

SYLLABUS OF SCIENCE FOR CLASS 6 (2026-2027)

First term

1. Chapter 1 – The Amazing World of Science
2. Chapter 2 – Discovering Diversity in the Living World
3. Chapter 3 – Mindful Eating
4. Chapter 4 – Playing with Magnets
5. Chapter 5 – Exploring Measurement of Length and Motion
6. Chapter 6 – Exploring Materials Around Us
7. Chapter 7 – Understanding and Measuring Temperature

Second term

8. Chapter 8 – A Journey Through the States of Water
9. Chapter 9 – The Magic of Separating Substances
10. Chapter 10 – Living Creatures and Their Surroundings
11. Chapter 11 – Nature's Resources
12. Chapter 12 – Looking Beyond the Earth

Chapter from First term

Chap 04: Playing with magnets

FIRST TERM

APRIL

1. Chapter 1 – The Amazing World of Science
2. Chapter 2 – Discovering Diversity in the Living World

MAY

3. Chapter 3 – Mindful Eating
4. Chapter 4 – Playing with Magnets

JULY

5. Chapter 5 – Exploring Measurement of Length and Motion

6. Chapter 6 – Exploring Materials Around Us

AUGUST

7. Chapter 7 – Understanding and Measuring Temperature and Revision

SEPTEMBER

First Term Examination

Periodic test 1:

Chap 02: Discovering diversity in the living world

SECOND TERM

OCTOBER

8. Chapter 8 – A Journey Through the States of Water

9. Chapter 9 – The Magic of Separating Substances

NOVEMBER

10. Chapter 10 – Living Creatures and Their Surroundings

DECEMBER

11. Chapter 11 – Nature's Resources

JANUARY

12. Chapter 12 – Looking Beyond the Earth + Revision

FEBRUARY

Second Term Revision

Important note: *Chapter from First term*

Chap 04: Playing with magnets

***Periodic test 2*: Chap 08: Journey through states of water**

Class: VI- SCIENCE LESSON PLAN (2026-2027)

Chapter 01: The Wonderful World of Science -

MONTH - April [For reading only]

No. of days needed for completing the topic – 05 days

Objectives

Students will be able to:

- To create curiosity about science in daily life.
- To understand the scope of science in explaining natural phenomena.
- Understand what science is and its role in daily life.
- Differentiate between Physics, Chemistry, and Biology.
- Appreciate the contributions of Indian and world scientists.
- Develop curiosity and questioning skills (scientific attitude).
- Learn methods of scientific inquiry (observation, hypothesis, experimentation).
- Recognize applications of science and technology in everyday life.

Previous knowledge testing

The teacher will ask-

- How does a fan start working when you switch it on?
- Why do we need to boil water before drinking sometimes?
- Who discovered gravity when he saw an apple fall?
- Why should we wash our hands before eating food?
- How does a bulb glow?
- Can you give an example where science makes our life easier?

Important spellings

Fluorescent, mystical, discovery, matter, diversity, phenomena, observation, analysis, thinking, thermometer, hypothesis, treasure, pendulum

Explanation with innovative methods used

Activities-

- Use of flashcards & sorting game for branches of science
- Storytelling
- Hands-on experiments (melting ice, magnet attraction)
- Videos/animations on “Science in everyday life.”
- Mind mapping on board to visualize connections.

Procedure

- **Brainstorming:**

The class would start with the discussion on what the students have already learnt in the previous classes and hence what is it that they would learn now.

- **Questioning-** Multiple level questions: Teacher will prepare a list of questions on the topics- diversity, materials around us, states of water, applications of science in everyday life, pendulum, Nature's treasures etc.

Assignments / Recapitulation

- Crossword puzzles
- Article on "Science in everyday life"
- Observation diaries
- Quiz
-

Art Integration / Interdisciplinary linkages and Infusion of Life Skills

- English - Vocabulary building and short essays on 'Science in life'
- Contribution of Indian scientists in history (social science).

Learning Outcomes:

- Explain the meaning of science and technology.
- Identify examples of science in daily life.
- Classify topics into Physics, Chemistry, and Biology.
- Recall contributions of Indian scientists.
- Apply methods of science in simple activities.

Resources

Curiosity textbook, Cordova science book, NCERT Exemplar, Various Online resources including YouTube Videos, Diksha Platform etc.

Inclusive Practices and Full Participation without Discrimination

- All students will be encouraged to participate
- Recognising, accommodating and meeting the needs of all the students
- Including hands on learning and sensory activities

- **Sustainable Development Goals (SDGs):**
SDG 4: Quality Education

Chapter 02: Diversity in the living world

(Month- April)

No. of days needed to complete the topic- 15 days

OBJECTIVES :- Students will be able to know about

- different kinds of plants, understand functions of leaf, stem, root.
- differentiate between tap root & fibrous root recognise parts of flower
- Understand the importance of biodiversity and habitats.
- Develop observation, classification, and scientific inquiry skills.
- Differentiate between monocot and dicot plants based on the type of seed (cotyledons), root system, and leaf venation, and understand the interrelationship among these characteristics.
- Appreciate the need to conserve living organisms and their environment.

PREVIOUS KNOWLEDGE TESTING :- The teacher will ask

- Classify the following plants into herbs, shrubs & trees Sunflower, China rose, mango, tomato, lemon, gulmohar
- Which is the most attractive part of a plant?
- Why leaves are green in colours?

IMPORTANT SPELLINGS :- creepers, climbers, tap root, fibrous root, conduction, pneumatophores, rhizobium bacteria, reticulate, parallel venation, transpiration, pollination, fertilization, pedicel, thalamus, nodes, internodes, stigma, style, ovary, pistil, anther, filament etc,

EXPLANATION WITH INNOVATIVE METHODS USED

Activities

- Collection & pasting of different types of leaves on the basis of leaf venation.
- Pasting of flowers after drying to differentiate its various parts.
- To take impressions of leaves with colours to understand different types of venation.
- Various videos will be made by the students and shared in their class group.
- Video will be shown to students to understand photosynthesis, modified function of stems, root & leaves.

Link - <https://m.youtube.com/watch?v=oVzTO0GZbH4>

<https://youtu.be/9P5yjMeZxqk>

PROCEDURE

Brain Storming -: The class would start with a discussion on what the students already know about different kinds of plants in their previous classes and hence what is it that they would learn now.

Questioning -: Multiple level questions - Teacher will prepare a list of question about the types of plants & will ask these questions during discussion.

STUDENT'S PARTICIPATION

- The students will draw various diagrams related to the topic.
- They will actively participate in quiz solving daily practice problems, solving MCQ'S etc.

Assignments / Recapitulation

The teacher will also ask various questions as follows and give assignments:

- Why are leaves known as 'kitchen of the plant' .
- How does exchange of gases take place in plant.
- Why is stem called a two-way street?
- Define venation. Name its two types. · Give two modified functions of stem.
- _____ is the male reproductive part of a flower.
- China rose is a herb or shrub_____.
- Plants with reticulate venation in their leaves have_____ roots.
- Bleaching removes_____ from the leaves.
- The fusion of male and female sex cells is called_____.

Independent Practice -: Students would do the questions in their notebook from the text book.

ART INTEGRATION / INTERDISCIPLINARY LINKAGES AND INFUSION OF LIFE SKILLS

Students would be able to-

- Draw different diagrams in a beautiful manner with colored sheets & pens.
- Pasting pictures of different kinds of herbs ,shrubs ,trees ,creepers, climbers in a collage form.
- Develop their skills through the videos which they will share in their group.

LEARNING OUTCOMES

The students will be able to know & understand

- Care for the environment, especially by planting some trees.
- Basic difference between Herbs shrubs, trees, creepers, climbers
- Differentiate parts of leaf & modified functions.
- Identify Tap root & fibrous root.
- Differentiate parts of a flower & their natural surroundings

RESOURCES -:

Curiosity textbook, Cordova science book, NCERT Exemplar, Various Online resources including YouTube Videos, Diksha Platform etc.

CO-SCHOLASTIC ACTIVITIES-

The student will be able to **learn**

- Through effective reasoning & critical thinking, classify the various plants into different categories.
- Critically analyse various parts of leaf as well as flowers & their importance.
- Draw inferences from them by reflecting critically on learning experiences & processes.
- Collaboratively carry out the discussion to explain various topics of the chapters .

ASSESSMENT-: It will be done on the basis of the activities responses & the classification char including quiz, problem solving, MCQ'S, oral & written test, Periodic test, etc.

Feedback and Remedial Teaching

- Focus on Reading skills
- Using pictures/Diagrams/Videos
- Individual attention to the student

Inclusive Practices and Full Participation without Discrimination

- All students will be encouraged to participate
 - Recognising, accommodating and meeting the needs of all the students .
 - Including hands on learning and sensory activities
-
- **Sustainable Development Goals (SDGs):**
SDG 15: Life on Land

Chapter 03: Mindful eating: a path to a healthy body–

Month - May

No. of teaching days needed to complete the topic – 15days

Objectives

Students will be able to:

- Know and list components of food.
- Define balanced diet.
- Understand loss of nutrients during cooking.
- List the symptoms of deficiency diseases.

Previous knowledge testing

The teacher will ask:

- What are the functions of food?
- What do food consists of?

- Name the various components of food.

Important spellings

proteins, vitamins, minerals, carbohydrates, nutrients, deficiency diseases, scurvy, rickets, anaemia, haemorrhage, marasmus, kwashiorkor, obesity etc.

Explanation with innovative methods used

Activities:

- Test the presence of starch and fats in a given food sample.
- Making of tables of vitamins and minerals deficiency diseases on colourful sheets.
- Videos will be shared with the students to understand about sources of proteins, carbohydrates, fats, vitamins, minerals etc.

Link <https://youtu.be/wpLObj71wyc> <https://youtu.be/LiDPddiXWuc>

Procedure

- **Brainstorming:** The class would start with the discussion on what the students have learnt in the previous classes and hence what is it that they would learn now.
- **Introduction of the topic**
- Short stories related to malnutrition & obesity will be discussed.
- **Questioning- Multiple level questions:** Teacher will prepare a list of questions on the topic- components of food, balanced diet, deficiency diseases, obesity etc.

Student's participation

- Students will actively participate in the activities, make videos and share in the class group.
- They will draw various diagrams related to the topic.
- They will actively participate in the quiz, solving daily practice problems, solving MCQs etc.

Assignments / Recapitulation

The teacher will also ask various questions as follows and give assignments:

- Why are proteins called bodybuilding foods?
- Give functions of water.
- Why are vitamins and minerals called protective food?
- Name the deficiency diseases.
- _____ is a complex carbohydrate.
- The colour of iodine solution is _____.
- Give full form of ORS.
- Our body needs about ---- litres of water everyday.

