

## L - 2 : ANIMALS AND THEIR VARYING LIFESTYLES

### CHECKPOINT : 1 (Pg. No. 18)

Strike out the wrong word :

1. Amoeba breathes through body surface/~~gills~~.
2. Insects breathe through ~~lungs~~/spiracles.
3. A Paramecium moves with the help of cilia /~~legs~~.
4. Turtles swim with the help of ~~flippers~~/paddles.
5. An emu is a flightless/~~flying~~ bird.

### CHECKPOINT : 2 (Pg. No. 22)

Strike out the wrong feature of the following animals:

1. **Cow** :- Large incisors , Broad molars , ~~Small digestive system~~
2. **Eel** :- Lives in freshwater, Migrates to sea , ~~Lays egg in river bank~~
3. **Frog** :- ~~Eats grass~~, Sticky tongue , Teeth present in upper jaw
4. **Penguin** :- Flippers for swimming , ~~hops on land~~ , short hindlimbs

### BOOK EXERCISE : (Pg. No. 23)

A. Tick (✓) the correct answers:

1. (a) skin
2. (a) scales
3. (a) gnawing

B. Fill in the blanks with the words given in the box.

1. spiracless
2. pangolin
3. proboscis
4. strong

### Short Answer Type Questions :

**Q1. How do insects breathe?**

Ans. Insects breathe through small air holes called spiracles on their body.

**Q2. How do fins of fish help it in swimming?**

Ans. The fins of the fish help it in the following ways:

1. Move forward
2. In maintaining balance
3. Changing direction

**Q3. What are the feeding adaptations in herbivores?**

Ans. 1. Herbivores have large incisors and broad molar teeth to cut, grind and chew the grass and leaves well.  
2. They have long alimentary canal to digest the plant material.

**Q4. How do frogs catch their prey?**

Ans. Frogs have long, sticky tongue folded on the floor of their mouth. The frog flips it at the prey. The prey gets stuck to it and then it is pulled into the mouth.

**Q5. What do you understand by camouflage?**

Ans. Camouflage is an adaptation in some animals by which they can change their body colour according to their surroundings and become unnoticeable to their enemies.

**Q6. How do octopus and cuttlefish protect themselves from their enemies?**

Ans. When the enemies attack on octopus and cuttlefish, they release a cloud of black ink-like substance in the water to confuse their predator meanwhile they get the time to escape.

**Q7. Why do birds migrate?**

Ans. Birds migrate to get plenty of food, water and favourable conditions of temperature and breeding.

**Q8. A cockroach will die if put in water. Why?**

Ans. In water, cockroach stops breathing because all the spiracles on its body will get blocked and no exchange of gases would take place.

**Q9. Why does a fish die when taken out of water?**

Ans. Fish breathes oxygen dissolved in water. Outside water, it cannot breathe and hence dies.

**Long Answer Type Questions :**

**Q1. How are animals classified on the basis of their feeding habits? Explain with example.**

Ans. Animals can be classified into the following categories according to their food habits:

- 1) **Herbivores:** The animals that depend on plants and plants products are called herbivores.  
e.g. – cow, deer, parrot etc.
- 2) **Carnivores:** The animals that depend on the flesh of other animals are called carnivores.  
e.g. – lion, eagle, frog etc.
- 3) **Omnivores:** The animals that eat both plants and flesh of other animals are called omnivores.  
e.g. - bear, crow, hen etc.

