

C. LIQUIDS

Liquids: Taking the Shape of their Container

Did you know that there are different types of matter all around us? Matter can be a solid, a liquid, or a gas. Today, we're going to dive into the world of liquids! Liquids are special because they have some unique properties. Let's explore how liquids behave and why they're different from solids and gasses.

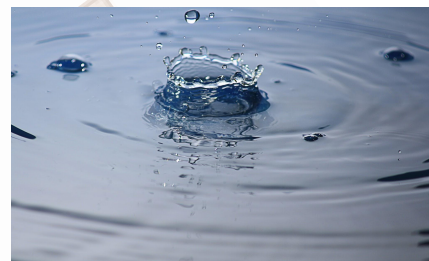
One important property of liquids is that they have a definite volume. That means that liquids take up a certain amount of space, and this amount doesn't change. Imagine you have a glass of water. No matter how you tilt or pour it, the water will always fill the same amount of space. It won't get bigger or smaller. That's because liquids have a **fixed volume**.



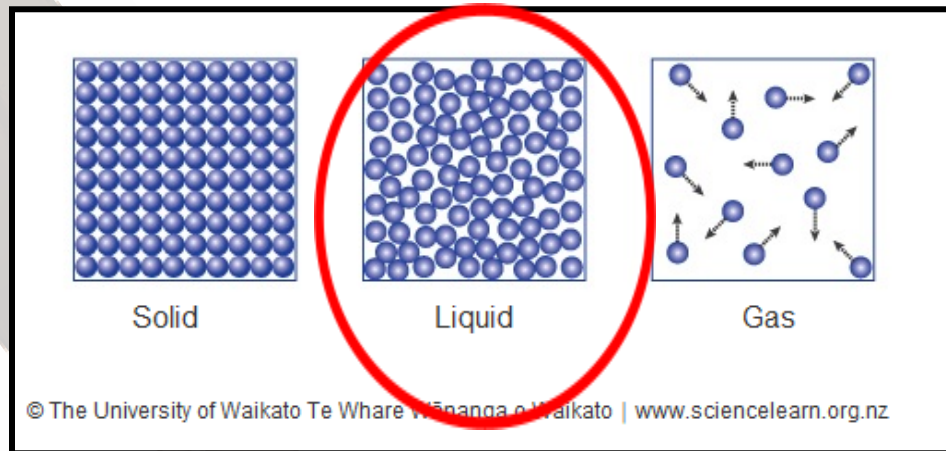
Unlike solids that have a definite shape, liquids take the shape of their container. This means that if you pour a liquid into a different container, it will change its shape to fit the new container. For example, if you pour water into a cup, the water will take the shape of the cup. If you pour the same water into a bowl, it will take the shape of the bowl. Liquids are very adaptable!

Have you ever seen water flowing in a river or milk pouring from a jug? Liquids can move! They can flow and pour because their particles can move freely. When you tilt a container filled with a liquid, the liquid can easily change its position and flow from one place to another. It's like a liquid dance!

Liquids also have something called surface tension. Surface tension is what allows some insects, like water striders, to walk on water. It's like a thin skin on the surface of the liquid that makes it act like a stretchy sheet. If you put a paperclip on water, it may float because of the surface tension.



Liquids can interact with other types of matter too! When a liquid comes in contact with a solid, it can wet or stick to the solid's surface. Have you ever seen how water sticks to your skin when you wash your hands? Liquids can also interact with gasses. They can evaporate and turn into a gas when heated, like when water boils and turns into steam.



Now, let's see how well you understood the passage with some multiple-choice questions:

1. What is a definite volume?
 - A) The ability to change shape
 - B) The ability to change size
 - C) A fixed amount of space
2. What is one property of liquids?
 - A) They have a definite shape
 - B) They have no volume
 - C) They take the shape of their container
3. What happens to the shape of a liquid when poured into a new container?
 - A) It stays the same
 - B) It changes to fit the new container
 - C) It disappears
4. How do liquids move?
 - A) They stay still
 - B) They can flow and pour
 - C) They evaporate into a gas
5. What is surface tension?
 - A) The ability to change shape
 - B) The ability to evaporate
 - C) A thin skin on the surface of a liquid
6. How do liquids interact with solids?
 - A) They repel solids
 - B) They stick to solids
 - C) They evaporate solids
7. What happens when a liquid is heated?

- A) It evaporates into a gas
- B) It becomes a solid
- C) It changes color

8. Can a liquid change its volume?

- A) Yes, it can change its volume
- B) No, its volume is fixed
- C) It depends on the liquid

Answers & Explanations

1. C) A fixed amount of space
 - A definite volume means that a liquid takes up a fixed amount of space that doesn't change.
2. C) They take the shape of their container
 - Liquids can change their shape to fit the container they are in.
3. B) It changes to fit the new container
 - Liquids take the shape of the container they are poured into.
4. B) They can flow and pour
 - Liquids can move and change their position, allowing them to flow and pour.
5. C) A thin skin on the surface of a liquid
 - Surface tension is like a thin skin on the surface of a liquid that makes it act like a stretchy sheet.
6. B) They stick to solids
 - Liquids can wet or stick to the surface of solids.
7. A) It evaporates into a gas
 - When a liquid is heated, it can evaporate and turn into a gas.
8. B) No, its volume is fixed
 - Liquids have a definite volume, which means their volume is fixed and does not change.