

Materials Around Us — Worksheet Set C

Name: _____ Class & Section: _____ Date: _____

Section 1: Multiple Choice Questions (1 mark each)

1. Which of these materials would you choose to make an umbrella cloth?

- (a) A material that absorbs water (b) A waterproof material (c) A soluble material
(d) A soft, breakable material

2. Chalk dissolves and crumbles because it is a:

- (a) Hard material (b) Soft material (c) Liquid material (d) Lustrous material

3. Which material would sink fastest in water?

- (a) A dry sponge (b) A plastic ball (c) An iron ball (d) A cork piece

4. Curd and water, when mixed, form:

- (a) Two separate layers (b) A single mixture (c) A solid (d) A gas

5. A mirror is an example of a material that is:

- (a) Rough and dull (b) Smooth and lustrous (c) Soft and translucent (d) Opaque and rough

6. Which of these is generally used to test hardness of a material?

- (a) Trying to scratch it with a nail (b) Placing it in water (c) Holding it near a light (d) Smelling it

7. Petrol floating above water in a container shows that petrol and water are:

- (a) Miscible (b) Immiscible (c) Soluble in each other (d) The same liquid

8. A plastic sheet used to cover books is an example of a material that is:

- (a) Opaque (b) Transparent or translucent (c) Soluble (d) Rough

9. Which of the following best explains why we group materials?

- (a) To make them costlier (b) To study, compare, and use them efficiently (c) To change their shape (d) To make them heavier

10. A sponge placed in water will:

- (a) Sink immediately without absorbing (b) Float and soak up some water (c) Dissolve completely (d) Turn into a liquid

Section 2: Fill in the Blanks (1 mark each)

1. A waterproof and hard material is best suited to make a _____.
2. Chalk is a _____ material that breaks and crumbles easily.
3. An iron ball sinks in water because it is _____ than water.
4. Curd mixed with water forms a single, uniform _____.

5. A mirror has a smooth surface with a high degree of _____.
6. We can test hardness by trying to _____ the material with a sharp object.
7. Petrol and water are _____ liquids as they form separate layers.
8. A plastic file cover is usually a _____ material.
9. Grouping materials by their properties makes them easier to _____ and use.
10. A sponge floats and also _____ water because of the tiny holes in it.

Section 3: True or False (1 mark each)

1. A waterproof material is suitable for making raincoats.
2. Chalk is a hard material like iron.
3. An object denser than water will sink.
4. Curd and water form two separate, unmixed layers.
5. A mirror is an example of a lustrous and smooth material.
6. Scratching a material with a nail can help test its hardness.
7. Petrol and water mix completely to form one liquid.
8. Sponges are used because they float and absorb water.
9. Materials are grouped randomly, without any reason.
10. Plastic sheets used for book covers are usually transparent or translucent.

Section 4: Match the Following (1 mark each)

Match the items in Column A with the correct items in Column B.

Column A	Column B
1. Raincoat	A. Immiscible liquids
2. Chalk	B. Soft, crumbly material
3. Iron ball	C. Sinks in water
4. Curd and water	D. Miscible mixture
5. Mirror	E. Smooth and lustrous
6. Petrol and water	F. Waterproof material
7. Sponge	G. Floats and absorbs water
8. Umbrella cloth	H. Waterproof material
9. Sandpaper	I. Rough surface
10. Glass tumbler	J. Transparent material

Section 5: Answer in Two Lines (2 marks each)

1. Why is a waterproof material chosen for making umbrellas and raincoats?
2. Why does chalk break so easily when we press it?
3. Why does an iron ball sink while a sponge floats in water?
4. What happens when curd is mixed with water and stirred?
5. Why is glass used to make mirrors?
6. How can we test the hardness of two different materials?
7. Why do petrol and water not mix when poured into the same container?
8. Why are file covers or book covers often made of plastic sheets?
9. Give one reason why sorting materials into groups is helpful for a shopkeeper selling utensils.
10. Why does a sponge both float and soak up water at the same time?

Section 6: Write Short Notes (5–8 lines) (3 marks each)

1. Explain how the choice of material depends on the property required for a particular use.
2. Describe how floating and sinking of objects in water can be observed and explained.
3. Explain the concept of miscible and immiscible liquids using kitchen examples.
4. Why is it important to test the hardness of a material before using it for construction?
5. Describe the importance of sorting materials with an example from daily life.

