EXPLORER SCIENCE Class-3 ANSWER KEY

EXPLORER BOOK-3

CHAPTER-1

Living and Non-Living Things

LEAD QUESTIONS (Pg-5)

1. plant

2. yes

WORK CORNER (Pg-7)

1. air holes

2. tree

3. feel

HOCS (Pg-8)

Dyes and gums are used to make things colorful or to help them stick together. We can get them from different places:

Dyes:

Plant-based dyes: We can get some colors from plants like indigo, turmeric, and madder.

Animal-based dyes: We can get some colors from animals like snails, which make a purple dye.

Gums:

Tree sap: Some trees produce a sticky sap that we can collect and use as gum. Examples include acacia and cherry trees.

Seeds: Some seeds, like flax seeds, produce a substance called mucilage which can also be used as a gum.

WORK CORNER (Pg-8)

Feature	Plants	Animals
Movement	Plants do not move but show some movements in their parts.	Animals can move from one place to another.

Eating	Plants use sunlight, air and water to make their own food.	Animals depend on plants or other animals for food.
Reproduction	They produce new plants from various parts such as seeds, stem, leaves and roots.	Some animals give birth to babies and some lay eggs.
Breathing	They have small pores on their leaves which help them breathe.	They have different breathing organs such as frogs can breathe through their skins and lungs etc.

EXERCISES

A. Tick (\checkmark) the correct option.

1. (c) 2. (b)

3. (c)

4. (a)

Write one word for each of the following. B.

Wings

2. Reproduction

3. Fins 4. Stomata

5. Air holes

6. Plants

7. Sense organs

Skin

Short answer type questions.

- 1. Living things move from one place to another in search of food and shelter.
- Plants need sunlight, air and water to make their own food.
- 3. Cockroaches and butterflies have antennae which help them to feel the changes around them.

- 4. We feel the changes around us with the help of our sense organs such as eyes, nose, tongue, skin and ears.
- 5. The process by which living things produce more of their own kind is known reproduction.

Long-answer type questions: D.

- 1. Camels move with their legs. Birds move with their wings. Fish move with their fins.
- Grasshoppers and butterflies breathe through their air holes.
- Living things need food to live and grow. Food gives us energy to work.
- Human beings and some animals like cows, dogs and cats give birth to babies.
- Animals give out waste such as urine and sweat.

CHAPTER-2

The World of Plants

LEAD QUESTIONS (Pg-12)

1. climber 2. oxygen

WORK CORNER (Pg-12)

1. T 2. H 3. S

4. Cr

5. C1

WORK CORNER (Pg-13)

Tick (\checkmark) the correct answer.

1. tap roots

2. fibrous roots

HOCS (Pg-14)

Why are leaves green in colour?

Leaves are green because of the presence of green colour pigments called chlorophyll.

EXERCISES

- A. Tick (\checkmark) the correct option.
 - 1. (c)
- 2. (b)
- 3. (a)

4. (c)

- 5. (b)
- B. Write 'T' for a true statement and 'F' for a false one.
 - 1. F

- 2. F
- 3. F

4. T

- 5 T
- 6. F
- C. Give three examples of each.
 - 1. Carrot, Radish, Turnip
 - 2. Celery, Sugercane, Potato
 - 3. Apple, Pear, Orange
 - 4. Spinach, Cabbage, Mint
 - 5. Wheat, Rice, Maize
- **D.** Short-answer type questions.
- 1. Plants are of many kinds.
 - a. Tree

b. Herb

c. Shrub

d. Climber

- e. Creeper
- 2. Taproots and fibrous roots are the two types of roots.

- 3. Stomata helps in transpiration of water.
- 4. Flowers give rise to fruits.
- 5. A seed can grow into a new plant if it reaches the soil and gets enough water and warmth.

E. Long-answer type questions:

1. Roots are parts of a plant that grow under the ground.

Functions:

- a. Roots hold the plant firmly to the ground.
- b. Roots take in water and nourishment from the soil.
- 2. The part of the plant that grows above the ground is called the stem.