Independent practice: Students will do the questions in their notebook from the textbook.

Art Integration / Interdisciplinary linkages and Infusion of Life Skills

- Students would be able to draw different diagrams/Tables in a beautiful manner with pictures and coloured pens
- Make deficiency diseases tables by pasting pictures.

Learning outcomes

- Students will know and understand:
- Food components (carbohydrates, proteins, fats, minerals and vitamins)
- Test for carbohydrates and fats.
- Balanced diet of their age group.
- The functions of dietary fibres and water.
- Deficiency diseases and list their symptoms.
- Importance of healthy lifestyle by avoiding excessive intake of junk food.

Resources

Curiosity textbook, Cordova science book, NCERT Exemplar, Various Online resources including YouTube Videos, Diksha Platform etc.

Co-scholastic activities

- Students would be able to:
- Creatively prepare a diet chart to provide balanced diet to a 12-year old child.
- Critically categories deficiency diseases with the lack of particular kind of nutrient.

Assessment

It will be done on the basis of their activities, responses, classification chart including quiz, MCQs, oral and written test etc.

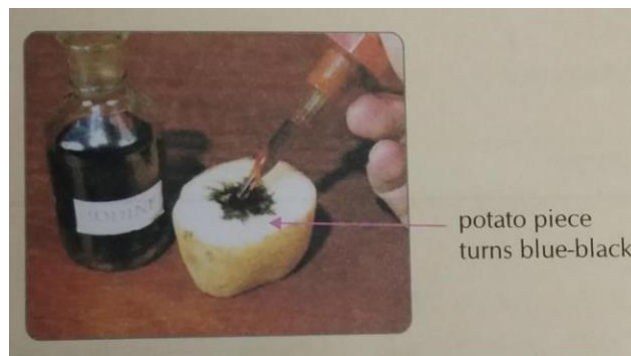
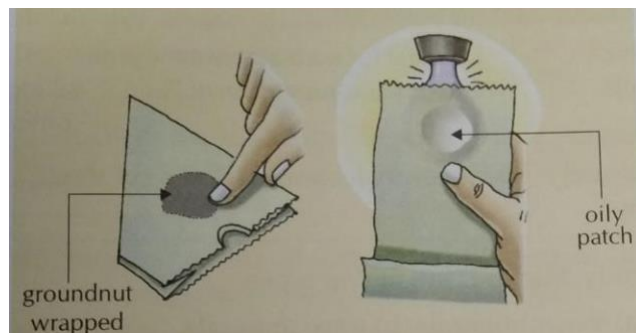
Feedback and Remedial Teaching

- Focus on Reading skills
- Individual attention
- Use of pictures and mazes

Inclusive Practices and Full Participation without Discrimination

- All students will be encouraged to participate
- Recognising, accommodating and meeting the needs of all the students
- Including hands on learning and sensory activities

- **Sustainable Development Goals (SDGs):**
 - SDG 2: Zero Hunger
 - SDG 3: Good Health and Well-being



Chapter 04 : Exploring Magnets

(Month- May)

No. of days needed to complete the topic-15 days

Objectives:

- To make the students aware of concept of magnets.
- To explain the properties of magnet.
- To explain concept of magnetism and demagnetisation.

Previous Knowledge Testing:

- If we leave the door of a refrigerator slightly open, it shuts down automatically. Why?
- Why do common pins stick to the holder in pin holder?

- What are magnets?

Important Spellings:

Magnets, Magnetite, Natural magnets, Artificial Magnets, attractive property, directive property, attraction and repulsion property, magnetism, magnetic compass.

Explanation with innovative methods:

- The teacher will explain the concept of magnet, types of magnet and making of magnet with examples and activities.
- The properties of magnet will be explained by performing suitable activities.
- The concept of magnetic compass will be explained with activity.
- The teacher will explain the concept of magnetism and demagnetisation with different examples.

Procedure: Teacher will explain discovery of magnet, types of magnet and making a magnet with examples and activities. Different activities will be performed in class to explain properties of magnet and magnetic compass. The concept of magnetism and demagnetisation will be made clear with help of activities. Important concepts related to magnets will be made more clear by showing videos to students.

Participation of students:

- The students will help the teacher in activities to be conducted in class.
- MCQ's, fill ups, true/false will be solved in book.
- Q/Ans will be done in notebook.

Recapitulation:

- What are magnets?
- Give properties of a magnet?
- Give few uses of magnets?

Assignment:

- Make a list of things at your home in which magnets are used.
Discuss in class "The use of magnets."
Students will be asked to make videos on different activities discussed in class.

Art Integration / Interdisciplinary linkages and Infusion of Life Skills

- Students will be able to make a chart on magnet and its properties using different coloured sheets.
- Concept of magnets will be explained through role play.

Learning Outcomes

Students will know and understand:

- Concept of Magnet and its properties.
- Concept of Magnetism, Magnetic Compass and Demagnetisation.

Resources:

- Curiosity textbook
- Cordova science book
- NCERT Exemplar
- The following videos will be shown to the students:

Links:

<https://youtu.be/ZDNlskpHpKc> https://youtu.be/_X0VfCm4klg

Co-scholastic activities:

Critical thinking, communication, collaboration skills will be developed in students by various activities.

Assessment: The following questions will be asked in test for assessing performance of students:

- What is meant by directive property of magnet?
- What are magnetic substances?
- Name two objects that are attracted by magnets?
- What is meant by poles of magnet? Where are poles of a bar magnet located?
- What does a magnetic compass tell about?

Feedback and Remedial Teaching

- Focus on Reading skills
- Paying individual attention
- Use of diagrams/ Magnetic compass/ Magnetic toys

Inclusive Practices and Full Participation without Discrimination

- All students will be encouraged to participate
 - Recognising, accommodating and meeting the needs of all the students
 - Including hands on learning and sensory activities
-
- **Sustainable Development Goals (SDGs):**
 - SDG 9: Industry, Innovation and Infrastructure

Chapter 05 – MOTION & MEASUREMENT OF DISTANCES

MONTH- July

No. of days needed to complete the topic- 15 days

OBJECTIVES

- To make students understand about ancient and standard units of measurement
- To make students convert units of measurement of Distances
- They should be able to take necessary precautions while using a scale.
- To make students understand about the concept of rest and motion.
- They should be able to differentiate between various types of motion

PREVIOUS KNOWLEDGE TESTING-

The teacher will ask the students

- How did people travel from one place to another in ancient time?
- What are the present means of transport?

IMPORTANT SPELLINGS

Vacation, Measurement, Temperature, Handspan, Cubit, Pace, kelvin, Stationary, Relative, Translatory, Rectilinear, Curvilinear, Circular, Rotatory, Spinning, Periodic, Multiple motion

EXPLANATION WITH INNOVATIVE METHODS

- Different means of transport in ancient and modern times will be discussed.
- The students will compare the length of table by Handspan method and using measuring tape.
- Different types of motion will be explained with the help of examples and videos

PROCEDURE –The teacher will start the topic by Handspan activity and precautions to be taken while using a scale will be discussed. Types of motion with examples will be discussed through videos/smart class.

STUDENT’S PARTICIPATION

The students will record the result of Handspan activity in their notebook.
They will paste pictures related to different types of motion.

ASSIGNMENTS/RECAPITULATION

- The teacher will give numericals related to conversion of units of distance.
- They will measure the length of the curved line by using a thread.
- The teacher will ask the students –
 1. What is Measurement?

2. What are various standard units of measurement ?
3. What is difference between rest and motion
4. Can different motions occur at the same time ?

ART INTEGRATION / INTERDISCIPLINARY LINKAGES AND INFUSION OF LIFE SKILLS –

The students will draw / paste coloured pictures of various types of motion

LEARNING OUTCOMES – Students will be able to –

- Define measurement and standard units of measurement
- Describe the ways to measure length
- Explain the concept of rest and motion
- Define & describe different types of motion
-

RESOURCES

Curiosity textbook, Cordova science book, NCERT Exemplar, Diksha platform , Videos/Smart class

Co-scholastic Activities

- Comparison of ancient methods and standard units of measurement of length
- Measurement of length of curved line by using thread or divider
- Collaboration skills
- Peer tutoring

ASSESSMENT

- The teacher will take tests related to different types of motion with examples.
- Numerical solving ability will be judged by giving various questions to solve

FEEDBACK & REMEDIAL TEACHING

- Focus on Reading skills and numerical solving ability
- Individual attention to the student
- Support program (Train student who excel in particular topic to become little teacher)

Inclusive Practices and Full Participation without Discrimination

- All students will be encouraged to participate
- Recognising, accommodating and meeting the needs of all the students
- Including hands on learning and sensory activities
- **Sustainable Development Goals (SDGs):**
 - SDG 9: Industry, Innovation and Infrastructure

(Month - July)

No. of days needed to complete the topic-15 days

Objectives

- Students will be able to know and understand different kinds of materials.
- Properties of materials.
- Elaborating on the need of classification.

Previous knowledge testing

The teacher will ask

- What do you mean by object?
- Are all objects same in shape, size and colour?
- Why do we classify the objects?
- What is a material?

Important Spellings

classification, materials, appearance, texture, hardness, soluble or insoluble, floating, sinking, transparent, opaque, translucent, nitrogen, methane, alcohol, miscible, immiscible.

