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# Spectrum Science Grade-2 (Solved Exercises)

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# **Introduction to Spectrum Science Series Book 1 to 5**

*Spectrum Science Series* is a completely new approach to textbooks. This series focuses on doing one thing right; imparting necessary education to young learners with no frills.

The main aim of *the Science Series Grade-4* textbook is to provide a real-life hands-on experience to the young learners regarding scientific phenomena around us. For this reason, we have ensured multiple sections within a chapter to help students digest scientific knowledge and concepts, through a step-by-step process, rushing nothing.

Every chapter starts with a warm-up section, which includes the *Think* and *Explores* section. It is followed by the *Know* section, which presents new concepts. In the end, we have an *Exercise* section, which includes the *Activity Time* section to test that which students have learnt.

#### Think

This section rekindles the *existing repository* of *knowledge* and information about young children. Each *Think* activity is aligned with given SLOs, focusing on exercising the mental processing of a child. It aims at directing the students toward the subject of the chapter.

#### Explore

The *Explore* section asks the children to *perform* an activity. The student has to write the results of their exploration. Combined with *Think* activity, the *Explore* section aims at gearing up the young learners towards the content of the chapter.

#### Know

The essence of the unit lies in this section. It is carefully *constructed* to disseminate knowledge that adheres to the SLOs and that caters to the curious young minds of the readers. The structure has been ensured to maintain continuity of topics within a chapter, which leads to fun reading and a better understanding of concepts.

#### Activity

This section comes at the end of the chapters with a focus on *cementing* the knowledge learned by students through *practical* activity. These activities take a cue from the content of the chapter and ask the student to apply it in various ways.

The language of the book has been reviewed and proofed by our language experts, who have painstakingly tried to smooth the edges and maintain continuity within texts.

#### Spectrum Science Teaching Guide Grade-2

*Spectrum Science Teaching Guide* consists of unit-wise worksheets, solved exercises of the book, unit-wise assessment papers, a terminal assessment and lesson plans. It is designed to effectively support the teachers in student-centered teaching strategies, with simple and clear instructions.

The following key features of the lesson plans make teaching easier for teachers:

 $\Rightarrow$  Student Learning Outcomes (SLOs) are carefully planned goals for what students will learn. These also define what students will know and be able to do by the end of the lesson.

 $\Rightarrow$  **Prior Knowledge** connects students to what is being taught in class.

 $\Rightarrow$  **Resources** are required material in the lesson. Teachers are encouraged to arrange necessary materials in advance.

 $\Rightarrow$  **Warm-up** is an icebreaker. These are done to develop students' interest in the subject and generate engagement.

⇒ Lesson Structure is the central part of the lesson plan. Its goal is to ensure that learning outcomes are achieved through explanation, demonstration, activities, class discussion, and brainstorming. Referencing the text, illustrations and pictures in the manual will make the lesson engaging and interesting. Teachers are encouraged to collect student feedback to determine if learning outcomes are being achieved.

 $\Rightarrow$  **Conclusion** summarizes the topic and often includes an assessment of the topics covered in a particular lesson.

 $\Rightarrow$  Class Assignments based on worksheets or activities. The teacher can assign it for homework.

 $\Rightarrow$  Homework is assigned to students during the lesson to reinforce what they have learnt.

#### Conclusion

We hope teachers and students will find *Spectrum Science Series Books 1-5* thoroughly beneficial. These books contain modern teaching approaches which help students to become curious learners of science.

We wish all the teachers and students using Spectrum Science Series Books 1-5 all the best.

# **Solved Exercises**

# **Unit.1 Our Internal Organs and their Functions**

#### Exercise

Model Answers Question 1 Answers to questions.

i. Name any three internal organs of the human body.

Answer: heart, lungs, stomach (Answers may vary)

ii. What protects the brain?

Answer: the skull

iii. What is the function of the heart?

**Answer:** The heart pumps blood throughout our body.

iv. Which organ helps in the digestion of food?

Answer: the stomach

#### Question 2

#### Label the following diagram of the human body.

From top to bottom

- 1. brain
- 2. lungs
- 3. heart
- 4. stomach

#### Question 3

#### Match the internal organs with their functions in the columns below.

#### Answers

| Pump blood to the entire body | ightarrow heart |
|-------------------------------|-----------------|
|-------------------------------|-----------------|

Digestion of food  $\rightarrow$  stomach

Breathing  $\rightarrow$  lungs

Control the whole body  $\rightarrow$  brain

#### **Question 4**

#### Think of two jobs we would not be able to do if our brain did not work.

| Job 1 | thinking |
|-------|----------|
| Job 2 | movement |

# Unit.2 Food and Exercise

# Exercise

# Model Answers

## Question 1

# Answers to questions.

i. What are the four basic food groups?

Answer: milk, fruit and vegetable, grain, meat

ii. Which food group is important for bones and teeth?

# Answer: milk

- **iii.** Write any two benefits of exercise.
- Answer: Exercise make us strong. It also helps us sleep well.
- iv. The doctor says that Ali has weak bones. Which food group should he eat from?

# Answer: milk group

# Question 2

# Fill in the blank with the correct words.

- i. We get fruits and vegetables from <u>plants</u>. (animals, plants)
- ii. We must drink a lot of water to stay healthy and active. (juice, water)
- iii. <u>Walking</u> is a form of exercise. (sitting, walking)
- iv. Regular exercise helps us sleep well. (exercise, sleep)

# Question 3

# Circle the odd picture.

- i. Circle the 2<sup>nd</sup> picture
- ii. Circle the 2<sup>nd</sup> picture
- iii. Circle the 2<sup>nd</sup> picture

#### Question 4

# Write your favourite food from each food group.

Ask the student what they like to eat from the given food groups. Then, guide them to write the name of the food against the food group.

# **Unit.3 Parts of a Plant**

## Exercise

# Model Answers

Question 1

# Answers to questions.

a. Which part of a plant grows first?

Answer: roots

- **b.** Name the part that carries water and minerals from roots to all parts of the plant. **Answer:** stem
- c. Name the part of a plant where food is prepared.