Functions:

- a. The stem carries water sucked by the roots to the rest of the plant.
- b. The stem bears branches, leaves, flowers, and fruits.
- c. The stem carries food made by leaves to all the other parts.
- 3. Every plant has leaves of particular shapes and colours. Most leaves have a flat and broad surface called the leaf blade. A number of every fine tubes run through the leaf. These are called leaf veins. The central vein is called the midrib. The leaf veins are actually fine tubes, which carry water and food materials.
- 4. In the presence of sunlight, leaves take in carbon dioxide from the air and make food for the plant. During this process, leaves give out oxygen gas. Leaves of some plant store food.

5. Importance of plants:

- a. Plants provide food and shelter to animals.
- b. Trees give shade and keep us cool.
- c. Plants clean the air we breathe.
- d. Plants help increase rainfall.
- e. Plants protect the soil.

Activity based Learning-NEP 2020

- A. Peepal, Tulsi, Banyan, Bael
- B. From 1st July to 7th July

Chapter-3

Feeding Habits of Animals

LEAD QUESTIONS (Pg-20)

- 1. herbivore
- 2. flat

WORK CORNER (Pg-21)

1. (c)

2. (b)

HOCS (Pg-21)

Lizards and frogs do not have teeth. How do they catch insects?

Lizards and frogs have special tongues to catch insects. Lizards use their sticky tongues to snatch insects, while frogs shoot out their long tongues to grab insects. They don't need teeth to catch and eat insects.

WORK CORNER (Pg-20)

Tick (\checkmark) the correct answer.

- 1. (a)
- 2. (a)
- 3. (a)

EXERCISES

A. Tick (\checkmark) the correct option.

- 1. (b)
- 2. (c)
- 3. (a)

B. Write 'T' for a true statement and 'F' for a false statement.

- 1. F
- 2. T
- 3. T
- 4. T

C. Short-answer type questions.

- 1. Animals need food to grow, work and stay healthy.
- 2. There are three types of animals.
 - a. Herbivores b. Carnivores
 - c. Omnivores
- 3. Snakes open their expanding jaws wide to swallow their prey.
- 4. Butterfly uses the tubes to suck nectar from flowers.

D. Long-answer type questions.

1. Chewing the cud is different from gnawing because chewing the cud is a process that some animals, like cows and sheep, do to digest their food properly. This helps them break down the tough plant material they eat. On the other hand, gnawing is when animals, like rodents, chew on objects or materials, usually to wear down their teeth or to get food.

- 2. Carnivores such as lions, tigers and wolves have special teeth to tear and chew the flesh of other animals. Their front teeth are sharp and pointed. These teeth help them to tear the flesh. Their back teeth are flat and broad. These teeth help them to chew.
- 3. Some animals like cat and dog lap up milk and water with their tongues. This method of taking in liquid is called lapping.
- 4. A frog catches its prey by using its long, sticky tongue. When a frog spots an insect or small prey nearby, it quickly extends its tongue out of its mouth and sticks it to the prey. The sticky surface of the tongue helps the frog grab and hold onto the prey. Then, the frog rapidly retracts its tongue back into its mouth, bringing the prey along with it.
- 5. A food chain shows how plants are eaten up by some animals which, in turn, are eaten up by some other animals.

Example:

Grass -> Deer -> Lion

In this food chain, the grass is the producer because it makes its own food through photosynthesis. The deer is the primary consumer because it eats the grass. Finally, the lion is the tertiary consumer because it eats the deer.

E. Encircle the odd one out.

- 1. cow
- 2. lion
- 3. crow

Activity based Learning- NEP 2020

Write 'H' for herbivores, 'C' for carnivores or 'O' for omnivores in the box given against each picture.

