

Key to

General

3

Science

REVISED EDITION



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1. Living and Non-living Things

- A. 1. living 2. green plants 3. fins
4. gills 5. reproduce
- B. 1. wings 2. air holes 3. stomata
4. stem cuttings 5. touch-me-not
- C. 1. F 2. T 3. F
4. T 5. T
- D. 1. Living things have life. They need food, water and air to stay alive. Plants, animals and human beings are living things.
The four characteristics of living things are -
a. Living things breathe
b. Living things need food
c. Living things grow
d. Living things move
2. Non-living things have no life. They do not eat, breathe or grow. They cannot move about by themselves.
3. Living things need food because food gives them energy to grow, move and keep healthy.
4. Plants breathe through minute pores in their leaves called stomata.
5. Animals move from one place to another in search of food and shelter.

2. Parts of a Plant

- A. 1. root 2. shoot 3. roots
4. stem 5. leaf
- B. 1. leaf 2. roots 3. chlorophyll
4. seeds 5. radish
- C. 1. stem 2. leaf 3. root
4. fruit 5. fruit 6. root
7. leaf 8. stem 9. fruit
10. stem
- D. 1. tap root 2. fibrous root 3. stomata
4. cotyledons 5. seed coat
- E. 1. The root, stem, leaves, flowers and fruits are the different parts of a plant.

2. A tap root has one big or main root with many branches at its sides. eg. radish, carrot, mango
A fibrous root has many thin and bushy roots growing at the base of the stem. eg. wheat, rice, grass
3. The main functions of the roots are :
 - a. Roots hold the plant firmly in the soil.
 - b. Roots suck water from the soil and send it to upper parts of the plant.
 - c. Roots of some plants store extra food in them.
4. The leaf is called the kitchen of the plant because it prepares food for the plant with the help of carbon dioxide, water, chlorophyll and sunlight. This process of making food by the plant is called photosynthesis.
5. Flowers are important to a plant because it helps plants in the process of reproduction.
6. A seed needs right amount of air, water and warmth to grow into a plant.
- 7.

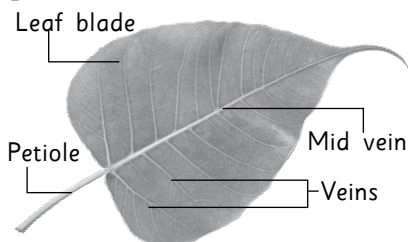
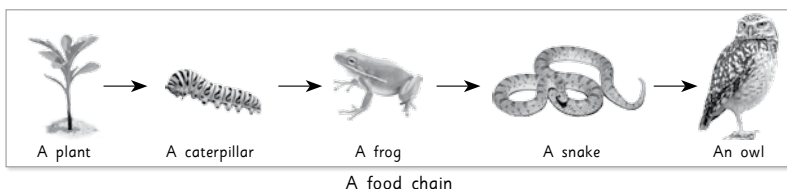


Diagram of leaf

3. Eating Habits of Animals

- | | | |
|---------------------------|---------------|--------------------|
| A. 1. neck | 2. trunk | 3. lap |
| 4. nectar | 5. green | |
| B. 1. herbivores | 2. carnivores | 3. omnivores |
| 4. a long, sticky tongue | | 5. gnawing animals |
| C. 1. meat | 2. leaves | 3. insects |
| 4. leaves | 5. nectar | |
| D. 1. carnivorous animals | | |
| 2. herbivorous animals | | |
| 3. gnawing animals | | |
| 4. omnivorous animals | | |

- E. 1. Animals like cows, buffaloes and goats first swallow the food (grass) without chewing it. After some time, they bring back the swallowed food to their mouth from the pouch of the stomach. Then they again grind the food well and swallow it. This is called cud chewing.
2. Carnivores have sharp, curved teeth for tearing the flesh of the hunted animal.
3. Carnivores birds have curved pointed beaks that help them to tear flesh.
4. A food chain is the sequence of who eats whom.
For example, a plant is eaten by an insect. The insect, in turn, is eaten by a frog which may be eaten up by a snake, the snake is then eaten by an owl. Thus, one becomes food for another creature. This process is called a food chain. All food chains start with a green plant and end with a large flesh-eater. It maintains a balance in nature.



