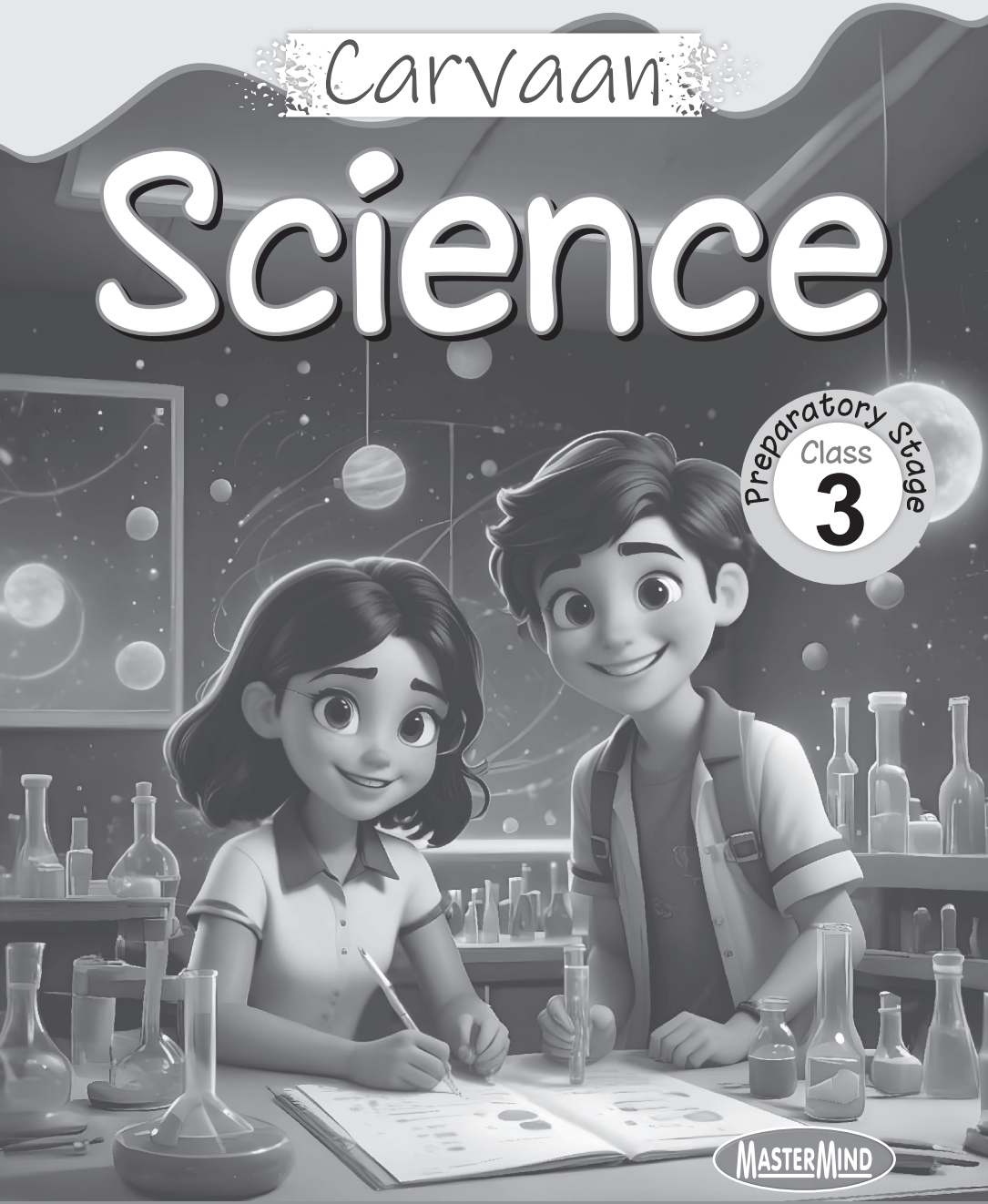
Teacher's Manual

Carvaan

Science



Carvaan Science-3

Chapter 1 : Living and Non-Living Things

A. 1. (c) 2. (a) 3. (c) 4. (b) 5. (a)

B. 1. energy 2. food 3. larva 4. sensitive 5. stomata 6. food, water and air

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

D. 1. (ii) 2. (i) 3. (iv) 4. (iii)

E. 1. All living things need air, food and water to stay alive. Non-living things do not have life and they do not need air, food and water.

2. All living things need food to grow and survive.
3. Nose helps us in breathing.
4. Living things breathe, grow and reproduce.
5. A dog hangs out its tongue, when it feels hot.