**L - 4 : THE NERVOUS SYSTEM**

**CHECKPOINT : 1 (Pg. No. 35)**

Name the following:

1. Cerebrum
2. Reflex action
3. Sensory nerve
4. Motor nerve

**CHECKPOINT : 2 (Pg. No. 38)**

Find the Odd one out:

1. Ear , Eye , **Bone** , Skin
2. External ear , Internal ear , **Pupil** , Middle ear
3. Sweet , sour , Bitter , **Hot**

## BOOK EXERCISE : (Pg. No. 39)

### A. Tick (✓) the correct answers:

- |  |                   |
|--|-------------------|
| 1. (c) similar cells doing same function | 2. (c) bones      |
| 3. (b) tongue                            | 4. (c) cerebellum |

### B. Write True or False.

- |          |         |          |          |
|----------|---------|----------|----------|
| 1. False | 2. True | 3. False | 4. False |
|----------|---------|----------|----------|

### C. Fill in the blanks with the words given in the box.:

- |             |               |                               |
|-------------|---------------|-------------------------------|
| 1. Cerebrum | 2. Cerebellum | 3. cell body, dendrites, axon |
| 4. pupil    | 5. motor      |                               |

## Short Answer Type Questions :

### Q1. Explain the functions of brain.

Ans. Brain is the control centre of our body. It performs following functions:

1. It controls all our involuntary actions such as breathing, heartbeat, digestion, etc.
2. It controls voluntary actions such as walking, running, dancing, etc.
3. It controls our ability to think, learn, feel, etc.
4. It also maintains the balance of the body.

### Q2. What are the main parts of our ear?

Ans. The three main parts of our ear are external ear, middle ear and internal ear.

### Q3. How can you take care of your eyes?

Ans. We can take care of our eyes in the following ways :-

1. We should wash them regularly.
2. We should not rub them with dirty hands.
3. We should not wipe them with dirty handkerchief.
4. We should not read in dim or bright light or in moving vehicle.
5. We should not watch televising for long.

### Q4. We immediately withdraw our hand on touching a hot vessel. Why ?

Ans. On touching a hot vessel, reflex reaction takes place in our body which allows us to withdraw our hand immediately.

### Q5. Why should a hair pin not be used to clean the ears?

Ans. We should not use a hair pin to clean the ears because it may damage the ear drum. It may also lead to infection.

## Long Answer Type Questions :

### Q1. Define nervous system. Name the various parts of nervous system and explain them.

Ans. The system that controls all other systems of our body is known as nervous system. It includes three parts:

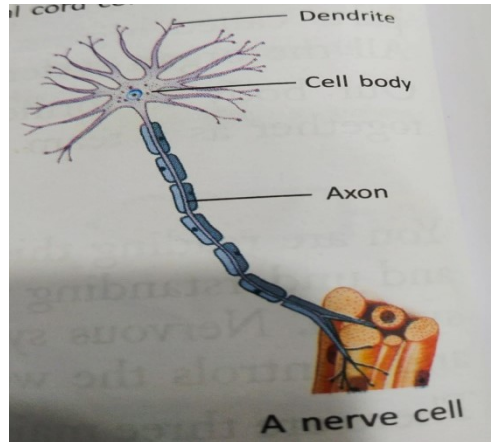
1. **Brain** : The brain is the most important organ of the nervous system. It is present inside the skull. It controls everything we do.
2. **Spinal Cord** : The nerves enclosed in the vertebral column forms the spinal cord. It consists of a bundle of nerves, protected by the backbone.
3. **Nerves** : Nerves carry information from parts of body to brain and back to body.

**Q2. Name three types of nerves and write their functions.**

Ans. Three types of nerves are :

1. **Sensory Nerves** : They carry messages from various parts of the body to brain or spinal cord.
2. **Motor Nerves** : These nerves carry messages away from the brain or spinal cord to the muscles where the action has to be taken.
3. **Connecting Nerves** : These nerves carry both the functions. They carry messages from the brain and bring them back to the brain.

**ACTIVITY : Draw a well labelled diagram of a nerve cell.**



## L – 7 : STAYING SAFE

**CHECKPOINT : 1 (Pg. No. 62)**

Circle the correct word:

1. The seat belt saves us from Jerks /falling while driving.
2. We should throw water/sand to put out fire caused by electricity.
3. To save a fire victim, we should make him run around /roll on the floor.