5. We can take care of domestic animals by the following ways :
- give them proper food and shelter.
 - clean them by giving a bath or wash regularly.
 - take them to the veterinary hospital when they fall sick.

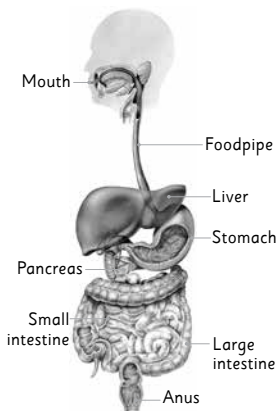
4. All About Birds

- | | | |
|------------------|----------------|------------------|
| A. 1. feathers | 2. flippers | 3. beak |
| 4. wings, tail | 5. flapping | |
| B. 1. woodpecker | 2. duck | 3. down feathers |
| 4. woodpecker | 5. weaver bird | |
| C. 1. owl | 2. sparrow | 3. hoopoe |
| 4. duck | 5. hummingbird | |

- D. 1. mynah 2. hen 3. woodpecker
4. duck 5. egret
- E. 1. Wings help a bird fly.
2. Birds use their beaks for preening, nest building, feeding their young ones and protecting themselves.
3. Birds use their claws to catch their prey for food and to protect themselves from enemies.
4. Birds build nests to lay their eggs in and to keep their young ones safe and warm.
5. There are three types of feathers :
a. flight feathers b. down feathers c. body feathers
a. Flight feathers are found on the wings and tail of the bird. They help the bird fly.
b. Down feathers are soft and short. They keep the body warm.
c. Body feathers cover the whole body of a bird. They give shape to the body.
-

5. The Human Body

- A. 1. saliva 2. windpipe 3. spinal cord
4. heart 5. Kidneys
- B. 1. nervous 2. reproductive 3. circulatory
4. digestive 5. skeletal
- C. 1. tissue 2. skeleton 3. stomach
4. blood 5. anus
- D. 1. Digestion is the process of reducing food into small particles that will be absorbed in the body.



2. Nose, lungs and windpipe are the parts of breathing system.
3. Skeleton system gives shape and support to our body. It protects our inner body parts. We are able to stand and walk due to our skeleton.
4. Our brain tells every other part of the body what to do, all the time. It controls what you think and feel, how you learn and remember and the way you move your body.
5. The blood carries oxygen and food in the form of nutrients to all cells in the body. The cells then produce energy for the body.

6. Safety Rules

- A. 1. terrace 2. zebra crossing 3. moving
 4. arm 5. wet
- B. 1. in the playground 2. run 3. first aid
 4. blow off 5. 
- C. 1. F 2. T 3. T
 4. F 5. T
- D. 1. Our carelessness and not following safety rules are the two main reasons for an accident.
2. The three important rules are :
- a. Always walk on the footpath.
 - b. Cross the road only at the zebra crossing.
 - c. Never play or run on the road.
3. Two rules to be safe at school are -
- a. Do not run up or down the staircase.
 - b. Do no run or play in the classroom. The sharp corners of desks can hurt you badly.
4. First aid is the immediate help given to a victim of an accident before the arrival of a doctor.
5. If I see a fainted student in the school, I will give him first aid immediately and inform the teacher or principal.

7. Housing and Clothing

- A. 1. comfortably 2. drainage 3. happiness
4. movement 5. cotton
- B. 1. T 2. F 3. T
4. F 5. T
- C. 1. The main use of mesh doors and windows in a house is to keep the harmful insects away.
2. We need a proper drainage system in the house to keep away dirty water and other liquid wastes.
3. A house is a place where we live safely and comfortably. That is why we say our house is the source of our happiness.
4. Cleanliness of the house is necessary because it is the most important way to prevent diseases. We pride ourselves for keeping our house clean, it makes us pleasant and comfortable.
5. We need clean clothes to wear because it keeps our body clean. For our good health, it is necessary to keep them clean.