Answer: leaves

**d.** What are the trees?

Answer: Trees are big and tall plants.

#### Question 2

## Write 'T' for true and 'F' for false statement.

- i. Most of the plants usually have two main parts. F
- ii. The stem of a plant holds the plant in the soil. **F**
- iii. Flowers make fruits that have seeds. T
- iv. Trunk is a large and woody stem of a tree. T
- v. Shrubs are small seasoned plants that grow close to the ground. F

#### Question 3

#### Look at the pictures below and identify different plants as a tree, shrubs, or a herb.

| 1 <sup>st</sup> Picture | 2 <sup>nd</sup> Picture | 3 <sup>rd</sup> Picture |
|-------------------------|-------------------------|-------------------------|
| a herb                  | a shrub                 | a tree                  |

#### **Question 4**

**a.** This is an anchor. It helps a ship stay in its place. Can you name the part of the plant the acts as its anchor? Can you draw it below?

Answer: The part of the plant the acts as its anchor is the roots of the plant.

The students will also draw it.

**b.** This is a kitchen where our food is made. Can you name the part of the plant that acts as its kitchen? Can you draw it below?

**Answer:** The part of the plant that acts as its kitchen is the leaves of the plant. The students will also draw it.

# **Unit.4 Different Animals**

# Exercise

**Model Answers** 

# Question 1

## Answers to questions.

i. Name five land animals.

**Answer:** lion, rabbit, ox, goat, cat (Answers may vary)

ii. How do birds fly?

Answer: Birds fly in the air with their wings.

iii. What part of the fish's body is used for breathing?

## Answer: gills

- iv. Where does an amphibian live?
- Answer: It lives both on land and in water.

## Question 2

#### Write 'T' for true and 'F' for false statement.

- i. Animals naturally develop special features to survive. T
- ii. The deer is a water animal. F
- iii. Most insects have wings to fly. F
- iv. Dolphins and whales breathe through gills. F
- v. A frog can live both on land and in water. T

#### Question 3

#### Identify all the animals and write their names in the correct columns.

| Land     | Water   | Air     |
|----------|---------|---------|
| monkey   | dolphin | parrot  |
| elephant | crab    | pigeon  |
| camel    | turtle  | sparrow |

#### **Question 4**

Match the animals in column A with their features in column B.

| Column A   | Column B       |
|------------|----------------|
| polar bear | fur            |
| fish       | fins and gills |
| bird       | wings          |

# **Unit.5 Animal Offspring**

# Exercise

# Model Answers

## Question 1

# Answers to questions.

i. What are the babies of animals called?

# Answer: offspring

ii. Name a baby animal that looks like its parents.

# Answer: foal

iii. Name a baby animal that does not look like its parents.

# Answer: caterpillar

iv. Do animals care for their babies?

Answer: Yes, they do.

# Question 2

## Write 'T' for a true, and 'F' for a false statement.

- i. The babies of animals are called their offspring. T
- ii. All baby animals look like their parents. F
- iii. Most animals look after their babies. T
- iv. A butterfly grows into a caterpillar. F

# **Question 3**

# Name their adults. The images will give you a hint.

- 1. dog
- 2. duck
- 3. lion
- 4. butterfly

# **Unit.6 Introduction to Materials**

# Exercise

Model Answers Question 1

## Answers of questions.

i. Define material.

Answer: A material is something that is used to make an object.

ii. Give two examples of hard materials from your classroom.

## Answer: wall and doors (Answers may vary)

**iii.** What is the difference between transparent and opaque materials? Give one example for each.

Answer: We can see through transparent material clearly. For example, eyeglasses.

We cannot see through an opaque material. For example, a piece of wood.

**iv.** Name any two flexible materials.

**Answer:** rubber and spring (Answers may vary)

#### Question 2

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

- i. Plastic is a natural material. F
- ii. Ceramic is a brittle material. T
- iii. We cannot see through a transparent object. F
- iv. Leather is a man-made material. F

#### **Question 3**

#### Match the following materials with their properties.

- Match the 1<sup>st</sup> image with the Hard
- Match 2<sup>nd</sup> image with the Waterproof
- Match the 3<sup>rd</sup> image with the Transparent
- Match the 4<sup>th</sup> image with the Opaque
- Match the 5<sup>th</sup> image with the Brittle
- Match the 6<sup>th</sup> image with the Flexible

#### **Question 4**

# Look around in your classroom. What are the types of materials you find? Write down in the column as many as you can.

Guide students to write the names of the materials found in their classroom. These may include whiteboard/blackboard, chairs, bench, desk, fans, window, door, walls, etc.

# Unit.7 Solids, Liquids and Gases

# Exercise

#### Model Answers Question 1

# Answers to questions.

**i.** Name three solids.

Answer: book, pencil, brick (Answers may vary)

ii. Define liquid.

**Answer:** Liquids do not have a fixed shape and can flow.

iii. Is it solid, liquid or gas that spreads in all directions?

## Answer: It is gas.

iv. Which gas is the most important?

**Answer:** Oxygen is the most important gas.

# Question 2

## Write 'T' for true and 'F' for false statement.

| iv.  | Gases can spread out in all directions.               | т |
|------|---|---|
| iii. | Water, milk, and juices are some examples of liquids. | т |
| ii.  | Solids do not have fixed shapes.                      | F |
| i.   | All things are solid or liquid only.                  | F |

#### Question 3

# Draw a line to match each form to the correct state of matter.

- Match the 1<sup>st</sup> image of the left side with the 3<sup>rd</sup> image of the right side
- Match 2<sup>nd</sup> image of the left side with the 1<sup>st</sup> image of the right side
- Match the 3<sup>rd</sup> image of the left side with the 2<sup>nd</sup> image of the right side

# **Unit.8 Introduction to Simple Machines**

# Exercise

#### **Model Answer**

#### Question 1

#### Answers to questions.

i. What is a simple machine?

Answer: A simple machine has only one or two parts.

