

# SCIENCE GRADE 4

## Unit #: 1

### CHARACTERISTICS AND NEEDS OF LIVING THINGS

#### Lesson 1

#### Teaching objectives:

To enable students to distinguish the characteristics of living and non-living things and classify animals in terms of vertebrates and invertebrates

#### Materials required:

Writing board (Black or White). Chalks or Markers. Duster. Pictures of animals.

#### Introduction:

The teacher will ask students to name different objects from their immediate environment. She will ask if they all are same.

She will draw a T-CHART on the board and let them compare the living things with the nonliving objects.

LIVING THINGS	NON LIVING THINGS

#### Classroom Activity:

The teacher will ask them to tell the similarities too.

She will announce that we are going to study the Chapter 1.

After that announcement, the teacher will write the name of chapter and the topic on the writing board.

The teacher will tell the students that: Those things which can move, possess the power of growth and reproduce their own kind are known as living things. Living things are animals and plants.

Animals are not able to produce their own food whereas plants can prepare their own food. Every living organism on earth needs some basic things to survive. These are five basic needs that all living things have. They are; Sunlight, Water, Air, Food, and Habitat with right temperature. Sunlight: It is the most important and the source of energy. Water: Water is the medium in which living cells work. Water is also a living environment for many plants and animals. Air: Air is the mixture of different gases most important gases are oxygen and CO<sub>2</sub>. Without these gases living organisms cannot survive. Food: Living things need energy for function. This energy living things get from food. Habitat and temperature: Every living thing needs the ideal temperature to live. Habitat is the living place like water or land.

The teacher will explain that animals and plants have common as well as different characteristics. The common characteristics are: Plants and animals both are alive. Plants and animals both reproduce their own kind. Plants and animals both eliminate waste from their bodies. Both plants and animals can breathe air out and in. The different characteristics are: Both plants and animals are made up of cells but plant cells do have a cell wall while animal cells do not. Plants make their own food. They are independent while animals are not. They cannot prepare their own food. Animals can freely move from one place to another while plants are fixed on one position. The teacher will show the display picture of different eating habits of plants and animals for better understanding.

She will introduce the new words on the board, explain these words and do the model reading of the first paragraph.

She will then invite them to read up to respiration ( pg4).

**Conclusion:**

The teacher will then ask students to conclude the session. A few students will revise the given text in correct pronunciation. The teacher will correct the mistakes of the students (if any). The teacher will ask the students to learn all the difficult words they learn in this chapter.

## **Lesson 2**

### **Teaching objectives:**

- *To explain briefly about classification and introduction of main kingdoms.*
- *Describe the characteristics features of vertebrates and invertebrates.*

### **Materials required:**

*Display pictures of vertebrates and invertebrates • Writing board (black or white), chalks or markers and duster*

### **Introduction:**

*Ask students to name a few animals and plants. Ask them have they ever classified animals? If yes! On which basis? Explain to students that today we will be learning about classification and main types of animals.*

### **Classroom Activity:**

*The teacher will announce that we are going to study the Chapter 1 of Science 4 today. After that announcement, the teacher will write the name of chapter and the topic on the writing board.*

*The teacher will tell them that classification makes the study of organisms (plants and animals) easy. Classification projects before us a good picture of all life forms. Classification helps us to understand the interrelationship among different groups of creatures. It enables us to understand the characteristics of a big group of animals or plants by studying the characteristics of only one plant or animal of that group. It helps us to understand the similarities and differences among living organisms. It provides us the ways to know about different organisms. It allows the scientist to identify, group and properly name the particular organisms. Without classification, it would be impossible to know the exact number of living organisms on earth.*

*Enlist the benefits of classification on board by relating to messy room i.e.*

- *Makes study easy.*
- *Makes comparison easy.*
- *Makes identification easy*

*The teacher will tell students that in 1969, Robert Whittaker had classified the living organisms into five main kingdoms. These kingdoms are bacteria, algae, fungi, animals and plants. Tell students that all the animals that have backbone are called vertebrates. Such as fish, frog, snake, lion, sparrow etc. all the animals without backbones are called invertebrates. She will encourage them to name some invertebrates. She will show them pictures to understand the difference.*

She will explain the new vocabulary. She will invite them for reading.

**Activity:**

She will divide the class into two groups. One group will enlist the characteristics of vertebrates and the other will write about the invertebrates.

**Conclusion:**

The teacher will then ask students to conclude the session. A few students will revise the given text in correct pronunciation. The teacher will correct the mistakes of the students (if any). The teacher will ask the students to learn all the difficult words they learn in this chapter.

***Lesson 3 and 4***

**Teaching objectives:**

- Explain briefly about classification of plants and diversity.

**Materials required:**

- Display pictures of some flowering and some non-flowering plants
  - Display pictures of different types of seeds ( monocot and dicot)
  - Writing board (black or white), chalks or markers and duster
  - Display picture of a messy room.

**Introduction:**

To reinforce the concept of classification, show them a picture of messy room or simply describe them the details of messy room. The room may contain some kitchen items, some laundry items, cloths, books, plants etc. Ask from students to describe picture first in their own words. Then ask them how the room could be neat. (Possible answer: By keeping the things in right place.) To make a link between their

description and concept of classification, ask them where should the utensils be placed? (Ans. In kitchen). Why? (Ans. Because they belong to kitchen.) . Tell them this is called classification.

The teacher will announce that we are going to study the Chapter 1 of book today that is about classification and today we shall learn more about plants. After that announcement, the teacher will write the name of chapter and the topic on the writing board.

### **Classroom Activity:**

The teacher will retell that classification makes the study of organisms (plants and animals) easy. Classification projects before us a good picture of all life forms. Classification helps us to understand the interrelationship among different groups of creatures. It enables us to understand the characteristics of a big group of animals or plants by studying the characteristics of only one plant or animal of that group. It helps us to understand the similarities and differences among living organisms. It provides us the ways to know about different organisms. It allows the scientist to identify, group and properly name the particular organisms. Without classification, it would be impossible to know the exact number of living organisms on earth.

She will ask students to enlist the benefits of classification on board.

She will ask students to share their knowledge about plants.

She will encourage them to talk about the importance of plants.

She will ask if all plants look like same.

She will ask if living things are in danger.

She will invite them for text reading and explain it well to them.

### **Activity:**

She will divide the class into two groups. One group will enlist threats to biodiversity and the other will write ways to protect it.

### **Conclusion:**

Conclude the lesson by revising / summarizing the text about plants.

### *Note :*

*She will use next two periods for completing exercise. She will read question 1 to students and let them do it in pairs. She will provide them answers and let them check their work.*

*She will let them do question 3 individually and provide them answers later on.*

*She will introduce question 2 on the board and ask them to write answers there. After correction, students will be asked to write the Q/A in notebooks.*

*Next period will be used for the test.*

## **Unit #: 2**

### **Functions of major structures in living organisms**

#### **Lesson 1 and 2**

#### **Teaching objectives:**

- *Identify major parts in animals*
- *Relate the parts to their functions*

#### **Materials required:**

*Display picture showing composition of animals' bodies. Writing board (Black or White). Chalks or Markers. Duster . Construction papers, glue, white masking tape, cotton buds.*

#### **Introduction:**

*Ask a student to describe human body.*

*Draw the outline of the human body. Ask students to identify organs of human body. Write names of organ systems on the writing board. Explain to students that today we will be learning about human body.*

#### **Classroom Activity:**

*The teacher will announce that we are going to study the Chapter 2 today. After that announcement, the teacher will write the name of chapter and the topic on the writing board. The teacher will explain that: The human body is like a machine where different body parts work together. Cell is the basic building unit of any living organism, like brick is a basic unit of a brick wall.*

*Combinations of similar cells make tissue. A particular tissue performs a particular function. Tissues associate together to form an organ e.g. stomach. Different organs combine to form an organ system e.g. digestive system. Organ systems co-ordinate to form an organism e.g. human. Then the teacher will show display picture presenting composition of human body. After explaining these facts about the human body, the teacher will ask students to name parts*

of body common in most of the animals. She will ask students to enlist them on the board. She will ask if all have same types of teeth? Ask a student to describe the structure of teeth. Draw the outline of the teeth. Ask the class about milk teeth. Ask students if they know about permanent teeth. Ask students to identify different types of teeth. Write names of types of teeth on the writing board. Explain to students that today we will be learning about structure, types and functions of teeth. The teacher will explain that the hard body structures in the mouth cavity are called teeth. The teacher will show the display picture of different types of teeth. The teacher will further explain that: Depending upon age there are two sets of teeth in humans: milk teeth and permanent teeth. Milk teeth appear after seven months of age and fall after seven years of age. Permanent teeth are the permanent set of teeth. These teeth appear when milk teeth fall off.