Explanation with innovative methods used

Activities:

- Role play on the topic differences in solid liquid and gas
- Role play on the topic differences between transparent translucent and opaque materials.
- To understand sinking and floating objects in water through activity.
- To separate miscible and immiscible liquids in water through activity.
- Students will be shown the following video:

Link:

<https://youtu.be/jKgXUek8XPp>

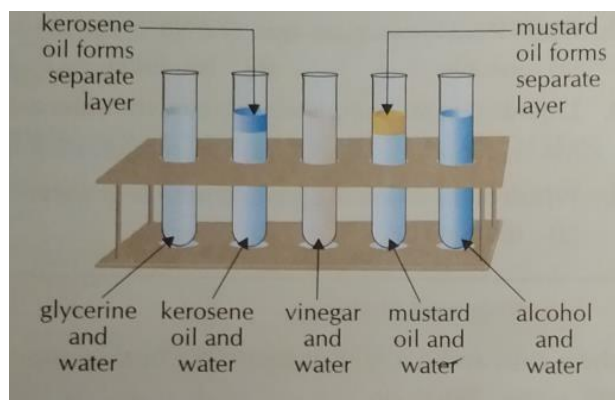
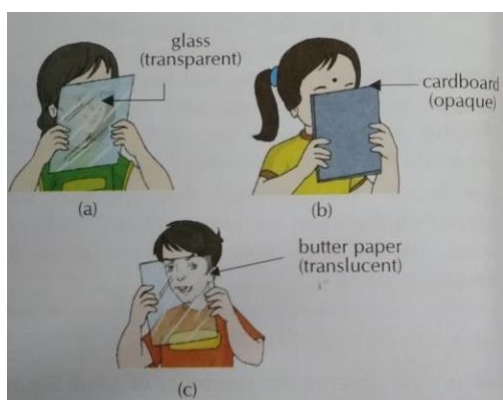
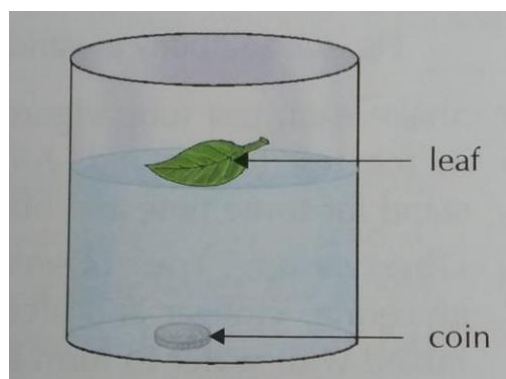
Procedure

- **Brain Storming:** The class would start with the discussion on what the students have already learnt in the previous classes and hence what is it that they would learn now. They would also be told about the significance of the topic that they would be studying.

- **Introduction of the topic**
- **Questioning- Multiple level questions:** The teacher will prepare a list of questions on the topic classification of objects and its importance, different kind of materials, properties of materials.
- **Think-pair-share:** Students will read the topic again after the teachers explanation and then discuss in pair about the topics discussed in class.

Students participation

- Students will actively participate in the various activities done in the class.
- They will draw various diagrams related to the topic.
- They will actively participate in the quiz, solving daily practice problems, solving MCQs, loud reading, collaborative learning, role play etc.



Recapitulation/ Assignments

The teacher will ask:

- On what basis do we classify objects?
- Why gold and silver are used to make jewellery?
- Name two liquids which are miscible in water?
- Why does sugar disappear in water?

Independent practice: Students will do the questions in their notebook from the textbook.

Art Integration / Interdisciplinary linkages and Infusion of Life Skills

- Students should be able to draw different diagrams in a beautiful manner with coloured sheets, pictures and pens.
- Develop their skills through role play.

Learning outcomes

Students will be able to know and understand:

- Different kind of materials.

- Classification and its importance.
- Properties of materials.
- Differences between solid, liquid, and gas.

Resources

Curiosity textbook, Cordova science book, NCERT Exemplar.

Co-scholastic activities

Students would be able to

- Collaboratively discuss about different kinds of materials.
- Critically analyse various properties of materials.
- Critically classify materials on the basis of all the properties.

Assessment

It will be done on the basis of the activities, responses, classification chart made in the class like quiz, MCQs, oral and written tests etc.

Feedback and Remedial Teaching

- Focus on Reading skills
- Giving positive remarks
- Using pictures/ mazes/ stories
- Discussing sub topics with more examples

Inclusive Practices and Full Participation without Discrimination

- All students will be encouraged to participate
- Recognising, accommodating and meeting the needs of all the students
- Including hands on learning and sensory activities
- **Sustainable Development Goals (SDGs):**
 - o SDG 12: Responsible Consumption and Production

Chapter 07 – Temperature and Its Measurement

MONTH- August

No. of days needed to complete the topic-15 days

Objectives

- Define temperature and explain why it is measured.
- Differentiate between hot and cold objects.
- Identify thermometers (laboratory, clinical, digital).
- Learn how to correctly use a thermometer.
- Recognize safety precautions while handling thermometers.
- Relate temperature with daily life situations (fever, weather, cooking).
- Appreciate temperature as a measurable physical quantity.

Previous Knowledge Testing

1. How do you decide if something is hot or cold?
2. What instrument is used when we are sick with fever?
3. Can we touch boiling water with hands? Why not?
4. Have you seen the weather report mentioning temperature?
5. Which unit is commonly written on thermometers?
6. Do all objects have the same temperature?

Important Spellings (Key Terms)

Temperature, Thermometer, Celsius, Fahrenheit, Mercury, Clinical, Laboratory, Boiling point, Freezing point, Digital.

Explanation with Innovative Methods

Brainstorming: “How do you know whether milk is hot enough to drink?”

Demonstration: Teacher shows clinical thermometer, explains its parts.

Experiment: Measure temperature of tap water, ice water, warm water.

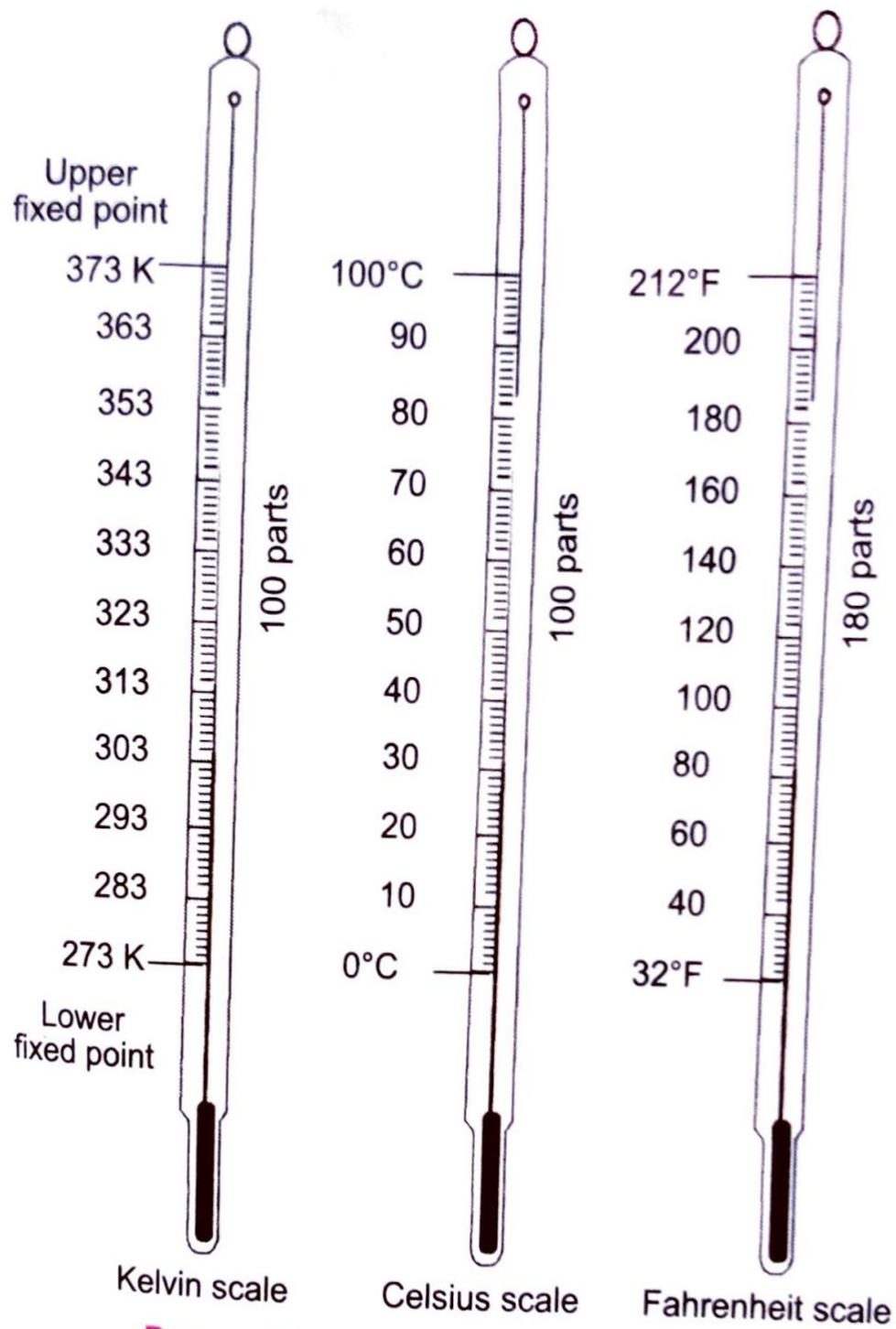
Art Integration: Drawing thermometer and marking scale.

Questioning: “Why can’t we use a clinical thermometer to measure boiling water?”