**ii.** List six different simple machines.

**Answer:** lever, pulley, inclined plane, wedge, screw, wheel and axle

**iii.** Name any three simple machines at your home.

**Answer:** Hammer, bottle opener, knife (Answers will vary)

iv. What are two examples of wheel and axle use?

**Answer:** bus and bicycle (Answers may vary)

#### Question 2

#### Write 'T' for true and 'F' for false.

- i. Machines are tools that make work difficult. F
- ii. A lever is usually a long rod put under an object for lifting it. T
- iii. A wedge is a simple ramp. F
- iv. A wheel and axle is used to hold objects. F

#### Question 3

#### Park rides use simple machines to make rides go. Identify the simple machines used in each.

1<sup>st</sup> image=Wheel and Axle

2<sup>nd</sup> Image=Inclined Plane

3<sup>rd</sup> Image= Lever

#### Question 4

#### Match simple machines to their uses.

| 1 <sup>st</sup> image=Inclined Plane | 2 <sup>nd</sup> Image=Lever | 3 <sup>rd</sup> Image= Wheel an | d Axle 4 <sup>th</sup> Image=Screw    |
|--------------------------------------|-----------------------------|---------------------------------|---------------------------------------|
| 1 <sup>st</sup> image=Inclined Plane | 2 <sup>nd</sup> Image=Lever | 3 <sup>rd</sup> Image= Screw    | 4 <sup>th</sup> Image= Wheel and Axle |

# Unit.9 What is Energy?

# Exercise

# Model Answers Question 1

## Answers to questions.

i. What is energy?

**Answer:** Energy is the ability to do work.

ii. Name any two forms of energy.

**Answer:** sound energy and heat energy (Answers may vary)

- iii. What form of energy do we get from the Sun?
- Answer: light energy and heat energy (Answers may vary)
- iv. Write any three uses of energy.
- **Answer:** 1. Mother cooks food with heat energy.
- 2. We use electrical energy for many home chores.
- 3. We get energy from food to work and play.

## Question 2

#### Fill in the blank with the correct words.

- i. The <u>Sun</u> is the biggest source of heat and light. (Earth, Sun)
- ii. Cars get their energy from <u>petrol</u>. (petrol, wind)
- iii. We use heat energy to cook food. (heat, sound)
- iv. A windmill needs the <u>wind</u> energy to make it work. (electric, wind)

#### Question 3

#### Write 'T' for true and 'F' for false statement.

| ٧.    | We need petrol and natural gas to get energy for our use. | F |  |
|-------|---|---|--|
| vi.   | A bulb uses electrical energy to work.                    | т |  |
| vii.  | We use heat energy to play.                               | F |  |
| viii. | The Sun is the biggest sources of heat energy for us.     | т |  |
| Quest | Question 4  |   |  |

#### Recognize and name the following forms of energy.

| Sun=Heat Energy Clock=Sound Energy |                     | Shouting= Sound Energy |
|------------------------------------|---------------------|------------------------|
| Fire=Heat Energy                   | Guitar=Sound Energy | Torch= Light Energy    |

# Unit.10 Sounds

Exercise

**Model Answers** 

**Question 1** 

## Answers to questions.

i. What does the source of a sound mean?

Answer: Source of a sound is a person or a thing that makes a sound.

ii. Is your teacher loud when she is near you?

Answer: Yes, he/she is. OR No, he/she is not.

iii. What is a muffled sound?

**Answer:** When a loud sound is blocked by something, it becomes soft. It is called muffled sound.

iv. Is a train loud when it is far away from you?

Answer: No, it is not.

## Question 2

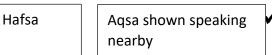
## Write 'T' for true and 'F' for false statement.

- i. The earmuffs muffle sounds. T
- ii. A sound is loud when you stand close to the source. T
- iii. A person or a thing that makes a sound is called the source of sound. T

iv. Curtains do not muffle sounds. F

#### Question 3

If Aqsa and Zoha speak at the same volume, whom is Hafsa likely to hear? Tick the correct answer.



Zoha shown speaking far away

# **Question 4**

Ali accidentally dropped his metal plate on the floor. Which floor would produce a louder sound?



# **Unit.11 Shadows**

# Exercise

# Model Answers

#### Question 1

#### Answers to questions.

i. Define shadow.

**Answer:** Shadow is an area of darkness is formed when an object blocks the straight path of light.

ii. At what time of the day is your shadow longer?

Answer: morning and evening

iii. What factors affect the size of shadow?

Answer: distance and position

## Question 2

## Write 'T' for true and 'F' for false statement.

- i. Light always travels in a straight line. T
- ii. All light sources do not make shadows. F
- iii. The size of the shadow of an object depends on the distance from the light source. T
- iv. Objects far from the light source make bigger shadows. F

#### Question 3

#### Guess the animals by their shadows and write their names below.

1<sup>st</sup> Image= Cat

2<sup>nd</sup> Image= Horse

3<sup>rd</sup> Image= Rabbit

4<sup>th</sup> Image= Elephant

#### **Question 4**

#### Draw the shadows of the given objects.

The students will draw the shadows of flower pots.

# **Unit.12 Natural Resources**

# Exercise

# Model Answers

## Question 1

## Answers to questions.

i. Name any three natural resources.

Answer: water, rocks, soil

ii. Why do we need air?

**Answer:** We need air to breathe.

iii. How do we use water?

Answer: drinking, cooking, and washing

iv. Why is burning of fossil fuels bad for our Earth?

**Answer:** Because burning of fossil fuels release<sup>1</sup>harmful gases which are bad for our Earth.

# Question 2

#### Match natural resources to their uses.

| Natural Resources | Uses                   |
|-------------------|------------------------|
| rocks             | marble, chalk          |
| iron              | iron rod, iron door    |
| soil              | plant's pot, clay pots |

# Write 'T' for true and 'F' for false statement.

| i.   | We can see air.                         | F |
|------|---|---|
| ii.  | Soil is necessary for growth of plants. | т |
| iii. | Oil is a fossil fuel.                   | т |
| iv.  | Iron is found on top of the earth.      | F |

#### Question 3

#### Fill the blank with the correct word.

- i. Humans and <u>animals</u> need air to survive. (animals, rocks)
- ii. About 71 percent of the Earth's surface is covered by <u>water</u>. (water, iron)
- iii. Iron is a natural resource obtained from <u>below</u> the Earth's surface. (above, below)
- iv. We would not have crops or trees without <u>soil</u>. (soil, oil and coal)

# **Unit.13 Weather and Seasons**

## Exercise

#### **Model Answers**

#### Question 1

#### Answers to questions.

i. Name different weather conditions.