An adult human being has 32 permanent teeth. The teacher will further add that there are four different types of human teeth in mouth cavity: incisor, canine, premolar and molar. The teacher will tell the functions of these teeth: The function of incisor teeth that is the cutting and biting of food. There are two types of incisor as well: central and lateral. The function of canine teeth is tearing of food. The function of premolar teeth is chewing of food. There are two types of premolar teeth: first premolar and second premolar. The function of molar teeth is grinding of food. There are three types of molar teeth: first molar, second molar and third molar. The teacher will then show the display picture of types of teeth and will invite them to learn about the teeth of other animals.

She will invite students for reading pg no. 11 and 12 till bones.

#### Activity

The teacher will divide students into groups and ask the students to write down functions of four types of teeth on their notebooks.

**Conclusion:** The teacher will then ask students to conclude the lesson. A few students will revise the given text in correct pronunciation. The teacher will correct the mistakes of the students (if any).

### **Lesson 3**

#### **Teaching objectives:**

Explain briefly about bones and muscles.

**Materials required:**

Display picture showing functions of bones in human skeleton. Display picture showing muscle, bone, tendon and ligament. Writing board (Black or White). Chalks or Markers. Duster.

**Introduction:**

Ask a student to describe the numbers of bones present in human body. Draw the outline of the human skeleton. Ask the class about functions of bones. Ask students if they can name any specified bone. Ask students to define connective tissues. Write muscles and their role in movement on the writing board. Explain to students that today we will be learning about bones and muscles in detail.

**Classroom Activity:**

The teacher will explain about bones that these are living tissue in our body. They have their own blood vessels and are made of living cells, which help them to grow and to repair themselves. These are made of proteins, minerals and vitamins. The teacher will further explain that humans are born with 300 soft bones. Some of these bones later fuse together, so that the adult skeleton has 206 bones. The teacher will then discuss the function of bones that are: Bones provide protection to vital organ e.g. skull protects brain, ribcage protects heart and pelvis bones protect intestines and reproductive organs etc. Bones provide a framework for the attachment of muscles and other tissues. Bones enable body movement by acting as a lever and point of attachment. Blood cells are produced in red bone marrow which is found in the bone cavities. The teacher will show the display picture of functions of bones in human skeleton. The teacher will then focus on the muscles of human body. The teacher will tell the class that: Muscles are elongated fibers of the body which contract and relax to produce motion. Muscles form muscular system. We have more than 600 muscles in our body. They do everything related to movement in our body. It serves to hold the structures together and keep them stable. They help us in pumping blood throughout our body and help us in lifting our heavy school bags. Muscles attach with bone through tendons, where tendons are a kind of connective tissues. Ligaments are also connective tissues. They connect one bone to another bone. The teacher will show the display picture showing muscle, bone, tendon and ligament for better understanding of students.

The teacher will introduce vocabulary and do the model reading.



*She will invite students for reading.*

**Activity:**

*The teacher will divide the class into two groups. Group one will prepare its topic bones and will present in front of rest of the class and group two will do the same with muscles.*

**Conclusion:** *The teacher will ask students to conclude the session*

**Lesson 4, 5 and 6**

**Teaching objectives:**

*Explain briefly about lungs, stomach, brain and heart.*

**Materials required:**

*Display pictures showing stomach, lung, brain and heart.*

*Writing board (Black or White). Chalks or Markers. Duster.*

**Introduction:**

*Greet students and ask them to name things a living thing needs to stay alive. Ask them what if we do not get oxygen. Show them the picture of lungs and ask about them.*

**Classroom Activity:**

*It is the mechanical device of the human body. Lungs are present in chest cavity. Lungs are balloon shape and sac like structure that helps in breathing. Lungs allow external air to move in and internal air to move out during breathing. Air enters in the body through nose and it reaches to the lungs through an air passage called wind pipe. The teacher will further explain that lungs help in inhalation of oxygen from the air we breathe and enter into the red blood cells. Red blood cells carry this around the body for utilization. Lungs also help to get rid of carbon dioxide when we breathe out. The teacher will show the display picture of lungs and breathing and will also tell the air passage way to the class: nose and mouth ⇌ wind pipe ⇌ lungs.*

*The teacher will explain the students that their lungs are like balloons. During inhalation, the lungs get filled with air and expand. During exhalation, the lungs contract, or get smaller, and push out carbon dioxide. So, teacher will blow up the balloons to model the lungs. The teacher will discuss with the*

students about how their chests and lungs feel when they are sick. Would it be harder to blow up a balloon if they had a cold? Why? The teacher will discuss the answers with the students. Invite them to read about lungs from the book. Ask them what to do to keep our lungs healthy. She will then move to the topic „heart“. The teacher will explain that it is the strong pumping organ of the body which pumps the blood throughout the body. The teacher will further add that human heart is enclosed in pericardium layer. This layer prevents the heart from any extension. Heart wall contain the most powerful muscles of the body called cardiac muscles. Heart is protected by ribcage and it lies at left side in the chest cavity. The teacher will also tell the students that heart beats 3 billion times in an average life time. The teacher will then ask the students that how we can keep our heart healthy. The students will give different replies and then the teacher will summarize by saying that we should keep these things in mind: Regular exercise, Healthy eating habits, Avoid fatty foods, Avoid smoking, Maintain weight, Reduce and manage stress .The teacher will show the display picture of heart to the class.

The teacher will ask them about stomach and tell the students about structure and function of stomach. The teacher will tell that it is the part of alimentary canal which is a sac like structure. It lies just below the ribs. It is present on the left side of chest cavity. Its volume is about one to five litres. The walls of stomach are made up of elastic and smooth muscles. It contains gastric juices which digest the food. Gastric juice also kills the germs. The teacher will then show the display picture of stomach for better understanding.

The teacher will now ask students to name the bossy part of their bodies. She will tell the class that brain is most important organ of our body. Brain is enclosed in skull and continues with the spinal cord. It controls all the functions of our body. It is called the boss of our body. The teacher will then explain that mainly the brain has three main parts: fore brain, mid brain and hind brain. These parts are further divided into three sub portions: Cerebrum: It is the largest part of brains. It makes about 85% of the total brain. Cerebrum is concerned with thinking, memory, judgment, speech and all voluntary actions. Cerebellum: It is the second largest part of brain. It is about one eighth of total brain. Cerebellum concerns with balance of body and coordination of muscles. Medulla oblongata: It is the part of brain which connects brain and spinal cord. Medulla concerns with all involuntary actions of the body. The teacher will explain the difference between will show the display picture of parts of brain.

*After that the teacher will read the text to the students and explain it well.*

**Activity:**

*The teacher will divide the class into four groups. Group one will prepare its topic lungs and will present in front of rest of the class and group two will do the same with heart, group three will present stomach and group 4 will present brain.*

**Conclusion:** *The teacher will ask students to conclude the session*

**Lesson 8 and 9**

**Teaching objectives:**

- *Identify and explain the function of each part of a plant*

**Materials required:**

- *Display pictures of parts of a plant*
- *Writing board (black or white), chalks or markers and duster*

**Introduction:**

*Ask students to name a few plants.*

*Ask them to name things we get from plants.*

*Ask what they need to stay healthy.*

*Ask what plants need to grow.*

*Write the responses on the writing board.*

*Explain to students that today we will be learning about plants.*

**Classroom Activity:**

*The teacher will announce that we are going to study the Chapter 2 of Science 4 today. After that announcement, the teacher will write the name of chapter and the topic on the writing board.*

*She will ask them to name different parts of a plant and their roles in the life of a plant. She will show them a plant and tell them about its parts.*

*She will invite them for reading the text from the book and explain it well to them.*

**Activity:**

*After explaining the text from the book, the teacher will ask them to do the role play of different parts of a plant.*

**Conclusion:**

*A few students will revise the text in correct pronunciation.*

*The teacher will correct the mistakes of the students (if any).*

**Note**

*In the next lessons, the teacher will invite students to do question 1 in pairs. She will provide the correct answers and help them to do the needful corrections.*

*She will introduce question 2 and encourage them to answer the questions. She will share her answers and encourage students to write Q/A neatly in their notebooks.*

*Use next periods for revision and test.*



**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their prior knowledge regarding sign & symptom.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will do model reading of the topic (pg 38 & 39)
- ❖ She will invite the whole class for a discussion about the methods of preventing common diseases and their transmission.
- ❖ She will write Q.3 (d) on the board and divide the students into groups to find the most relevant answer. She will do needful corrections.
- ❖ She will ask the students to do that Q/A in their notebook.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 3**

Topic # Human Health

period = 3

Teaching objectives.