- 1. Fox-O
- 2. Crocodile-C
- 3. Cow-H
- 4. Giraffe-H
- 5. Elephant–H 6. Bear–O
- 7 Crow-O
- 8. Lion C

TEST YOURSELF

- A. Sohan has written a letter to his friend describing his pet Browny. Complete the letter by choosing the correct words from the box. Answer the questions that follow.
 - a. grown
- b. eating

c. food

- d feels
- e. breathing
- 1. Living thing 2. Drinking, Walking
- B. Label the parts of the leaf.
 - 1. Blade
- 2. Petiotle
- 3. Midrib
- 4 Vein
- C. Name the kinds of roots given.
 - 1. Tap root
 - 2. Fibrous root
- Give two examples of each of the animals which
 - 1. Squirrel, rabbit
 - 2. Cat, dog
 - 3. Lion, wolf

4. Mosquito, leech

Chapter-4

The Human Body

LEAD QUESTIONS (Pg-27)

- 1. eyes
- 2. brain

WORK CORNER (Pg-28)

- 1. a tissue
- 2. organ
- 3. respiratory system
- 4. 206

WORK CORNER (Pg-29)

- digestion
- 2. 600
- 3. Muscles

EXERCISES

- A. Tick (\checkmark) the correct option.
- 1. (b) 2. (b) 3. (a)
- 4. (a)

- 5. (a) 6. (b)
- 7. (c)

Name the correct organ system.

- 1. Digestive system
- 2. Nervous system
- 3. Reproductive system
- 4. Circulatory system
- 5. Respiratory system
- 6. Skeletal system
- 7. Excretory system

C. Match the following:

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

D. Identify the organs and name the organ systems to which these organs belong.

Brain – Nervous system Stomach – Digestive system Lungs – Respiratory system

Heart – Circulatory system

E. Fill up the blanks.

- 1. Nervous system 2. Organ
- 3. Skeletal system 4. Blood vessels

F. Short-answer type questions.

- 1. The air enters through the nostrils into the nose and moves down the windpipe and goes to the lungs. This process is called inhalation. The air moves out from the lungs into the windpipe and then is let out through the nose. This process is called exhalation.
- 2. The skeletal system gives shape and support to our body.
- 3. The heart, the blood vessels and the blood make up the circulatory system.
- 4. The nervous system controls all the activities of the body.
- 5. The excretory system consists of a pair of kidneys, ureters, the bladder and the urethra.

G. Long-answer type questions.

- 1. Digestion takes place inside our body in the following way:
- a. We take in food through our mouth.
- b. The food passes down the food pipe.

- c. The food gets mixed thoroughly in the stomach.
- d. The nutrients from the food are absorbed by the intestines.
- e. The undigested food is thrown out through the anus.
- 2. The respiratory system helps us breathe. We have lungs that take in air. When we inhale, oxygen goes to our lungs and gets in our blood. Then, our heart pumps the oxygenated blood to our body. When we exhale, we release carbon dioxide.
- 3. Excretory system removes the waste produced in our body. The kidneys make urine which is carried by the ureters to the bladder and passed out through the urethra.
- 4. The process by which living beings produce young ones by which their own kind is known as reproduction. It helps to produce young ones.

Activity based Learning- NEP 2020

Name the given organ systems.

- 1. Circulatory system
- 2. Nervous System
- 3. Muscular System
- 4. Skeletal System

Chapter-5

Birds

LEAD QUESTIONS (Pg-35)

1. penguin

2. No

WORK CORNER (Pg-37)

1. Beak

- 2. Eye
- 3. Body Feathers
- 4. Wings

5. Claws

6. Flight feathers

7. Tail

WORK CORNER (Pg-39)

- 1. F
- 2. F
- 3. T
- 4 T

WORK CORNER (Pg-40)

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

EXERCISES

- A. Tick (\checkmark) the correct option.

 - 1. (c) 2. (b)
- 3. (c) 4. (b)
- B. Give two examples of each.
 - Hummingbird, sunbird
 - 2. Hen, peacock
 - 3. Ostrich, emu
 - 4. Cranes, herons
 - 5. Eagles, vultures

C. Short-answer type questions.

- (a) Birds are beautifully coloured. 1.
 - (b) Birds are the only animals with feathers on their bodies.
 - (c) Birds have wings to fly.
- Beaks help the bird gather the food, drink water, 2. build its nest, kill its prey and feed its young ones.
- 3. Ducks have webbed feet to help them swim, paddle and move easily in water.

