

CHRIST KING HR. SECONDARY SCHOOL
CLASS 4 A&B
SUBJECT: SCIENCE, SECOND TERM

Chapter 6
Soil

A. Tick (✓) Mark the correct answer:

1. Soil is home to thousands of animals.

a) House () b) soil (✓) c) tree () d) none of them ()

2. Centipedes live under stones and in the soil.

a) Earthworms () b) ants () c) millipedes () d) centipedes (✓)

3. Sandy soil contains 70-80% large sand particles.

a) Clayey () b) sandy (✓) c) loamy () d) black ()

4. Loamy soil is best for growing plants.

a) Clayey () b) loamy (✓) c) red () d) sandy ()

B. Answer these questions:

1. What is soil?

Ans: Soil is one of the three major natural resources next to air and water made up of minerals, organic matter and living organisms.

2. Describe the different creatures that reside in the soil.

Ans: The different creatures that reside in the soil are:-

- i. Slugs and snails eat dead creatures and plants.
- ii. Earthworms burrow through the soil making it looser and fertile.
- iii. Ants live in large colonies and burrow in the soil to build their nests.
- iv. Woodlice live in damp places.
- v. Centipedes live under stones and in the soil.

3. How is soil formed?

Ans: Soil is formed from the breaking up of rocks. It takes millions of years to form and is made up of a mixture of different things.

4. What is soil erosion and write the main causes of soil erosion?

Ans: Removal of fertile top soil by action of wind and water is called soil erosion.

Cutting down of trees and overgrazing are the main causes of soil erosion.

5. How can we prevent soil erosion?

Ans: We can prevent soil erosion by:-

- i. Planting more trees
- ii. Avoiding overgrazing
- iii. Growing more vegetation
- iv. Different crops should be grown of farmland
- v. Excessive use of chemical fertilizers should be stopped.

C. Write T for true and F for false:

1. Earthworms fertile the soil. (T)
2. Woodlice live in damp places. (T)
3. The breaking of rocks is called soil erosion. (F)
4. Clayey soil is the best for growing plants. (F)
5. Overgrazing destroys the plantation. (T)

D. Match the following:

1. It dries quickly.	a) Loamy - 3
2. It has tiny and fine particles.	b) Woodlice - 4
3. It has a lot of humus.	c) Prevents soil erosion - 5

4. It lives in damp places.	d) Clayey - 2
5. Plantation of more trees.	e) Sandy - 1

Chapter- 7 Looking Around us

A. Tick (✓) Mark the correct answer.

1. This pigment makes the leaves look green.

a) Chloroplast () b) Chromoplast () c) Chlorophyll (✓) d) All of these ()

2. Green leaf can be called the "food factories" because it

a) Makes the food (✓) b) Stores the food () c) Carries the food () d) None of these ()

3. In photosynthesis process, leaves need

a) Carbon dioxide () b) Sunlight () c) Water () d) All of these (✓)

4. Tiny pores on the outer surface of leaves

a) Stomata (✓) b) Veins () c) Lemonade () d) Salk ()

B. Answer these questions:

1. How are plants important for us?

Ans: Plants are important because they produce all the food that animal and human beings eat.

2. Why are most leaves green in colour?

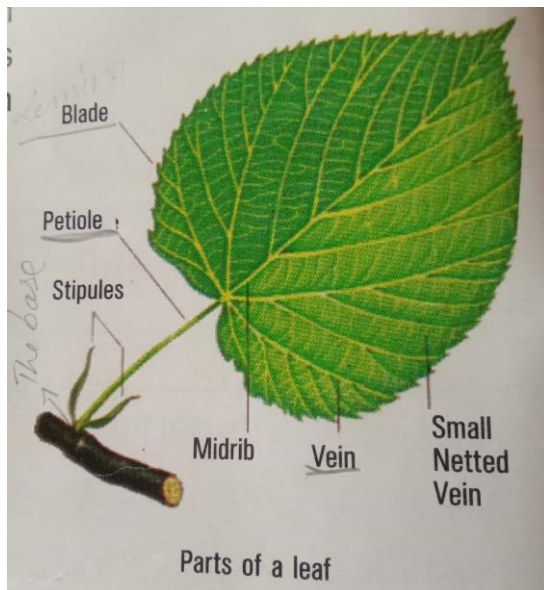
Ans: Most leaves are green in colour due to the presence of a green pigment called chlorophyll.

3. Why are leaves called the food factories of a plant?

Ans: Leaves are called the food factories of a plant because they prepare food for plants.