**CHECKPOINT : 2 (Pg. No. 65)**

Fill in the blanks:

1. baking soda
2. tetanus
3. X-ray

**BOOK EXERCISE : (Pg. No. 66)**

A. Tick (✓) the correct answers:

1. (a) sprain
2. (b) watery eruptions
3. (c) a bone cracks
4. (a) Nylon

B. Fill in the blanks with the words given in the box:

1. accident
2. antiseptic
3. first aid
4. traffic

**C. Give one word for the following.**

1. First Aid

2. Sprain

3. Poison

4. Splint

5. Blisters

**Short Answer Type Questions :**

**Q1. What is an accident? How can accidents be prevented?**

Ans. An accident is a sudden, unexpected and harmful incident. It can be prevented by avoiding carelessness and following safety rules.

**Q2. How will you put out fire caused by petrol?**

Ans. Fire caused by petrol can be put out by throwing sand over it.

**Q3. How should poisonous substances be kept at home?**

Ans. Poisonous substances should be kept out of the reach of children. These should be kept in tightly closed bottles with labels on them.

**Q4. What first aid should be given in case of snake bite?**

Ans. In case of snake bite following first aid should be given:

1. Tie a tight bandage a little above the bitten area.
2. Do not allow the victim to sleep.
3. Take him to the doctor immediately.

**Q5. Sand should be used in case of fire due to petrol. Can you say, why?**

Ans. Sand should be used in case of fire caused by petrol because petrol is lighter than water. If we put water on it, then it floats on water and continues to burn.

**Q6. Why should mobile phones not be used while driving?**

Ans. We should not use mobile phones while driving because it can distract us from driving and lead to an accident.

**Q7. We find a 'No smoking' board at petrol pumps. why?**

Ans. Petrol is a highly inflammable substance. A single drop of petrol can catch fire easily and become hazardous. So 'No smoking' board is found at petrol pumps.

**Long Answer Type Questions :**

**Q1. What first aid should be given in case of sprain and animal bite?**

Ans. Following first aid should be given in case of sprain:

1. Apply an ice pack to the sprained area. This will reduce swelling.
2. Apply any pain relieving ointment.
3. Tie a crepe bandage on the affected area.
4. Give a complete rest to the affected area.
5. Visit to a doctor immediately.

**First aid to be given in case of animal bite:**

1. Wash the wound with soap and water to remove germs.
2. Apply an antiseptic.
3. Tie a bandage to prevent infection.
4. Take the victim to doctor.

## ACTIVITY : Draw and label 3 road safety symbols.



## L – 10 : ROCKS AND MINERALS

### CHECKPOINT : 1 (Pg. No. 87)

Fill in the blanks:

1. Geology
2. crust
3. fire rocks

### CHECKPOINT : 2 (Pg. No. 90)

Answer in one word:

1. Coal
2. Metallic minerals
3. Natural Gas
4. Gemstones

### BOOK EXERCISE : (Pg. No. 90)

A. Tick (✓) the correct answers:

1. (a) Igneous rocks
- 2.(b) volcanoes
3. (c) Emerald
- 4.(d) wood

B. Write True or False

1. False
2. True
3. False
4. True

### Short Answer Type Questions :

Q1. What are igneous rock? How are they formed?

Ans. The rocks formed by solidification of lava are called igneous rocks. These rocks are formed in the following steps :

1. Rocks inside the earth melt due to its heat.
2. Melted material (magma) comes out when volcano erupts.
3. Melted material (lava) reaches earth's surface.
4. This lava cools and solidifies to form igneous rocks.

Examples of igneous rocks are : granite, pumice etc.

**Q2. How are metamorphic rocks formed?**

Ans. The rocks that are formed by changes in igneous and sedimentary rocks due to high heat and pressure are called metamorphic rocks. e.g. marble, slate etc.

**Q3. What are minerals? Give two examples.**

Ans. The elements or compounds found in the earth's crust are called minerals. e.g. gold, silver etc.