8. Matter – Solids, Liquids and gases

- A. 1. matter 2. Water 3. evaporation
4. condensation 5. interchangeable
- B. 1. three states 2. solid 3. water
4. melting 5. freezing
- C. 1. It changes into water
2. It changes into steam
3. It changes into water
4. It changes into ice
- D. 1. Solids : wood, ice, iron, gold, sugar, nail
2. Liquids : petrol, water, kerosene, milk, diesel
3. Gases : carbon dioxide, oxygen, water vapour, air
- E. 1. Matter is anything that occupies space and has mass. The three states of matter are solid, liquid and gas.
2. The main characteristics of solids are :
Solids always have definite shapes. It occupy space. It can be hard or soft.

3. Properties of liquids are :

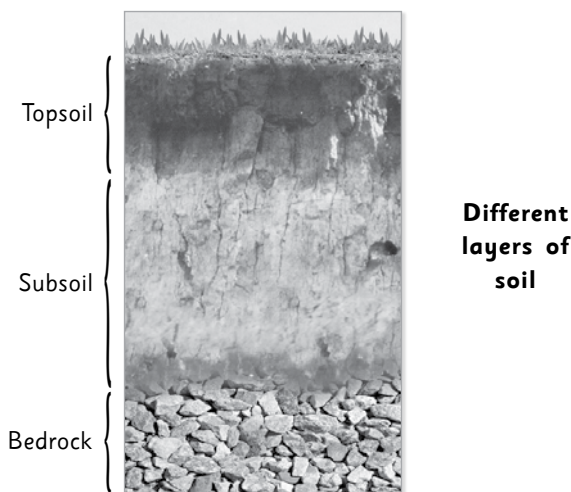
Liquids have no definite shapes. They take the shape of the containers in which they are kept. Liquids can flow.

4. Properties of gases are :

Gases have no definite shape of their own. They take the shape of the containers in which they are kept. Gases can expand to occupy space.

9. Soil

- A. 1. Sandy 2. Loamy 3. humus
4. topsoil 5. soil conservation
- B. 1. loamy soil 2. rocks 3. topsoil
4. soil erosion 5. manure
- C. 1. used to make glass
2. used to make toys, pottery etc.
3. best for plant growth
- D. 1. Sandy soil, clayey soil, loamy soil
2. Topsoil, subsoil, bedrock
3. Insects, worms, snakes, snails and burrowing animals like rats and moles make their homes in the soil.
- E. 1. Soil is the uppermost layer of the earth in which plants grow. Soil serves as a store house for water and minerals needed for the growth of plants.
2. Soil is formed by the breaking of rocks into tiny particles.



3. The different kinds of soil are :

The top layer of soil is soft and dark coloured. It is called the topsoil.

The second layer of soil is light coloured and full of broken rock pieces. It is called the subsoil.

The bottom layer is made of solid rock and is called the bedrock.

4. Put some garden soil in a metal pot. Cover it with a lid. Heat the soil containing pot over a low flame for a few minutes. Then open the lid. You will see droplets of water on the lid. This shows that water is present in the soil.
5. Loamy soil is the best soil for growing plants because it can hold enough water and air for plants.

10. Measurement

- A. 1. Length 2. Weight 3. Capacity
4. Temperature 5. Clinical
- B. 1. metre 2. litres 3. 37°C
4. clinical thermometer 5. length
- C. 1. c 2. d 3. e
4. b 5. a
- D. 1. Length means how long something is. Metre is the standard unit of length.
2. Mass tells us how heavy or light an object is. Gram is the standard unit to measure mass.
3. Capacity enables us to know how much a container can hold. Litre is the standard unit to measure capacity.
4. The temperature tells us how hot or cold something is. Temperature is measured in a unit called degree Celsius (°C) or degree Fahrenheit (°F).
- E. 1. Metre, centimetre and kilometre are the units for measuring length.
2. Hand-span, cubit, foot-span and stride were the methods used for measuring length in earlier days.
3. Gram, milligram and kilogram are the units for measuring mass.

4. Litres and millilitres are the units for measuring capacity of a container.
5. Second, minute and hour are the units of time.
6. Degree Celsius ($^{\circ}\text{C}$) or degree Fahrenheit ($^{\circ}\text{F}$) are the units of temperature.

