dust, heat, cold, germs and worms.
8. We should store woollen and silk clothes with dried neem leaves or moth balls to protect them from insects such as silverfish or moths.

Section 3: Activity (CCE Pattern)

Pictures given below are from different states of India. Read the clues and write the name of the states they come from.

Ans.

Rajasthan

Maharashtra

Punjab

Wes Bengal

9 Force, Work and Energy

Multiple Choice (MCQs) CEE Pattern

Tick (✓) the correct answer:

Ans. 1. motion of object
2. changes both speed and direction
3. both of the above
4. chemical energy

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following question orally:

Ans. 1. Heat energy
2. The sun
3. It moves in a direction or

B. Tick (✓) which of the following are best suited for summers :

1. Wind energy
2. Water energy
3. Solar energy
4. Coal energy

C. Give two examples of each :

1. Heat energy
2. Heat energy
3. Kinetic energy
4. Electric energy
5. Solar energy

D. What will happen if :

Ans. 1. We will feel ill.
2. No one will be able to stand still.
3. The earth will turn into a cold planet.
4. The ball will roll away to a very long distance.

Section 2: Summative Assessment (CCE Pattern)

E. Fill in the blanks:

1. Electric
2. Force
3. Machines
4. Energy
5. Chemical
6. Force
7. railway engine

8. morning

F. Write True or False :

1. ✗
2. ✗
3. ✓
4. ✓
5. ✓
6. ✗
7. ✗
8. ✗

G. Match the following :

1.	Water-mill	—	**moving water**
2.	Bullock-cart	—	**muscles**
3.	Wind-mill	—	**moving wind**
4.	Railway engine	—	**steam**
5.	Tubewell	—	**electricity**
6.	Car	—	**petrol**
7.	Transistor	—	**cell**

H. Answer the following questions :

Ans. 1. Pulling a cart, pedalling a cycle and throwing a ball.

2. (i) Kinetic energy : It is used to ride a bicycle.
   (ii) Chemical energy : It is used to light a torch.
   (iii) Electrical energy : It is used run television.
3. We call the sun our main source of energy because all other sources of energy are derived directly or indirectly from the energy of the sun.
4. Force is a pull or push applied on an object. Work is said to done when we use force to move on object from its position.
5. Energy is the ability to do work. Our body gets energy from the food we eat.
6. Friction is the force which exists when two surfaces come in contact with each other. It is the force which slows down a moving body.
7. The energy we get from the sun is called solar energy.
   Three uses of electrical energy are as follows :
   - It is used to light lamps.
   - It is used to run washing machines.
   - It is used to charge chemical batteries.
8. Machines help us by doing our work easily and in short time. Machines are of two types : simple machines and complex machines.

Section 3: Activity (CCE Pattern)

Do yourself.

Formative Assessment-1

A. Answer the following questions orally :

1. It is so because the heat of the sun evaporates the water present in the clothes.
2. The sun
3. This is so because they can absorb sweat from the fact easily in comparison to the socks made of nylon.

B. Tick (✓) the correct answer :

1. (c) both of the above
2. (a) loosely packed
3. (b) three
4. (a) synthetic fibres

C. Give two examples of each :

1. India-saree	Japan-kimono
2. Silverfish	Moth
3. Neem leaves	Moth balls

D. Write the state in which matter exists in the following :

1. Gas	2. Solid
3. Solid	4. Liquid
5. Solid	6. Solid
7. Gas	8. Solid

E. Name the form of energy that :

1. Heat energy
2. Electrical energy
3. Heat energy
4. Solar energy
5. Kinetic energy

Unit 6 **Space and Environment**

10

Earth and Its Neighbours

Multiple Choice (MCQs) CEE Pattern

Tick (✓) the correct answer:

Ans. 1. (a) globe
2. (b) rotation
3. (c) Jupitar
4. (b) core

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following question orally:

Ans. 1. This is so because only the earth has all the conditions necessary for the existence of life such as air, water and optimum temperature.
2. If the Earth would have stopped rotating on its axis it would have turned into a lifeless planet. Half of the earth facing the sun would be very hto and the part away from the sun would be very cold.

