

## 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!