4. Explain the main parts of a leaf with the help of a diagram.

Ans:



- i. The base: It is the point at which the leaf is joined to the stem.
- ii. Petiole or the stalk: It is the thin section joining the base to the Lemina.
- iii. The Lemina or the leaf blade: It is the broad flat part of the leaf. Food making process occurs in the blade.
- iv. Midrib and veins: Leaf blade has a mid-vein or Midrib. It carry food and water in the leaf
- v. Small netted vein or stomata: The outer surface of the leaf has many tiny pores called the stomata. It enable carbon dioxide to enter the leaf.

5. Write the main functions of a leaf.

Ans: The main functions of a leaf are:-

- i. Green leaves make their own food for the plant.
- ii. Leaf breathes air in and out through stomata.
- iii. Leaf veins supply food and water to every part of the leaf.
- iv. Some leaves are used for food.
- v. Some leaves are used to treat cold and skin diseases.

6. How do plants breathe?

Ans: Plants breathe through a tiny pore called stomata.

7. Explain the process of photosynthesis.

Ans: The food making process in Green leaf is called photosynthesis. In photosynthesis process green leaf make food using the energy of sunlight in the form of starch. Photosynthesis occurs in the presence of sunlight, carbon dioxide and water. In this process, oxygen gas and water are produced. Photosynthesis process can be completed only in the presence of sunlight.

8. How are plants and animals dependent on each other?

Ans: Plants and animals depends on each other in the following ways:-

- i. Plants make their own food using the sun's energy. Animals depend on plants for food.
- ii. Plants produce oxygen which is needed by animals for breathing.
- iii. Animals give out carbon dioxide which is needed by plants for making food.
- iv. Animals help in dispersal of seeds.

C. Give one word for the following:

1. Green pigment in the leaves. Chlorophyll
2. The broad flat part of the leaf. Lemina
3. Food-making process in leaves. Photosynthesis
4. Tiny pores in outer surface of a leaf. Stomata

D. Fill in the blanks with correct words.

1. Leaves are called the food factories of the plant. (Stem/Leaves)
2. A green pigment is called chlorophyll. (Chlorophyll / chloroplast)
3. Veins carry food and water in a leaf. (Stalk / veins)
4. Leaf breathe air in and out through stomata. (Veins / stomata)
5. Neem leaves are used to cure cold. (tulsi / neem)

Chapter 8 Plant Adaptation

A. Tick (✓) mark the correct answer.

1. This plant is exposed to extreme temperature.

a) Lotus () b) Babul (✓) c) Pine () d) Jute ()

2. Prairies can ably survive

a) In desert () b) in winter () c) in temperate grassland (✓) d) on mountain ()

3. Non-green plants take their food from dead things.

a) Dead things (✓) b) soil () c) photosynthesis () d) none of them ()

4. Pitcher is a carnivorous plant.

a) Cactus () b) pitcher (✓) c) lotus () d) pine ()

B. Answer these questions:

1. What do you understand by adaptation in plants?

Ans: Adaptation in plants are special features that allow a plant to live in a particular area or a habitat.

2. How do desert plants survive in very dry area?

Ans: Desert plant survive in very dry area because of their adaptation and habitat. Desert plants store water in their leaf or stem, absorb water from their roots.

3. How do plants in temperate grassland adapt themselves to their habitat?

Ans: Plants in temperate grassland adapt themselves their habitat in the following ways :-

i. Some prairie trees have thick bark to resist fire.

ii. Prairie shrubs readily respond after fire.

iii. Soft stems enable prairie grasses to bend in the wind etc.

4. How do plants roots in mangrove help in adaptation?

Ans: There are three types of mangrove roots that help in adaptation:-

i. Support roots directly pierce the soil.

ii. Level growing roots twist upward and downward, with the upward twist emerging on the water surface.

iii. Breathing roots above the water line channels to breathe.

5. How do submerged plants get water and nutrients?

Ans: Submerged plants get water and nutrients through their leaves directly from water.

6. How do non-green plants get their food?

Ans: Non-green plants get their food from dead things and other living things.

7. What are carnivorous plants? Give two examples of carnivorous plants.

Ans: Carnivorous plants are those plants that extract nutrients by trapping and digesting insects.

Examples: - 1. Pitcher plant. 2. Venus fly trap.