- By the end of this lesson, students will be able to:
- Describe the importance of maintaining good health.
- Recognize everyday behaviors that promote good health.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding methods of preventing common diseases and their transmission.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will do model reading of the topic pg 39 & 40
- ❖ She will make pairs of students and will ask them to discuss about the importance of maintaining good health.

- ❖ She will write the Q.3 (e) on the board and will ask the students to write down the possible answers in pairs in their notebooks
- ❖ Teacher will do the corrections.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



### Unit : 3

Topic # Human Health period = 4

**Teaching objectives.**

- By the end of this lesson, students will be able to:
- Define balanced diet and explain its components
- Identify common food sources included in a balanced diet.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

- Greet students.
- Draw a bubble map on the board and encourage students to share their prior knowledge regarding diseases.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will hold a whole class discussion about what is a balance diet and what are its components.
- ❖ She will encourage the students to read pg no 40 & 41 randomly.
- ❖ She will make pairs of students and will ask them to find and write the possible answer of Q.3 (f) in their notebooks.
- ❖ She will provide the needful corrections

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



### Unit : 3

Topic # Human Health period = 5

Teaching objectives.

By the end of this lesson, students will be able to:

Understand the value of clean drinking water and inquire about the factors that make it unclean.

Explore a few ways that can help make water clean and suitable for drinking.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their prior knowledge regarding balance diet and its components.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will hold a discussion about the importance of clean water in the class.
- ❖ She will introduce the factors that make the water unclear to the people.
- ❖ She will read pg 41 & 42 for the students and will explain it.
- ❖ She will make pairs of students and will ask them to find and write answer to Q.3 (g,h) in their notebooks..

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

Evaluation:

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



### Unit : 3

Topic # Human Health period = 6

Teaching objectives.

By the end of this lesson, students will be able to:

Recall the main points of the lesson

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their prior knowledge regarding making water clear.



**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will conduct a small quiz regarding the topic human health in the class.
- ❖ She will encourage the students to solve Q.1 & 2 (pg 43 & 44) individually.
- ❖ She will check their work and will provide them with needful corrections.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 4**

Topic # Matter and its Characteristics

period = 1

Teaching objectives.

By the end of this lesson, students will be able to:  
Describe matter and its states (Solid, liquid, gas)

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their prior knowledge regarding Matter and its characteristics.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will recall three states of matter through concrete materials
- ❖ Teacher will explain it to students that matter is everything that we come across in our lives.
- ❖ Teacher will ask the students to read pg# 46 and will explain it
- ❖ Teacher will make pairs of students and will ask them to find and write the answer of the question. What are atoms?
- ❖ She will provide the needful corrections and will guide the students to write it in their notebooks.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



### Unit : 4

Topic # Matter and its Characteristics period = 2

Teaching objectives.

- By the end of this lesson, students will be able to:  
Describe characteristics of each state of matter with examples

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.  
Draw a bubble map on the board and encourage students to share their learning regarding matter and its states.

**Methodology:**

- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 47 and read the content.
- ❖ Explain the content to Prem.
- ❖ Let them underline the difficult words
- ❖ Teacher will invite the students to find three states of matter (objects) in the class.
- ❖ She will encourage students to list up states of matter in form of objects in groups.
- ❖ She will check their lists accordingly.
- ❖ She will guide the students to do Q.2 & Pg 53.

**Activity:**

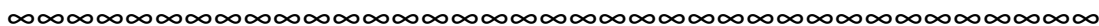
Tell the students to get divided into groups and discuss the topic read today.

Evaluation:

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



### Unit : 4

Topic # Matter and its Characteristics period = 3

Teaching objectives.

- By the end of this lesson, students will be able to:  
Compare and sort objects and materials on the basis of Physical Properties.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding characteristics of states of matter.

**Methodology:**

- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 48 & 49 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words
- ❖ Teacher will hold an open discussion about the physical properties of materials.
- ❖ She will encourage the students to share their understanding with the whole class.
- ❖ She will make groups of students and invite them to share their understandings.
- ❖ She will provide the needful corrections.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

Evaluation:

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 4**

Topic # Matter and its Characteristics

period = 4

Teaching objectives.

By the end of this lesson, students will be able to:

Explore the properties of metal including appearance, texture, colour, order, density

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding characteristics of each state of matter.

**Methodology:**

- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 50 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words
- ❖ Teacher will show different metals to students to make their concept clear.
- ❖ She will write Q .4 (c) on the board and will invite random students to write the answer to the asked question on the board. She will do the corrections and will sk the students to write it in their notebook.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 4**

Topic # Matter and its Characteristics

period = 5

Teaching objectives.

By the end of this lesson, students will be able to:  
Identify properties of metal

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding properties of metal.

**Methodology:**

- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 49 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words
- ❖ She will encourage the students to do Q.4 (e) in their notebooks
- ❖ Teacher will introduce conductors and insulators to students. She will explain briefly.
- ❖ She will encourage the students to name the conductors and insulators as a whole class activity.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 4

Topic # Matter and its Characteristics

period = 6

Teaching objectives.

By the end of this lesson, students will be able to:  
Reinforce the main points of the chapter

### Resources:

Board, marker, duster, book

### Start/Approach:

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding conductors and insulators.

### Methodology:

- ❖ Announce the topic.
- ❖ Teacher will organize a quiz regarding the main points of the chapter.
- ❖ Teacher will encourage the students to do Q.1 (pg 52) and Q.3 (pg 53) individually.
- ❖ She will mark it as assessment for learning.

### Activity:

Tell the students to get divided into groups and discuss the topic read today.

### Evaluation:

- 1 By reading
- 2 By questioning
- 3 From the written work

### Wrap-up:

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 4

Topic # Matter and its Characteristics

period = 7

Teaching objectives.

By the end of this lesson, students will be able to:  
Express their learning through writing

### Resources:

Board, marker, duster, book

### Start/Approach:

Greet students.

Encourage students to share their learning regarding characteristics of each state of matter.

### Methodology:

- ❖ Announce the topic.

- ❖ Teacher will write a question on the board (Q a. Ex.2 pg 60) and will encourage the students to write down the answer on the board. She will do corrections.
- ❖ Teacher will guide the students to write that Q/A in their note books.
- ❖ She will help the students to do all the Q/A in the same way.
- ❖ Peer checking will be encouraged.

**Activity:**

Tell the students to get divided into groups and discuss the Q/A done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5A

Topic # Energy, its forms and Energy Transfer period = 1

Teaching objectives.

By the end of this lesson, students will be able to:

Identify sources of energy (e.g. the sun, flowing water, wind, coal, oil, gas)

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will put off all the lights of the class and will ask about the sources of light from the students.
- ❖ Teacher will clear the concept of energy sources of students
- ❖ She will take the students out of the class and will ask the students about the energy source and its benefits.
- ❖ She will have a fruitful discussion with the students about the sources of energy.
- ❖ Ask students to open their books at page no. 55 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words
- ❖ Teacher will guide the students to make a list of energy sources individually
- ❖ Teacher will do corrections in students work.

**Activity:**

Tell the students to get divided into groups and discuss about energy and its sources done today.

**Evaluation:**

- 1 By reading

- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 5A**

Topic # Energy, its forms and Energy Transfer period = 2

Teaching objectives.

By the end of this lesson, students will be able to:

Recognize that energy is needed to do work, e.g, for moving objects, heating and lighting

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding energy and its sources.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will ask the students if there would be no fuel in a car what would happen?
- ❖ If you would have no food to eat that would happen to you?
- ❖ Teacher will make it clear to students that energy is needed to do work.
- ❖ Ask students to open their books at page no. 56 (specific paragraph) and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Teacher will make pairs of students and will encourage them to write down uses of energy.
- ❖ She will invite the students to presents their work in front of the rest of the class.
- ❖ Needful corrections will be provided by the teacher.

