

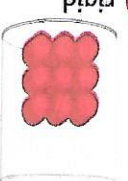


## Y4 Pentecost 1: Science Knowledge

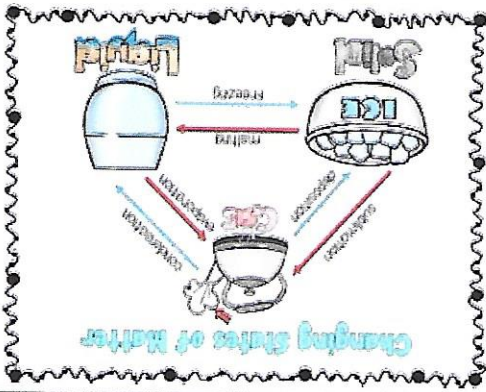
WATER, WATER, EVERYWHERE

- Material Properties and Changes - States of Matter
- Compare and group materials together, according to whether they are solids, liquids or gases.
- Solids, liquids and gases can be identified by their observable properties.
- Solids have a fixed size and shape (the size and shape can be changed but it remains the same after the action).
- Liquids can pour and take the shape of the container in which they are put.
- Liquids form a pool not a pile.
- Solids in the form of powders can pour as if they were liquids but make a pile not a pool.
- Gases fill the container in which they are put.
- Gases escape from an unsealed container.
- Gases can be made smaller by squeezing/pressure.
- Liquids and gases can flow



can be squashed	cannot be squashed	cannot be squashed
no fixed volume	fixed volume	fixed volume
no fixed shape	no fixed shape	fixed shape
not rigid	not rigid	rigid
		
gas	liquid	solid

- How can we change water into a solid, liquid and a gas? Can you change it back again?
- How hot or cold is it? How do you know? How can you measure it? What happens if you change the temperature? What happens when you heat water? Where does all the rain come from? Where does all the rain go? How are clouds formed? How do humans affect the water cycle?



**Key Vocabulary states of matter solids, liquids gases.**

Some materials can change from one state to another and back again.

Solids: materials that keep their shape unless a force is applied to them. Can be hard, soft or even squashy.

Solids: take up the same amount of space no matter what has happened to them.

Liquids: take the shape of their container. Can change shape but do not change the amount of space they take up. Flow or be poured.

Gases can spread out to completely fill the container or room they are in. Do not have any fixed shape but do have a mass.

Water vapour: takes the form of a gas. When water is boiled, it evaporates into a water vapour.