# Sorting Materials into Groups

**Fill in the blanks: -**

1. The smallest particle of a _____ is called a molecule.
2. All living things are classified as _____ and _____.
3. _____ discovered the atom of an element.
4. Molecules of _____ have very less attraction between them.
5. _____, _____, _____ and _____ together make urea.
6. There are _____ different elements of which _____ are natural and _____ are made by man.
7. _____ and _____ gases are immiscible in water.
8. _____ do not change their shape or volume.
9. Density of all materials is often compared to _____.
10. _____ is the hardest material on earth.

**Define the following: -**

1. Materials
2. Molecule
3. Volume
4. Transparent
5. Element
6. Mass
7. Opaque
8. Immiscible liquids
9. Compound
10. Matter
11. Atom
12. Flotation
13. Insulators of heat
14. Classification
15. Viscous liquids
16. Miscible liquids
17. Density
18. Conductors of heat

19. Translucent
20. Intermolecular space
21. Cohesion

**Tick the correct option: -**

1. Common salt is a compound made up of

a. Carbon, sodium b. Sodium, chlorine c. Chloride, soda d. Chloride, sodium

2. Which of the following can be classified together on the basis of appearance.

a. Iron b. Copper c. Cotton Cloth d. Wood

3. Solid do not change their shape because

a. the molecules are hard
b. the molecules are closely packed
c. none of the above
d. Both a and b

4. Silicon and oxygen together make

a. Cement b. Brick c. Sand d. Urea

5. Gas fills up the space available to it because

a. Molecules are independent of each other
b. Molecules have vibration
c. Molecules are attached to each other
d. Both a and b

6. Which one of the following is miscible with water

a. Kerosene b. Diesel c. Honey d. Coconut oil

7. Frosted glass is an example of

a. Opaque b. Transluscent c. Miscible object d. None of the above

8. Which of the following is the property of wood

a. Flotation b. Good conductor of electricity c. Magnetic d. Lustrous

9. Which of these is not a property of a solid.

a. Solids have fixed shape and volume.

b. Solids exert pressure in all directions.

c. They do not flow

d. They cannot be compressed.

10. Which one of the following is not in washing soda.

a. Nitrogen

b. Sodium

c. Carbon

d. Oxygen

**Draw neat labelled diagrams to show-**

1. Arrangement of molecules in solids, liquids and gases
2. Liquid changes shape



**Fill the boxes: -**

1. Name different objects made from the given material

| Material | Objects |
|---|---|
| Wood | |
| Paper | |
| Glass | |
| Plastic | |

2. Name the different materials with which the given object can be made.

| Object | Materials |
|---|---|
| Plate | |
| Vase | |
| Chair | |
| House | |

3. Make pairs of miscible solutions and immiscible solutions

| Milk, Lemon juice, water, Coconut Oil, Glycerine, Honey, Diesel, Kerosene, Mustard Oil | |
|---|---|
| Miscible | |
| Immiscible | |

4. Which ones are not matter-

| time, sugar, iron, oxygen, sound, hydrogen, milk, sunlight, oil, microwave, alcohol, energy, electricity, minerals, sunlight, steam, rainbow, carbon dioxide, reflections, helium, gravity, Memories, tar, information, honey, glycerine, magnetism | |
|---|---|
| Solid | |
| Liquid | |
| Gas | |
| Not a matter | |



**Write short answers: -**

1. Name 5 materials which are used to make useful objects.
2. List the properties of solids.
3. Name some things which are not matter.
4. What is Dalton's Atomic Theory?
5. Why it is important to have windows with transparent glasses in shops.
6. Look around. Name 2 places where classification is done to keep the things in order.
7. Name 3 man-made elements and 3 natural elements.
8. What is the difference between molecule and atom?
9. Why are solids rigid and hard?
10. List the properties of gases.
11. Name the three classifications of substances on the basis of the amount of light that can pass through them.
12. Why do some objects float in water while others sink?
13. Explain texture.
14. What is Brownian motion?
15. What is the difference between the density and volume?

16. Can you think of a material that changes its properties under different conditions? Explain.
17. List the properties of gases.
18. When we dissolve sugar in water, why the water level does not increase?
19. What are magnetic materials?
20. Why are electric cables covered with plastic?
21. Name two materials which are lustrous but are not classified as same.
22. Name the factors which help us to decide which materials to use?
23. What are the properties of materials?
24. What are ferromagnetic metals?
25. How can we make a paper translucent?
26. Why is stainless steel attracted to magnet?
27. Why homes in very cold regions are made of wood?
28. What are the three states of matter? What are the properties of each state?
29. Name the different properties of matter.
30. What is the difference between the mass and volume?
31. Why the three states of matter have different properties?



**Circle the odd one out. Explain your answer.**

1. Sandpaper, Glass sheet, Rocks, Wood
2. Hydrogen, Helium, Methane, Carbon dioxide
3. Gold, Lead, Bronze, Steel
4. Iron, Cobal, Aluminium, Nickel,
5. Rock, Iron, Wood, Rubber
6. Chlorine gas, Oxygen, Nitrogen, Carbon dioxide
7. Alcohol, Vinegar, Glycerine, Coconut Oil
8. Leaf, Cork, Coin, Twig
9. Bamboo, Air, Wood, Aluminium

**Answer in one word-**

1. Liquid which is made with the combination of two gases. – _____
2. Liquid which is immiscible with water- _____
3. Compound which we eat everyday but is made up of two poisonous substances-

_____

4. Honey and tar are example of this liquid- _____
5. Gas which is immiscible with water- _____
6. All liquids are miscible with water- Yes/ No
7. Tar and water- _____
8. Helium and water- _____

**Write true or false and correct the incorrect statement: -**

1. Everything occupies space.
2. Satellite signals are matter.
3. Liquids change shape and volume.
4. Mass and volume are the same.
5. Atoms have independent existence whereas molecules do not have independent existence.
6. Everything that exists in this universe is a matter.
7. Sugar is a compound of carbon, hydrogen and oxygen.
8. All molecules attract each other.
9. All metals are attracted to magnet.
10. The force of attraction between the molecules decreases with increase in distance.