**Activity:**

Tell the students to get divided into groups and discuss uses of energy done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 5A**

Topic # Energy, its forms and Energy Transfer

period = 3

Teaching objectives.

By the end of this lesson, students will be able to:

Describe and demonstrate the transformation of energy.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding the uses of energy.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will explain it to students that transformation of energy means the process through which energy is changed from one form to another.
- ❖ Teacher will use the picture given on pg 56 to clear the concept of transformation of energy
- ❖ Ask students to open their books at page no. 56 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words
- ❖ Teacher will guide and help the students to draw flow chart of energy transformation on the board like, chemical energy converted into light energy
- ❖ She will provide needful corrections.

**Activity:**

Tell the students to get divided into groups and discuss transformation of energy read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 5A**

Topic # Energy, its forms and Energy Transfer

period = 4

Teaching objectives.

By the end of this lesson, students will be able to:

Understand the importance of energy conservation.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding transformation of energy.

**Methodology:**



- ❖ Announce the topic.
- ❖ Teacher will ask the students that what if they would not turn off the computer after using it?
- ❖ What if you would let the lights turn on for all the time?
- ❖ What will happen if we would waste the energy?
- ❖ Ask students to open their books at page no. 57 (specific paragraph) and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Teacher will invite the students to present their understanding about conservation of energy and its importance in front of the whole class.
- ❖ Teacher will make pairs of students and will guide them to write the importance of energy conservation in their notebook.
- ❖ Teacher will do corrections.

**Activity:**

Tell the students to get divided into groups and discuss about conservation of energy done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 Through presentation
- 4 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5A

Topic # Energy, its Forms and Energy Transfer period = 5

Teaching objectives.

By the end of this lesson, students will be able to:

Recognize the role and responsibility of humans to conserve energy resources

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding importance of energy conservation.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will hold a discussion about the importance and ways of conservation of energy in the class as whole class activity
- ❖ She will realize the students about their responsibility to conserve energy
- ❖ She will have a discussion about the ways to save energy

- ❖ Ask students to open their books at page no. 57 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Teacher will make pairs of students and will encourage them to write the ways of conserving energy.
- ❖ She will encourage the students to present their work in front of the whole class.
- ❖ Teacher will do corrections.

**Activity:**

Tell the students to get divided into groups and discuss ways to conserve energy read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5A

Topic # Energy, its forms and Energy Transfer period = 6

Teaching objectives.

- By the end of this lesson, students will be able to:
- Express their learning through written work

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding the topic.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce Ex 1 & 3 to students.
- ❖ She will encourage them to solve those exercises individually.
- ❖ She will do the corrections.

**Activity:**

Tell the students to get divided into groups and discuss exercises done today.

**Evaluation:**

- 1 By reading
- 2 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5A

Topic # Energy, its forms and Energy Transfer

period = 7

Teaching objectives.

By the end of this lesson, students will be able to:

Answer the questions

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding the topic.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will write a question on the board and will invite the students to write the answer on the board randomly.
- ❖ Teacher will do the corrections
- ❖ She will guide the students to note down that Q/A in their notebooks.
- ❖ She will help the students to do all the Q/A of Ex 2 in the same way.
- ❖ She will do checking of students work.

**Activity:**

Tell the students to get divided into groups and discuss the questions answers done today.

**Evaluation:**

1 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5B

Topic # Light and Sound

period = 1

Teaching objectives.

By the end of this lesson, students will be able to:

Relate familiar physical phenomena (i.e, shadows, reflection, and rain bows) to the behavior of light.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding energy and its sources.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce behavior of light to students.
- ❖ She will make bubbles with surf and will guide the students of observe the colors they can see in the bubbles.
- ❖ She will ask the students to write down their names in slips of papers and watch them in a mirror and share their understanding.
- ❖ She will help the students to read pg 63,64 and 65. She will explain the content to the students.
- ❖ She will have fruitful discussion about the behavior of light with the students.
- ❖ She will invite the students to share their understanding about shadow, reflection and rainbow their findings.
- ❖ Needful corrections will be provided by the teacher.

**Activity:**

Tell the students to get divided into groups and discuss the behavior of light done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 5B**

Topic # Light and Sound period = 2

Teaching objectives.

By the end of this lesson, students will be able to:

Relate familiar physical phenomena (i.e, vibrating objects, echoes) to the production and behavior of sound.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding the behavior of light.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will help the students to make their own telephones.
- ❖ She will give them instructions to use string and paper cups (glass)
- ❖ She will encourage the students to experience the vibration created by the sounds they utter.
- ❖ Ask students to open their books at page no. 65 \* 66 and read the content.

- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ She will ask the students that why the sound in open places echoes? Why it is hollow at mountainous places?
- ❖ Teacher will have a fruitful discussion with the students regarding the topic.
- ❖ She will invite the students to explain the production and behavior of sound to their class mates.
- ❖ Needful corrections will be provided by the teacher.

**Activity:**

Tell the students to get divided into groups and discuss about the production and behavior of sound done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 Through presentation

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 5B**

Topic # Light and Sound period = 3

Teaching objectives.

By the end of this lesson, students will be able to:  
Express their learning through written tasks.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding the production and behavior of sound.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce Ex 1, 2 and 4 to students.
- ❖ She will encourage them to solve them individually.
- ❖ She will provide the needful corrections.

**Activity:**

Tell the students to get divided into groups and discuss the exercise done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 5B**

Topic # Light and Sound period = 4

Teaching objectives.

By the end of this lesson, students will be able to:

Answer the questions

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding light and sound.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will write a question on the board and will encourage the students to write down its answer on the board.
- ❖ Teacher will do correction
- ❖ She will guide the students to note down that Q/A in their notebooks.
- ❖ In the similar way, she will help the class to complete all the questions/answer of pg 69 on their notebook.
- ❖ She will check the students' work.

**Activity:**

Tell the students to get divided into groups and discuss the Q/A done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5C

Topic # Transfer of Heat period = 1

Teaching objectives.

By the end of this lesson, students will be able to:

Understand that heating on objects causes its particles to move faster, while cooling it causes them to move slower.

### Resources:

Board, marker, duster, book, pan, water to boil, stove.

### Start/Approach:

Greet students.

Encourage students to share their prior knowledge regarding heat energy.

### Methodology:

- ❖ Announce the topic.
- ❖ Teacher will take the students to the kitchen and will boil water in front of them.
- ❖ She will encourage the students to share their findings about the boiling water especially the bubbles created in the water due to heat.
- ❖ She will give a chance to every student to hold a cup of warm water and feel its warmth.
- ❖ Ask students to open their books at page no. 71 & 72 and read the content
- ❖ Explain the content to them
- ❖ Let them underline the difficult words.
- ❖ Teacher will invite the students to share their understanding that heating an object causes its particles to move faster with the rest of the class.
- ❖ She will make pairs of students and will guide them to write about the heat energy.
- ❖ She will provide the needful corrections.

### Activity:

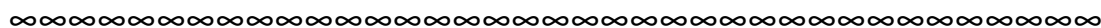
Tell the students to get divided into groups and discuss about the heat energy read today.

### Evaluation:

- 1 By reading
- 2 By questioning
- 3 Through presentation
- 4 From the written work

### Wrap-up:

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5C

Topic # Transfer of Heat period = 2

Teaching objectives.

By the end of this lesson, students will be able to:

Differentiate between heat and temperature.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their prior knowledge heat energy.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce the term temperature to students.
- ❖ Teacher will make two columns on the board as given below:

heat	Temperature

- ❖ Ask students to open their books at page no. 73 and read the content
- ❖ Explain the content to them
- ❖ Let them underline the difficult words.
- ❖ She will make two groups of students and will invite to write down difference between heat and temperature on the board.
- ❖ She will provide the needful corrections.
- ❖ She will encourage the students to note down the differences in their notebooks.
- ❖ Peer checking will be encouraged.

**Activity:**

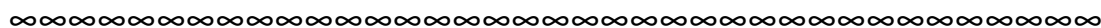
Tell the students to get divided into groups and discuss about the difference between heat and temperature done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 Through written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 5C**

Topic # Transfer of Heat

period = 3

Teaching objectives.