Answer: sunny, cloudy, rainy, and windy

ii. Which weather condition causes a storm?

#### Answer: windy

iii. What is a season?

**Answer:** When a weather condition remains almost the same for a few months, it is called season.

iv. Name the seasons of the year.

**Answer:** summer, autumn, winter, spring

#### Question 2

#### Write 'T' for true and 'F' for false statement.

| i.   | During winter, days are shorter than nights. | т |
|------|--|---|
| ii.  | The weather becomes pleasant after rain.     | т |
| iii. | Sunny days are generally cold.               | F |

iv. We wear woollen clothes in summer.

#### Question 3

#### Identify the season in each picture.

| Leaves on Trees       | Seasons |
|-----------------------|---------|
| 1 <sup>st</sup> Image | Summer  |
| 2 <sup>nd</sup> Image | Autumn  |
| 3 <sup>rd</sup> Image | Winter  |
| 4 <sup>th</sup> Image | Spring  |

#### **Question 4**

#### Write the correct weather condition for each picture.

1<sup>st</sup> Image= Stormy 2<sup>nd</sup> Image= Rainy 3<sup>rd</sup> Image= Cloudy 4<sup>th</sup> Image= Sunny

# Unit.14 The Earth

# Exercise

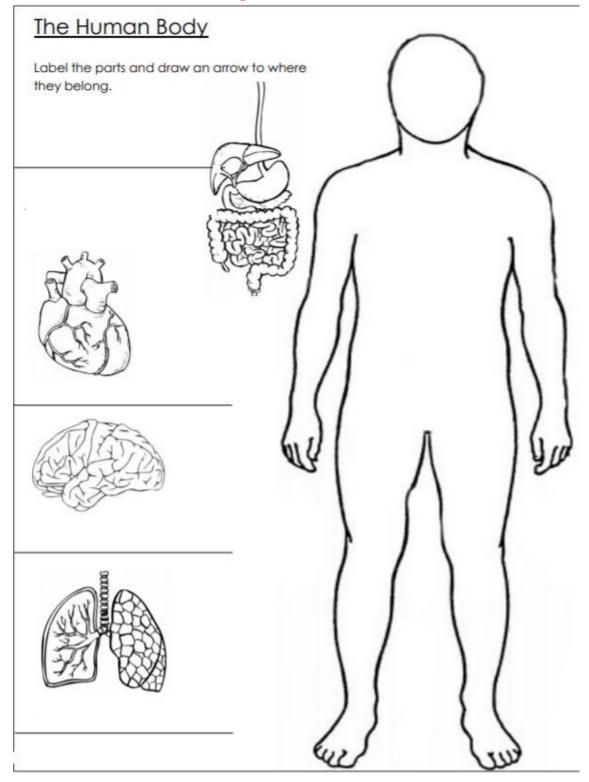
| Model Answers   |                |  |  |  |  |  |
|---|----------------|--|--|--|--|--|
| Question 1  |                |  |  |  |  |  |
| Answers to questions.   |                |  |  |  |  |  |
| i. How many planets are there in the Solar System?                                      |                |  |  |  |  |  |
| Answer: eight   |                |  |  |  |  |  |
| ii. Which movement of the Earth causes day and night?                                   |                |  |  |  |  |  |
| Answer: rotation  |                |  |  |  |  |  |
| iii. Which movement of the Earth causes change of seasons?                              |                |  |  |  |  |  |
| Answer: revolution  |                |  |  |  |  |  |
| Question 2  |                |  |  |  |  |  |
| Write 'T' for true and 'F' for false statement.   |                |  |  |  |  |  |
|   |                |  |  |  |  |  |
| i. The Earth is the head of the Solar System.   | F              |  |  |  |  |  |
| ii. There are eight planets in our solar system.  | т              |  |  |  |  |  |
| iii. All planets move around the Earth.   | F              |  |  |  |  |  |
| iv. The side of the Earth facing the Sun experiences day.                               | т              |  |  |  |  |  |
| Question 3  |                |  |  |  |  |  |
| How many days does the Earth?   |                |  |  |  |  |  |
| One complete rotation of Earth  | <u>One day</u> |  |  |  |  |  |
| One complete revolution of Earth <u>365 days</u>  |                |  |  |  |  |  |
| Question 4  |                |  |  |  |  |  |
| Label the diagram to show which side of the Earth is experiencing day and which side is |                |  |  |  |  |  |

# experiencing night.

Left Side= Day Right Side= Night

# **Worksheets**

# **Unit 1: Our Internal Organs and their Function**



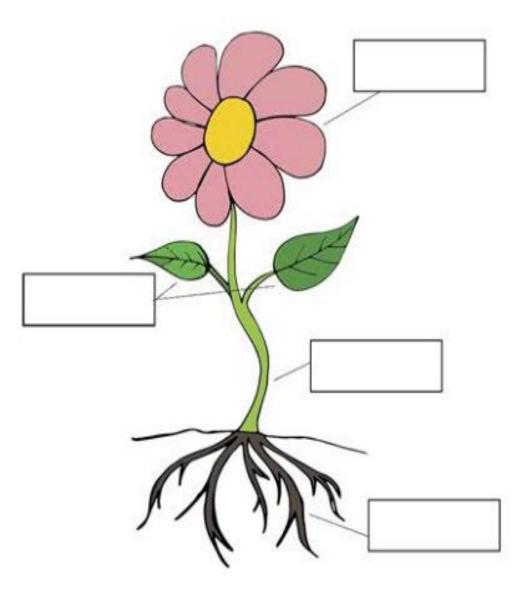
# **Unit 2: Food and Exercise**

Write names of food given below in the right food group.