**Q4. How was coal formed?**

Ans. Coal was formed by the decomposition of dead remains of plants that lived 400 million years ago and got buried in swamps.(marshy area)

**Q5. Granite is used for making long-lasting buildings and statues. why?**

Ans. Granite is used for making long-lasting buildings and statues because it is hard and does not wear out easily.

**Q6. Why does pumice stone float on water?**

Ans. Pumice stone is porous and has air in the holes. This makes it very light and it floats on water.

**Long Answer Type Questions :**

**Q1. Name the five varieties of sedimentary rocks giving one property of each.**

- Ans. (a) Sandstone: It is formed from grains of quartz and feldspar.  
(b) Limestone : It is formed from calcite.  
(c) Conglomerate: It is made of sand , pebbles , silica and calcium carbonate.  
(d) Gypsum: It is made of sulphate minerals.  
(e) Shale : It is made of clay.

**Q2. Write the difference between metallic and non – metallic minerals.**

Ans.

Metallic	Non- metallic
1) The minerals containing metals are called metallic minerals.	1) The minerals that do not have metals in them are called non-metallic minerals.
2) The minerals from which metals can be preferably extracted are called ores.	2) Non-metallic are in the form of crystals and can be polished to make gemstones.
3) e.g. iron , copper , gold etc.	3) e.g. diamond, emerald, ruby etc.

**L – 11 : SOIL EROSION AND CONSERVATION**

**CHECKPOINT : 1 (Pg. No. 95)**

Fill in the blanks.

1. rocks

2. soil erosion

3. deforestation

## CHECKPOINT : 2 (Pg. No. 97)

Answer in one word.

1. Afforestation
2. Terrace farming
3. Soil conservation
4. Soil pollution

## BOOK EXERCISE : (Pg. No. 97&98)

A. Tick (✓) the correct answers:

1. (a) soil erosion
2. (b) silting
3. (b) infertile

B. Fill in the blanks with the correct words from the box

1. rocks
2. soil erosion
3. vegetation
4. terrace farming
5. pesticides , fertilisers

## Short Answer Type Questions :

**Q1. What do you understand by weathering of rocks??**

Ans. Weathering of rocks is a process of breaking of rocks into fine particles by wind and water.

**Q2. How is soil formed?**

Ans. Soil is formed by weathering of rocks. In this process rocks are broken into fine particles by wind and water.

**Q3. What is soil conservation? Why is it important?**

Ans. Protection of soil against its erosion is called soil conservation. It is important to save the land from losing its fertility.

**Q4. Differentiate between deforestation and afforestation.**

Ans. Cutting down trees on a large scale for human use is called deforestation, whereas growing plants on a large scale to prevent soil erosion is called Afforestation.

**Q5. Solid, non-biodegradable wastes should not be dumped on land. Why?**

Ans. Solid, non-biodegradable wastes should not be dumped on land because they are not decomposed by microorganisms of soil and remain unaffected. They cause soil pollution and make the land barren.

**Q6. Why should cattle not be grazed at the same place regularly?**

Ans. Cattle should not be grazed at the same place regularly because this would make the land loose and bare which causes soil erosion.

## Long Answer Type Questions :

**Q1. What is soil erosion ? Name the main factors causing soil erosion.**

Ans. **Soil Erosion :** The process of removal of fertile topsoil by the action of wind and water is called soil erosion. Factors affecting soil erosion :

1. Heavy rains and floods cause soil to flow along with water.
2. Strong winds and cyclones cause top soil to blow away.
3. Cutting of trees cause soil to loosen and carries the soil along.