By the end of this lesson, students will be able to:

Recognize that warmer objects have a higher temperature than cooler objects.

**Resources:**

Board, marker, duster, book, two pots.

**Start/Approach:**

Greet students.



Draw a bubble map on the board and encourage students to share their learning regarding differences between heat and temperature.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will present two pots with different objects like ice and hot water in front of the students and will ask them about their temperature.
- ❖ She will make it clear to students that warmer objects have higher temperature than cooler objects.
- ❖ She will ask students to open their books at page no. 73 and read the content
- ❖ Explain the content to them
- ❖ Let them underline the difficult words.
- ❖ She will encourage the students to present their learning with proofs in front of the whole class.
- ❖ Teacher will provide with the needful corrections.

**Activity:**

Tell the students to get divided into groups and discuss about the difference of temperature of warm and cool objects done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 Through presentation

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 5C**

Topic # Transfer of Heat period = 4

Teaching objectives.

By the end of this lesson, students will be able to:

Explain that movement of particles is due to their kinetic energy.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding difference of temperature of warm and cool objects.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will explain to students that movement of particles is due to their kinetic energy.
- ❖ Teacher will explain kinetic energy to students.

- ❖ She will invite the students to think of the ways they can present their finding that movement of particles is due to kinetic energy.
- ❖ She will invite the students to share it with their class mates.

**Activity:**

Tell the students to get divided into groups and discuss the kinetic energy read today.

**Evaluation:**

- 1 By questioning
- 2 Through presentation

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5C

Topic # Transfer of Heat period = 5

Teaching objectives.

By the end of this lesson, students will be able to:  
Investigate the changes that brought in contact with a cold object.

**Resources:**

Board, marker, duster, book, tow bowls, ice hot water.

**Start/Approach:**

Greet students.  
Encourage students to share their learning regarding kinetic energy.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will provide two bowls to students. One full of ice cubes and the other with hot water.
- ❖ She will encourage the students to investigate the changes that occur when a hot object is brought in contact with a cold object.
- ❖ She will encourage the students to share their findings as a whole class discussion.
- ❖ She will invite the students to write their findings in steps on the board as well
- ❖ She will provide needful corrections
- ❖ She will encourage the students to write down the answer of the question why do ice cubes melt at room temperature randomly on the board.
- ❖ Teacher will do corrections in the answer and will guide the class to note down it in their note books.

**Activity:**

Tell the students to get divided into groups and discuss the changes occur when a hot object is brought into contact with cold object.

**Evaluation:**

- 1 By questioning

- 2 From written work
- 3 From discussion

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 5C**

Topic # Transfer of Heat period = 6

Teaching objectives.

By the end of this lesson, students will be able to:  
Identify ways to measure temperature and understand its unit.

**Resources:**

Board, marker, duster, book, digital thermometer and clinical thermometer

**Start/Approach:**

Greet students.  
Encourage students to share their learning regarding reactions of heat.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce clinical and digital thermometers to students and will teach them their usage as well.
- ❖ She will help the students to take the readings of thermometers
- ❖ She will ask students to open their books at page no. 74 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ She will draw clinical thermometer on the board and will invite the students to label the parts.
- ❖ She will help the students to do Ex = 4 of pg = 77 individually.
- ❖ She will invite the students randomly to the board to write down the differences between the two commonly used scales to measure the temperature?
- ❖ Needful corrections will be provided by the teacher and will ask the students to write those difference in their notebooks.
- ❖ Peer checking will be encouraged.

**Activity:**

Tell the students to get divided into groups and discuss the thermometers the have observed today.

**Evaluation:**

- 1 by reading
- 2 By questioning
- 3 From written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5C

Topic # Transfer of Heat period = 7

Teaching objectives.

By the end of this lesson, students will be able to:  
Express their learning through written work.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding transfer of heat.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce Ex 1 and 2 to students. She will encourage them to do it individually.
- ❖ She will make pairs of students and will guide them to do Ex 3 and remaining questions /Answers of Ex 2 in their notebooks.
- ❖ Needful corrections will be provided by the teacher.

**Activity:**

Tell the students to get divided into groups and discuss the exercises done today.

**Evaluation:**

1 From written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5D

Topic # Electricity and Electrical Circuits period = 1

Teaching objectives.

By the end of this lesson, students will be able to:

Describe and demonstrate that electrical energy in a circuit can be transformed into other forms of energy (e.g heat, light and sound)

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding electricity.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will ask the students about the benefits of electricity that they can observe in their surroundings?

- ❖ Teacher will encourage the students to demonstrate that electrical energy in a circuit can be transformed into heat light and sound.
- ❖ Teacher will ask students to open their books at page no. 79 & 80 and read the content
- ❖ Explain the content to them
- ❖ Let them underline the difficult words.
- ❖ Teacher will have a fruitful discussion about the components of electrical circuit.
- ❖ Teacher will provide needful corrections
- ❖ She will encourage the students to present their work in front of the whole class.

**Activity:**

Tell the students to get divided into groups and discuss the about electricity and its transformation into other forms.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5D

Topic # Electricity and Electrical Circuits

period = 2

Teaching objectives.

By the end of this lesson, students will be able to:

Explain and provide reasoning that a simple electric circuit requires a complete electrical pathway.

**Resources:**

Board, marker, duster, book, circuit

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding transformation of electrical energy into light, heat and sound.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will show a circuit to students and explain the path of electricity, importance of switch bulb, wires and battery to students.
- ❖ She will explain it to students that simple electric circuit requires a complete electrical pathway.
- ❖ She will ask students to open their books at page no. 81 & 82 and read the content
- ❖ Explain the content to them
- ❖ Let them underline the difficult words.
- ❖ Teacher will ask the students to share their learning regarding electric current, electric circuit in written form on the board.

- ❖ She will provide needful corrections.
- ❖ She will encourage the students to note it down in their note books.

**Activity:**

Tell the students to get divided into groups and discuss the electrical circuit and electrical current read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 5D

Topic # Electricity and Electrical Circuits

period = 3

Teaching objectives.

By the end of this lesson, students will be able to:  
Express their learning through written work.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Draw a bubble map on the board encourage students to share their learning regarding electrical circuit.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce Ex 1, 2, 3 to students and encourage them to complete the exercises in pairs.
- ❖ Teacher will invite the students to write down differences between open and closed circuit. She will make two columns on the board. Open circuit/closed circuit.
- ❖ Teacher will provide needful corrections. She will encourage the whole class to note down the differences in their note books.
- ❖ In the same way, she will encourage the students to do Q/d of Ex. 4.

**Activity:**

Tell the students to get divided into groups and discuss the exercises done today.

**Evaluation:**

- 1 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



Topic # Forces and Motion

period = 2

Teaching objectives.

By the end of this lesson, students will be able to:

Identify gravity as a force that draw objects towards the earth.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding forces.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce types of forces to students. She will throw (drop down) something from her hand and will explain about force of gravitation to the students.
- ❖ She will ask students to open their books at page no. 89 and read the content
- ❖ Explain the content to them
- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.
- ❖ Teacher will write a question what is gravitation force on the board and will invite the students to write the answer.
- ❖ She will do the corrections
- ❖ She will guide the students to write the Q/A in their notebooks
- ❖ Peer checking will be encouraged.
- ❖ Teacher will invite the students to come to the front and explain gravitational force turn by turn.

**Activity:**

Tell the students to get divided into groups and discuss the gravitational forces.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work
- 4 Through presentation

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 6**

Topic # Forces and Motion

period = 3

Teaching objectives.

By the end of this lesson, students will be able to:

Investigate that friction force works against the direction of motion.

**Resources:**

Board, marker, duster, book,



**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their prior knowledge regarding gravitational force.

**Methodology:**

- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 89, 90 and read the content
- ❖ Explain the content to them
- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.
- ❖ Teacher will ask the students to rub their hands fastly. She will ask Introduce difficult words and tell their meanings.
- ❖ Teacher will kick the ball and will ask the students to share their observation.
- ❖ Teacher will encourage the students to discuss in pairs and share their findings about examples of friction.

**Activity:**

Tell the students to get divided into groups and discuss the changes occur the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work
- 4 Through presentation

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 6**

Topic # Forces and Motion

period = 4

Teaching objectives.

By the end of this lesson, students will be able to:

Provide reasoning with evidence that friction can be either detrimental or useful under different circumstances

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding friction.