B. Tick (✓) which of the following are best suited for summers :

Ans.

1. VENUS	2. MARS	3. EARTH
4. PLUTO	5. JUPITER	6. MERCURY
7. URANUS	8. SATURN	

C. Give two examples of each :

Ans. 1. Venus
2. Mars
3. Telescope

4. Earth
5. Lava

D. Fill in the blanks :

Ans. 1. Mercury
2. Mercury
3. Saturn
4. Earth

Section 2: Summative Assessment (CCE Pattern)

E. Fill in the blanks:

Ans. 1. oceans
2. revolution
3. equator
4. molten
5. light

F. Write True or False :

Ans. 1. True
2. False
3. False
4. True
5. True

G. Match the following :

Ans.
1. Mars — **Red plant**
2. Jupiter — **Largest planet**
3. Saturn — **Planet with over 1000 rings**
4. Mercury — **Fastest revolving planet**
5. Uranus — **Bluish planet**

H. Give reasons for the following :

1. Three-fourth part of the Earth is made up of water. Due to this it is called the water planet.
2. A star is a body made up of hot gases. Hence, it produces heat and light.
3. India and America are on the opposite sides of the Earth. In the course of rotation one of these faces the sun while the other is away. Hence, when it is day in India, it is night in America.
4. The shadows on the Earth are formed by the light of the sun. As the Earth rotates on its exis, the position of the sun keeps on changing. Thus, shadows tend to move during the day.

I. Answer the following questions :

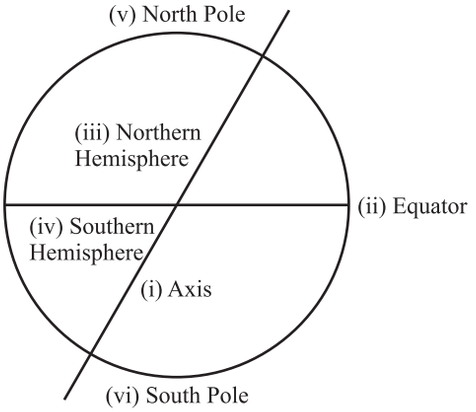
Ans. 1. The movement of the Earth on its axis is called the rotation of the Earth. The Earth takes 24 hours to complete one rotation.
2. The movement of the Earth around the sun is called the revolution of the Earth. The earth takes abdout 365 days and 6 hours to complete one revolution.
3. The Earth was formed by the cooling down of hot matter, billions of years ago.
4. The seasons are caused by the revolution of the Earth around the sun. As the Earth is titled on its axis, one of the hemisphere receives more sunlight in comparison to the other hemisphere. Hence, the hemisphere which receives more sunlight experiences summer while the other hemisphere receiving less amout of sunlight experiences winter.
5. The family of sun consisting of eight planets, their satellites, asteroids, meteors, comets is known as solar system.
6. Earth is a planet because it revolves around the sun in a fixed path called orbit.
7. There are eight planets in our solar system : Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Of these, mercury is the nearest planet to the sun while Neptune is the farthest one. Jupiter is

the biggest planet while Saturn has rings around it. Our Earth is the only planet having life on it.

8. A satellite is a body which revolves around a planet.

Section 3: Activity (CCE Pattern)

1. Make a diagram of the Earth in your science exercise book. Then label the following :
(i) Axis (ii) Equator (iii) Northern Hemisphere (iv) Southern Hemisphere (v) North Pole (vi) South Pole



2. Do yourself.

3. Do yourself.

11 Weather : The Changing Scene

Multiple Choice (MCQs) CEE Pattern

Tick (✓) the correct answer:

Ans. 1. dew and frost
2. fast moving air
3. sea to the land
4. at 7.00 a.m.

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following question orally:

Ans. 1. India and Australia are in two different hemispheres. India is in the Northern Hemisphere while Australia is in the southern Hemisphere. As both the hemispheres experience opposite seasons, hence, when it is winter in India, it is summer in Australia.

