



# Solids, Liquids and Gases

The same substance can exist in different forms. Each of these forms is called a state of matter.

Write the state of matter before and after in each situation.

The first one has been done for you.

Situation	State of Matter Before	State of Matter After
making ice cubes	liquid	solid
drying clothes		
melting ice cream		
moulding plastic		
breathing out on a cold day		
smelling perfume on someone		

Describe **one** other situation where a substance changes state.

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Solids, liquids and gases have different properties.

For each property, place a **tick (✓)** or a **cross (×)** in each column of the table to show whether it is a property of a solid, liquid or gas.

Property	Solids	Liquids	Gases
fixed volume			
flows easily			
can be compressed			
fixed shape			



# Properties of Solids, Liquids and Gases

## Cut and Stick

Cut out the properties below and then stick in the table under the state of matter they describe.

Solids	Liquids	Gases

cannot be compressed

do not flow

do not have a fixed shape

have a fixed volume

can be compressed

flow easily

cannot be compressed

do not have a fixed volume

have a fixed shape

flow easily

do not have a fixed shape

have a fixed volume



# Explaining Properties

Draw **one** line from each property to match it to the correct explanation for solids, liquids and gases.

## Solids

Solids have a fixed shape and volume.

Solids cannot be compressed.

Solids cannot flow.

There are strong forces of attraction between particles holding them in fixed positions.

The particles are packed closely together and cannot move past each other.

The particles are packed closely together with very little space between them.

## Liquids

Liquids have a fixed volume but no fixed shape.

Liquids cannot be compressed.

Liquids can flow.

The particles can move past each other.

The particles are close together but they can move past each other.

The particles are packed closely together with very little space between them.

## Gases

Gases do not have a fixed shape or volume.

Gases can be compressed.

Gases can flow.

The particles are widely spaced with large, empty spaces between them.

The particles move very quickly in random directions.

The particles are free to move.