| Fruit and Vegetables | Dairy | Meat, fish and eggs. | Grains and Oats |
|----------------------|-------|----------------------|-----------------|
|                      |       |                      |                 |
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# **Unit 3: Parts of a Plant**

A. Label the different parts of this plant.



# B. What is difference between a tree, a shrub and a herb?

Answer:

# **Unit 4: Difference Animals**

Draw the animals according to where they live. Also write their names.

| Land | ſ | Air | Water | and a |
|------|---|-----|-------|-------|
|      |   |     |       |       |
|      |   |     |       |       |
|      |   |     |       |       |
|      |   |     |       |       |
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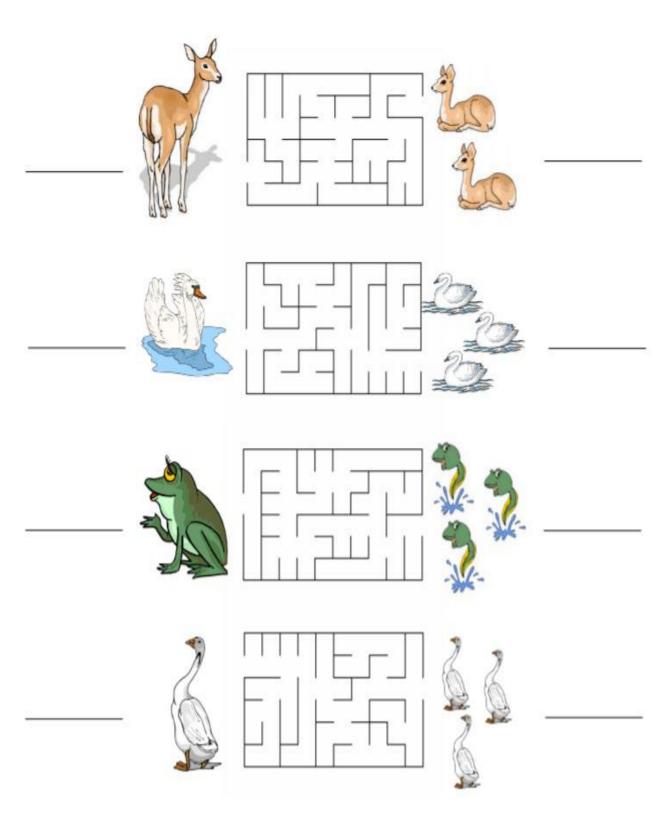
Land Animals:

Air Animals:

Water Animals:

# **Unit 5: Animals Offspring**

Help mother animals find their babies. Also, write the animal names on the lines.



# **Unit 6: Introduction to Materials**

**1.** What is the difference between transparent and opaque materials? Give one example for each.

Answer:

1. Name any two flexible materials.

Answer:

#### 2. What are brittle materials?

Answer:

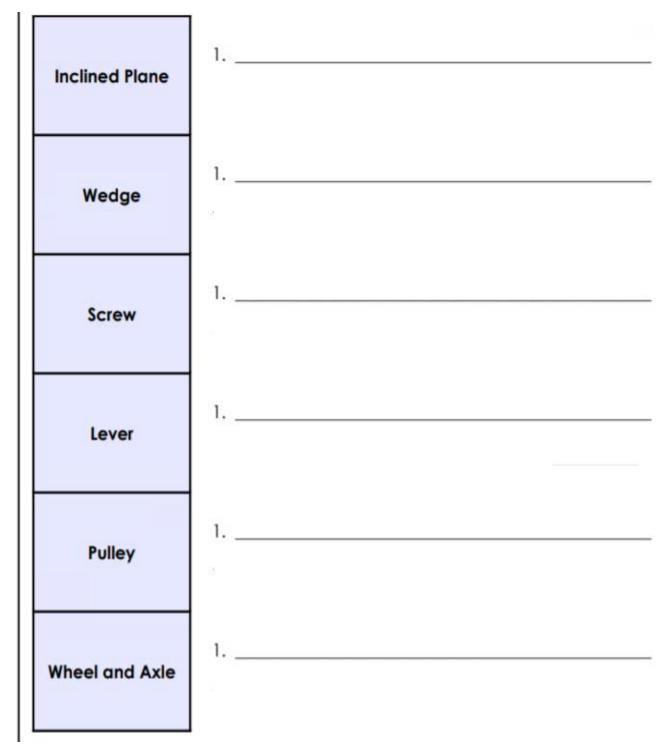
# Unit 7: Solid, Liquid and Gas

Colour each set of items according to the directions.



# **Unit 8: Introduction to Simple Machines**

Explain each simple machine with an example.



# Unit 9: What is Energy?

Find hidden words. When you locate a word, draw an oval shape around it.

| a                    | е | h | W | W                  | а | f | S   | р  | d | b             | 0 |
|----------------------|---|---|---|--------------------|---|---|-----|----|---|---------------|---|
| е                    | t | n | k | р                  | 0 | W | 0   | r  | k | k             | р |
| р                    | 0 | t | е | n                  | t | i | а   | I  | g | р             | d |
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| iel<br>nergy<br>plar | ( | ( |   | ential<br>ctricity | / |   | ght | ar |   | 4.wo<br>8.hyc |   |

# Unit 10: Sounds

1. What is the source of a sound?

Answer:

2. What is a muffled sound?

Answer:

Draw a thing that produces loud sound.

