

## 1. Match each term with its definition

MATTER

It's the relationship between the mass and the volume of an object or substance.  $D = \frac{M}{V}$

MASS

It's something that contains two or more pure substances. It can be homogeneous or heterogeneous.

VOLUME

It's everything that surrounds us. Everything you can see. It can change shape and state.

DENSITY

It's the amount of matter something contains. We can measure it in grams or kg.

MIXTURE

They are natural materials that go through a chemical transformation.

NATURAL MATERIALS

It's the amount of space something occupies. We can measure it in litres or mL.

MANUFACTURED MATERIALS

They are the materials that come from animals, plants or minerals.

## 2. Tick if these sentences are true or false

TRUE    FALSE

Matter is made up of tiny particles

Matter has two states: solid and liquid

An object sinks when it has a lower (↓) density than water

An object floats when it has a higher (↑) density than water

Cotton, wool and gold are natural materials

Changes in shape are reversible

Evaporation is when we heat water (liquid) and it becomes water vapour (gas)

Solidification, melting, evaporation and condensation are changes in state

In a homogeneous mixture, the different elements are visible and you can separate them easily.

Water and salt is a heterogeneous mixture

Sun, water and wind are renewable energies

Non-renewable energies are limited and cannot be replaced. They pollute

### 3. Match to make true sentences

MECHANICAL ENERGY

Is the fastest form of energy

SOUND ENERGY

Is stored in petrol and batteries

CHEMICAL ENERGY

Is produced by movement

THERMAL ENERGY

Can transform into sound or light

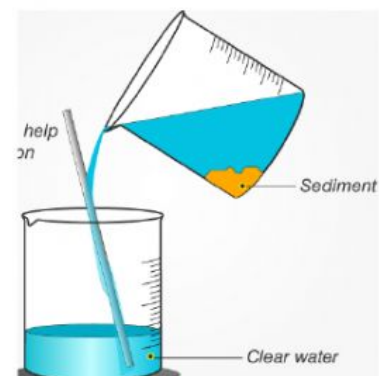
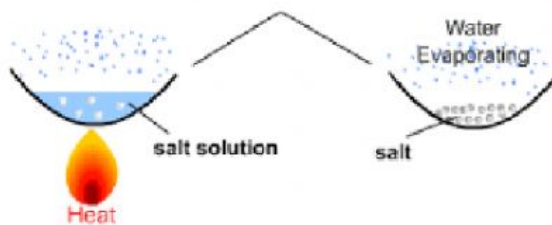
LIGHT ENERGY

Is produced by vibrations










ELECTRICAL ENERGY

Is provided by fire

### 4. Choose the correct separation method



### 5. Identify the properties of the materials. Complete the chart.

Material	Elastic	Resistant	Fragile	Rigid	Flexible	Transparent	Opaque	Waterproof	Heat conductor	Heat Insulator
a 					✓			✓		
b 										
c 										
d 										
e 										
f 										
g 										
h 										
i 										

6. Match each definition. Then, choose the correct term.

**REFLECTION**

When light hits an object, it changes direction and bounces back. For example, a mirror.

**REFRACTION**

When light passes from one substance into another, it changes speed and direction. When light travel from air into water, it slows down causing it to travel at a different angle.