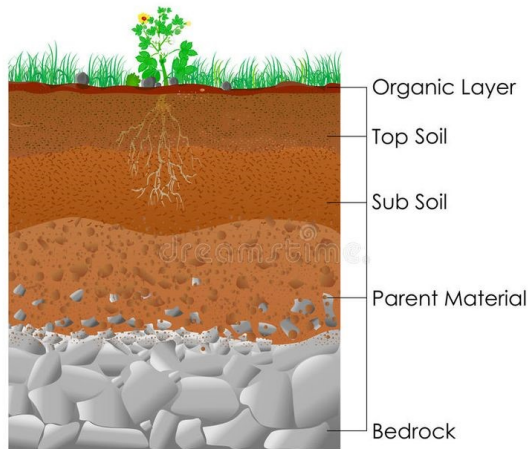


**Q2. What is soil ? Explain different layers of soil.**

Ans. A complex mixture of fine powder obtained by weathering of rocks , organic matter and minerals is known as soil . There are three layers of soil-

- 1) **Top Soil :-** This is the uppermost layer of soil . The colour of this layer is the darkest and it is rich in humus and minerals . Plants get most of the nutrients and water from this layer.
- 2) **Subsoil:-** It is the second layer just below the top soil . It is light in colour and contains little humus.
- 3) **Bed rock :-** It is the lowest layer of the soil. It is non porous, unweathered rocks.

**ACTIVITY : Draw a diagram to show layers of soil.**



**L – 12 : FORCE AND SIMPLE MACHINES**

**CHECKPOINT : (Pg. No. 105)**

Fill in the blanks:

1. force
2. three
3. changing
4. wedge

**BOOK EXERCISE : (Pg. No. 106)**

A. Tick (✓) the correct answers:

1. (b) buoyant force
- 2.(d) hoist the flag
3. (b) wheel and axle
- 4.(a) screw

B. Write TRUE or FALSE

1. False
2. True
3. False
4. True

**Short Answer Type Questions :**

**Q1. Define force, What are the possible effects of force?**

Ans. A force is a pull or push applied on an object. It can bring following changes in an object :

1. Make an object move.
2. Stop a moving object.
3. Change the direction of a moving object.
4. Slow down or speed up a moving object.
5. Change the shape and size of an object.

**Q2. What is an inclined plane? Where and how is it used?**

Ans. A sloping surface that reduces the effort required to lift a load is called an inclined plane. It is used

1. as ramp in hospitals, hotels, airports, etc. to drive the vehicles up.
2. for loading and unloading heavy goods from trucks.

**Q3. What are the major groups of simple machines?**

Ans. Lever, pulley and inclined plane are major groups of simple machines.

**Q4. How are wheel and axle important to us?**

Ans. The wheel and axle arrangement is important as it help us to turn or move something across a surface more easily. eg:- steering wheel in cars, door knob etc.

**Q5. It is easy to lift a bucket of water out of a well with the help of a pulley. Why?**

Ans. It is easy to lift a bucket of water out of a well with the help of a pulley because pulley changes the direction of applied force.

**Q6. Why does a rolling ball stop itself even if no external force is applied on it?**

Ans. The rolling ball stops itself because the force of friction acts between the ball and ground which opposes the motion of ball.

**Q7. How do swimming rings prevent a swimmer from drowning?**

Ans. Swimming rings save from drowning by increasing the buoyant force.

**Long Answer Type Questions :**

**Q1. What is the difference between buoyant force and frictional force?**

Ans.

S. No.	Buoyant force	Frictional force
1	The upward force in water that exerted an object and keeps it to float is called buoyant force.	The force which acts between the two surfaces and opposes the motion of a moving object is called frictional force.
2	Boat sailing on river, iceberg floating on water are examples of buoyant force.	Driving vehicle on a road, rolling a ball on a ground are examples of frictional force.

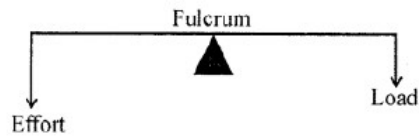
**Q2. What is a lever and explain its types?**

Ans. A lever is a rigid rod which is free to move about a fixed point. In lever, the fixed point is called fulcrum. The force applied is effort and the object to be lifted is load. There are three kinds of lever:

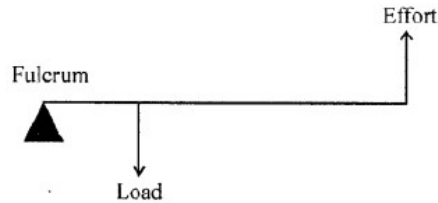
1. **First class lever** : In this type, fulcrum lies between the load and the effort e.g. sea saw, scissors etc.
2. **Second Class Lever** : In this type, the load lies between the fulcrum and the effort. e.g. bottle opener, wheel barrow etc.
3. **Third class lever** : In this type, effort lies in between the fulcrum and the load. e.g. ice tongs, fishing rod.