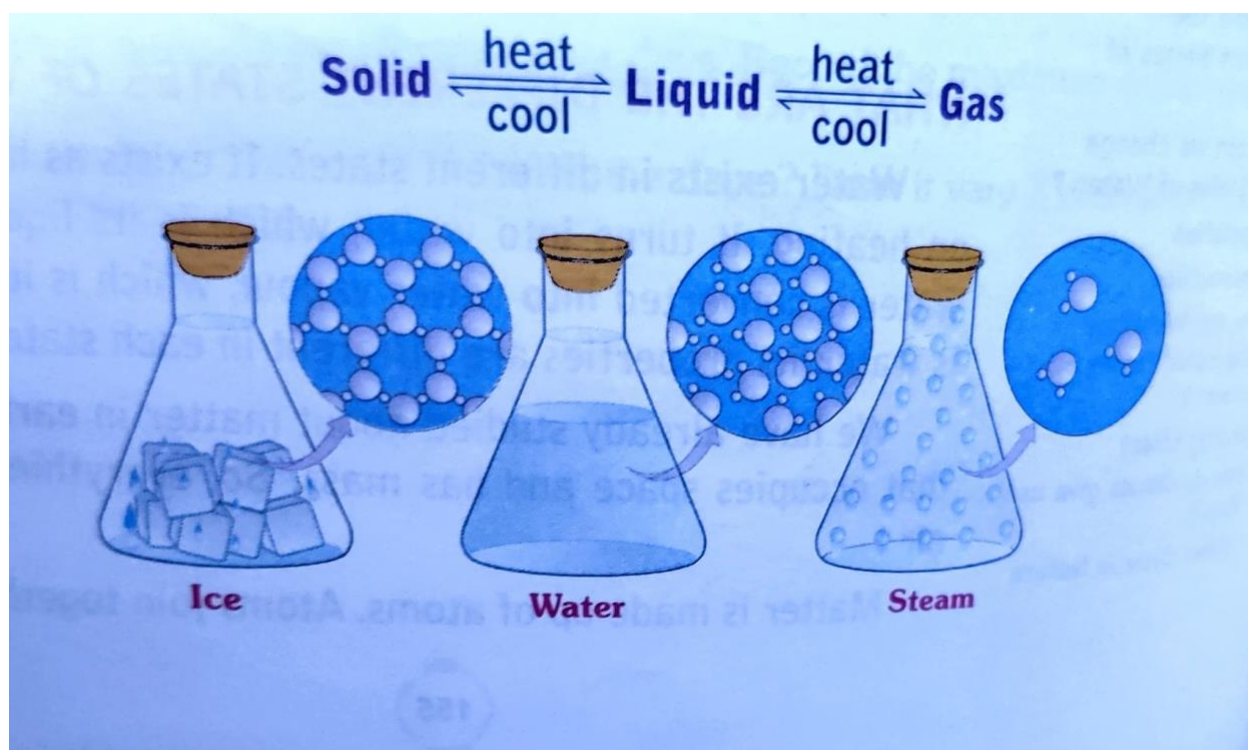
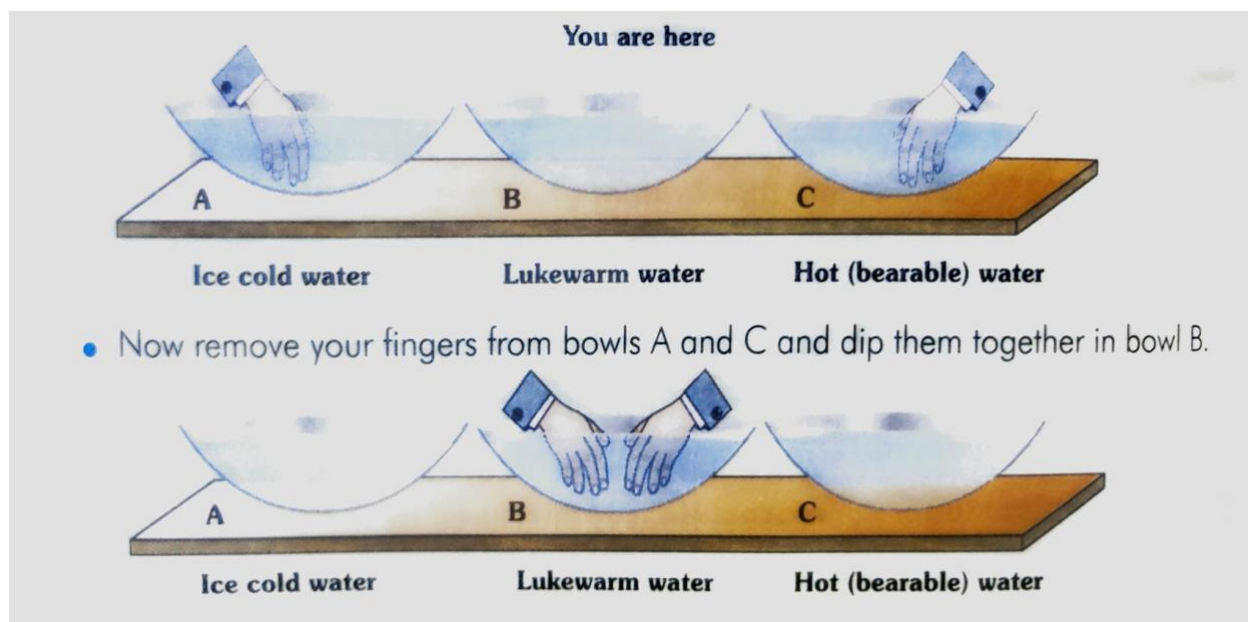
Teaching Procedure

- **Brainstorming:** “How do we know something is hot or cold?”
- **Concept Introduction:** Define temperature; relate to daily life.
- **Demonstration:** Show clinical thermometer, explain parts.
- **Activity:** Hands-on practice of holding thermometer (without mercury breakage).
- **Inquiry-based Learning:** “Why does mercury rise in the thermometer?”
- **Group Discussion:** Celsius vs Fahrenheit scale.
- **Experiment:** Measure temperatures of different water samples.
- **Art Integration:** Drawing thermometers with labelled parts.
- **Questioning Session:** “Why can’t we measure body temp. after drinking hot tea?”

- Safety rules with thermometers (mercury hazard).
- **Quiz/Game:** Rapid fire Q&A on temperature facts.



Parameters of temperature scales



Student Participation

- Practicing thermometer use.
- Drawing thermometers
- Quiz & group projects.

- Recording classroom temperature.

Assignments / Recapitulation

- **Worksheet:** Match thermometers with their uses.
- Write 5 safety rules for thermometer use.
- Record home temperature with digital thermometer (if available).
- Short essay: “Why is temperature important in daily life?”

Art Integration / Interdisciplinary Links

Art: Drawing thermometers, scales.

Maths: Reading scale intervals, conversions ($^{\circ}\text{C} \leftrightarrow ^{\circ}\text{F}$).

English: Vocabulary (clinical, thermometer).

Geography: Weather forecasting & temperature.

Learning Outcomes:

Students will be able to:

- Explain the concept of temperature.
- Use a thermometer correctly.
- Read temperature in Celsius & Fahrenheit.
- Recognize importance of measuring temperature.
- Follow safety rules in experiments.

Resources

Curiosity textbook

Cordova science book

Multimedia videos.

Diksha platform

Charts/flashcards.

Co-Scholastic Activities

- Slogan writing: “Safe Handling of Thermometers.”
- Poster-making: “Temperature Around Us.”
- Temperature record chart for 7 days (school weather data)
- Peer tutoring
- Collaboration skills

- Critical thinking

Assessment

- Oral Q&A, quizzes
- Experiment observations.
- Worksheets
- written test.

Feedback & Remedial Teaching

- Extra demonstration for slow learners.
- Peer support during thermometer reading.
- Use of digital thermometer for those who struggle with scales.
- Individual attention

Inclusive Practices

- Active participation of learners
- Hands-on practice for tactile learners.
- Visual videos for those with reading difficulties.
- **Sustainable Development Goals (SDGs):**
 - SDG 3: Good Health and Well-being

Chapter 08 – Journey through States of Water

MONTH- October

No. of days needed to complete the topic-15 days

Objectives

- Identify the three states of water and their properties.
- Demonstrate changes of state (melting, freezing, evaporation, condensation).
- Explain the water cycle with examples.
- Relate water's states to daily life.

- Recognize the importance of water conservation.
- Develop observation, questioning, and scientific thinking skills.

Previous Knowledge Testing

1. In which form do we drink water?
2. What happens if you put water in the freezer?
3. Have you seen steam rising from hot food? What is it?
4. Why do we see droplets on a cold glass of water?
5. From where does rain come?
6. Why should we save water?

Important Spellings (Key Terms)

Evaporation, Condensation, Freezing, Melting, Sublimation, Water cycle, Vapour, Precipitation, Transpiration, Conservation.

Explanation with Innovative Methods

- **Brainstorming:** “Where have you seen water in different forms?” (ice cubes, steam, rain).
- **Experimentation:**
 1. Melting ice cubes.
 2. Boiling water → steam (evaporation).
 3. Holding a cold metal plate over steam → droplets (condensation).
- **Art Integration:** Drawing & coloring the water cycle.
- **Storytelling:** “Journey of a water droplet from sea to cloud to rain.”
- **Game:** “State of Water” – teacher says an activity (rain, ice cream, boiling tea) → students answer the state.

Teaching Procedure

- **Brainstorming:** “Where do we find water?” Students will give examples.
- **Demonstration:** Show 3 states (ice, water, steam with boiling kettle).
- **Inquiry:** “What happens if we keep wet clothes in the sun?” → discuss evaporation.
- **Experiment:** Students observe condensation using cold glass or plate.
- **Questioning Strategy:** “Why does water in lakes not dry up completely?”
- **Art Integration:** Draw and label the water cycle.
- **Think–Pair–Share:** “If there were no evaporation, would there be rain?”
- **Field Observation:** Visit school garden → observe water in soil, plants (transpiration).
- **Case Study:** Pollution in rivers & importance of water conservation.
- **Game & Quiz:** “Guess the state” + rapid-fire questions.

Student Participation

- Performing experiments.

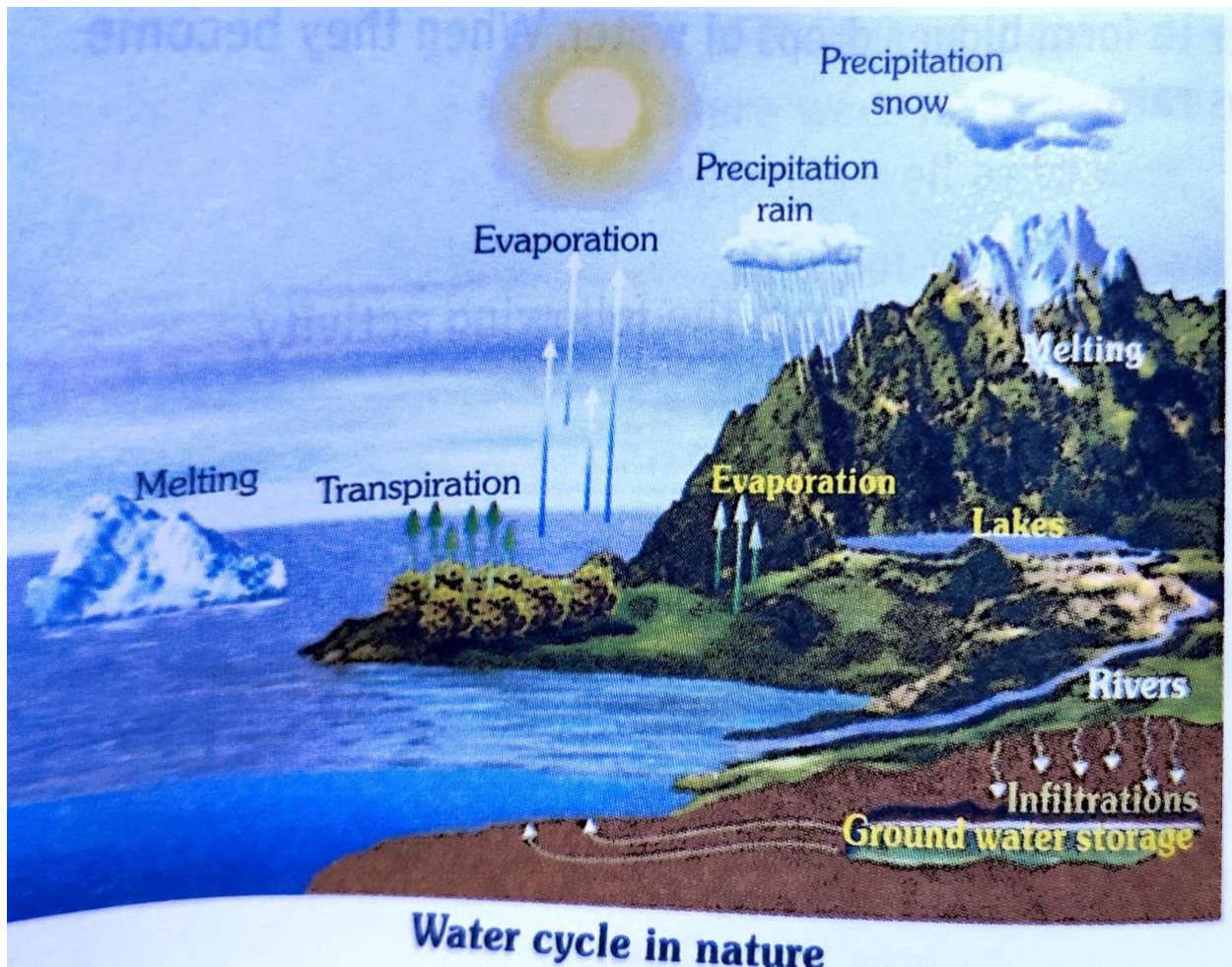
- Role play as molecules.
- Drawing & coloring water cycle.
- Group discussions.
- Poster presentation on water conservation.