C. Name of the following plants:

1. A plant that absorbs water and nutrients through its leaves. Tap grass

2. Photosynthesis occurs in their green stem. Cactus

3. They get food from decaying or dead things. Non-green plants

4. A carnivorous plants that resembles its leaves in a long tube. Pitcher plant

5. This plant develops breathing roots. Mangrove

D. Give the examples of the following plants:

1. Desert plants Cactus and Babul

2. Aquatic plants Water Lily and Lotus

3. Submerged plants Tap grass and Pond weed

4. Free-floating plants Water Hyacinth and Duckweed

5. Insectivorous plants Pitcher plant and Venus fly trap

6. Non-green plants Yeast and Mushrooms

E. Match the following and write the correct numbers in the boxes.

1. Grows in desert _ (i) 2
2. Traps and digests insects _ (ii) 3
3. Fixed-floating plants _ (iii) 4
4. Non-green plants _ (iv) 1

Chapter 9 **Reproduction of animals**

A. Tick (✓) mark the correct answer.

1. An egg that is covered with hard shell is called egg shell.
a) Yolk () b) egg shell (✓) c) egg-ohite ()
2. All birds reproduce by laying eggs.
a) Giving bird () b) laying eggs (✓) c) none of them ()
3. Young frog is called tadpole.
a) Pupa () b) tadpole (✓) c) larva ()
4. The eggs of fish are jelly like.
a) Jelly (✓) b) wax () c) none of them ()
5. Mammals are warm blooded animals.
a) Warm-blooded (✓) b) cold-blooded () c) white-blooded ()

B. Answer these questions:

1. Define reproduction.

Ans: The process of generating offspring is called reproduction.

2. Differentiate between oviparous and viviparous.

Ans: Those animals which give birth to their babies are called live-bearing or viviparous.

Whereas those animals which lay eggs are called egg laying or oviparous

3. How do birds reproduce?

And: All birds reproduce by laying eggs.

4. Describe the various stages in the life cycle of a butterfly.

And: A butterfly goes through four different life stages.

- a) Egg: A butterfly starts its life as an egg.
- b) Larva: The larva (caterpillar) hatches from an egg and eats leaves or flowers almost constantly.
- c) Pupa: It turns into a pupa. This is the resting stage.
- d) Adult: Finally, a beautiful, flying adult emerges. This adult continues the cycle and reproduces.

5. What are mammals? How do they reproduce?

Ans: Mammals are defined as warm-blooded animals. The females have milk-secreting organs to feed their young ones.

Mammals can reproduce in three ways:-

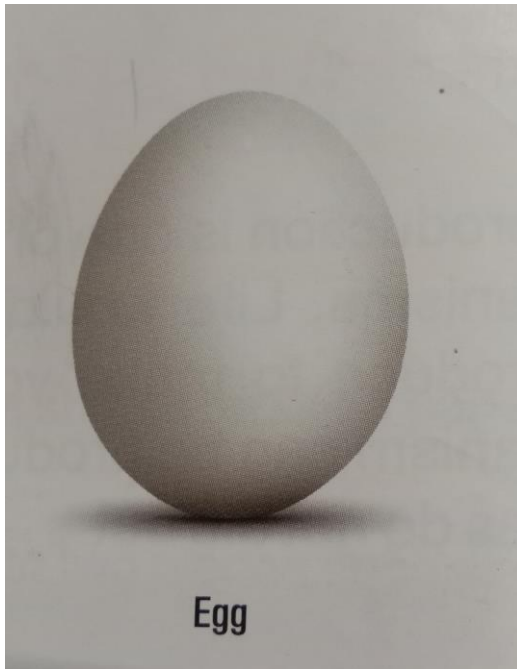
- a) By giving birth to the young.
- b) Others like Marsupials develop and crawl into its mother's pouch within an egg.
- c) Mammals like the duck-billed platypus, hatch from eggs.

6. Write any six characteristics of mammals.

Ans: Six characteristics of mammals are:-

- i. Mammals are warm-blooded animals.
- ii. All female mammals have milk-secreting organs and produce milk.
- iii. Mammals are the most intelligent of all creatures.
- iv. Mammals breathe through diaphragm.
- v. Most mammals give birth to young ones.
- vi. All mammals have a backbone and grow hair at some point of life.

7. Describe the structure of an egg with the help of a diagram.



Ans:

The structure of an egg _

- a) The egg shell: - An egg is covered with a hard shell called the egg shell.
- b) The shell membrane: - The shell membrane is a thin, semi-permeable membrane made up of two layers, the inner and outer.
- c) The yolk: - The yolk makes up 31% of the total egg weight and consists of water, fat and protein as well as vitamins and minerals.
- d) The egg white: - Surrounding the yolk is the egg white, called albumen.
- e) The air pocket: - As it forms the egg stays warm inside the hen. Soon after an egg is laid, it cools, causing an air or pocket to form.

