

CLASS – VI
LESSON PLAN
CHAPTER-4: SORTING MATERIALS INTO GROUPS

Unit	CHAPTER-4: SORTING MATERIALS INTO GROUPS
Class Transaction	Total: 5 periods (approx. 40 min each)
Pre-requisite for the course	The teacher will refer to the prior knowledge. Q.1. Make a list of objects that are around you. Q.2. Is there any difference between all these objects? (The class will be divided into smaller groups. Each group having 5 members.)
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. Subject enrichment Students would be able to, thereby inculcating competencies like collaboration, critical thinking and creativity
Learning Outcomes	1. KNOWLEDGE: Sort materials into groups according to their properties i.e. ❖ Insoluble / soluble in water ❖ Transparent / Translucent / Opaque ❖ Hard / soft / Translucent / Opaque ❖ Appearance — Dull — Shiny 2. Elaborate on the need of classification. 3. Differentiate between various properties of metals. SKILLS and COMPETENCIES 1) Critical thinking and problem solving (working effectively with others), 2) Character building (Taking tasks fearlessly and achieves goals.) 3) Communication (evaluating the information critically and competently. 4) Collaboration (responding open mindedly to different ideas) 5) Creativity (developing ,implementing and communicating new ideas)
Transaction ,Methodology (The teacher can use the mentioned techniques, wherever applicable ,and	Strategies used- Inductive -deductive reasoning, muddiest point discussion, think pair share. Dimensions Of Learning- D4 (E-I Investigation) D3 (Compare)

can use any other too.)	Transaction would proceed in the following manner- Brain Storming-The class would start with a discussion on what the students have already learned in the previous classes and hence what is it that they would learn now. They would also be told the significance of the topic that they would be studying. Introduction of the topic- PPT and Digital Content would be shared Guided practice followed by Independent Practice- NCERT questions to be discussed in the classroom. Techniques to be used: Quiz Daily Practice Problem MCQ Peer Assessment Lab Activities												
Resources	Text Book: NCERT text book for Science												
Self Study,Home work Assignments	Independent Practice: Students would do the given questions and practice making diagrams in their notebooks. Notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 marks On time submission.....1 mark Presentation/ Neatness.....1 mark Content.....3 marks It is also advised that the students come to the class with proper background knowledge of the topic under discussion. They can refer to the resources stated above.												
Assessments	Through Pen Paper Test Students will be assessed creatively and critically <table> <tr> <td>4 UNIT TESTS</td> <td>25 Marks each</td> </tr> <tr> <td>HALF YEARLY EXAMINATION</td> <td>80 Marks</td> </tr> <tr> <td>ANNUAL EXAMINATION</td> <td>80 Marks</td> </tr> <tr> <td>INTERNAL ASSESSMENT</td> <td>10 Marks</td> </tr> <tr> <td>• Note Book Submission</td> <td>5 Marks</td> </tr> <tr> <td>• Lab Practical (Subject Enrichment)</td> <td>5 Marks</td> </tr> </table> Through lab Practical Students are assessed for Collaboration, Critical thinking.	4 UNIT TESTS	25 Marks each	HALF YEARLY EXAMINATION	80 Marks	ANNUAL EXAMINATION	80 Marks	INTERNAL ASSESSMENT	10 Marks	• Note Book Submission	5 Marks	• Lab Practical (Subject Enrichment)	5 Marks
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Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligence , the classroom will be a diverse arena. The following techniques can be used for various groups: <i>For gifted students:</i> • High order thinking skills questions to be done • Encouragement for referring other resources <i>For weak students:</i> • Short answers to be completed • Buddy help to be provided • Provide grade-up classes <i>For differently abled students:</i> • Ignore spelling mistakes and formulae, if not written • Call parents at regular intervals • Provide grade-up classes • Encourage and motivate them at every level.
Marks	The weightage would be given by CBSE.

	After explaining the concept , the students would be assessed by asking the following questions:
Q1	How is solubility of oxygen and carbon dioxide in water useful to us?
Q2	Why do shopkeepers keep biscuits, sweets etc in glass containers?
Q3	Define a solute, solvent and a solution.
Q4	Iron nails lose their luster after keeping for some days. Give reason.
Q5	Differentiate between Soluble materials and Insoluble materials.

TOPIC	DAY ONE :
Pre- Requisite for the course	Students recall the materials by which the objects are made up of.
Assessment of qualifying knowledge	Questions from previous class about the related topic for whole class group.
Objective	To be able to know about variety of materials and their properties.
Learning Outcomes	<u>KNOWLEDGE</u>- Students will know and understand: ● Different kinds of materials. ● Properties of materials.

	SKILLS and COMPETENCIES- Students will be able to: ● Collaboratively discuss about different kinds of materials. ● Critically analyse about various properties of materials.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1, D2 Transaction would proceed in the following manner- Anticipatory Set: 10 min The facilitator initiates a conversation with the learner by asking them about objects and the materials they are made up of. After the conversation, different kinds of materials will be listed on the board. The facilitator will now start with variety of materials and group them on the bases of appearance and hardness. The facilitator will discuss the properties of materials and importance of their usage. Discussion of topic and Guided Practice 20 min <u>Inquiry based learning</u> (Critical Thinking and Problem Solving) The students will attempt questions from the textbook. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will go through the activities in NCERT text book. Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Science
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their notebooks.
Assessments	Oral Test (5 minutes)
TOPIC	DAY TWO
Pre- Requisite for the course	This topic requires knowledge of properties of materials.
Assessment of qualifying knowledge	Knowledge testing by asking students to write the examples of soluble and insoluble materials.
Objective	The students will be able to know about : ● Soluble and insoluble materials ● Sink and floating property
Learning Outcomes	<u>KNOWLEDGE-</u> The students will be able to know about the various properties of materials. <u>SKILLS and COMPETENCIES-</u> Critically analyse the objects on the