**Methodology:**

- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 90 and read the content
- ❖ Explain the content to them

- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.
- ❖ Teacher will divide the class into two groups. Teacher will prepare the board in this way.
- ❖ Advantages of disadvantages of friction.
- ❖ One group will write advantages of friction on the board and the other will write disadvantages of friction on the board.
- ❖ Teacher will provide the needful corrections
- ❖ She will guide the students to note down advantages and disadvantages of friction in their notebooks
- ❖ Peer checking will be encouraged.

**Activity:**

Tell the students to get divided into groups and discuss about the advantages and disadvantages of friction.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 6

Topic # Forces and Motion

period = 5

Teaching objectives.

By the end of this lesson, students will be able to:

Recognize that simple machines, (e.g., levers, pulleys, gears, ramps) help make.

Motion easier (e.g) make lifting things easier, reduce the amount of force.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding advantages and disadvantages of friction.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will ask the students that if we have a very heavy load, and a very less power, how we would be able to lift the load?
- ❖ When we have to change the tyre of a car or a bus, what help us to lift the car up?
- ❖ Ask students to open their books at page no. 91, 92, 93 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.

- ❖ Teacher will encourage the students to take a round of the class and then of the whole school and find out the simple machines which are making our lives easier. She will also show them.
- ❖ Teacher will invite the students to the board and will encourage them to write their understanding about lever, pulley, gear and ramp.
- ❖ Teacher will do corrections and will ask the students to note it down in their notebooks
- ❖ She will guide the students to write the Q/A in their notebooks.

**Activity:**

Tell the students to get divided into groups and discuss the changes occur about the lever, gear, pulley and ramp.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 6

Topic # Forces and Motion

period = 6

Teaching objectives.

By the end of this lesson, students will be able to:

Learn about the inclined plane, its uses and will be able to play a game by using pieces from STEM kit.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding gear, ramp, pulley, lever.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will show pictures of inclined plane from the book (pg 95) to students. she will explain the advantages and used of inclined plane to students.
- ❖ She will encourage students to play a game by using pieces from their STEM kit.
- ❖ She will encourage the students to share their understanding in written form on the board.
- ❖ Needful corrections will be provided by the teacher.
- ❖ She will encourage the students to write own their findings in their notebooks in pairs.
- ❖ She will do corrections in their work.

**Activity:**

Tell the students to get divided into groups and discuss the changes occur about the ramp (inclined plane).

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 6**

Topic # Forces and Motion period = 7

Teaching objectives.

By the end of this lesson, students will be able to:  
Express their learning through written work

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.  
Encourage students to share their learning regarding inclined plane.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce exercise no 1, 2, 4 of pg 96 & 97
- ❖ She will encourage the students to solve them individually (if some students would find it difficult than pairs can be made)
- ❖ Needful corrections will be provided by the teacher
- ❖ She will encourage the students to do these exercises in their notebooks.

**Activity:**

Tell the students to get divided into groups and discuss the exercises done today.

**Evaluation:**

- 1 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 6**

Topic # Forces and Motion period = 8

Teaching objectives.

By the end of this lesson, students will be able to:  
Answer the questions regarding the topic

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding the topic.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will encourage the students to share their learning regarding the topic (main chunks)
- ❖ She will write Q+1 of exercise no 3 (pg 97) on the board and will invite the students to write the answer on the board.
- ❖ She will do the corrections.
- ❖ She will guide the students to write it in their notebooks
- ❖ The questions/answer of Ex 3 will be done in the same way.
- ❖ Peer checking will be encouraged.

**Activity:**

Tell the students to get divided into groups and discuss the questions answer done today.

**Evaluation:**

1 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 7

Topic # Earth and its Resources

period = 1

Teaching objectives.

By the end of this lesson, students will be able to:

Recognize that the surface of the earth is made of h and water and is surrounded by air.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their prior knowledge regarding earth's surface.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will reinforce the prior knowledge by asking the following questions.  
What is an earth?  
Why do we call earth a blue planet?  
Why water is so important?  
How much area of earth is covered with water?  
Why do we need fresh water?
- ❖ Ask students to open their books at page no. 99 and read the content.

- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.
- ❖ Teacher will write a question on the board.
- ❖ What is the surface of the earth made off?
- ❖ She will encourage the students to write down the answer.
- ❖ She will do corrections
- ❖ She will guide the students to write that specific Q/A in their notebook
- ❖ Peer checking will be encouraged.

**Activity:**

Tell the students to get divided into groups and discuss about the surface of the earth the read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 7

Topic # Earth and its Resources

period = 2

Teaching objectives.

By the end of this lesson, students will be able to:

Recognize that water in rivers and streams flows from mountains to oceans or lakes.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding surface of earth.

**Methodology:**

- ❖ For the reinforcement, teacher will ask some questions from the students.  
How do water exists on earth?  
How much area of earth is covered with water?  
How much water is fresh water?  
What is the earth surrounded by?
- ❖ Ask students to open their books at page no. 100 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.
- ❖ Teacher will explain it to students that most of the water that we use comes from the rivers. Rivers start at some high point like mountains. (Teacher can show a video to students)

- ❖ Teacher will encourage the students to draw the path of water coming from mountains to oceans or lakes.
- ❖ Best presentations will be displayed in the class.

**Activity:**

Tell the students to get divided into groups and discuss the path of water from mountains to oceans or lakes read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 7

Topic # Earth and its Resources

period = 3

Teaching objectives.

By the end of this lesson, students will be able to:

Identify some of Earth's natural resources that are used in everyday life (e.g. water, wind, soil, forests, oil, natural gas, minerals)

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding flow of water from mountains to oceans or lakes.

**Methodology:**

- ❖ Teacher will ask the students that.  
What are resources?  
Who is a resource person in the class? What are minerals?  
What is natural gas?  
How we can get minerals?  
What do we call a person who dug for minerals?
- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 100 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.
- ❖ Teacher will make pairs of students and will encourage them to list down some natural resources.
- ❖ She will encourage them to research for the natural resources with the help of internet. (Teacher can take the students to it lab).

- ❖ She will encourage the students to share their findings with form of pairs the class mater in the form of pairs.

**Activity:**

Tell the students to get divided into groups and discuss about the natural resources read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 7

Topic # Earth and its Resources

period = 4

Teaching objectives.

By the end of this lesson, students will be able to:

Recognize that some remains (fossils) of animals and plants that lived on earth a long time ago are found in rocks, soil and under the sea.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding natural resources.

**Methodology:**

- ❖ Teacher will take the students to IT lab or science lab to show them some specimens of fossils if available.
- ❖ She will explain the word fossil to students.
- ❖ Ask students to open their books at page no. 100 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ She will write a question on the board
- ❖ What are fossils? Where do they found?
- ❖ She will encourage the students to write down the answer on the board.
- ❖ The best answer will be declared as the most possible answer.
- ❖ She will do the corrections
- ❖ She will encourage the students to write down Q/A in their notebooks.

**Activity:**

Tell the students to get divided into groups and discuss about the fossils read today.

**Evaluation:**

- 1 By reading
- 2 By questioning



3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 7**

Topic # Earth and its Resources

period = 5

Teaching objectives.

By the end of this lesson, students will be able to:

Differentiate between renewable and non-renewable resources

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding fossils.

**Methodology:**

- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 101 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.
- ❖ She will make two columns on the board with the headings of renewable resources and non-renewable resources.
- ❖ She will encourage the students to list down the resources under them.
- ❖ She will encourage the students to write down renewable and non-renewable resources in their notebooks the same way they did on the board.
- ❖ She will check their work.

**Activity:**

Tell the students to get divided into groups and discuss the renewable and non-renewable resources today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 7**

Topic # Earth and its Resources

period = 6

Teaching objectives.

By the end of this lesson, students will be able to:

Investigate the impact of human activities on earth's natural resources

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding renewable and non-renewable resources.

**Methodology:**

- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 102, 103 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.
- ❖ Teacher will introduce land and water as natural resources to the students.
- ❖ Teacher will encourage the students to talk and discuss about human's impacts on natural resources.
- ❖ Teacher will encourage the students to make poster of human impacts on natural resources
- ❖ She will guide the students to write down human impacts on natural resources in their notebooks in pairs
- ❖ She will do corrections.