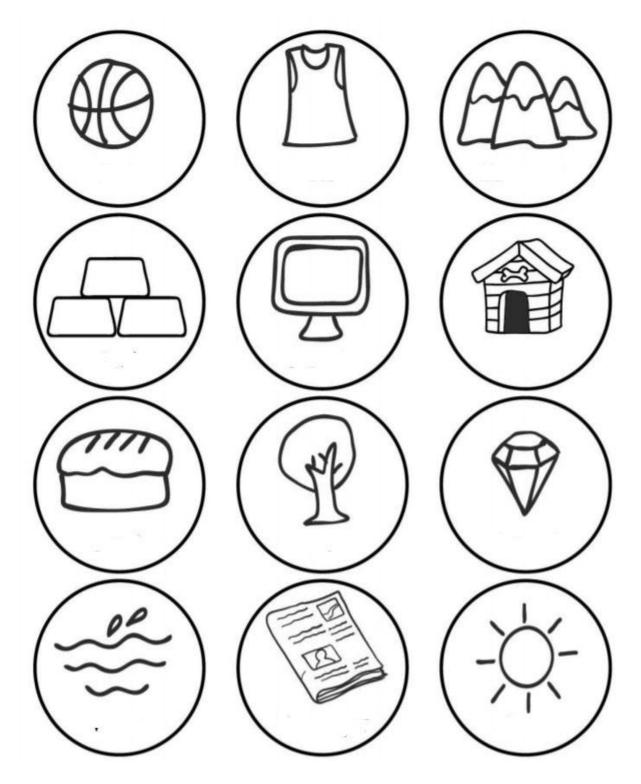
# **Unit 11: Shadows**

Look at the pictures below. Draw shadows to match the objects blocking light.



# **Unit 12: Natural Resources**

Identify and colour the natural resources. Also, write their names below.



# **Unit 13: Weather and Seasons**

Look at the picture that shows stormy, windy, cloudy, rainy, snowy and sunny weather. Complete the sentences.



# Unit 14: The Earth

1. How many planets are there in the Solar System?

Answer:

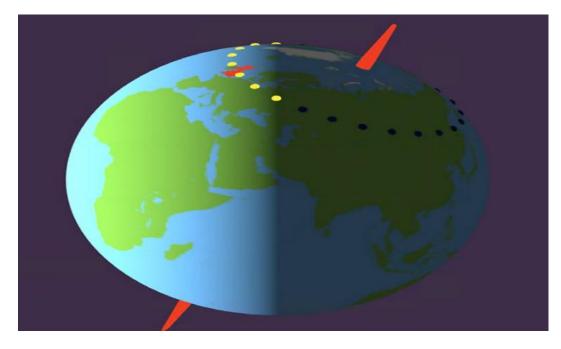
2. Which movement of the Earth causes day and night?

#### Answer:

3. Which movement of the Earth causes the change of seasons?

Answer:

Label the following diagram as day and night.



# **Term Assessment**

| 1 <sup>st</sup> Term Assessment Time: 60 Minu  |   |       |       |        |         |       |       |       | linutes |     |     |
|--|---|-------|-------|--------|---------|-------|-------|-------|---------|-----|-----|
| ©N   | POCCTURE<br>Enlightening Generations  |       |       |        |         | SCIEN | NCE 2 |       |         |     |     |
| Name: Roll No: Dat   |   |       |       |        |         |       |       | Date: |         |     |     |
|  | Section   | Total | Q.1   | Q.2    | Q.3     | Q.4   | Q.5   | Q.6   | Q.7     | Q.8 | Q.9 |
| Ma   | aximum Marks  | 100   | 12    | 12     | 10      | 10    | 7     | 10    | 9       | 10  | 20  |
| Ob   | tained Marks  |       |       |        |         |       |       |       |         |     |     |
| •  | I am<br>I am in grade<br>My hair colo<br>My favourite<br>My favourite<br>My favourite<br>I like to visit<br>My school's i<br>My teacher's | ye    | le is | '<br>' | _·<br>· |       |       |       |         |     | /12 |
| <ul> <li>xii. He/She teaches us</li> <li>Question 2 Tick (✓) the activities that a good student performs. <ol> <li>Never learns the lesson.</li> <li>Keeps the classroom and school clean.</li> <li>Follows the classroom rules.</li> <li>Makes noise in the classroom</li> <li>Respects his teacher.</li> <li>Throws the trash in the classroom.</li> </ol></li></ul> |   |       |       |        |         |       |       | /12   |         |     |     |

- vii. Stays attentive in class.
- viii. Always stays in a queue and waits for his/her turn.
- ix. Love learning.
- x. Makes his/her teachers happy

# xi. Raises his/her hand to speak

xii. Always nice to others

# Question 3

# Match the jobs of these people in your school.

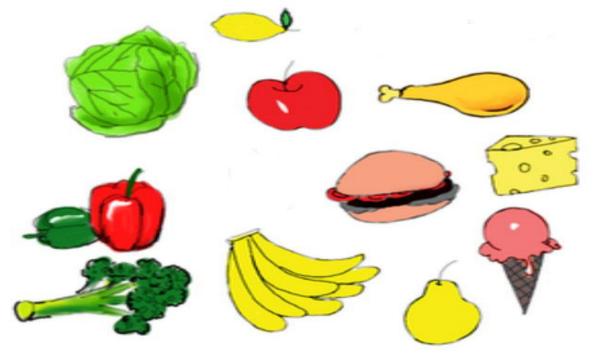
/10

|                | Student             |                        | head the school          |              |  |  |  |
|----------------|---------------------|------------------------|--------------------------|--------------|--|--|--|
| -              | Teacher             | d                      | rivers the school bus    |              |  |  |  |
| F              | Principal           | t                      | eaches the students      |              |  |  |  |
| W              | /atchman            | guards the school's    | building and students ag | ainst danger |  |  |  |
|                | Driver              |                        | learns the lesson        |              |  |  |  |
| Question 4     |                     |                        |                          |              |  |  |  |
| Write the five | prayers and their c | urrent timings in orde | r.                       | /10          |  |  |  |
| Isha           | Zohar               | Fajar                  | Maghrib                  | Asr          |  |  |  |
| Prayers        |                     |                        |                          |              |  |  |  |
| Timings        |                     |                        |                          |              |  |  |  |

Question 5

Tick ( $\checkmark$ ) the foods that we get from plants.