4. Birds such as eagles and vultures have strong and sharp claws called talons.

D. Long-answer type questions.

1. Types of feathers are:

Down feathers, Flight feathers, Body – Feathers.

Feathers help them fly, keep them warm and protect their bodies.

Feathers help the bird to cover its body.

- 2. Different types of movements of the wings of a bird while flying are:
 - a. Upstroke: When the wings move upward and backward, the wing movement is called the upstroke.
 - b. Downstroke: When the wings move downward and forward, the wing movement is called the downstroke.
- 3. Woodpecker's beak helps it to poke holes in tree-trunks and pull out insects.
- A weaver bird builds a nest with grass and twigs.
 It pulls the grass in and out with its beak as it weaves the nest.

Chapter-6

Safety First

LEAD QUESTIONS (Pg-44)

1. go

2. yes

EXERCISES

A. Write three safety rules to be followed for each of the following:

- 1. (i) Always walk on the footpath.
 - (ii) Do not play and run on the road.
 - (iii) Never talk on the mobile while walking on the road.
- 2. (i) Do not run or play on stairs and in the corridors.
 - (ii) Walk in a line. Do not push others to get ahead of them.
 - (iii) Be careful not to spill food and water in the classroom.
- 3. (i) Never open the doors to strangers.
 - (ii) Stay away from hot vessels and the gas stoves.
 - (iii) Do not throw toys on the floor as someone may topple over them.
- 4. (i) Do not stand in front of a moving swing.
 - (ii) Do not hit or push anyone while playing.
 - (iii) Learn and follow the rules of the games you play.

B. Write 'T' for a true statement and 'F' for a false one.

- 1. F
- 2. T
- 3. T

4. F

5. T

C. Answer these questions.

- 1. Safety rules must be followed to prevent ourselves from harm.
- 2. We should not play around in class because we might hit something like desks, chairs etc and get hurt.

- 3. The immediate help given to an injured person before taking him to the doctor is called the first aid.
- 4. We might get an electric shock due to that touch.
- 5. We should cross road in the following ways:
 - (i) Stand on footpath or side of road.
 - (ii) We should look to our right.
 - (iii) We should look to our left. Again, look to our right.
 - (iv) We make sure that road is clear. Then, cross the road.

Activity based Learning-NEP 2020

- **A.** 1. Cotton 2. Tablets/medicines
 - 3. Bandage 4. A pair of scissors
 - 5. Band-aid 6. Antiseptic cream
 - 7. Antiseptic lotion
- **B.** 1. Using zebra crossing (\checkmark)
 - 2. Playing on the roaf (x)
 - 3. Carelessly using sharp objects (*)
 - 4. Topple due to toys (*)

PROJECT IDEA

- 1. No Parking 2. No Horn Please
- 3. No Right Turn 4. Pedestrian Crossing

Test Yourself

- A. The given picture is of an organ system. Identify this organ system and label its parts.
 - 1. Mouth 2. Food pipe

	3.	nerves			4	₽.	mouth		
C.	M	atch the	bir	ds wit	h the	ir	claws.		
	1.	(c)	2.	(d)	3	3.	(b)		4. (a)
TE	EST	PAPE	R- I	(FOI	R CE	IA	PTER	S 1	TO 6)
A.	Ti	ck (✓) t	he c	orrect	ansv	ve	ers.		
		(c)							
		(c)							
		Circula	tory	syste	m (Tl	his	s is the	exac	t
		answer	, wh	ich is	not g	iv	en in (o	ption	ns)
В.	Fi	ll up the	bla	nks.					
	1.	Mimos	a						
	2.	Urine a	and s	sweat					
	3.	Fibrou	S						
		Gnawe							
	5.	206, ov	er 6	00					
C.	St	ate 'T' f	or a	true s	statei	ne	ent and	'F'	for a
	fal	lse one.							
	1.	F	2.	T	3	3.	F	4.	F
D.	Aı	nswer th	ese	questi	ons.				
	1.	Living	thin	igs cai	n mo	ve	from o	one j	place to
		anothe	but	non-l	iving	tŀ	nings ca	n't d	lo this.
18									

4. Intestines

2. brain

3. Stomach

This is a Digestive system.