2. We know that, hot air is lighter than the cold air, so it rises up. That is why hot air balloon rises up in the sky.

B. Give two examples of :

1. (i) Air (ii) water
2. (i) Temperature (ii) Exposed surface area
3. (i) Frost (ii) Hailstones
4. (i) Summer (ii) Winter

C. Give one word for the following :

1. Atmosphere
2. Evaporation
3. Condensation

Section 2: Summative Assessment (CCE Pattern)

D. Fill in the blanks:

Ans.
1. Hailstones
2. Land, Sea
3. the Earth
4. faster
5. dew
6. Evaporation
7. Dew
8. Crops

E. Write True or False :

1. False
2. True
3. True
4. True
5. False
6. True
7. True
8. True

F. Match the following :

1. Morning — **slanting sun rays**
2. Noon — **direct sun rays**
3. Water — **heated slowly**
4. Sun — **controller of weather**
5. Sand — **heated quickly**
6. Hot air — **goes up**

G. Give reason for the following :

1. This happens because of the formation of dew on the surface of the Earth. On cooling, dew is changed into water.
2. During the morning and evenings, sun rays are slanting. They cover more area, hence, the heat is spread over a large area. In afternoon the sun rays are direct and cover less area. The heat is confined to an area. Thus morning and evening are coolder than afternoon.
3. The heat of the sun increases the rate of evaporation. Therefore, wet clothes dried quickly in the sun.
4. The cold air around the bottle condense to form water droplets.
5. The Earth is slightly tilted on its axis. That is why one half of it is always close to the sun than the other.

H. Answer the following questions :

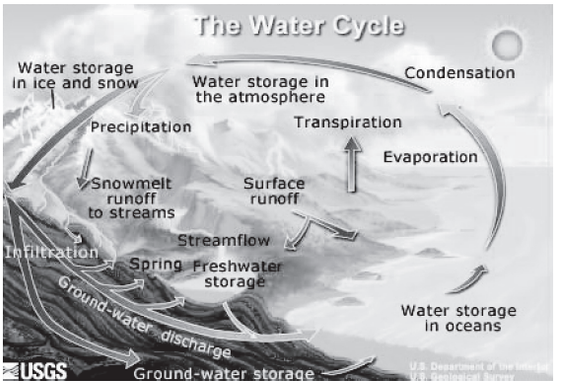
Ans.
1. The sun plays a very vital role in changing weather conditions. The heat generated by sun causes winds to blow and also causes changes in the state of water. Changes in the state of air and water change the weather.
2. Water loses heat more slowly than the land. At night, there is no sun to warm up the land. So the land cools faster than the sea water. It makes sea water warmer than land.
3. Blowing up of air in a definite direction is called wind. When a cool breeze blows towards the land from sea surface, during daytime, it is called sea breeze. On the other hand, when the cold air from the land blows towards the sea, during night, it is called land breeze.
4. When air is heated, it rises up.
5. The conversion of water into water vapour, as a result of heating, is called evaporation, similarly, the conversion of water vapour in the liquid form of water, due to cooling, is called condensation.
6. (a) In winter, when the land cools at night, the water vapours in the air condense into water droplets on

different objects like on grass, plants or vehicles etc. These tiny water drops are called dew. These can be seen in the early morning in winter season.

(b) Sometimes in winters, the water vapours present near the earth's surface condense on the smoke or dust particles to form fog.

(c) When it is very cold the dew or surface water freezes into tiny white crystals. It is called frost.

7. Four conditions that favour evaporation are :
temperature (higher the temperature, more will be the evaporation)
wind (stronger the wind, more will be the evaporation)
humidity in the air (lesser the hummudity, that is, drier the air, more will be the evaporation)
8. The continuous movement of water on the surface of the Earth through the means of evaporation and condensation is called the water cycle.



9. Seasons affect our lives in a big way. In summers, we arrange to keep our body cool while in winter, we arrange to keep our body warm. Similarly, we take cold things in summers and wear light coloured clothes. In winter we take hot things and wear dark coloured clothes.

Section 3: Activity (CCE Pattern)

Do yourself

12 Our Environment

Multiple Choice (MCQs) CEE Pattern

Tick (✓) the correct answer:

Ans. 1. Yes
2. pollution
3. sewage

Section 1: Formative Assessment (CCE Pattern)

A. Answer the following question orally:

Ans. 1. We call Earth our home because we live on it.
2. We can contribute in protecting our environment by not polluting it in any way. We can also protect our environment by growing trees in large numbers.