	basis of their properties.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1,D2 Transaction would proceed in the following manner- Recapitulation: 5 min Brainstorming on the previously taught concept would be done by asking some Questions like: Q1. Name 2 objects made up of wood. Q2. What are soft materials? Q3. What are hard materials? Discussion of topic through Collaborative Learning: 15 min (Critical Thinking, Collaboration) After the discussion the students will be able to classify the materials as soluble and insoluble. The facilitator initiates a conversation with the learner by asking them the meaning of sinking and floating. After the conversation materials will be listed on the bases of the property. Guided practice: 15 min The students, with the help of the facilitator, will solve the questions from the textbook in their notebook in the class. The teacher would ensure that each student tries to be independent at the work as well as be under the teacher's guidance. Independent Practice: Students will complete the question and answers given in the textbook. Students who would have difficulty in answering the questions would solve with the help of their buddies. Closure: 5 min The facilitator will ask few questions to check the understanding of the students.
Resources	Text Book: NCERT text book for science
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their notebooks.
Assessments	Oral quiz (5 minutes)
TOPIC	DAY THREE
Pre- Requisite for the course	This topic requires knowledge of properties of materials as transparent, translucent and opaque.
Assessment of qualifying knowledge	Knowledge testing by asking students to classify materials as transparent, translucent and opaque materials.
Objective	The students will able to know about: transparent, translucent and opaque materials and discuss about their

	properties.
Learning Outcomes	<u>KNOWLEDGE</u>- The students will be able to know about transparent, translucent and opaque materials and discuss about their properties. <u>SKILLS and COMPETENCIES</u>- Critically classify materials on the bases of all the properties.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1,D2 The facilitator will explain about transparent, translucent and opaque materials and discuss about their properties. Different materials will be classified on the basis of the properties of transparent, translucent and opaque materials. Home task for the students will be asked to classify materials on the bases of all the properties discussed above. Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Oral test on the previous concept would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical thinking) Activities would be discussed and students would solve different questions per group and then the questions would be crosschecked. Digital content would be used. The facilitator would take rounds and help students with their doubts. Guided Practice: <u>15 min</u> The students will answer the questions from the textbook in their notebook in the class with the help of their teacher. The teacher would ensure that each student tries to be independent at the work as well as be under the teacher's guidance. Independent Practice: Students will complete the diagrams and revise the answers done in the notebook. Closure: <u>5 min</u> A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for science
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their notebooks and draw the required diagrams.
Assessments	Q1. What are soluble materials? Q2. What are insoluble materials? Q3. Why some objects float and others sink?

TOPIC	DAY FOUR
Pre- Requisite for the course	This topic requires knowledge of all the above discussed properties.
Assessment of qualifying knowledge	Knowledge testing by asking students about all the properties learned in the chapter.
Objective	Students will be able to revise all the properties of materials.
Learning Outcomes	<u>KNOWLEDGE</u> - The students will be able to know about classifying the objects on the basis of their properties. <u>SKILLS and COMPETENCIES</u> - Critically analyse various terms learned in this chapter.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1,D2 Transaction would proceed in the following manner- <u>Recapitulation: 5 min</u> Quick revision on the previous concept would be taken up. <u>Discussion of topic through Collaborative Learning: 15 min</u> (Creativity, Collaboration) The facilitator will conduct One minute quiz to recap the learning of previous day and check the understanding. She will ask the questions given below: RECAP: Q1.Differentiate between transparent and opaque materials. Q2. Give examples of translucent materials. <u>Guided Practice: 15 min</u> The students will answer the questions from book in their notebook in the class with the help of their facilitator. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will answer the various problems independently. <u>Closure: 5 min</u> Discussion of muddiest point.
Resources	Text Book: NCERT text book for science
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their notebooks.
Assessments	Written test (5 minutes)
TOPIC	DAY FIVE
Pre- Requisite for the course	This topic requires knowledge of all the above discussed properties.
Assessment of qualifying knowledge	Questions from the previous class about the related topic would be asked for the whole class group.

Objective	Students will be able to recall all the terms and concepts used in this chapter.
Learning Outcomes	<u>KNOWLEDGE</u>- The students will be able to have thorough understanding of all the terms used in the chapter. <u>SKILLS and COMPETENCIES</u>- Critically analyse various terms learned in this chapter.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Dimensions Of Learning- D1,D2 Transaction would proceed in the following manner: Discussion of topic through Collaborative Learning: 15 min (Creativity, Collaboration) A quick revision would take place by using an active learning strategy: The facilitator will prepare few questions from the chapter and hence use an active learning strategy for revision of all the terms and concepts used in the chapter. JEOPARDY - In this activity the facilitator will divide the class into two teams. The facilitator will prepare 20 or more than 20 questions, 5 for each category. Teams take turns choosing questions from the various categories and answering them. After each question has been answered, the point value can be erased from the board. After all the questions have been answered , the team with the most points wins. Strategies used- Think pair share. After student teacher interaction, students will read the concept from the book and then think for a minute and share it with their partner for better understanding. Guided Practice: 15 min The students will answer the questions from book in their notebook in the class with the help of their facilitator. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will answer the various problems independently. Closure: 5 min The facilitator will ask few questions to check the understanding of the students.
Resources	Text Book: NCERT text book for science
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their notebooks.
Assessments	Written test (5 minutes)