Strike out the name of the organ that

does not belong to each of the given organ

5. Anus

systems.

1. nose

В.

- 2. Taproot and fibrous roots are the two types of root systems.
- 3. Certain organs work together to form an organ system. Examples are, respiratory system, excretory system, etc.
- 4. Down, flight, body are the three types of feathers found in the birds.
- 5. Wash the area with water and wipe it gently with an antiseptic lotion.

Chapter-7

Housing and Clothing

LEAD QUESTIONS (Pg-52)

- 1. pucca house
- 2. nylon

WORK CORNER (Pg-53)

- 1. T 2. F
- 3. T
- 4. F

WORK CORNER (Pg-55)

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

EXERCISES

A. Fill up the blanks.

1. pucca

- 2. dustbins
- 3. Animal fibres
- 4. man-made fibres
- 5. summer

B. Short-answer type questions.

1. We need house to stay protected from heat, cold, rain and dust.

- 2. We need clothes to cover our body. They protect us from heat, cold rain and insect bites.
- Two types of fibres are: Natural fibres and man-made fibres
- 4. The two types of houses are kutcha house and pucca house.

C. Long-answer type questions.

The good features of a good house are:

1. Curtains should be washed once a week.

The floor should be cleaned daily with a germ-killer.

Household wastes should be thrown in dustbins and dustbins should be kept covered.

Things should be kept at their right places.

A house should have doors and windows to let in good amount of sunlight.

A house should have some open spaces like verandah and balconies to let in clean and fresh air.

2. During summer, we wear light coloured cotton clothes.

During winter, we wear woolen clothes.

Raincoats are worn during the rainy season.

Chapter-8

Solids, Liquids and Gases

LEAD QUESTIONS (Pg-58)

1. rubber

2. gases

HOCS (Pg-59)

The smoke of the incense stick had the fragrance. It spread quickly in the room due to, lightness of fragrance than air, air movement and brownian (zig-zag) movement of incense particles.

WORK CORNER (Pg-59)

- 1. shape
- 2. Wood
 - 3. Liquids

- 4. Liquids
- 5. Gas

EXERCISES

- A. Tick the correct option.
 - 1. (c)
- 2. (c)
- 3. (b) 4. (b)
- B. Give two examples each of-
 - 1. Chair, book
 - 2. Water, milk
 - 3. Nitrogen, oxygen

C. Short-answer type questions.

- 1. Solids, liquids and gases
- 2. The process by which a liquid changes into its solid form is called freezing.
- 3. The process by which a solid changes into its liquid form is called melting.
- 4. The process by which a liquid changes into its gaseous form is called evaporation.
- 5. The process by which a gas changes into its liquid form is called condensation.

Long-answer type questions.

1. Milk is a liquid form.

Reasons:

a. Milk can flow.

- b. Milk can take the shape of the container it is poured in.
- 2. By keeping the water in the freezer for cooling, can be changed into its solid form ice.
- 3. Water changes its solid form to liquid by melting and from liquid to gas by evaporation.

Chapter-9

Air, Water and Weather

LEAD QUESTIONS (Pg-64)

1. air 2. summer

Activity based Learning- NEP 2020

Individual response.

WORK CORNER (Pg-65)

1. everywhere 2. gale 3. gases

HOCS (Pg-67)

People studying weather are called meteorologists.

EXERCISES

A. Tick (\checkmark) the correct option.

1. (c)

2. (c) 5. (c)

B. Match the following.

1. (e)

4. (c)

2. (c)

3. (a)

3. (b)

4. (b) 5. (d)

C. Give one word for each of the following.

1. Storm

2. Oxygen

3. Water cycle

4. Monsoon

5. Spring

D. Short-answer type questions.

- Air contains gases like oxygen, nitrogen and carbon dioxide, water vapour, dust particles and germs.
- 2. (a) The heated water changes its form and becomes water vapour. This is called evaporation.
 - (b) The condition of air around us, at a given time and place is called weather.
 - (c) Moving air is called wind.
 - (d) Strong winds usually with rain, thunder or snow cause a storm.
- 3. Changes in weather are caused by the sun, wind, clouds and water vapour present in the air.
- 4. The three main seasons are summer, winter and monsoon.
- 5. Autumn lasts from October to November. Spring occurs during the months of February and March.

