

## Grade 4.

### Science and Technology.

#### 4. Matter.

Matter refers to anything that occupies space and has mass. There are 3 states of matter, solids, gases and liquids.

##### 4.1 Solids.

Solids have definite shape and volume. Examples of solids include stones, pencils and metals. Particles in solids are aligned closely to each other. This limits movements of solids. Solids are strong and good conductors of heat as compared to liquids and gases. Solids also expand when heated and contracts when cooled.

##### 4.2 Liquids.

Liquids have definite volume but no definite shape. Liquids take the shape of the container they are in. This means that when you put a liquid in a box like container its shape becomes like a cube and a cylinder when put in a cylinder. Examples of liquids include water, juice, rain and petrol. The intermolecular forces between water molecules are weaker than that in solids but greater than that in gases. For this reason, liquids move more freely. Liquids also expand when heated and contracts when cooled.

##### 4.3 Gases.

Gases have no definite shape nor volume. They take up the space of the container they are in. They have the lowest intermolecular forces compared to other states of matter. For this reason, gases move more freely. Gases are also easy to compress. Examples of gases include oxygen, helium and nitrogen. Gases also expand when heated and contracts when cooled.

##### 4.4 Safety When Handling States of Matter.

Do not drink or eat any solids or liquids.

Do not directly smell any gases. Also wear a mask when doing gases experiment.

Always wear goggles and masks when dealing with states of matter to avoid particles from entering your eyes.