/7



**Question 6** 

| Complete the following table and write the number and function of body parts. |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| Body Parts Number Function  |  |  |  |  |  |  |  |  |
| Nose  |  |  |  |  |  |  |  |  |
| Ears  |  |  |  |  |  |  |  |  |

Lips

Shoulder

Leg

/10

| Legs                            |  |        |
|---------------------------------|--|--------|
| Mouth                           |  |        |
| Teeth                           |  |        |
| Question 7                      |  |        |
| Identify and draw a line to any | nine parts of the body.  | /9     |
| Head                            |  | Nose   |
| Eye                             | ( Central Contral Cont | Throat |
| Lips                            |  | Tongue |
| Nose                            |  | Teeth  |

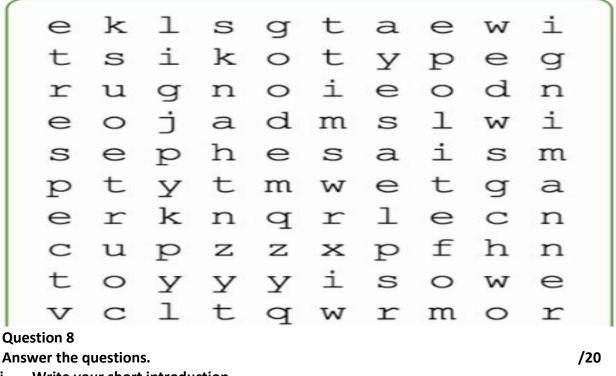
Hand

Finger

**Question 8** 

Find and encircle these words.

wait please thanks shout sorry



- i. Write your short introduction. Answer:
- ii. How you are the same and different from your friend? Answer:
- iii. Name any three parts of your face. Answer:
- iv. What is a school? Answer:
- v. What do you learn at your school?

Answer:

vi. Where do Muslims pray?

Answer:

vii. How many prayers do the Muslims offer in a day?

#### Answer:

#### viii. What do manners mean? Answer:

ix. What are the good manners of speaking?

Answer:

### x. What do plants give us?

Answer:

2<sup>nd</sup> Term Assessment Minutes Time: 60



### **SCIENCE 2**

| Name:    |           | Roll No:   |           | Date: |       |
|----------|-----------|------------|-----------|-------|-------|
| Section  | Section-I | Section-II | Practical | Viva  | Total |
| Maximum  | 60        | 20         | 10        | 10    | 100   |
| Marks    |           |            |           |       |       |
| Obtained |           |            |           |       |       |
| Marks    |           |            |           |       |       |

### **Section-I**

### Question 1

### Write 'T' for true and 'F' for false statement.

- a) Trunk is a large and woody stem of a tree.
- b) Shrubs are small seasoned plants that grow near the ground.
- c) Soil is necessary for growth of plants.
- d) Oil is a fossil fuel.
- e) Most insects have wings to fly.
- f) Dolphins and whales breathe through gills.
- g) A frog can live both on land and in water.
- h) A lever is usually a long rod put under an object for lifting it.
- i) We need petrol and natural gas to get energy.
- j) During winter, days are shorter than nights.

#### Question 2

### Tick ( $\checkmark$ ) the correct word.

- v. The \_\_\_\_\_ is the biggest source of heat and light. (Earth, Sun)
- vi. Cars get their energy from \_\_\_\_\_. (petrol, wind)
- vii. We use \_\_\_\_\_\_ energy to cook food. (heat, sound)
- viii. A windmill needs the \_\_\_\_\_ energy to make it work. (electric, wind)
- ix. During summer, days are \_\_\_\_\_ than nights. (shorter, longer)
- x. The deer is a \_\_\_\_\_ animal. (land, water)
- xi. Birds fly in the air with their\_\_\_\_\_. (fins, wings)
- xii. Camel can live very\_\_\_\_places. (cold, hot)
- **xiii.** A knife is an example of a\_\_\_\_\_. (screw, wedge)
- xiv. Autumn begins with the end of \_\_\_\_\_. (summer, winter)

/10

/10

/10

/10

| Column A   | Column B       |
|------------|----------------|
| Polar bear | Fins and gills |
| Fish       | Fur            |

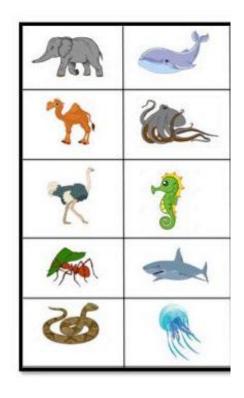
Match simple machines to their uses.

| wheel chair on slide | Lever          | jar lid inner side |
|----------------------|----------------|--------------------|
| bottle opener        | Inclined plane | car axle           |
| bike axle            | Screw          | door handle        |
| Screw bulb           | Wheel and axle | ramp               |

### **Question 4**

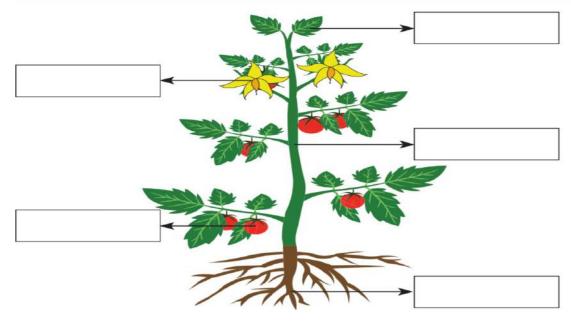
Identify all the animals and write their names in the correct columns.

LAND WATER AIR



### Label the parts of the plant.

/10

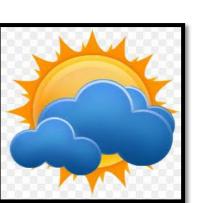


### **Question 6**

Write the correct weather condition for each picture.