Chapter 2 : Plants Around Us

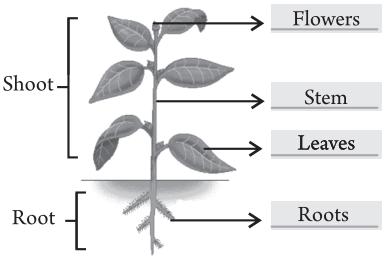
A. 1. (b) 2. (b) 3. (a) 4. (c) 5. (b)

B. 1. shoot 2. tree 3. flower 4. warmth

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

D. 1. roots 2. stem 3. leaves 4. flower 5. seed

E. 1.



(i) Roots fix the plant to the soil.

(ii) Plants need water and minerals from the soil. Roots take these and supply them up to the stem and leaves.

(iii) Some roots store food prepared by the plant, we eat roots of such plants like carrot, radish, turnip, etc.

2. Leaf is called the kitchen of the plant because it prepares food for plant.
3. A green leaf makes food for the plant with the help of air, water and sunlight. This process is called photosynthesis.
4. **Fibrous roots :** A number of small roots growing from the end of the stem

are called fibrous roots.

Tap roots : The single main root that grows from the end of the stem of a plant is called tap root.

5. **Functions of fruit :**
   (i) A fruit protects the seed.
   (ii) Fruits of most plants are edible.

   Functions of flower :
   (i) It turns into fruit in most of the plants.
   (ii) It makes the plant look pretty and attractive.
6. When seeds begin to grow, it is called germination.

Chapter 3 : Animals Around Us

A. 1. (c) 2. (c) 3. (c) 4. (c)

B. 1. Plants 2. respond 3. skin, lungs 4. glide, swim, run

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

D. 1. (iii) 2. (iv) 3. (ii) 4. (i)

E. 1. The movement of animals in search of food and shelter is called locomotion.
2. Animals move from one place to another in search of food and protection.
3. Plants are unique because they prepare their own food.
4. (i) Through lungs (ii) Through gills (iii) Through skin.

Chapter 4 : All About Birds

A. 1. (c) 2. (a) 3. (c) 4. (a) 5. (b)

B. 1. Wading 2. chisel shaped 3. trunk 4. weaver 5. Penguin

C. 1. (ii) 2. (iii) 3. (i) 4. (v) 5. (iv)

D. 1. Eagle, Vulture 2. Sparrow, Pigeon 3. Crane, Heron 4. Duck, Geese

E. 1. F 2. T 3. T 4. F

F. 1. All the birds do not eat the same kind of food. So different birds have different kinds of beaks depending upon the food they eat.
2. A bird flaps its wings in an upward direction to fly. This stroke is called an upstroke.
3. Claws help in catching, holding and eating food.
4. Birds of prey like eagle, vulture have very sharp claws called talons.
5. Birds make nest to lay eggs.

Chapter 5 : Human Body : The living Machine

A. 1. (b) 2. (b) 3. (a) 4. (b) 5. (c)

B. 1. tissue 2. skeleton 3. bones 4. heart

C. 1. (v) 2. (iv) 3. (iii) 4. (ii) 5. (i)

D. 1. Cells join together to form tissues and tissues join together to form

organs. Organs help us carry out our everyday activities.

2. The skeletal system gives shape and protection to the body.
3. Muscles are attached to the bones which help them move. Muscles along with the bones help us in performing various activities.
4. The process of changing food material into simple form is called digestion.
5. The occipital lobe, in the rear of the brain, processes light and other visual information from the eyes, and allows us to know what we are seeing.

Let's Have Fun :

Chapter 6 : Food and Feeding Habits of Animals

A. 1. (c) 2. (b) 3. (a) 4. (b)

B. 1. snake 2. long 3. plants 4. blood

C. 1. (iii) 2. (v) 3. (iv) 4. (ii) 5. (i)

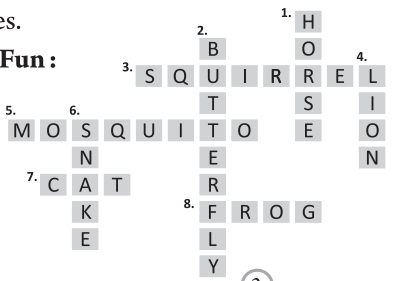
D. 1. F 2. T 3. T 4. F

E. 1. Ruminant 2. Omnivores 3. Carnivores 4. Food chain

F. 1. Animals need food to grow and stay alive.

2. Carnivores eat the flesh of other animals.
3. Scavengers are animals that live on dead and decaying food.
4. Frogs swallow their food whole. They have long and sticky tongue. They use their tongue to catch their prey. It sticks out its tongue and captures the insect. Then it rolls the tongue back into the mouth.
5. Flesh-eating animals have sharp biting teeth to tear and chew the meat and bones.

