



INDIAN SCHOOL AL WADI AL KABIR



CLASS: VI	DEPARTMENT: SCIENCE 2025 - 26	DATE: 11/08/2025
WORKSHEET NO: 4	TOPIC MATERIALS AROUND US	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS & SEC:	ROLL NO.

I. OBJECTIVE-TYPE QUESTIONS:

1. A student collected spoons made of plastic, metal, ceramic and wood. She then noted down the conditions under which each of these would be ineffective. Which of the following observations should be in her notes?
 - a) A wooden spoon will let liquids pass through it
 - b) A metallic spoon can easily bend when small pressure is applied
 - c) A plastic spoon could deform in high-temperature liquids.
 - d) A ceramic spoon can withstand breaking if dropped on the floor
2. Some materials are naturally lustrous, while others are coated with compounds to make them appear lustrous. Over time, all materials tend to lose lustre due to their environment. Which of the following objects cannot regain their lustre upon being rubbed with sandpaper?
 - a) Rusted nails
 - b) Old silver cutlery
 - c) Dusty ceramic mug
 - d) Tarnished copper jug
3. Students were asked to examine different materials and substances. These were butter paper, aluminium foil, cardboard, white cotton cloth, frosted glass and water. Which of the following is a correct observation?
 - a) Only cardboard is opaque
 - b) Only water is transparent
 - c) Butter paper and aluminium foil are translucent
 - d) Aluminium foil, frosted glass and cotton cloth are opaque

4. Four baskets filled with different objects were placed in front of a classroom. Each student was asked to compress the objects to examine their hardness or softness and arrange them in order from hardest to softest. The contents of the four baskets were:

i. Styrofoam

ii. Flour dough

iii. Wooden blocks

iv. A bunch of cotton

What would be the correct order?

a) iii, i, ii, iv

b) iii, i, iv, ii

c) ii, iii, iv, i

d) ii, iii, i, iv

5. What is the SI unit of mass?

a) Gram

b) Kilogram

c) Milligram

d) Litre

6. An ordinary chair requires a strong structure to support the weight of a person sitting on it. Which of the following materials should not be considered for building a chair?

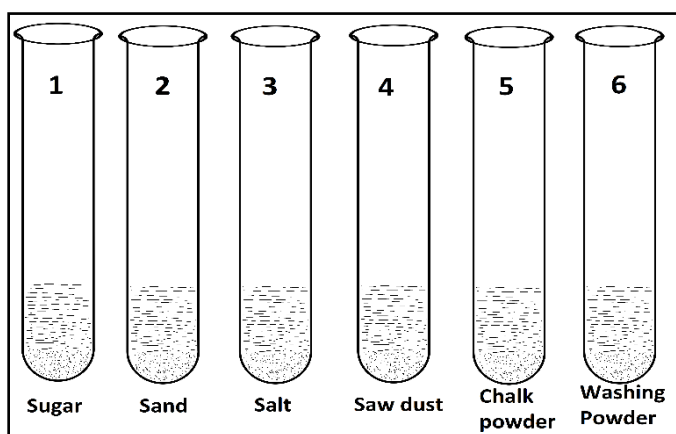
a) Glass

b) Metal

c) Wood

d) Plastic

7. Take 10 ml of water in 6 test tubes, each and add different samples of substances to each test tube as shown in the given figure. Shake the test tubes vigorously for a couple of seconds and leave them undisturbed. In which of these test tubes, sample substances remain insoluble in water?



a) 1, 2 and 3

b) 2, 3 and 4

c) 2, 4 and 5

d) 4, 5 and 6

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below.

i) Both A and R are true, and R is the correct explanation of the assertion

ii) Both A and R are true, but R is not the correct explanation of the assertion

iii) A is true, but R is false

iv) A is false, but R is true

8. **Assertion (A):** The materials which can be compressed or scratched easily are called hard materials.

Reason (R): Iron is a hard material.

9. **Assertion (A):** Substances which do not mix with water are called insoluble substances.

Reason (R): They do not disappear in water even after stirring for a long time.

10. **Assertion (A):** Mass quantifies the amount of matter present in an object.

Reason (R): The space occupied by water is its volume.

II. VERY SHORT QUESTIONS: (2M)

1. Can we fill 450 mL of water in a bottle labelled as capacity of 350 mL? Justify your answer.

[Hint: No, we cannot fill 450 mL of water in a bottle labelled as a capacity of 350 mL because the bottle has only a volume to fill 350 mL, and the extra 100 mL of water gets spilt out of the bottle.]

2. a) What do you mean by the lustre of a substance?

[Hint: Those materials which have a shiny appearance are said to be lustrous. Metals are generally lustrous. E.g.: Gold and Silver.]

b) Metals have lustre (shine). Give a reason why some metal articles become dull and lose their shine. **[Hint: Metals, when exposed to air, react with moisture and gases present in it, thereby forming a dull layer of some other compound on it.]**

3. a) Oxygen gas is soluble in water. It dissolves in the water present in various water bodies.