E. Long-answer type questions.

1. The water in lakes, ponds, rivers and seas is heated by the Sun. This heated water changes its form and becomes water vapour. This is called evaporation. This water vapour

rises and reaches some height. Water vapour mixes with dust and other things present in the air and gets cooled to form clouds. This is called condensation. The water drops start becoming bigger and heavier. When they become too heavy, they fall down as rain. This rain water goes back into rivers, ponds, lakes and seas from where it is evaporated. This cycle always continues. This is called the water cycle.

- 2. Water vapour mixes with dust and other things present in the air and gets cooled to form clouds. This is called condensation. When they become too heavy, they fall down as rain.
- In India, we have three main seasons: summer, winter and monsoon. Some parts of our country have two more seasons: autumn and spring.

TEST YOURSELF

- Write 'P' for the products made from plant fibres and 'M' for the ones made from animal fibres.
 - 1. P
- 2. P
- 3. M 4. M

- B. 1. Melting
 - 2. Evoporation
 - 3. Freezing

Chapter-10

Measurement

LEAD QUESTIONS (Pg-73)

- 1. 1000 metres
- 2. Kilogram

HOCS (Pg-74)

The measurement will not same as handspan of son will be smaller than the handspand of father

WORK CORNER (Pg-74)

Spring balance, Weighing machine, Physical balance, Beam balance

HOCS (Pg-76)

37º Degree Celsius

EXERCISES

- A. Tick (\checkmark) the correct option.
 - 1. (c)
- 2. (a)
- 3. (a)
- 4. (a)

B. Short-answer type questions.

- The longer part of a figure or article is its length. Its units are metre (m) and centimetre (cm)
- 2. Mass tells us how heavy or light an object is.
- 3. Mass of small objects is measured in grams. Mass of large objects is measured in kilograms. There are different balances and machines to measure mass.
- 4. Measuring vessels, measuring jugs.

- We use a watch or clock to measure time. Seconds, minutes and hours are the units to measure time.
- 6. Handspan, footspan and pace are the nonstandard units of measurement.

C. Long-answer type questions.

- 1. Measurement is a part of our lives, It tells us the exact measure. It is important for understanding the world around us. It helps us solve problems and helps in our progress.
- 2. Capacity is the quantity of a liquid which a vessel can hold. When you buy milk, oil, petrol or kerosene, it is measured in litres (l) or millilitres (ml). Litres and millilitres are commonly used units of capacity. A large amount of liquid is measured in litres (l) and kilolitres (kl) while small amount is measured in millilitres (ml). Capacity is measured by measuring cylinders.
- 3. Handspan, footspan and pace are the body parts that were used in earlier days for measurement. These differ from person to person. The were discontinued because these are non standard units of measurement.
- 4. Temperature is the measure of hotness or coldness of a body. The unit of temperature is degree Centigrade (°C) or degree Fahrenheit (°F). Temperature is measured with the help of a thermometer. The doctor uses the clinical thermometer to measure our body temperature.

Activity based Learning- NEP 2020

- Write the symbols of the given units in the blanks given.
 - (a) m, cm
- (b) kg, gm (c) l, ml

Chapter-11

Soil

LEAD QUESTIONS (Pg-79)

manure

2. air

EXERCISES

- A. Tick (\checkmark) the correct option.
 - 1. (c)
- 2. (c)
- 3. (a)
- 4. (c)

- Fill up the blanks. В.
 - 1 rocks

2 Humus

3. Farmers

- 4. Earthworms
- C. Short-answer type questions.
 - Soil contains pebbles, sand, silt, clay and humus.
 - 2. Sandy, clayey and loamy soils.
 - 3. Earthworms, snails, worms and beetles
- D. Long-answer type questions.
 - 1. Heat from the Sun, fast-flowing rainwater and wind broke some of the rocks into smaller and smaller pieces. This is how after thousands of years pebbles, sand, silt and clay particles were formed. As time went by, plants grew on the Earth and their remains