C. Write T for true and F for false.

1. Egg laying animals are called viviparous. (F)
2. Birds are called oviparous. (T)
3. Pupa is the first stage in the life cycle of a butterfly. (F)
4. Camel and polar bears are mammals. (T)
5. The eggs of fish are jelly-like. (T)

D. Match the following:

1. Mammal	a. Hen 3
2. Surrounding the yolk	b. Larva. 4
3. Oviparous	c. Young frogs 5
4. Caterpillar	d. Albumen 2
5. Tadpoles	e. Polar bear 1

**Chapter 10
Adaptation in Animals**

A. Tick (✓) Mark the correct answer.

1. Camel stores their food and water in its hump.

a) Blubber () b) hump (✓) c) hooves () d) none of them ()

2. Musk ox also has two layers of fur.

a) Musk ox (✓) b) giraffe () c) lion () d) camel ()

3. Omnivores like to eat both plants and animals.

a) Omnivores (✓) b) herbivores () c) carnivores () d) scavengers ()

4. Giraffe have a camouflaged coat that helps them to hide themselves from their enemies.

a) Giraffe (✓) b) elephant () c) lizard () d) all of them ()

5. Amphibian leads double lives-one in the water and the other on the land.

a) Aerial () b) amphibian (✓) c) aquatic () d) none of them ()

B. Answer these questions:

1. Define adaptation in animals.

Ans: Adaptation is a way by which animals cope up to their surroundings and maintain their body to survive, or live in their environment.

2. List the adaptations in a camel which help it to survive in the desert.

Ans: Camels have suitable characteristics for surviving in hot environment.

- a) A camel has two rows of long and thick eyelashes to protect itself from the blowing sand.
- b) It's nostrils can be closed to prevent the blowing sand from getting in.
- c) It has a broad and leathery pads that prevent it from sinking in the sand.
- d) It's hump can store fat and water, so it can sustain for a long time without food and water.

3. What do you understand by hibernation?

Ans: Hibernation is a resting state in which some animals pass the winter.

4. A fish is an aquatic animal. How is it adapted to live in the water?

Ans: A fish is adapted to live in water in the following ways:-

- i. It has morphological structure to live in water.
- ii. It has a streamlined body.
- iii. Its head, body and tail are compressed to make it suitable for movement in water.
- iv. It has fins which act as paddles to control it's movement.
- v. It breathes through gills.

5. Why do animals migrate in the winter?

Ans: Animals migrate in winter mainly in search of food, water and shelter.

6. What do you mean by camouflaged?

Ans: Some animals have the capacity to blend with their surroundings which is known as camouflage.

7. How are animals grouped according to their feeding habits?

Ans: On the basis of food habits, animals can be divided into five groups _

- a) Herbivores
- b) Carnivores
- c) Omnivores
- d) Scavengers and
- e) Parasites

8. How do amphibians adapt to live on the land and in the water?

Ans: Amphibians begin their life with gills and live in water. Then they develop lungs as they grow and live on land.

9. Why do aerial animals have light bodies?

Ans: Aerial animals have light bodies because they have hollow bones.

10. Differentiate between herbivore and carnivores.

Ans: Animals that feed only on grass and other plants are called Herbivores.

Whereas animals that feed on flesh of other animals are called carnivores.

C. Give two examples of each of the following:

- 1. Terrestrial Animals ➡ cow, camel
- 2. Aquatic Animals ➡ Seahorse, dolphin
- 3. Amphibious. ➡ Frog, crab
- 4. Herbivores. ➡ cows, goats
- 5. Carnivorous. ➡ □ Lions, Tigers
- 6. Parasites ➡ Tape worm, roundworm
- 7. Aerial Animals ➡ Crow, sparrow
- 8. Animal that migrate ➡ Arctic terns, locust bird
- 9. Arboreal ➡ Bats, monkeys

D. Write one word for

1. A long winter sleep. Hibernation
2. Animals that live on the trees. Arboreal
3. A thick layer of fat in seals, penguins and walrus. Blubber
4. It stores fat and water in camel to sustain for long time without food and water. Hump
5. They eat only meat. Carnivores
6. They live on or inside the bodies of other living animals. Parasites

E. Match the following.

1. Aerial animal	a. Frog 2
2. Amphibian	b. Dolphin 5
3. Arboreal animal	c. Tapeworm 8
4. Terrestrial animal	d. Cow 7
5. Aquatic animal	e. Lemur 1
6. Camouflaging animal	f. Camel 4
7. Herbivore	g. Tree sloth 3
8. Parasite	h. Chameleon 6