Let's Have Fun :



Chapter 7 : Housing and Clothing

A. 1. (a) 2. (a) 3. (a) 4. (b) 5. (b)

B. 1. towns, cities 2. nomads 3. boats 4. houseboat

C. 1. (v) 2. (vi) 3. (i) 4. (ii) 5. (iii) 6. (vii) 7. (iv)

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

E. 1. We need a house to live safely. Our house protects us from heat, cold, rain, storms, thieves and wild animals.

2. (i) Permanent houses are made of bricks, cement, iron, steel and concrete. They are very strong and cannot be shifted from one place to another.

(ii) Temporary houses are made of wood, mud, straw, grass, bamboo and thatch or sticks. They are neither strong nor long-lasting.

3. House in places where it rain a lot, houses are made on poles called stilt. It is made on long pieces of wood or metal. Water cannot enter or wash away these houses as they are high above the ground.

4. (i) Water should not be allowed to collect on the floors of the kitchen and bathroom.

(ii) Garbage should not be thrown outside the house.

(iii) A good house should have a proper drainage system to carry away the dirty water.

(iv) We should have a fixed place for keeping things.

5. Clothes protect us from changing weather conditions, natural elements and insects.

Chapter 8 : Safety

A. 1. (a) 2. (c) 3. (a)

B. 1. wet 2. moving 3. hurt 4. helmet

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

D. 1. (vi) 2. (v) 3. (iv) 4. (ii) 5. (i) 6. (iii)

E. 1. We must follow safety rules to avoid accidents.

2. The first help given to an injured person is called first aid.

3. (i) Do not panic, stay calm.

(ii) Avoid crowding around an injured person.

(iii) Call for help or for a doctor.

(iv) Tie the handkerchief or a cloth on the bleeding part.

4. We should walk on the footpath.

F. 1. should not 2. should 3. should 4. should not 5. should

A. 1. (a) 2. (c) 3. (c) 4. (c) 5. (c)

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

C. 1. wet 2. moving 3. hurt 4. wound

D. 1. Nose helps us in breathing.

2. Functions of fruit :
   (i) A fruit protects the seed.
   (ii) Fruits of most plants are edible.
   Functions of flower :
   (i) It turns into fruit in most of the plants.
   (ii) It makes the plant look pretty and attractive.
3. The movement of animals in search of food and shelter is called locomotion.
4. Flight feathers, body feathers and down feathers.
5. The process of changing food material into simple form is called digestion.

E. 1. Eagle, Vulture 2. Sparrow, Pigeon 3. Crane, Heron 4. Duck, Geese

Chapter 9 : Rocks and Soil

A. 1. (c) 2. (a) 3. (a) 4. (b)

B. 1. plants, animals 2. Earthworms 3. sandy 4. Crust

C. 1. T 2. F 3. F 4. F

D. 1. (iv) 2. (v) 3. (iii) 4. (ii) 5. (i)

E. 1. Loam is a mixture of sand and clay and organic matter like dead plants and animals.
2. Clay is the smallest fine particle of soil.
3. When plants and animals die, they decompose or break down and get mixed with the soil forming humus.
4. The innermost part of the Earth is called the core.
5. Hibernation is when an animal slows its heart rate to save energy and survive the winter without eating much.

F. 1. Without soil there would be no crops for food, no flowers and no forests. We could say that life on the Earth depends on soil.
2. Soil contains many other things like pieces of broken rocks, minerals, decaying plants and animals, water and air.
3. There are three types of soil :
   (i) Sandy soil (ii) Loamy soil (iii) clayey soil
4. Clay soil has the smallest fine particle of soil. It is smooth when dry and sticky when wet. It can also hold a lot of nutrient, but it does not let much

air and water to pass through but sandy soil has the largest particles of the soil. It is rough in texture. Its water holding capacity is very low so it cannot hold water.

Chapter 10 : Matter Around Us

A. 1. (b) 2. (a) 3. (c) 4. (c) 5. (a)

B. 1. Molecules 2. microscope 3. Liquids 4. Gases

C. 1. T 2. T 3. T 4. F

D. 1. Anything which has mass and occupies space is called matter.

2. Water exists in the farm of ice, snow and frost.

3. (i) Solid has a fixed shape and size.

(ii) Solid cannot flow. Table, chair, pencil, etc. are all solids.

4. Matter is made of very tiny particles called molecules.

E. Liquid, Liquid, Gas, Solid, Gas, Liquid.

Chapter 11 : Measurement

A. 1. (b) 2. (b) 3. (c) 4. (a)

B. 1. inches 2. litres 3. centigrade (°C) 4. Kilogram

C. 1. F 2. T 3. F 4. F

D. 1. The fingers, hand span, cubit, foot, stride, etc. are known as non-standard units of measurement that people were used in olden days.

2. **Cubit :** It is the length from the elbow to the fingertip.

Handspan : It is the maximum distance between the thumb and the little finger when streched.

Footspan : It is the measurement of an object using a foot.

Arm length : It is the measurement of an object using an arm.