- mixed with these tiny pieces of rocks. This is how soil was formed
- 2. The soil that has lots of sand is called sandy soil. Sand particles are not very small. The spaces between the sand particles are large enough to let water pass though them easily. Clayey soil has plenty of clay. It is smooth and soft. The clay particles are very small. They are very close to one another.
- 3. Soil helps in the growth of plants. It provides essential nutrients and water to them. Farmers grow crops in the soil. Soil is made fertile by adding manure to it. Plants grow well in fertile soil. Without soil, there would be no plants. If there were no plants, we would not survive. It provides shelter to many animals like earthworms, snails, worms and beetles. It also helps to filter and hold water. It provides a base for making roads and buildings.

PROJECT IDEA

1, 6

Chapter-12

Light, Shadow, Sound and Force

LEAD QUESTIONS (Pg-85)

- 1. Sun
- 2. Sun

WORK CORNER (Pg-86)

- 1. luminous
- 2. straight

HOCS (Pg-86)

When we place a book between a torch and a table, the book will block the light to reach the table and form a shadow.

HOCS (Pg-87)

In earlier days people used sundial to find the time. The sundial consisted of a flat plat or disk with a rod standing upright on it. The rod easted shadow on the disc which changed as the sun moved across the sky.

WORK CORNER (Pg-87)

1. (c)

2. (b)

WORK CORNER (Pg-88)

Elephants: Trumpet or trumpet-like sounds

Sheep: Baa or bleating sounds

Bees: Buzzing sounds

Birds: Chirping, tweeting, or singing sounds

(varies by bird species)

Horses: Neighing or whinnying sounds

Mice: Squeaking sounds

Cows: Moo or lowing sounds

Tiger: Roaring or growling sounds

Tick (\checkmark) the pictures which show pleasant sounds being made and cross (*) the ones which show unpleasant sounds being made.

Loudspeaker — (*)Violin — (\checkmark) bird — (\checkmark)

HOCS (Pg-89)

We should not run on a wet floor because it reduces friction and makes the surface slippery. We might slip and fall if we run on wet surfaces, which can cause accidents and injuries.

EXERCISES

- A. Tick (\checkmark) the correct option.
 - 1. (b)

2. (c)

- B. Write 'T' for a true statement and 'F' for a false one.
 - 1. T

- 2. T
- 3. F

4. T

- 5. F
- C. Give one-word answer.
 - 1. Light
 - 2. Shadow
 - 3. Honking
 - 4. Force
 - 5. Table
- D. Answer these questions.
 - 1. The objects that give out light are called luminous objects. They include bulb, candle, torch, Sun, etc.
 - 2. The objects that do not give out light are called nonluminous objects. They include table, chair, book, pencil, etc.

- 3. Sound is produced due to vibration such as guitar, sitar and our voice box.
- 4. A non-luminous object such as a pear does not allow light to pass through it. The light gets reflected. When this reflected light falls on our eyes, we are able to see the pear.
- 5. We use force to change the shape of a thing. We also use force to stop moving objects or change their directions.
- Conditions of shadow formation.
 Presence of light.
 An object that blocks the light.
 Surface on which the shadow of the object can fall.
- 7. The sound that is loud, harsh and irritating to our ears is called an unpleasant sound or noise. For example, the continuous honking of a vehicle and speakers are the sources of noise.
- 8. A force that slows down the movement of an object is called friction.

E. Match the following.

- 1. (c)
- 2. (d)
- 3. (a)
- 4. (b)

Chapter-13

Our Solar System

LEAD QUESTIONS (Pg-93)

- 1. Eight
- 2. Round
- 3. Moon

WORK CORNER (Pg-96)

1. Sun

2. Rotation

3. 24

4. Revolution

HOCS (Pg - 97)

There is night in the USA when it is day in India because the Earth is round and rotates on its axis. When one part of the Earth is facing the Sun, it is daytime there, and the other part facing away from the Sun experiences night. Since India and the USA are in different parts of the world, they have different time zones and experience daylight and darkness at different times.

EXERCISES

Tick (\checkmark) the correct option.

