

States of Matter

Have you ever noticed how water can be a solid, liquid or gas? Everything around us is made of matter and matter can exist in different forms. **In fact**, we call these forms the **states of matter**. Learning about solids, liquids, and gases helps us understand how the world works and how things change. Let's learn all about them.

Solids, Liquids and Gases

Matter comes in three main states: solid, liquid, and gas. **For example**, solids, like a pencil, a rock, or a chair, have a fixed shape and do not change easily. **On the other hand**, liquids, such as water and juice, take the shape of their container but have a definite volume. **In contrast**, gases, like the air we breathe, spread out to fill the space they are in and do not have a fixed shape or volume. **As a result**, gases can be harder to contain than solids and liquids because they move freely and fill up any space available.

Changing From One State to Another

Matter can change from one state to another when it is heated or cooled. **For instance**, when ice (a solid) is heated, it melts into water (a liquid). In addition, water can become steam (a gas) when it is boiled. **Therefore**, if you cool steam, it turns back into water, and cooling water turns it back into ice. **Isn't it amazing how something as simple as temperature can change matter in so many ways?**

Interesting Facts About Matter

- **Did you know** your breath contains water vapor, which is a gas?
- **Incredible as it seems**, the sun makes puddles disappear by turning the water into gas through evaporation!
- **Believe it or not**, scientists have even discovered more than three states of matter, including plasma—it's not just solids, liquids, and gases!