3. In olden times, people relied on their body parts, stones, sticks and tiles for measurement. This would create a confusion as the size of the body parts varies from person to person. To avoid this error in measurement, units of fixed sizes are used.

4. Temperature is the measure of how hot or cold an object is. We measure the temperature using thermometer.

Chapter 12 : Air, Water and Weather

A. 1. (c) 2. (a) 3. (b) 4. (c)

B. 1. wind 2. oxygen, carbon dioxide 3. evaporation, condensation

C. 1. **Evaporation** is the process in which a liquid or solid is converted into vapour.

2. The **water cycle** shows the continuous movement of water within the Earth and atmosphere.

D. 1. The atmosphere is the layer of gases that surrounds Earth.
2. Water exists in three forms, solid as ice, liquid as water and gas as water vapour.
3. Flood affects our life because it cause a lot of damage to crops, buildings and roads.
4. At noon, the Sun is overhead and the rays fall straight. Due to this noon is the hottest part of the day.

Chapter 13 : Light, Sound and Force

A. 1. (c) 2. (c) 3. (c) 4. (b)

B. 1. straight 2. Earth 3. energy

C. 1. (iii) 2. (iv) 3. (ii) 4. (i)

D. 1. soft 2. soft 3. loud 4. loud

E. 1. Four luminous objects are torch, bulb, candle and lamp.
2. The objects which give light are called luminous objects, which do not give light are called non-luminous objects.
3. Force is a push or a pull. We apply force to do a work.
4. A shadow is formed when anything blocks the path of light. It is formed on the opposite side of the light source.
5. Sound is a form of energy that is made by vibrations.

Chapter 14: Our Earth and its Neighbours

A. 1. (b) 2. (c) 3. (b) 4. (b)

B. 1. third 2. poles 3. 24, 365 4. Moon

C. 1. T 2. T 3. T 4. T

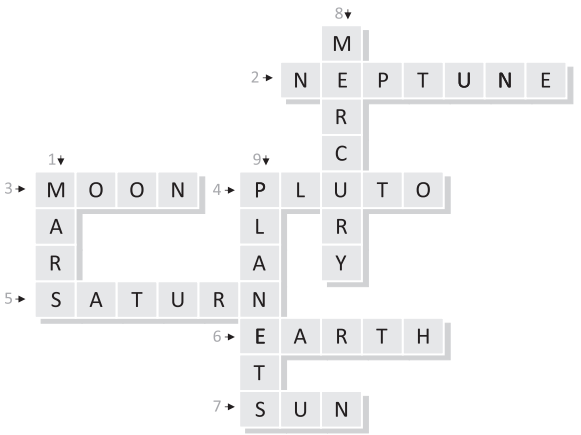
D. 1. The Earth appears flat to us because what we see is only a tiny part of a very big area.
2. The Sun and the eight planets that move around the Sun form our solar system.
3. A planet is a heavenly body that revolves around the Sun. It has no light of its own. It reflects the Sun's light that falls on it and thus appears to shine.
4. The rotation of the Earth causes day and night.
5. Some stars group together to form constellations.
6. Ursa major (The great bear), Scorpius (Scorpion), and Orion (Hunter).
7. Ferdinand Magellan and his fellow sailors discovered that Earth is round.

E. 1. The movement of the Earth around the Sun in its orbit is called revolution. It takes about 365 days. This make a year. Revolution of the Earth is responsible for changes in the seasons.

2. It was later proved that the Earth is round in shape. Ferdinand Magellan and his fellow sailors discovered that Earth is round. They started their journey from a particular place in the same direction and landed up at the same place.

3. The movement of the Earth on its axis is called rotation. The rotation of the Earth causes day and night.

Let's Have Fun :



Model Test Paper - 2

A. 1. (b) 2. (a) 3. (b) 4. (c) 5. (c)

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

C. 1. straight 2. Earth 3. energy 4. up, down 5. pull

D. 1. Many materials are obtained from soil. Soil is useful for crops, flowers and forests. Cement, bricks and iron come from the soil. Soil is also used to make containers like pots and vases. Some soils have medicinal value and are used to relieve pain and also for some beauty treatments.

2. (i) Solid has a fixed shape and size.

(ii) Solid cannot flow. Table, chair, pencil, etc. are all solids.

3. In earlier times, people took the help of natural events to measure time because they occur at regular intervals.

4. The objects which give light are called luminous objects, which do not

give light are called non-luminous objects.

E. 1. **Evaporation** is the process in which a liquid or solid is converted into vapour.

2. Water vapour on cooling changes into water. This process is called **condensation**.

3. When ice is heated it changes into liquid water. This is called **melting**.

4. The **water cycle** shows the continuous movement of water within the Earth and atmosphere.

5. Water on cooling changes into ice. This process is called **freezing**.