1. (b)

2. (c) 3. (a) 4. (c)

5. (b) 6. (a) 7. (b) 8. (b)

B. Write 'T' for a true statement and 'F' for a false one.

1. T

2. F

3. F

4 F

5. F

6. F

C. Label the phases of the moons given-

1. Crescent moon

2. Gibbous moon

3. New moon

4. Half moon

5. Full moon

D. Rearrange the letters to get the correct words.

1. REVOLUTION

2. PLANET

3. ROTATION

4. CRATER

E. Name the following:

1. Mercury 2. Jupiter

3. Saturn 4. Uranus

5. Uranus 6. Venus

7. Earth 8. Pole star

9. Mars 10. Telescope

F. Answer these questions:

1. The sun along with the eight planets revolving around it forms the solar system.

- 2. The Earth is round in shape. Many people thought that the earth was a flat planet.
- 3. It takes about 24 hours or one day for the earth to complete one rotation. As the earth rotates, one half of it faces the sun. This half gets the sunlight. It is day in this part. The other half that is not facing the sun is dark. This part has night. As the earth goes on rotating, the sunlit part slowly moves to face the sun and has day. Thus, the rotation of the earth causes days and nights.
- 4. The movement of the earth around the sun in an orbit is called revolution. The earth takes 365 and quarter days or a year to complete one revolution around the sun. Revolution of the earth causes damage in seasons.
- 5. The moon is our closest neighbour. Just as the earth moves around the sun, the moon moves around the earth. The moon has no life on it. The moon's surface has big holes called craters. The different phases of the moon are New Moon, Crescent Moon, Half

- Moon, Gibbous Moon and Full Moon.
- 6. Some stars are arranged in groups and form patterns in the sky which resemble objects and animals on the earth. Such groups of stars are called constellations.
- 7. We can find craters on the moon.
- This is because during daytime, sunlight is brighter than the light of stars.

TEST YOURSELF

- A. Tick the best estimated weight for each of the given pictures.
 - 1. 18g 2. 5g 3. 1g 4. 150 g
- Correct the following sequence of soil В. formation and rewrite in the blank space. 2,3,1,4
- C. Name the pictures given below.

Top row left to right	Bottom row left to right		
• Rotation of Earth on its axis	• Crator		
Revolution of Earth around sun.	Constellation		

TEST PAPER-II

(FOR CHAPTERS 7 TO 13)

- A. Tick (\checkmark) the correct answer-
 - 1. (b) 2. (a) 3. (b) 4. (c)

B. Fill up the blanks.

Household
 hard

3. precious 4. April, June

5. Loamy

C. Write 'T' for a true statement and 'F' for a false one.

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

3. T 4. 1

D. Answer these questions.

- The essential features of a good house are that it should be airy clean and well lit. The houses should have doors, window and veranda and balconies and its drainage system should be coveres be cleaned daily with a germ-killer.
- 2. **Solids** Solids are hard to touch. They have a fixed shape and fixed volume unless we cut, break, pull or push them.

Liquids- Liquids can flow. They do not have a fixed shape. They take the shape of the container into which they are poured. They have a fixed volume.

Gases- Gases do not have a fixed shape, no fixed volume.

3. The water in lakes, ponds, rivers and seas is heated by the Sun. This heated water changes its form and becomes water vapour. This is called evaporation. This water vapour rises and reaches some height. Water vapour mixes with dust and other things present in the air and gets cooled to form clouds.

This is called condensation. The water drops start becoming bigger and heavier. When they become too heavy, they fall down as rain. This rain water goes back into rivers, ponds, lakes and seas from where it is evaporated. The same cycle always continues. This is called the water cycle.

- 4. The sound which is soft, mild and pleasant to our ears is called a pleasant sound. Whispers and music are pleasant sounds. The sound that is loud, harsh and irritating to our ears is called an unpleasant sound or noise. For example, the continuous honking of a vehicle is an unpleasant sound.
- The sun along with the eight planets revolving around it forms the solar system.
 The eight planets are; Mercury, Venus, Mars, Earth, Jupiter, Saturn, Uranus, Neptune