Assignments / Recapitulation

- Worksheet: Match processes (melting, condensation, evaporation) with examples.
- Write 5 ways to save water at home.
- Observe & record how water changes when heated/cooled.
- Prepare a poem/story on water.

Art Integration / Interdisciplinary Links

- Art: Water cycle drawings, posters.
- Math: Measuring water used daily at home.
- English: Essay – “Importance of water in life.”
- Geography: Link to rainfall & rivers.



Learning Outcomes

Students will be able to:

- Demonstrate water's three states & processes.
- Explain the water cycle.
- Relate states of water with real-life examples.
- Suggest water conservation measures.
- Show scientific curiosity through questioning & experiments

Resources

- NCERT curiosity textbook,
- Cordova science book
- Cold metal plate/glass, kettle/cup/ice cubes.
- Chart papers, markers.
- Multimedia videos.

Co-Scholastic Activities

- Slogan writing: "Save Every Drop."
- Research
- Collaboration skills
- Critical thinking
- Collage making: Pictures of water use in daily life.

Assessment

- Oral Q&A, quizzes.
- Experiment reports.
- Worksheets & drawings.
- Final written test.

Feedback & Remedial Teaching

- Use pictorial flashcards
- Extra demonstrations for difficult processes.
- Encourage peer tutoring in group tasks.
- Use videos for learners struggling with text.
- Hands-on experiments for tactile learners.
- Encourage oral recitation/role play

- **Sustainable Development Goals (SDGs):**
 - SDG 6: Clean Water and Sanitation
 - SDG 13: Climate Action

Chapter 09: Methods of Separation in everyday life

(Month- October)

No. of days needed to complete the topic-15 days

OBJECTIVES:

- To make the students aware of concept of a mixture and its types.
- To explain the need for separation of substances in a mixture.

PREVIOUS KNOWLEDGE TESTING-

Teacher will show a sample of grains and husk mixed together to the students and ask them whether this is a mixture or not. The students will answer 'YES'.

The teacher will then ask the students:

- What is a mixture?
- Name the types of mixture?
- What is the need for separation of substances in a mixture?
- Which method you will use to separate stones from pulses?

IMPORTANT SPELLINGS

Homogeneous mixture, Heterogeneous mixture, threshing, winnowing, sieving, filtration, loading, solution, solute, distillation.

EXPLANATION WITH INNOVATIVE METHODS

- To study the process of loading by using a piece of alum in muddy water.
- To study the process of sedimentation, decantation and filtration through an activity.
- The processes of hand-picking, threshing, winnowing and sieving can be explained through roleplay.
- Concept of solution will be explained with activity.

PROCEDURE:

- The teacher will explain mixture by giving examples. To explain types of mixture, teacher will make three groups of students in classroom. Then teacher will explain that the group having similar members like only boys or only girls is a homogeneous group and group having both boys and girls is heterogeneous group. The teacher will correlate this example with homogeneous and heterogeneous mixtures in order to clarify them.
- Teacher will then explain various methods of separation of substances from a mixture as well as its need to the students by taking examples from day to day life .
- The teacher will explain loading, sedimentation, filtration with an activity.
- Concept of solution will be explained by teacher with an activity.

STUDENT'S PARTICIPATION:

- The students will take part in various activities performed in class.
- The students will take part in role play to make the topics more interesting.
- The students will draw various diagrams related to the chapter.
- Fill-ups, true/false, MCQ's will be solved in book.
- Q/Ans will be done in notebook.

RECAPITULATION: The teacher will ask:

What is meant by filtrate?

Give two examples of miscible liquids?

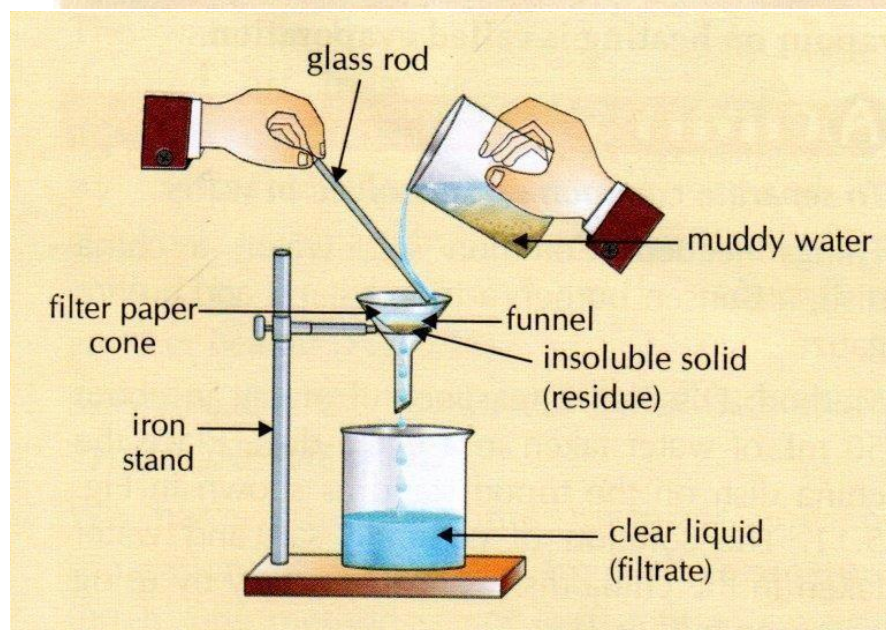
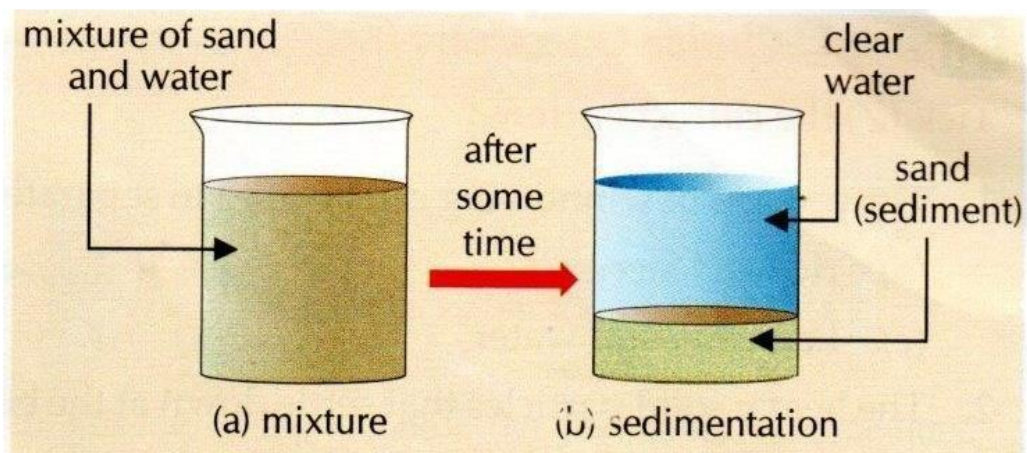
Why is water called universal solvent?

ASSIGNMENT:

- Diagrams like processes of sedimentation, decantation and filtration will be given as homework.
- Students will be asked to perform an activity "to check the amount of various solids which can dissolve in given solvent at room temperature."
- Students will be asked to make videos on different activities discussed in class.

ART INTEGRATION / INTERDISCIPLINARY LINKAGES AND INFUSION OF LIFE SKILLS

- Students will be able to collaboratively make a chart on various methods of separation by using different colored sheets.
- They will also learn about various methods of separation through role-play.
- Students will draw diagrams of processes of sedimentation filtration, etc.



LEARNING OUTCOMES;

- Students will be able to differentiate between heterogeneous and homogeneous mixtures.
- They will learn about need for separation of substances in a mixture.
- The students will get knowledge about need for separation of substances in a mixture.
- The students will get knowledge about various methods of separation of substances (solid, liquid or gas) from a mixture.

RESOURCES

- NCERT Exemplar
- Cordova science book
- Curiosity textbook

- The following video will be shown to the students:

Link: <https://youtu.be/1eR0dXX10MM>

Co-scholastic activities:

Critical thinking, communication, collaboration skills will be developed in students by various activities.

ASSESSMENT:

Answer the following:

- What is filtrate?
- Name two heterogeneous mixtures.
- What is loading?
- Define solubility.
- What is meant by residue?
- **Fill ups:**
 - _____ and _____ can be used for separating insoluble solid from liquid.
 - The extent to which a substance gets dissolved in liquid is called its _____

Feedback and Remedial Teaching

- **Individual attention to the students**
- **Enhancing Reading skills**
- **Using pictures/mazes/Examples/Diagrams**

Inclusive Practices and Full Participation without Discrimination

- All students will be encouraged to participate
- Recognising, accommodating and meeting the needs of all the students
- Including hands on learning and sensory activities
- **Sustainable Development Goals (SDGs):**
 - o SDG 6: Clean Water and Sanitation
 - o SDG 12: Responsible Consumption and Production

Chapter: 10- The Living Creatures: Exploring their characteristics

Month: November

No. Of days needed to complete the topic- 15days

Objectives

Students will be able to:

- Differentiate between living and non-living things.
- Recall and explain basic characteristics of living things (movement, growth, reproduction, respiration, nutrition, response to stimuli, excretion).
- Understand how different organisms (plants, animals, microorganisms) show these characteristics.
- Appreciate diversity among living beings.
- Develop observation and questioning skills about the natural world.
- Show sensitivity towards animals, plants, and environment
- Understand life cycles of plant, frog and mosquito

Previous Knowledge Testing

1. How do you know a dog is alive?
2. Do plants move? If yes, how?
3. What happens when you touch a hot object?
4. Do stones grow like plants? Why/why not?
5. Can you name some animals that reproduce by laying eggs?
6. What do you think living beings need to stay alive?