11. Light and Sound

- A. 1. sun 2. see 3. Sound
4. vibrates 5. opposite
- B. 1. light 2. soft sound 3. pleasant sound
4. noise
- C. 1. If there is no light we cannot see the things.
2. The objects that give out light of their own are called luminous objects. For eg. sun, candle etc.
3. Objects that do not give out light of their own are called non-luminous objects. For eg. table, stone etc.
4. When an object vibrates, it makes sound. Sound from aircraft is an unpleasant sound and chirping of birds is a pleasant sound.
5. Noise is loud, unpleasant and unexpected sound. Too much noise is bad for our health. It makes a person temporarily deaf or permanently hard of hearing.

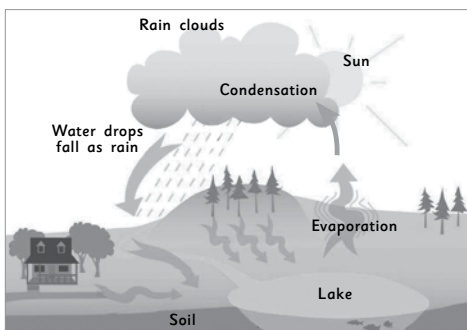
12. Force

- A. 1. force 2. friction 3. move
4. stop
- B. 1. F 2. T 3. T
4. T 5. F
- C. 1. A force is simply a push or pull. For eg. a child pushing a wheel chair, a horse pulling a cart
2. The four things that a force can do are :
* A force can make a thing move.
* A force can make a thing stop moving.
* A force can make a moving thing change direction.
* A force can change the shape of a thing.
3. The force that slows down movement is called friction.

4. The importance of friction is :
- Friction helps us to walk.
 - Friction helps us to grasp or hold things.
 - Friction helps cars to move and stop along roads as and when desired.

13. Air and Water

- A. 1. gases 2. polluted 3. liquid
4. temperature 5. water
- B. 1. oxygen 2. respiration 3. steam
4. water 5. cloud
- C. 1. T 2. T 3. F
4. T 5. F
- D. 1. The three main gases that air contains are nitrogen, oxygen and carbon dioxide.
2. When air contains smoke, dust and some poisonous gases then air is polluted. Polluted air can cause harmful diseases. It is bad for health.
3. We use water for various purposes like cooking, cleaning, bathing, washing, watering plants, putting out fire etc.
4. Water exist in three forms - solid, liquid and gas.
5. Heat of the sun changes the water of ponds, lakes, rivers and oceans into water vapour. The vapour rises up in the air, cools and changes into water drops. These drops collect together and take the shape of clouds. The clouds become heavy and big. Now these water drops fall down in the form of rain, hail and snow. The rainwater again flows back into water bodies such as lakes, rivers, seas etc. The process goes on repeating. This process is called the water cycle.



14. Changing Weather

- A. 1. weather 2. warmer 3. overhead
4. seasons 5. Pleasant 6. risky
- B. 1. T 2. F 3. T
4. F 5. T 6. T
- C. 1. The different kinds of weather depends on the sun, wind, clouds and rain.
2. Days are warmer than nights because the sun is overhead and its rays fall straight.
3. Mornings and evenings are comparatively cooler than noon because the sun's rays are slanting.
4. The hot winds called 'loo' make the weather unpleasant and uncomfortable during summer.
5. Weather influences our day-to-day life a lot. It interferes with almost every activity. It can endanger safety and brings in discomfort. It can stand in the way of fun and entertainment. It may become terrible or pleasant.
- D. 2. cloud 3. stormy 4. rain
5. windy 6. spring 8. sun
1. summer 6. snowy 7. breeze
9. autumn

15. Our Planet Earth

- A. 1. Planet 2. axis 3. 365, 6
4. 24 5. revolution
- B. 1. spherical 2. day and night
3. rotation of the earth
4. revolution of the earth
- C. 1. a planet 2. an imaginary line 3. 24 hours
4. path of the earth 5. 365 days and 6 hours
- D. 1. The earth was formed from Nebula.
2. Ferdinand Magellan, a Portuguese sailor proved first that the earth is round.
3. The axis of the earth is an imaginary line, joining the North Pole and the South Pole. The earth rotates on its axis from west to east.

The earth spins on its axis and at the same time it also moves around the sun on its path called orbit. This movement is called revolution.