Section 7: Answer in One Word (1 mark each)

1. A material that does not allow water to pass through it is called _____.
2. The tendency of an object to stay on top of a liquid is called _____.
3. The tendency of an object to go down in a liquid is called _____.
4. Liquids that mix completely and form one uniform liquid are called _____.
5. A material with a shiny, reflective surface, often used for mirrors, has high _____.
6. The property that determines whether a material can be scratched or dented easily is _____.
7. A material that soaks up and holds liquid within tiny holes is said to be _____.
8. The process of arranging materials into groups based on common properties is called _____.
9. A material that breaks or crumbles under slight pressure is called _____.
10. The property of a material that allows it to dissolve in a liquid is called _____.

Answer Key — Worksheet Set C

Section 1: Multiple Choice Questions

1. A waterproof material
2. Soft material
3. An iron ball
4. A single mixture
5. Smooth and lustrous
6. Trying to scratch it with a nail
7. Immiscible
8. Transparent or translucent
9. To study, compare, and use them efficiently
10. Float and soak up some water

Section 2: Fill in the Blanks

1. raincoat / roof
2. soft
3. denser / heavier
4. mixture
5. lustre
6. scratch
7. immiscible
8. transparent / translucent
9. study / compare
10. absorbs

Section 3: True or False

1. True
2. False
3. True
4. False
5. True
6. True
7. False
8. True
9. False
10. True

Section 4: Match the Following

1. Raincoat → Waterproof material
2. Chalk → Soft, crumbly material
3. Iron ball → Sinks in water
4. Curd and water → Miscible mixture
5. Mirror → Smooth and lustrous
6. Petrol and water → Immiscible liquids
7. Sponge → Floats and absorbs water
8. Umbrella cloth → Waterproof material

9. Sandpaper → Rough surface

10. Glass tumbler → Transparent material

Section 5: Answer in Two Lines

1. A waterproof material does not allow water to pass through it, keeping us dry, which makes it ideal for umbrellas and raincoats.
2. Chalk is a soft material, so it cannot withstand much pressure and breaks or crumbles easily.
3. The iron ball is denser and heavier than water, so it sinks, while the sponge is light and has trapped air, so it floats.
4. When curd is mixed with water and stirred, it blends completely to form a single, smooth mixture without separating into layers.
5. Glass has a smooth surface and can be coated to become highly lustrous and reflective, which makes it ideal for mirrors.
6. We can try scratching each material with a nail or another hard object; the material that is harder to scratch is the harder material.
7. Petrol and water are immiscible liquids, meaning their particles do not blend together, so they form two separate layers instead.
8. Plastic sheets are transparent or translucent, light, and water-resistant, which protects books while still allowing them to be seen.
9. Sorting helps the shopkeeper arrange utensils by material, such as steel, plastic, or glass, making it easier for customers to choose based on need.
10. A sponge has many tiny holes that trap air, helping it float, while the same holes also allow it to absorb and hold water.

Section 6: Short Notes

1. Different objects require materials with specific properties suited to their function. For example, umbrellas need waterproof material, cooking vessels need materials that can withstand heat, and mirrors need smooth, lustrous materials for reflection. Choosing the wrong material, such as a soluble material for a water bottle, would make the object unsuitable for its purpose. This is why understanding the properties of materials, such as hardness, solubility, and transparency, is important before selecting a material for any use.
2. To observe floating and sinking, we gently place different objects, such as a stone, a cork, an iron nail, and a piece of wood, on the surface of water in a container. Objects like cork and wood float because they are lighter than water for their size, while objects like stone and iron sink because they are heavier than water for their size. This activity helps us understand density and is used practically in designing boats and life jackets that stay afloat.
3. In the kitchen, we often see examples of miscible and immiscible liquids. Water mixes completely with milk or sugar syrup to form a single uniform liquid, showing that they are miscible. On the other hand, cooking oil poured into water forms a separate layer floating on top, showing that oil and water are immiscible. Understanding this helps us know why oil and water-based liquids need to be shaken or mixed carefully, and why they separate again after some time if left undisturbed.
4. Hardness tells us how well a material can resist scratching, cutting, or breaking under pressure. Before using a material for construction, such as building walls, floors, or bridges, it is tested for hardness to ensure it can bear weight and withstand wear over time. Soft materials, like clay or chalk, would not be suitable for such purposes as they break easily, while hard materials, like stone, brick, and iron, are chosen because they are strong and durable.
5. Sorting materials into groups based on properties such as hardness, solubility, and appearance helps us use the right material for the right purpose and saves time and effort. For example, in a kitchen, we sort utensils into metal ones for cooking on flame, plastic ones for storing food, and glass ones for serving, based on their heat resistance and durability. This kind of grouping is also used by scientists, engineers, and manufacturers to select suitable materials for making new products efficiently.

Section 7: Answer in One Word

1. Waterproof
2. Floating
3. Sinking
4. Miscible liquids

5. Lustre

6. Hardness

7. Absorbent

8. Sorting / Classification

9. Soft / brittle

10. Solubility