Important Spellings (Key Terms)

Organism, Reproduction, Respiration, Stimuli, Excretion, Growth, Nutrition, Movement, Microorganism, Characteristics.

Explanation with Innovative Methods

- **Demonstration:** Show live examples – potted plant, fish in bowl, stone → compare features.
- **Observation Activity:** Students observe movements in plants (sunflower, touch-me-not).
- **Think–Pair–Share:** “Can non-living things move? Give examples.”
- **Game:** “Living or Non-living?” quick sorting game with flashcards.

Teaching Procedure

- **Brainstorming:** “How do you know something is alive?” Create a mind map (students’ ideas).
- **Observation Activity:** Show plant movement videos; discuss growth and response to stimuli.

- **Demonstration:** Compare stone, toy car, fish, and potted plant. Identify differences.

Student Participation:

- Group discussions, role play, sorting activities.
- Drawing and chart-making.
- Field observations in school garden.

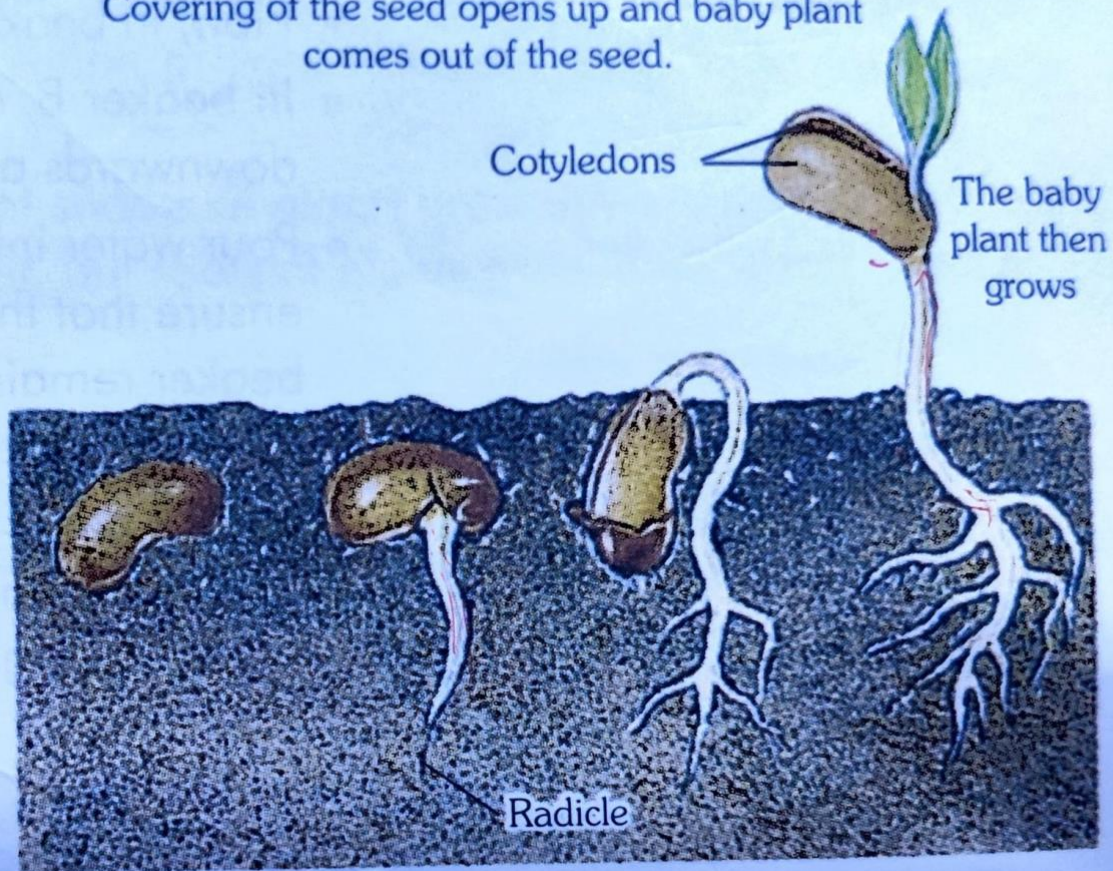
Assignments / Recapitulation

- **Worksheet:** Match living characteristic with example.
- **Homework:** Observe pet/plant for 2 days → note signs of life.
- **Short paragraph:** “Why is a car not a living thing even though it moves?”

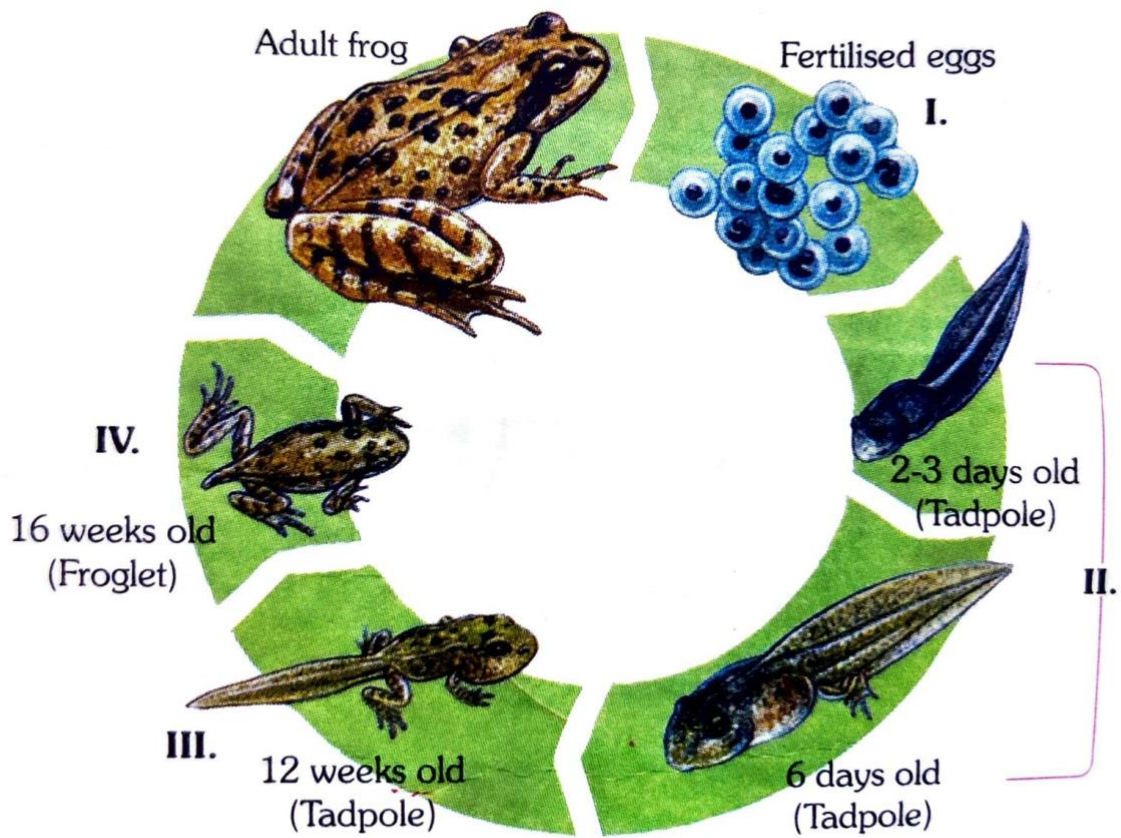
Art Integration / Interdisciplinary Links

- **Art integration:** To draw life cycles of mosquito and frog
- **English: Creative writing** – “A Day in the Life of a Plant.”
- **Social Science:** Link to environment conservation.

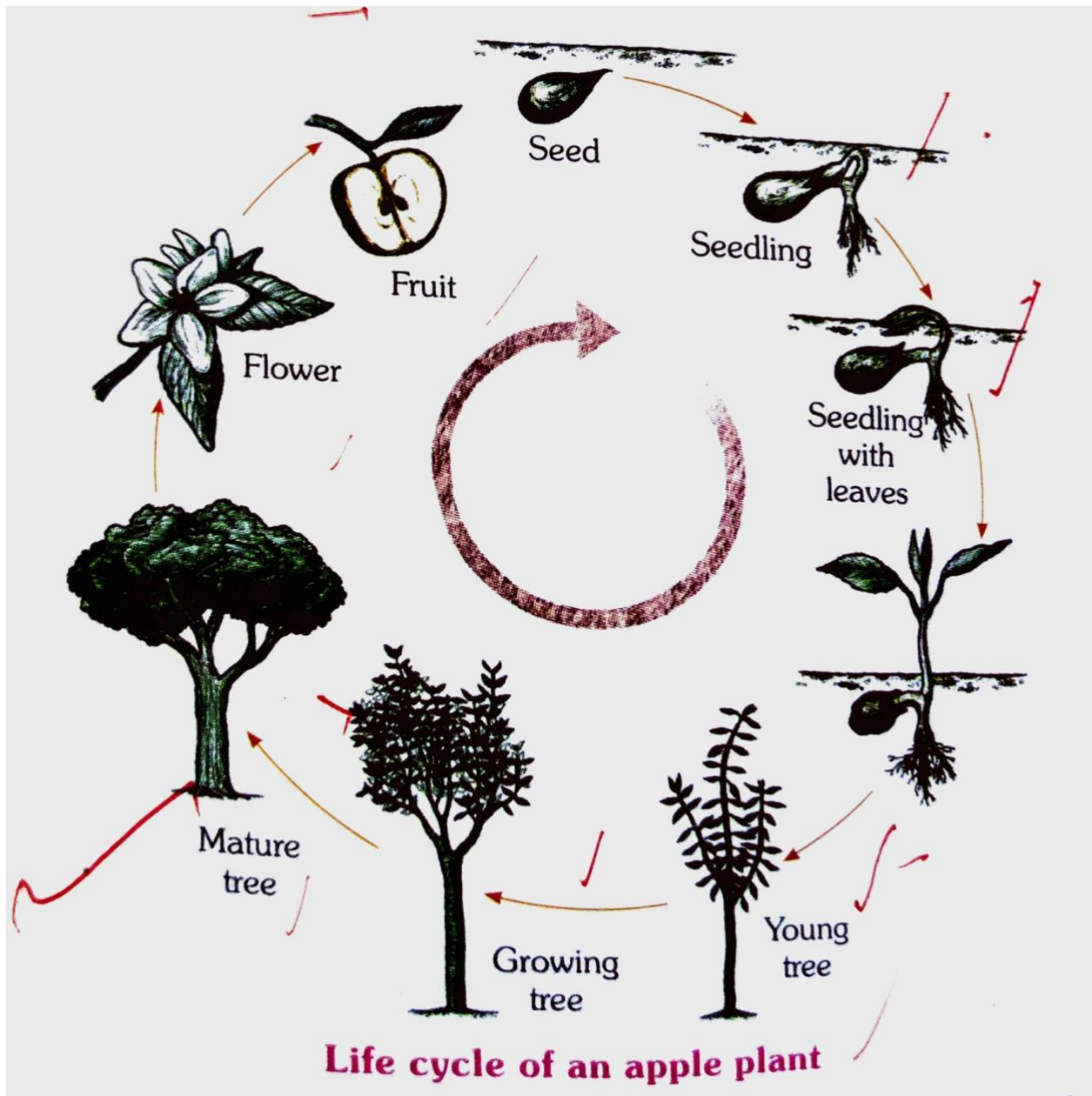
Covering of the seed opens up and baby plant comes out of the seed.