4. The spinning movement of the earth on its axis is called rotation. The rotation of the earth causes day and night. The movement of the earth around the sun on a fixed path is called revolution. The revolution of the earth causes different seasons in a year.
5. This spinning movement of the earth causes day and night.

16. The Sun and Other Stars

- | | | |
|---------------|-------------------|-----------|
| A. 1. sun | 2. planets | 3. orbit |
| 4. earth | 5. constellations | |
| B. 1. centre | 2. no light | 3. eight |
| 4. Dhruv Tara | 5. constellation | |
| C. 1. T | 2. F | 3. T |
| 4. T | 5. T | |
| D. 1. MERCURY | 2. VENUS | 3. EARTH |
| 4. MARS | 5. JUPITER | 6. SATURN |
| 7. URANUS | 8. NEPTUNE | |
- E. 1. Neptune planet is the farthest from the sun.
2. The sun looks smaller than the earth because it is very far away from the earth.
3. Planets are the bodies that revolve around the sun. They do not have light of their own. They reflect the light of the sun that falls on them. Mercury is the nearest planet to the sun.
4. There are a large number of stars in the sky. We can see them at night only. That is why stars appear like tiny lamps.
5. Some stars are seen in groups which form patterns or shapes. These groups are called constellations. The Great Bear and Orion the hunter are two constellations.
6. On a clear, dark night, our eyes can see about 6000 stars in the sky.

17. The Moon and Its Phases

- A. 1. 3,84,000 2. natural 3. sun
4. waning 5. waxing
- B. 1. smaller 2. once 3. earth
4. 16 5. huge holes
- C. 1. When the moon is fully lighted, we call it full moon.
2. The different sizes of the lighted part of the moon are called phases of the moon.
3. Decreasing of the lighted part of the moon is called waning and increasing of the lighted part of the moon is called waxing.
4. The huge holes on the surface of the moon are called craters.
5. The moon has no light of its own. It gets light from the sun but it seems bright. It reflects this light back in the sky. Thus the moon shines with sunlight.
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Model Test Paper - I

- A. 1. water 2. flippers 3. drainage
4. stomata 5. water
- B. 1. gills 2. herbivores 3. heart
4. leaf 5. tailorbird
- C. 1. c 2. d 3. e
4. b 5. a
- D. 1. F 2. T 3. F
4. T 5. T
- E. 1. Photosynthesis 2. Trunk 3. Bird
4. Bones 5. Solid
- F. 1. cow 2. carrot 3. parrot
4. crow 5. crane 6. The Great Bear
- G. 1. Animals move from one place to another in search of food and shelter.
2. A tap root has one big or main root with many branches at its sides.
3. Animals like cows, buffaloes and goats first swallow the food (grass) without chewing it. After some time, they bring

back the swallowed food to their mouth from the pouch of the stomach. Then they again grind the food well and swallow it. This is called cud chewing.

4. Feathers are the body covering of a bird. Their three kinds are :
a. flight feathers b. down feathers c. body feathers
5. Our brain tells every other part of the body what to do, all the time. It controls what you think and feel, how you learn and remember and the way you move your body.

Model Test Paper - II

- | | | |
|-------------------|-------------|-----------|
| A. 1. Humus | 2. force | 3. axis |
| 4. constellations | 5. warmer | |
| B. 1. 37°C | 2. earth | 3. rocks |
| 4. soft sound | 5. water | |
| C. 1. d | 2. c | 3. e |
| 4. b | 5. a | |
| D. 1. F | 2. T | 3. T |
| 4. F | 5. T | |
| E. 1. Metre | 2. Friction | 3. Oxygen |
| 4. Globe | 5. Craters | |
- F. 1. Loamy soil is the best soil for growing plants because it can hold enough water and air for plants.
2. Noise is loud, unpleasant and unexpected sound. Too much noise is bad for our health. It makes a person temporarily deaf or permanently hard of hearing.
3. The four things a force can do are :
* A force can make a thing move.
* A force can make a thing stop moving.
* A force can make a moving thing change direction.
* A force can change the shape of a thing.
4. The different kinds of weather depends on the sun, wind, clouds and rain.
5. The different sizes of the lighted part of the moon are called phases of the moon.