**ACTIVITY : Draw a diagram to show position of fulcrum in different types of lever.**

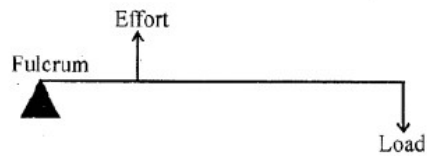
**First class lever**



**Second class lever**



**Third class lever**



## L – 14 : NATURAL DISASTERS

**CHECKPOINT : (Pg. No. 123)**

Write Yes or No:

1. No                      2. Yes                      3. Yes                      4. Yes

**BOOK EXERCISE : (Pg. No. 124)**

**A. Tick (✓) the correct answers:**

1. (b) Richter scale    2.(b) magma    3. (c) Continuous heavy rains  
4. (d) Afforestation and rainwater harvesting

**B. Match the following :**

**Column A**

1. Tsunami
2. Earthquake
3. Floods
4. Drought
5. Volcano

**Column B**

- a) Lava (5)
- b) Deforestation (3)
- c) Absence of rains for a long period (4)
- d) Tidal waves (1)
- e) Shaking of the earth's surface (2)

**Short Answer Type Questions :**

**Q1. What is an earthquake?**

**Ans.** An earthquake is the sudden shaking of ground due to vibrations deep inside the earth. It causes great damage to life and property..

**Q2. What is a volcano? Name some active volcanoes.**

Ans. A volcano is an opening on the earth's surface through which hot and molten rocks, ash and gases erupt from inside the earth. Mount Vesuvius, Mount Etna, Mount Erebus, Mount Fuji and Barren Island are some active volcanoes.

**Q3. What are the causes and effects of tsunami?**

Ans. A tsunami is caused by an under sea earthquake or by a severe hurricane or cyclone. It causes a great loss of life and property in the coastal areas.

**Q4. Define flood. Why are floods caused?**

Ans. Continuous heavy rains for many days making rivers overflowing and submerging nearby areas is called flood. Deforestation and overgrazing are the main causes of floods.

**Q5. What are the harmful effects of a flood?**

Ans. The harmful effects of a flood are as follow :

- 1) It causes loss of human and wildlife.
- 2) The crop fields get submerged under the flood water and causes a huge loss to the farmers.
- 3) It causes many diseases.
- 4) Many aquatic animals are also forced out to die due to the overflowing water of rivers.

**Q6. What do you understand by the term 'drought'?**

Ans. A situation arises due to less or no rain over a long period of time is called drought.

**Q7. How can you say that floods cause soil erosion?**

Ans. Floods wash away the upper fertile layer of soil and causes soil erosion.

**Q8. Growing more and more trees can prevent droughts. How?**

Ans. Trees can prevent droughts because they give out water vapour during transpiration and help in bringing rains.

## Long Answer Type Questions :

**Q1. Explain different types of volcanoes with examples.**

Ans. Based on the nature of eruption , volcanoes can be of three types:-

- 1) **Active volcanoes-** Volcanoes that have erupted in recent years and may erupt again any time are called active volcanoes. Mount Etna, Barren Island are the examples of active volcanoes.
- 2) **Dormat volcanoes-** Volcanoes that have not erupted in recent years but may erupt in the future are called dormat volcanoes. Mount Kilimanjaro and Mound Tanzania are the examples of dormat volcanoes.
- 3) **Extinct volcanoes-** Volcanoes which have stopped erupting permanently are called extinct volcanoes . Mount Slemish and Mount Thielsen are the examples of extinct volcanoes.