/10

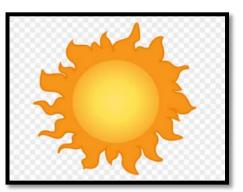




Science Grade-3 Solved Exercises







of **47 محمد ع** 

## Section-II

|           | Question 6<br>Answer the questions.                    | /20 |
|-----------|--|-----|
| xi.       |  | ,   |
| A         | Answer:  |     |
| _<br>xii. | Which part of a plant grows first?<br>Answer:          |     |
| xiii.     | Where does an amphibian live?<br>Answer:               |     |
| xiv.      | How do birds fly?<br>Answer:                           |     |
| xv.       | Write any two benefits of exercise.<br>Answer:         |     |
| xvi.      | What is a simple machine?<br>Answer:                   |     |
| xvii.     | What form of energy do we get from the Sun?<br>Answer: |     |
| xviii.    | Define material.<br>Answer:                            |     |
| xix.      |  |     |
|           | Answer:  |     |

**xx.** Name the seasons of the year.

Answer:

### Practical

Performance of the student in activities of units 2.3 and 2.9.

/10

### Viva

Give at least five real-life examples from the concepts given below. (Any Five) /10

- Parts of Plant
- Air Animals
- Land Animals
- Water Animal
- Simple Machines
- Forms of Energy
- Seasons

3<sup>rd</sup> Term Assessment Time: 60 Minutes

**SCIENCE 2** 



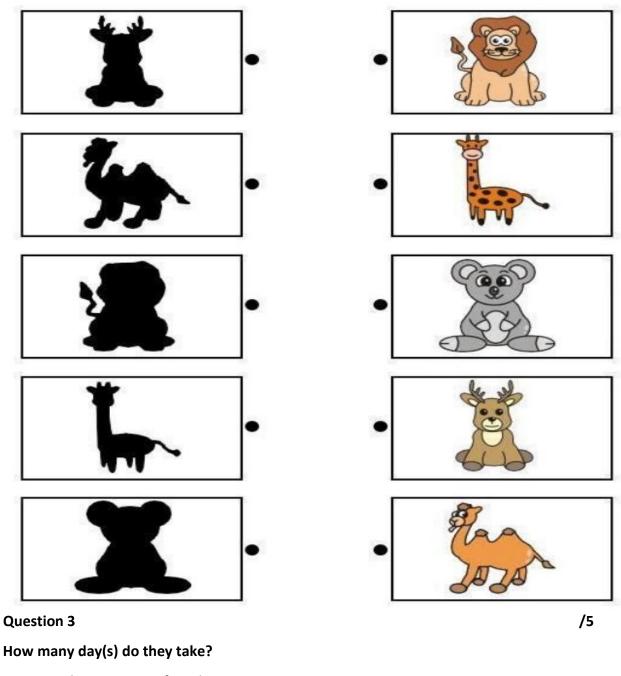
#### Name: \_\_\_\_\_ Roll No: \_\_\_\_\_ Date: \_\_\_\_\_ Section Section-I Section-II Practical Total Viva Maximum 20 10 10 100 60 Marks Obtained Marks Section-I Question 1 Write 'T' for true and 'F' for false statement. /10 k) The young animals are called offspring. I) Animals feed and protect their young ones. m) Earmuffs muffle sounds. n) A person or a thing that makes a sound is called the source of the sound. o) Light always travels in a straight line. p) Objects far from the light source make bigger shadows. q) The Earth is the head of the Solar System. r) All planets move around the Earth. s) The side of the Earth facing the Sun experiences day. Question 2 Tick ( $\checkmark$ ) the correct word. /7 A grows into a caterpillar. (firefly, butterfly) xv. A sound is loud when you stand \_\_\_\_\_\_ to the source. (close, far) xvi. Shadows are formed from light sources. (all, none of) xvii. There are \_\_\_\_\_\_planets in our solar system. (eight, nine) xviii. Most baby animals' look\_\_\_\_\_ their parents. (similar, different) xix. A\_\_\_\_\_ is a simple ramp. (inclined plane, wedge) XX. A\_\_\_\_\_ is used to hold objects. (screw, lever) xxi.

#### **Question 3**

| Match the animals in column A with their young ones in column B. |          | /10 |
|--|----------|-----|
| Column A   | Column B |     |
| Horse  | Fawn     |     |
| Cat  | Lamb     |     |
| Sheep  | Tadpole  |     |

| Frog | Foal   |
|------|--------|
| Deer | Kitten |

Guess the animals by their shadows and draw line to match each shadow. /10



One complete rotation of Earth

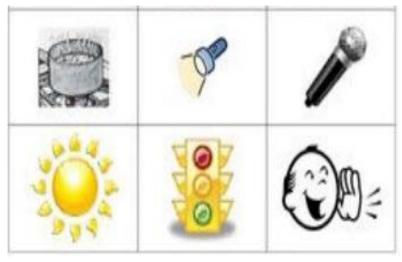
One complete revolution of Earth

Label the diagram to show which side of the Earth is experiencing day and which side is experiencing night. /5



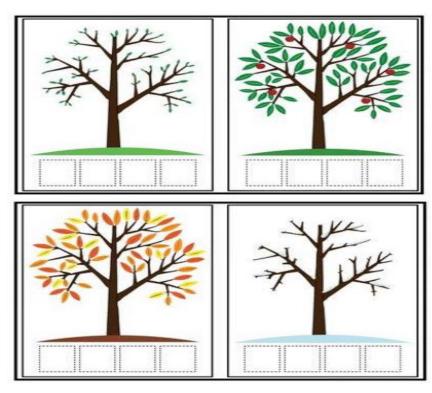
### **Question 6**

Name the following forms of energy below each column.



Recognize the season from each picture and write its name below.

/8



### **Section-II**

# Question 6Answer the questions.i. What are young of animals called?

Answer:

- ii. Define shadow. Answer:
- iii. Which animal offspring looks different from its parents? Answer:
- iv. What is a muffled sound? Answer:
- v. What factors affect the shadow?

/20

#### Answer:

vi. How many planets are there in Solar System? Answer:

**vii.** Which movement of the Earth causes change of seasons? Answer:

**viii.** List six simple machines. Answer:

ix. Write two uses of energy.

Answer:

**x.** What does the source of a sound mean?

Answer:

### **Practical**

Question 7 Performance of the student in activities of units 2.5 and 2.10.

/10

### Viva

| Give at least five real life examples from the concepts given below. | /10 |
|--|-----|
|  |     |

- Animals resemble with their Parents
- Animals do not resemble with their Parents
- Muffled Sounds