

6D REVERSIBLE AND IRREVERSIBLE CHANGES

Glossary

ash – a new substance formed when materials burn

burning – a chemical change that is irreversible. Burning involves fuel, oxygen and a flame – heat, smoke and ash are produced when things burn

change of state – the process of change from one state of matter to another – this is a reversible change

chemical changes – are irreversible changes - new chemicals are produced following the change

dissolving – the process of a substance becoming part of a liquid – this is a reversible change

effervesce – to fizz – giving off a gas e.g. soluble antacid tablets – this is an irreversible change

fossil fuel – fuel that comes from the remains of dead animals and plants e.g. coal, oil, gas

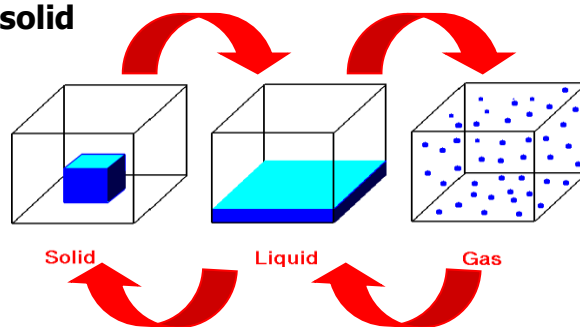
hazard – a danger to health and / or life

Here are some **hazard** symbols – do you know what they mean?



Changing state from **solid** to **liquid** to **gas** and back again is a **reversible change**.

PHYSICAL CHANGE



When chocolate is **melted** it can **solidify** again. The change is **reversible**.



Cooking eggs by frying, boiling, scrambling, poaching etc. is always an **irreversible** change.

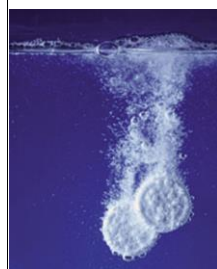
Dissolving sugar in water is a reversible change.



When the water is **evaporated** it leaves the sugar behind.



When oil, vinegar and egg yolks are mixed the resulting **precipitate** is mayonnaise. This change is **irreversible**.

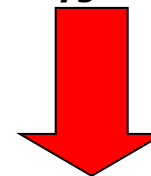


When vitamin tablets **effervesce** (fizz) a gas is produced. This is an **irreversible** change.

Any **reaction** such as burning that causes new **substances** to be formed is called a **CHEMICAL CHANGE** the changes are **irreversible**.



Fuel + Oxygen + Flame

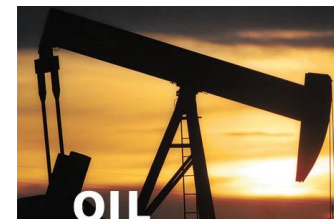


Ash + Smoke + Heat



Coal, gas and oil

are all **fossil fuels**. They are also examples of **non-renewable** energy sources.



heating – the process of increasing the temperature

irreversible change – a change that cannot easily be reversed e.g. burning

physical changes - are reversible changes – no new substances are produced following the change

precipitate – the name of a solid produced in some chemical reactions

reaction –
To **react** - verb

renewable energy – a source of energy that does not involve the burning of fossil fuels e.g. wind power

reversible change – a change that can be easily reversed e.g. freezing water to make ice

substance – a material

This **wind turbine** is part of a **wind farm** helping to generate electricity from **renewable** sources.



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