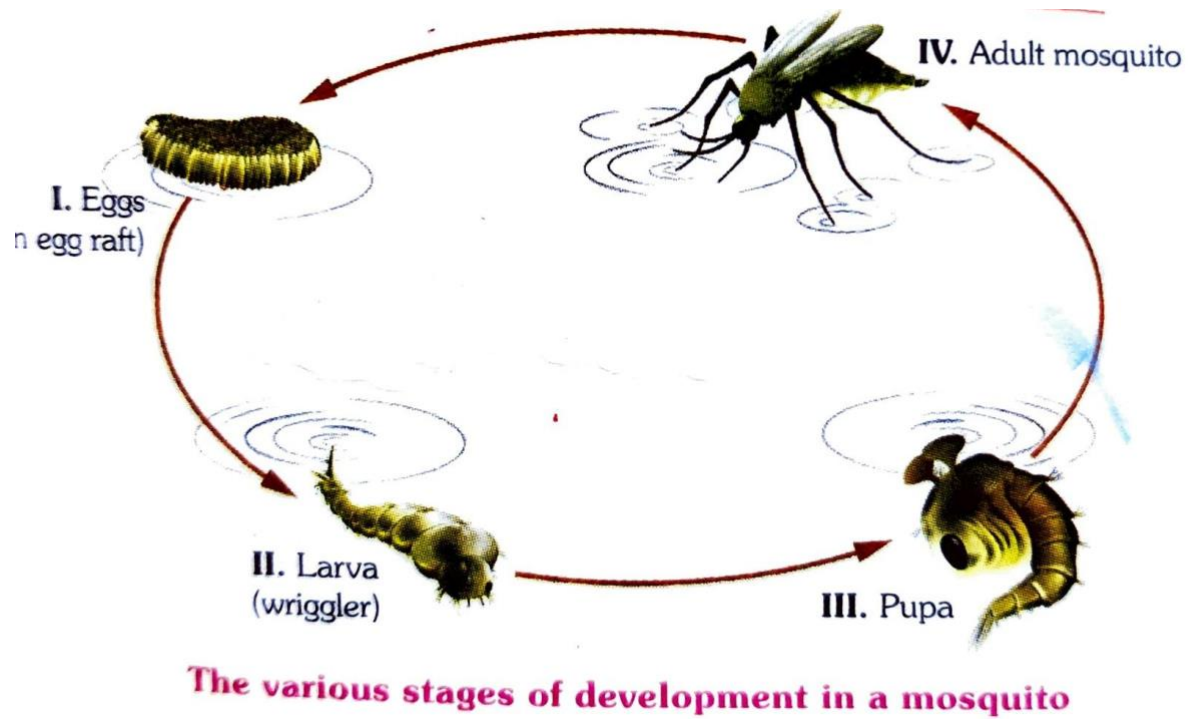


Germination of a seed



Different stages in the life-cycle of a frog





Learning Outcomes

Students will be able to:

- List and explain the seven characteristics of living things.
- Distinguish between living and non-living with examples.
- Observe and record evidence of life processes.
- Show respect for all living beings.

Resources

Curiosity textbook, Cordova science book, NCERT textbook, flashcards, chart

Multimedia (videos of plant/animal movement).

Assessment

- Oral questioning and quizzes.
- Written test

Feedback & Remedial Teaching

- simplified flashcards with pictures.
- Use peer-explanation in groups.

- Provide real-life examples for better clarity.

Inclusive Practices

- Group tasks to ensure participation of all learners.
- Encouragement of oral answers for those with writing challenges.
- **Sustainable Development Goals (SDGs):**
 - SDG 15: Life on Land

Chapter 11: Nature's treasures

MONTH: December

No. of teaching days needed to complete the topic-15 days

Objectives

- Identify different natural resources (renewable & non-renewable).
- Understand the importance of air, water, soil, forests, wildlife, sunlight, rocks and minerals.
- Recognize the need for conservation of natural resources.
- Differentiate between uses and overuses of resources.
- Develop a sense of responsibility towards environment.
- Suggest simple conservation practices in daily life.

Previous Knowledge Testing

1. From where do we get water for drinking at home?
2. What things do we get from trees?
3. Why do we need air to live?
4. Name some animals that live in forests.
5. Have you heard of coal or petroleum? Where are they used?
6. Why should we not waste electricity and water?

Important Spellings (Key Terms)

Resource, Renewable, Non-renewable, Conservation, Wildlife, Minerals, Fossil fuels, Soil, Pollution, Sustainability.

Explanation with Innovative Methods

- **Brainstorming:** Students list things they use in a day → classify as natural/man-made.
- **Inquiry-Based Learning:** Students observe what resources are used in school (water, electricity, wood).
- **Game:** “Save or Waste?” → Teacher shows picture cards (tap running, tree plantation, factory smoke) and students identify as conservation or exploitation.
- **Art Integration:** Drawing/poster “Save Nature’s Treasures.”

Teaching Procedure

Brainstorming: “What treasures do we get from nature?” Mind map on board.

Classification Activity: Natural vs. man-made objects

Demonstration: Show samples/pictures of coal, petroleum, water, soil, sunlight on smartboard

Questioning Session: “What happens if forests disappear?”

Think–Pair–Share: “Is sunlight an unlimited resource? Why?”

Field Observation: School garden or nearby park → note how plants, soil, water are interlinked.

Case Study: Story of deforestation, water pollution → discussion on causes & solutions.

Game-Based Learning: Quiz & picture-based riddles on natural resources.

Student Participation

- Group discussions, role plays, poster-making.
- Nature walk observations.
- Debates and presentations.

Assignments / Recapitulation

- **Worksheet:** Match resources with their uses.
- Write 5 points on how to save water at home.
- Prepare a small speech: “Why are forests called green lungs?”
- Observe at home: How is electricity wasted? Write 3 solutions.

Art Integration / Interdisciplinary Links

- Art: Posters & drawings on nature conservation.
- Social Science: Link to geography (resources in India).

Learning Outcomes

Students will be able to:

- Identify nature's treasures with examples.
- Classify renewable and non-renewable resources.
- Explain the importance of conservation.
- Suggest simple conservation practices.
- Show awareness of resource sustainability.

Resources

- **Curiosity book, Cordova science book, NCERT textbook, flashcards, charts.**
- **Multimedia videos.**

Co-Scholastic Activities

- "Best out of waste" craft activity.
- Nature walks with an observation diary.
- Tree plantation drive.
- Debate: "Technology – Helpful or harmful to nature?"

Assessment

- Oral questioning, quiz.
- Written test

Feedback & Remedial Teaching

- Extra support with pictorial flashcards.
- Use peer explanation in groups.
- Simplify renewable vs. non-renewable with everyday examples (sunlight vs. coal)
- Extramarks apps on smartboard.
- Focus on reading skills
- Individual attention

Inclusive Practices

- Oral question-answer for students with writing challenges.
- Equal participation ensured in role plays and group activities.
- Use of videos for learners unable to join field trip.
- **Sustainable Development Goals (SDGs):**
 - SDG 12: Responsible Consumption and Production
 - SDG 13: Climate Action
 - SDG 15: Life on Land

Chapter 12 – Beyond Earth

MONTH- January

No. of days needed to complete the topic- 15 days

Objectives

- Identify and describe the main members of the solar system.
- Understand the differences between planets, stars, moons, and satellites.
- Explain basic features of Earth's moon.
- Develop curiosity about space exploration and astronauts.
- Appreciate India's achievements in space science (ISRO missions).
- Draw and label the solar system.
- Recognize how astronomy connects to human life and culture.

Previous Knowledge Testing

1. Can you name some planets of the solar system?
2. How is the Sun different from the Moon?
3. Have you seen the Moon change its shape at night? Why do you think this happens?
4. Do stars move in the sky?
5. Have you heard of astronauts like Kalpana Chawla or Rakesh Sharma?
6. What do you know about rockets or satellites?

Important Spellings (Key Terms)

Solar system, Planet, Satellite, Orbit, Constellation, Astronaut, Telescope, Galaxy, Eclipse, ISRO.

Explanation with Innovative Methods

Brainstorming: Students list what they already know about the sky.

Model Demonstration: Use a ball (Sun) and marbles (planets) to show orbits.

Role Play: Students act as planets revolving around the Sun.

Art Integration: Drawing/painting solar system, constellations.

Game: "Planet Quiz" – teacher gives facts, students guess the planet.

Inquiry-based Learning: Observe the moon daily for a week & record changes.

Teaching Procedure

Brainstorming: "What do you see in the sky at night?" → Create mind map.

Demonstration: Show model of solar system (Sun & planets). Group Discussion: Differences between stars, planets, and satellites.

Questioning Strategy: "Why can we see the Moon at night but not the Sun?"