**Activity:**

Tell the students to get divided into groups and discuss the human impacts on natural resources done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 7**

Topic # Earth and its Resources

period = 7

Teaching objectives.

By the end of this lesson, students will be able to:

Suggest the ways to conserve the natural resources.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding human impacts on natural resources.

**Methodology:**

- ❖ Announce the topic.
- ❖ As a whole class discussion teacher will held a discussion that how we can save our natural resources.
- ❖ She will note down the points on the board.
- ❖ Ask students to open their books at page no. 103 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Introduce difficult words and tell their meanings.
- ❖ Teacher will introduce land and water as natural resources to the students.
- ❖ Teacher will encourage the students to talk and discuss about human’s impacts on natural resources.
- ❖ She will encourage the students to write down the ways of conserving the natural resources in their notebooks
- ❖ Peer checking will be encouraged.
- ❖ Teacher will manage a thought provoking walk regarding conservation of natural resources within the school or out of the school boundary.
- ❖ She will help the students to make slogans and banners.

**Activity:**

Tell the students to get divided into groups and discuss about the conservation of natural resources done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 7**

Topic # Earth and its Resources

period = 8

Teaching objectives.

By the end of this lesson, students will be able to:

Express their learning through written work

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding the topic.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will introduce exercise no 1 of pg 105 to student and will encourage them to solve it individually.
- ❖ She will write a question from exercise no 2, pg no 105 on the board and will invite the students randomly to write the answer.
- ❖ She will do the corrections and will guide the whole class to write the Q/A in their notebooks
- ❖ In the same way all the Q/A will be done.
- ❖ Needful corrections will be provided by the teacher.

**Activity:**

Tell the students to get divided into groups and discuss the topic done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 8**

Topic # Earth's Weather and Climates

period = 1

Teaching objectives.

By the end of this lesson, students will be able to:

Understand the difference between weather and climate

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their prior knowledge regarding weather and climate.

**Methodology:**

- ❖ Teacher will show picture of pg 106 to students and will encourage them to talk about different weather conditions they can see.
- ❖ Teacher will guide the students about the differences between weather and climate.
- ❖ Announce the topic.
- ❖ She will ask students to open their books at page no. 107 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.

- ❖ She will encourage the students to write down their understanding about the difference between weather and climate on the board.
- ❖ She will do corrections.
- ❖ She will encourage the students to write the answer of the following questions in their notebooks what is a climate? What is a weather?
- ❖ She will do corrections.

**Activity:**

Tell the students to get divided into groups and discuss difference between weather and climate done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 8

Topic # Earth's Weather and Climates

period = 2

Teaching objectives.

- By the end of this lesson, students will be able to:  
Recognize the factors that effects the weathers changes.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their prior knowledge regarding weather and climate and the differences between the both.

**Methodology:**

- ❖ Teacher will ask the students about the factors that effects the weather conditions
- ❖ She will ask them that sometime it is very hot and suddenly the weather changes into rainy or windy how it happens?
- ❖ Announce the topic
- ❖ Ask students to open their books at page no. 108 & 109 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Teacher will take the students out of the class and will put a pot full of water in the sun. She will guide the students to observe it after home time.
- ❖ She will give the concept of evaporation, humidity, precipitation and temperature to students.
- ❖ She will invite the students to share their understanding regarding the factors effecting the weather in written form on the board.

- ❖ She will provide the needful corrections,
- ❖ She will encourage the students to write down the factors in their notebooks from the board.
- ❖ Peer checking will be encouraged.

**Activity:**

Tell the students to get divided into groups and discuss the topic read done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 8

Topic # Earth's Weather and Climates

period = 3

Teaching objectives.

By the end of this lesson, students will be able to:

Relate that weather (ie. Daily variations on temperature, humidity, precipitation in the form to rain to show, clouds and wind) changes with changing geographical location.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Encourage students to share their prior knowledge regarding factors that effects weather.

**Methodology:**

- ❖ Teacher will guide the students that there is relation between geographical location and weather.
- ❖ Teacher will give them examples of deserts, polar regions and plains that weather is different at different place.
- ❖ Announce the topic
- ❖ Ask students to open their books at page no. 110 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Teacher will invite the students randomly to present their understanding regarding the topic in front of the whole class.

**Activity:**

Tell the students to get divided into groups and discuss relation between geographical location and weather read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work
- 4 Through Presentation.

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.

**Unit : 8**

Topic # Earth's Weather and Climates

period = 4

Teaching objectives.

By the end of this lesson, students will be able to:

Recognize that average temperature and precipitation can change the seasons and location.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their prior knowledge regarding importance of geographical location for weather.

**Methodology:**

- ❖ Teacher will show video of climatic changes to students. (if IT Lab is available then teacher can show on computer otherwise she can use her mobile)
- ❖ Teacher will ask the students about the reasons of increase in temperature.
- ❖ What are the effects of human activities on climate?
- ❖ How precipitation is adding to increase in temperature?
- ❖ How evaporation is effecting atmosphere?
- ❖ Announce the topic
- ❖ Ask students to open their books at page no. 111 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ She will make a flow chart on the board to explain the effects of average temperature and precipitation on season.
- ❖ She will encourage the students to draw that flow chart on their notebooks.
- ❖ Teacher will do the corrections.

**Activity:**

Tell the students to get divided into groups and discuss the topic read done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 8

Topic # Earth's Weather and Climates

period = 5

Teaching objectives.

By the end of this lesson, students will be able to:  
Express their learning through written work.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding the topic.

**Methodology:**

- ❖ Announce the topic
- ❖ Teacher will introduce Ex 1 of pg 113 to students. she will encourage the students to solve it individually.
- ❖ Teacher will write Q no 1 of Ex # 20 f pg no 113 on the board.
- ❖ She will invite the students to write down the answer of that question.
- ❖ She will do needful corrections.
- ❖ She will guide the students to write down the Q/A in their notebooks.
- ❖ She will help the students to complete the Q/A in the same way.

**Activity:**

Tell the students to get divided into groups and discuss the exercises today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 9

Topic # Earth in the Solar System

period = 1

Teaching objectives.

By the end of this lesson, students will be able to:

Describe and demonstrate the solar system with the sun at the center and the planets revolving around the sun.



**Resources:**

Board, marker, duster, book, flip chart

**Start/Approach:**

Greet students.

Encourage students to share their prior knowledge regarding sun and planets.

**Methodology:**

- ❖ Announce the topic
- ❖ Teacher will show a model or flip chart of planets to students. She will guide the students about the importance of sun in solar system.
- ❖ Ask students to open their books at page no. 115 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Teacher will recall the names of planets with the students. She will ask the following questions.

Which is the biggest planet of solar system?

Which is the nearest planet to sun?

Which is the farthest planet to sun?

Which is the hottest planet and why it is so?

Why there is life only on earth?

**Activity:**

Tell the students to get divided into groups and discuss about the planets of solar system read today.

**Evaluation:**

- 1 By reading
- 2 By questioning

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 9**

Topic # Earth in the Solar System

period = 2

Teaching objectives.

By the end of this lesson, students will be able to:

Identify the sun as a source of heat and light for the solar system.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding planets of solar system.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will guide the students to draw a solar system in pairs.

- ❖ She will guide them to label the planets as well.
- ❖ Best work will be displayed in the class. She will ask the students what makes sun the biggest and brightest source of heat and light?
- ❖ She will ask students to open their books at page no. 115 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ She will ask the students that if there would be no sun, what would happen?
- ❖ She will explain the importance of sun in solar system to students.
- ❖ She will encourage the students to share their understanding.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 9

Topic # Earth in the Solar System

period = 3

Teaching objectives.

By the end of this lesson, students will be able to:

Recognize that the earth has a moon that revolves around it, and the moon looks different at different times of the month.

**Resources:**

Board, marker, duster, book, flip chart. globe ball, torch.

**Start/Approach:**

Greet students.

Encourage students to share their prior knowledge regarding importance of sun in solar system,

**Methodology:**

- ❖ Announce the topic
- ❖ Teacher will show a flip chart (or draw pictures) of different phases of moon to students.
- ❖ She will make it clear to students that moon revolves around the earth. During its revolution, it looks different during the month.
- ❖ Ask students to open their books at page no. 115 & 166 & 117 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.

