



**Matter:**







Matter is anything that has mass and occupies space. Everything around us is made of matter.

**Related SLO**

**Students' Learning Outcomes**

- Identify matter and its states.
- Recognize the basic differences between states of matter such as water through physically observable properties (shape and size)

**Examples:**

		
Rocks	Ice	Wood
		
Plants	Animals	Humans

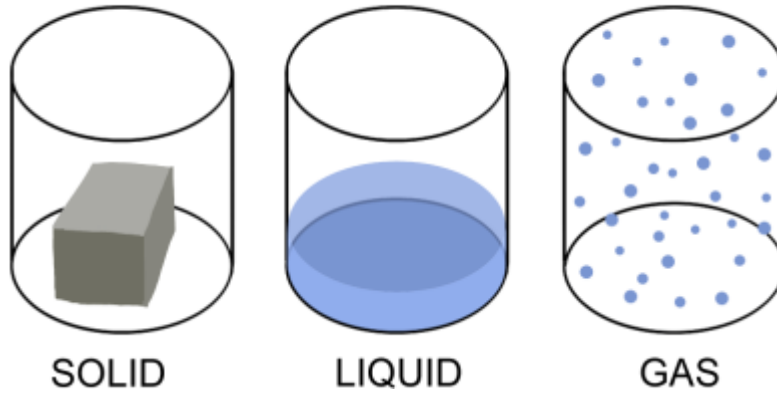
**States of Matter:**

Matter exists in three states.

- Solid
- Liquid
- Gas



**Characteristics of States of Matter:**



**Solid**

- **Shape:**

Solids have a fixed shape. They do not change shape easily. For example, a pencil always looks like a pencil, whether it is on your desk or in your hand.

- **Volume:**

Solids have a fixed volume. They do not change their volume easily. A block of wood will always take up the same amount of space.

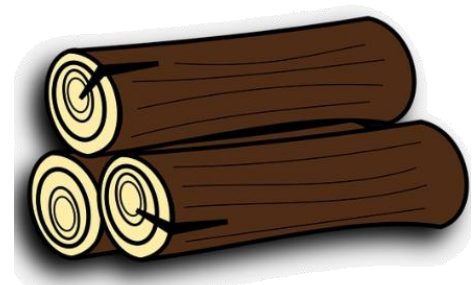
**Examples:**



Rock



Ice



Wood



### Liquid

- **Shape:**

Liquids do not have a fixed shape. They take the shape of their container.

For example, if you pour milk into a bowl, it will take the shape of the bowl.

- **Volume:**

Liquids have a fixed volume. They don't change the amount of space they occupy. A cup of milk has the same amount of milk whether it is in a tall glass or a short glass.

### Examples:



Water



Milk



Juice

### Gases:

- **Shape:**

Gases do not have a fixed shape. They spread out to fill the shape of their container. For example, air in a balloon will take the shape of the balloon.



- **Volume:**

Gases do not have a fixed volume. They can expand or compress to fill the entire space available. If you inflate a balloon, the air inside takes up more space. If you let some air out, the balloon's volume decreases.

**Examples:**



Air



Helium



Steam