



INDIAN SCHOOL AL WADI AL KABIR



CLASS: VI	DEPARTMENT: SCIENCE 2026 - 2027	DATE: 08/08/2026
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 tested four spoons by using them to stir hot tea and then recorded an observation. Which observation is correct?
 - (a) A wooden spoon becomes too hot to hold immediately.
 - (b) A metal spoon transfers heat quickly to the handle.
 - (c) A ceramic spoon melts in hot tea.
 - (d) A plastic spoon absorbs water from the tea.
2. Which of the following materials is most likely to have a lustrous surface when freshly cut or polished?
 - (a) Glass
 - (b) Plastic
 - (c) Iron
 - (d) Rubber
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. A toy manufacturer wanted to choose suitable materials for making different parts of a toy. The materials available were:

- i. Plastic block
- ii. Cotton ball
- iii. Rubber cube
- iv. Dough

Arrange them from hardest to softest.

- (a) i, iii, iv, ii
- (b) iii, i, ii, iv
- (c) i, iv, iii, ii
- (d) iv, iii, i, ii

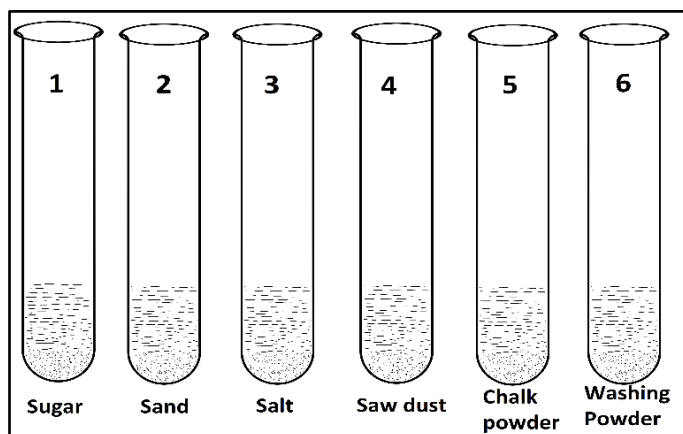
5. Which among the following is the SI unit of mass?

- (a) Gram
- (b) Kilogram
- (c) Milligram
- (d) Litre

6. A carpenter is selecting materials to build a strong study table. Which material should he avoid using for the table legs?

- (a) Cardboard
- (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 will the 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 (A), (B), (C), and (D) as given below.

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

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

(C) A is true, but R is false

(D) 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. A water bottle has a maximum capacity of 500 mL. Ravi tries to pour 650 mL of water into it. Will all the water fit in the bottle? Give a reason.

[Hint: No, we cannot fill 650 mL of water in a bottle labelled as a capacity of 500 mL because the bottle has only a volume to fill 500 mL and the extra 150 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 it is not used to make furniture.]

III. SHORT ANSWER TYPE QUESTIONS: (3M)

1. Define miscible and immiscible liquids with an example.

[Hint: Miscible liquids are liquids that mix completely with each other to form a single uniform solution.

Example: Water and vinegar

Immiscible liquids are liquids that do not mix and form separate layers.

Example: Oil and water.]

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. Materials may be soft or hard. Materials that can be compressed or scratched easily are referred to as soft materials. Materials that are difficult to compress or scratch easily are referred to as 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 dissolve completely in a liquid (usually water) to form a solution.

E.g.: Salt and water, Sugar and water.

Substances that do not dissolve in a liquid (usually 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? Why is it important to classify materials based on their properties?

(WB)

[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 – (b) A metal spoon transfers heat quickly to the handle.

2 – (c) Iron

3 – (b) Only water is transparent

4 – (a) i, iii, iv, ii

5 – (b) Kilogram

6 – (a) Cardboard

7 – (c) 2, 4 and 5

8 – (D) A is false, but R is true

9 - (A) Both A and R are true, and R is the correct explanation of the assertion

10 –(B) Both A and R are true, but R is not the correct explanation of the assertion

Prepared by: Ms Selina Liya Cherian	Checked by: HOD Science
--	----------------------------