B. Name two of each :

1.	Smoke	Dust
2.	Carbon monoxide	Carbon dioxide
3.	Sewage	Poisonous gases

Section 2: Summative Assessment (CCE Pattern)

C. Fill in the blanks :

Ans. 1. Soil erosion
2. environment
3. environment

D. Write True or False :

1. ✗
2. ✓
3. ✓

E. Answer the following questions :

Ans. 1. When we breathe in polluted air, we suffer from breathing problems. Breathing in polluted air can also cause Asthama.
2. When poisonous chemicals from factories are thrown into the river and other water resources. They affect fish, other water animals and plants. If we eat such fish, we will also fall ill.
3. The process of making water, air and land around us dirty and impure, is called pollution.
4. Acid rain occurs when the poisonous chemicals from the factories mix with the air and water vapour present in it an came down in the form of a rain.

Section 3: Activity (CCE Pattern)

Do yourself

Formative Assessment–4

A. Answer the following orally :

1. We know that hot air is lighter than the cold air, so it rises up. That is why hot air balloon rises up in the sky.
2. This is so because only the earth has all the conditions necessary for the existence of life such as air, water and optimum temperature.
3. We can contribute in protecting our environment by not polluting it in any way. We can also protect our environment by growing trees in large numbers.

B. Tick (✓) the correct answer :

1. 5 June
2. pollution
3. rotation
4. dew and frost

C. Complete the names of the eight planets and one dwarf planet given below and then arrange them in their correct order :

1. VENUS	2. MARS	3. EARTH
4. PLUTO	5. JUPITER	6. MERCURY
7. URANUS	8. SATURN	9. NEPTUNE

D. Name two of each :

Ans.

1. Smoke	Dust
2. Carbon monoxide	Carbon dioxide
3. Sewage	Poisonous gases

E. Give two examples of :

1. Air	Water
2. Temperature	Exposed surface area
3. Frost	Hailstones

4. Summer Winter

F. What will happen if :

1. No one will be able to stand still.
2. We will feel ill.

Summative Assessment–2

A. Fill in the blanks :

1. space, weight
2. chemical
3. silkworm
4. dew
5. typhoid
6. molten

B. Write True or False

1. ✓
2. ✗
3. ✓
4. ✗
5. ✓
6. ✗

C. Match the following and write two examples for each :

1. Solid	—	**fixed shape and fixed volume**	**milk**	**oil**
2. Liquid	—	**neither fixed shape nor fixed volume**	**wood**	**marble**
3. Gas	—	**fixed shape but no fixed volume**	**water vapour**	**oxygen**

D. Give reasons for the following :

1. Cotton clothes keep our body cool by reflecting back the sunlight. They also absorb the sweat quickly.
2. The shadows on the Earth are formed by the light of the sun. As the Earth rotates on its axis, the position of the sun keeps on changing. Thus, shadows tend to move during the day.
3. The Earth is slightly tilted on its axis. That is why one half of it is always close to the sun than the other.

E. Answer the following questions :

1. Seasons are caused by the revolution of the Earth around the sun. While spinning on its axis, the Earth is tilted at an angle. That is why, while orbiting the sun, one he misphere comes close to the sun and the other one goes away from the sun. The part which is close to the sun has summer. The part away from the sun has winter.
2. Blowing up of air in a definite direction is called wind. When a cool breeze blows towards the land from sea surface, during daytime, it is called sea breeze. On the other hand, when the cold air from the land blows towards the sea, during night, it is called land breeze.
3. (i) Sugar is soluble in water. Hence, a sugar solution will be formed.
   (ii) Sand is not soluble in water. Hence, no solution will be formed.
4. The process of making water, air and land around us dirty and impure is called pollution.
5. Friction is the force which exists when two surfaces come in contact with each other. It is the force which slows down a moving body.
6. We should store clothes in a cool place with dried neem leaves or moth balls to protect them from insect such as silver fish or moths.