What is the importance of this oxygen gas dissolved in water? **[Hint: Oxygen gas, dissolved in water, is important for the survival of animals and plants that live in water.]**

b) How is carbon dioxide gas dissolved in water helpful to the plants which live in water?

[Hint: Plants live in water and use carbon dioxide for photosynthesis]

4. Give examples for –

i) An object that can be made from different materials and

ii) Different objects that can be made from the same material.

[Hint: i) A plate can be made from steel, glass or plastic.

ii) Tables, chairs, doors and windows can be made from wood.]

5. Why don't we use paper to prepare tables and chairs? **[Hint: Paper is not hard and can get easily wet with water, hence not used to make furniture.]**

III. SHORT ANSWER TYPE QUESTIONS: (3M)

1. What are miscible and immiscible liquids? Give examples for each.

[Hint: Liquids that get completely mixed are called miscible liquids.

E.g.: Honey, milk, vinegar, etc.]

Liquids that do not mix are called immiscible liquids.

E.g.: Mustard oil, kerosene, etc.]

2. Why is a sponge considered to be a soft material? **[Hint: Hardness is the property of materials that can be found out by pressing the materials. Material may be soft or hard. Materials that can be compressed or scratched easily are called soft materials. Materials that are difficult to compress or scratch easily are called hard materials. Since a sponge can easily be compressed, it is considered to be a soft material.]**

3. Give reasons for the following -

a) Gold and silver are used in jewellery. **[Hint: These metals are lustrous in their appearance.]**

b) When blue ink is dropped in water, the water turns blue. **[Hint: Water and ink are miscible liquids. (liquids that mix well with each other)]**

c) We keep our money and valuables in a metallic or wooden almirah and not in a glass cupboard? **[Hint: Metallic or wooden almirahs are opaque, so no one can see what is kept inside them. Glass is transparent, so everyone can see what is kept inside a glass cupboard]**

d) Differentiate soluble and insoluble substances with examples. **[Hint: Substances that completely dissolve in water are said to be soluble in water. E.g.: Salt and water, Sugar and water.**

Substances that do not dissolve in water, even on stirring, are said to be insoluble in water. E.g.: Chalk powder and water, Sand and water]

4. 'Grouping of objects helps the shopkeeper.' Justify the statement. **[Hint: Proper grouping of objects helps the shopkeeper in the following ways – i) He can locate the required object easily and quickly. ii) He can easily come to know what stocks are going to finish and he should purchase them for his customers.]**

IV. LONG ANSWER TYPE QUESTIONS: (5M)

1. What is classification? What is the need for classifying materials into different groups?

[Hint: The systematic arrangement of things based on certain similarities and differences is called sorting or classification.]

Importance of classification –

- i) Classification helps in the systematic study of objects.**
 - ii) Classification helps in identifying and locating things.**
 - iii) It helps to study the properties of objects of one kind.**
 - iv) It helps to understand similarities and dissimilarities among objects.]**
2. X, Y and Z are the three types of materials. Materials X and Y can break into pieces easily when hit with an object, but material Z does not break easily. The material X is used in the windows of the bathroom of our house, whereas material Y is used in the windows of our drawing room. The material Z is used in making doors and almirahs of our house.
- a) What do you think material X could be? What is the general name of materials like X?
- [Hint: Ground glass, translucent]**
- b) What could material Y be? Write the general name of materials like Y.
- [Hint: Clear glass, transparent]**
- c) What could material Z be? What is the general name of materials like Z?
- [Hint: Wood, opaque]**

V. CASE STUDY- BASED QUESTIONS/PASSAGE-BASED QUESTIONS:

Anything that can be seen and touched is called an object. The objects could be of different shapes, colours and sizes. Some objects may be living, like animals and plants, while some may be non-living, like chairs and tables. Objects are made of substances called materials. Matter is anything that has mass and occupies space. The matter by which an object is made is called a material. For example, the chair is made of wood, and the book is made of paper. The placing of objects into groups according to certain features is called classification. Materials can be grouped based on their similarities and differences in their properties.

Classification of objects into groups is important as it helps us find an object from a large group, understand some basic properties of an object and give clarity about similarities and differences among the various groups.

a) What is matter? **[Hint: Anything that has mass and occupies space is called matter.]**

b) List five physical properties of materials.

[Hint: Lustre, hardness, solubility in water, physical state and density]

c) Why is it necessary to classify objects? Give one reason.

[Hint: By grouping, we can find the required object from a large group easily and can also compare them with similar items.]

ANSWERS FOR OBJECTIVE TYPE QUESTIONS [1 to 10] -

1 - c, 2 - c, 3 - b, 4 - a, 5 - b, 6 - a, 7 - c, 8 - iv, 9 - i, 10 - ii

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