- ❖ To teach the different phases of moon teacher will use a ball as a moon, globe as earth and torch as sun. She will show the students that moon has not its own light. It reflects the light of sun.
- ❖ She will show different phases of moon to students as well.
- ❖ Teacher will encourage the students to present their understanding in front of the whole class.
- ❖ Teacher will provide needful corrections.
- ❖ Teacher will guide the students to write down different phases of moon in their notebooks from their books and learn them.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work
- 4 Through Presentation.

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 9

Topic # Earth in the Solar System

period = 4

Teaching objectives.

By the end of this lesson, students will be able to:

Illustrate and explain how solar and lunar eclipses occur.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding phases of moon.

**Methodology:**

- ❖ Announce the topic
- ❖ Teacher will introduce lunar and solar eclipses to students.
- ❖ To check their prior knowledge she will ask the following questions.
- ❖ What is an eclipse?
- ❖ Does the moon has its own light?
- ❖ How does a moon move?
- ❖ Ask students to open their books at page no. 116, 117 & 118 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ When it is night, how the moon gives us light?

- ❖ Teacher will draw pictures of solar and lunar eclipses on the board and will encourage the students to label them.
- ❖ She will invite the students to present their understanding regarding solar and lunar eclipses.
- ❖ She will provide notes to students.

**Activity:**

Tell the students to get divided into groups and discuss solar and lunar eclipses read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 Through written work
- 4 Through Presentation.

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 9

Topic # Earth in the Solar System

period = 5

Teaching objectives.

By the end of this lesson, students will be able to:

Investigate and describe how day and night are related to earth's daily rotation about its axis.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding solar and lunar eclipses.

**Methodology:**

- ❖ Announce the topic.
- ❖ Ask students to open their books at page no. 118 & 119 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Teacher will invite the students to explain that how night and day are related to earth's daily rotation about its axis's.
- ❖ Teacher will make pairs of students and encourage them to share their understanding in written form.
- ❖ Teacher will do corrections.

**Activity:**

Tell the students to get divided into groups and discuss relation between geographical location and weather read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 9

Topic # Earth in the Solar System

period = 6

Teaching objectives.

By the end of this lesson, students will be able to:

Provide evidence of rotation from the changing appearance of shadows during the day.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding the formation of day and night.

**Methodology:**

- ❖ Announce the topic
- ❖ Teacher will take the students out of the class. She will mark their shadows, shadows of trees and some other objects on the floor.
- ❖ Ask students to open their books at page no. 119 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ After one hour she will take the students back to the place where they had marked the shadows.
- ❖ She will ask the students to observe the differences.
- ❖ During the school time she will take the students to the relevant place for thrice to observe the changes in shadows.
- ❖ Teacher will guide the students to observe their shadows at home as well and note down their findings. Very next day teacher will ask the students at which time of the day the shadows were long?
- ❖ She will explain the reason.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today..

**Evaluation:**

- 1 By reading
- 2 By questioning

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 9**

Topic # Earth in the Solar System

period = 7

Teaching objectives.

By the end of this lesson, students will be able to:

Describe how seasons in earth's northern and southern hemispheres are related to earth's annual movements around the sun.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Encourage students to share their learning regarding the changing appearance of shadows during the day.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will ask the students about their favorite season.
- ❖ She will ask the students why are there different seasons in a year?
- ❖ She will explain revolution of the earth and causes of change in seasons to students.
- ❖ Ask students to open their books at page no. 120 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Teacher will invite the students to write down the causes of changes in season on the board. She will provide the needful corrections.
- ❖ She will guide the students to write the causes of change in seasons in their note books from the board.
- ❖ Peer checking will be encouraged.

**Activity:**

Tell the students to get divided into groups and discuss causes of change in season read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 9

Topic # Earth in the Solar System

period = 8

Teaching objectives.

By the end of this lesson, students will be able to:  
Express their learning through written work

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.  
Encourage students to share their learning regarding revolution of earth.

**Methodology:**

- ❖ Announce the topic
- ❖ Teacher will introduce Ex no 1 & 2 to the students. she will encourage the students to solve them individually.
- ❖ She will do corrections.
- ❖ Teacher will write a question from Ex 3 on the board.
- ❖ She will invite the students to write the answer on the board.
- ❖ She will provide the needful corrections.
- ❖ Students will be guided to note down that Q/A in their notebooks.
- ❖ Q : a, b, c will be done in the similar way.

**Activity:**

Tell the students to get divided into groups and discuss the exercises done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 9

Topic # Earth in the Solar System

period = 9

Teaching objectives.

By the end of this lesson, students will be able to:  
Answer the questions

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.  
Encourage students to share their learning regarding the topic.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will write a question on the board and will encourage the students to write down the answer on the board.
- ❖ Teacher will provide the needful corrections.
- ❖ She will encourage the students to do rest of the questions/ answer.
- ❖ In the same way.
- ❖ Peer checking will do encouraged.

**Activity:**

Tell the students to get divided into groups and discuss the Q/A done today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 through written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



## Unit : 10

Topic : Technology in Everyday Life

period = 1

Teaching objectives.

By the end of this lesson, students will be able to:

Practice techniques of folding, cutting, tearing and pasting papers/card- boards to make objects/ patterns.

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their their prior knowledge regarding the uses of technology in daily life.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will divide the students into sector specific group and will guide them about paper bags making, making of models (of sphere, cube, prisms, cylinder and cone) and making of movable car, bus, trolley etc.
- ❖ She will encourage the students to read the procedures from the book.
- ❖ And follow the instructions and design the different objects.
- ❖ She will encourage the group leaders to present their design and process in front of the whole class.

**Activity:**

Tell the students to get divided into groups and discuss the designs read today.

**Evaluation:**

- 1 Through Presentation.



**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 10**

Topic : Technology in Everyday Life period = 2

Teaching objectives.

By the end of this lesson, students will be able to:

Operate mobile phone for use of calculator and alarm clock.

Operate mobile phone for audio, video recording/taking snap shots.

**Resources:**

Board, marker, duster, book, mobile phone

**Start/Approach:**

Greet students.

**Methodology:**

- ❖ Announce the topic.
- ❖ Teacher will divide the class into two groups and will invite them to discuss about the benefits and harms of mobile phone.
- ❖ Teacher will encourage the students to operate mobile for calculator, alarm clock, audio-video recording/ taking snap- shots.

**Activity:**

Tell the students to get divided into groups and discuss the uses of mobile phones read today.

**Evaluation:**

- 1 By reading
- 2 By questioning
- 3 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.

- ❖ Teacher will make pairs of students and will ask them to write benefits and harms of mobile phone in their notebooks.
- ❖ Teacher will do corrections.



**Unit : 10**

Topic # Technology in Everyday Life period = 3

Teaching objectives.

By the end of this lesson, students will be able to:

Use thermometer externally to measure, body temperature.

Check blood pressure with the help of digital blood pressure monitor.

**Resources:**

Board, marker, duster, book,

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding benefits and harms of mobile phone.

**Methodology:**

- ❖ Announce the topic
- ❖ She will ask students to open their books at page no. 140, 141, 142 and read the content.
- ❖ Explain the content to them.
- ❖ Let them underline the difficult words.
- ❖ Teacher will teach the use of thermometer and digital blood pressure monitor to students.
- ❖ Teacher will give a chance to every student to check the temperature and blood pressure of each other.
- ❖ Teacher will guide the students to share their findings with their class mates.

**Activity:**

Tell the students to get divided into groups and discuss the topic read today.

**Evaluation:**

- 1 By reading
- 2 By questioning

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.



**Unit : 10**

Topic # Technology in Everyday Life

period = 4

Teaching objectives.

By the end of this lesson, students will be able to:

Express their learning through written work

Answer the questions

**Resources:**

Board, marker, duster, book

**Start/Approach:**

Greet students.

Draw a bubble map on the board and encourage students to share their learning regarding the topic.

**Methodology:**

- ❖ Announce the topic
- ❖ Teacher will introduce Ex no 143 to students can will encourage them to solve the above mentioned exercises individually.
- ❖ Teacher will write the questions to exercise # 2 on the board and will encourage the students to write down their answer on the board.
- ❖ Teacher will do the corrections.
- ❖ Teacher will guide the students to write down those questions/answer on their note books.

**Activity:**

Tell the students to get divided into groups and discuss the exercises done today.

**Evaluation:**

1 From the written work

**Wrap-up:**

Ask students to share what they have learnt today and what they like the best about it.