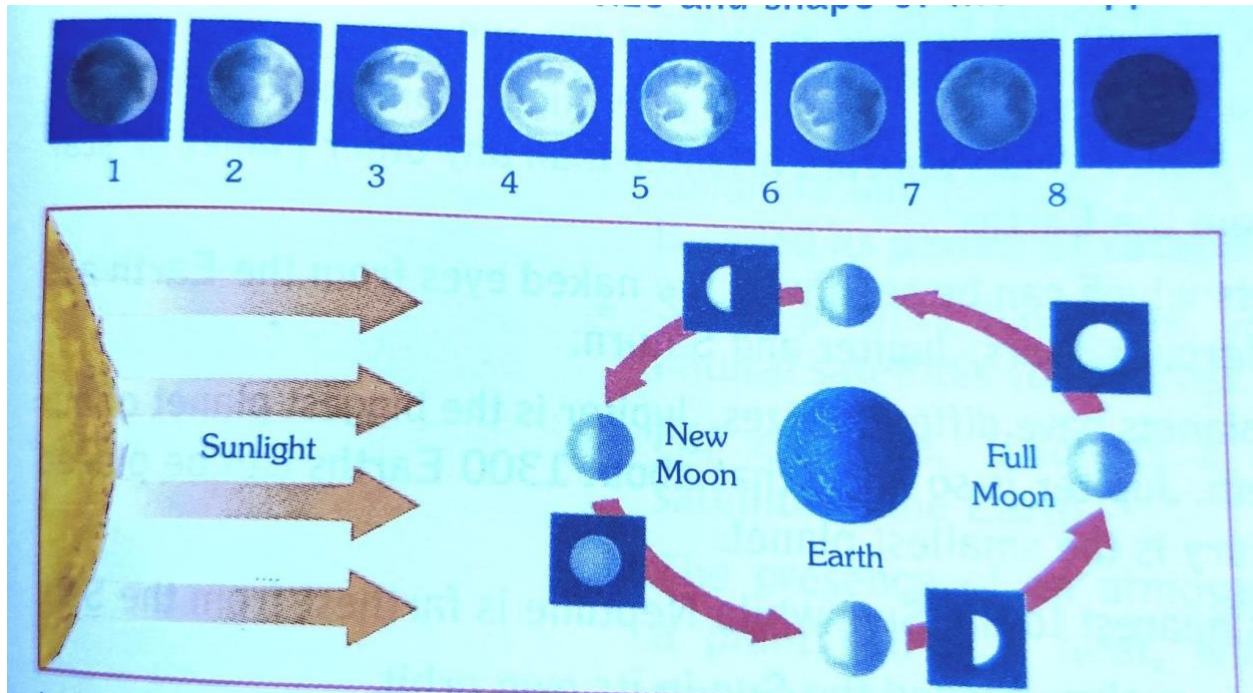
Collaborative Work: Groups research one planet each (size, features, facts).

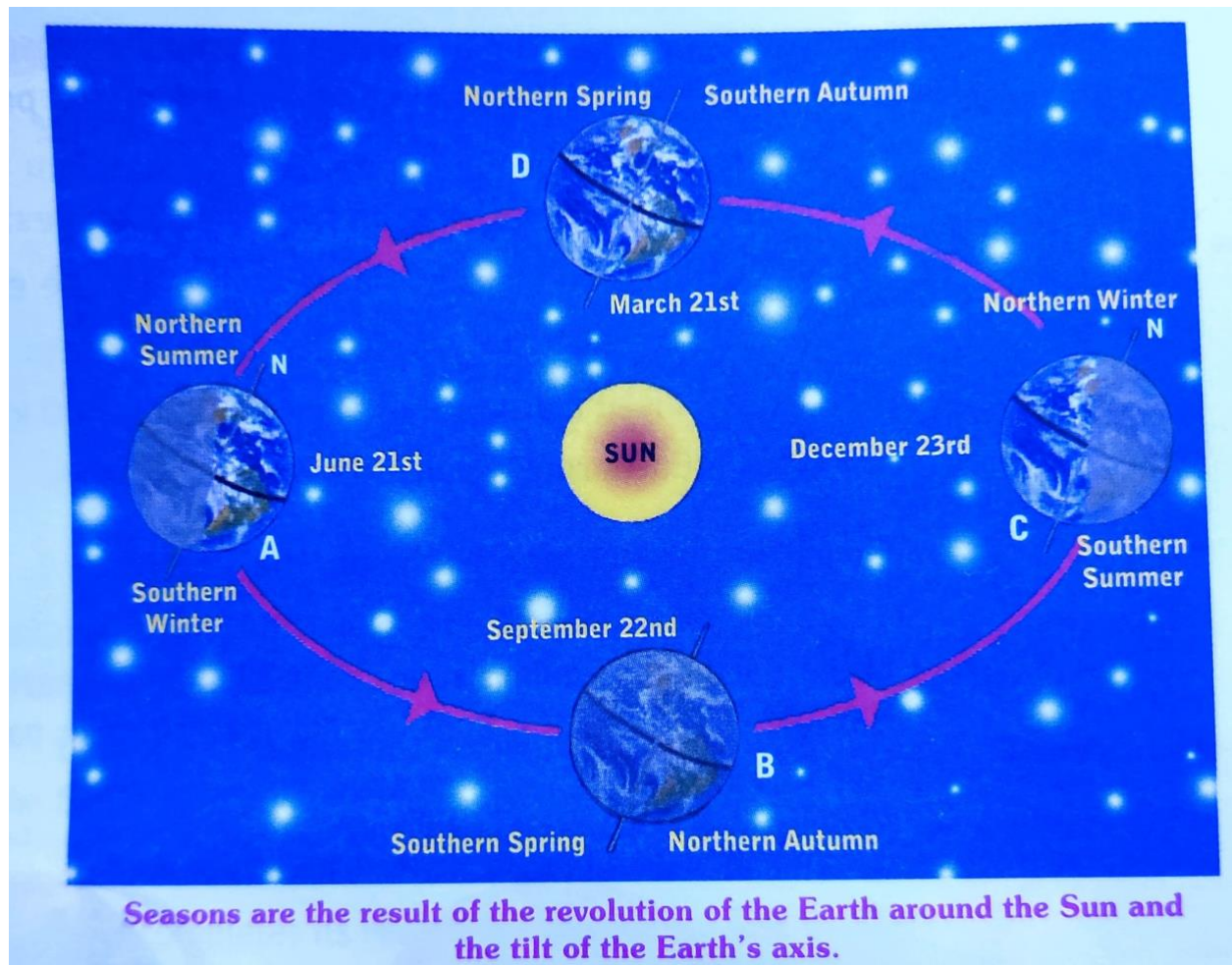
Art Integration: Drawing the solar system in notebooks/posters.

Think–Pair–Share: "What would happen if Earth stopped rotating?"

Case Study: India's achievements – Chandrayaan, Mangalyaan.

Game-Based Learning: Planet quiz, crossword, riddle-solving.





Student Participation

- Role play as planets.
- Poster-making of solar system.
- Quiz & debates.

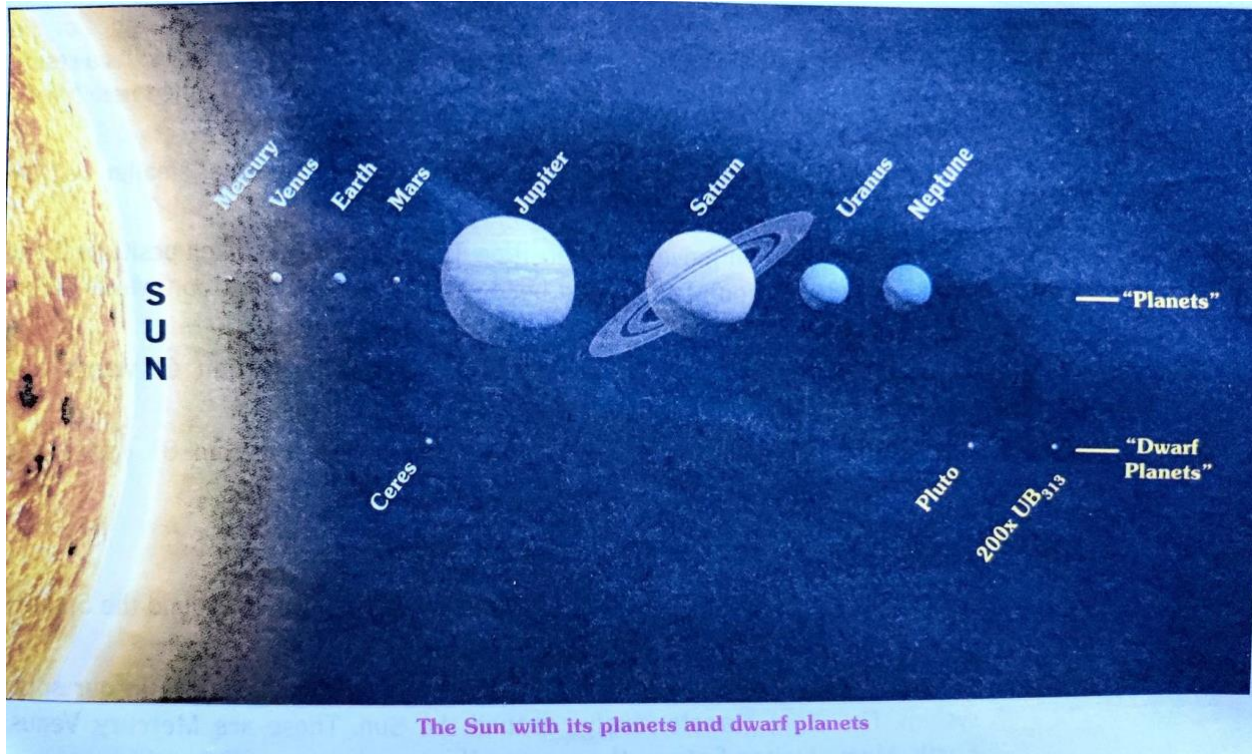
Assignments / Recapitulation

- Worksheet: Match planets with their features.
- Short note: "My favourite planet."
- Draw and label the solar system.
- Collect data about space missions.

Art Integration / Interdisciplinary Links

- Art: Solar system charts, constellation drawings.

- History: Ancient Indian astronomers (Aryabhata).



Learning Outcomes

Students will be able to:

- Identify all planets and their order in the solar system.
- Distinguish between stars, planets, and satellites.
- Record and explain phases of the Moon.
- Appreciate contributions of Indian space research.
- Express curiosity about space through creative writing/art.

Resources

- Curiosity textbook
- Cordova science book
- solar system models.
- Multimedia videos of planets, moon phases.
- Flashcards & worksheets.
- Globe, ball, torch for eclipse demonstration.

Co-Scholastic Activities

- Critical thinking

- Quiz
- Peer teaching
- Poster campaign: “Save Earth, Our Unique Planet.”

Assessment

- Quiz, oral Q&A.
- Worksheets.
- Written test.

Feedback & Remedial Teaching

- Use planet models
- Peer explanation groups.
- Additional videos for complex topics (e.g., eclipses).

Inclusive Practices

- Visual aids for children with difficulty reading.
- Oral responses for students struggling with writing.
- Extra support during group work for shy learners.
- Recorded videos for students who miss observations.

○ **Sustainable Development Goals (SDGs):**

- SDG 4: Quality Education
- SDG 9: Industry, Innovation and Infrastructure