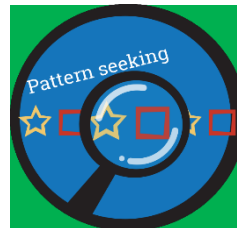


Scientific Enquiries



WHO?

Stephanie Kwolek



Year 1, 2
and 4


Chemistry

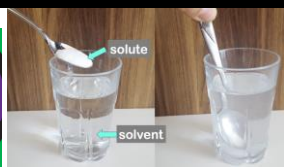


Vocabulary


reversible	A change to a substance that can be reversed or changed	combustion	An irreversible change where a fuel uses oxygen to burn and release energy
chemical change	A type of change in which a new substance is formed	extinguish	To put out fire
effervescence	Bubbling or fizzing	reaction	The process in which substances are converted into different substances
corrosion	The reaction of a metal with oxygen	carbon dioxide	A gas that makes up around 0.04% of our atmosphere


WHAT?

1. 




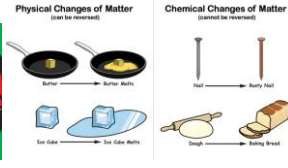
- **Liquids** can often turn into **gases** in a process called **evaporation**.
- Evaporation of a **solution**, something known as **crystallisation**, is a technique used to separate the **solute** from the **solvent** in a solution.
- **Heat** separates the **substances**.

4. 





- **Corrosion** is when **metal** reacts to **oxygen**, which can cause **rusting**. The metal **changes colour** and lose its **shiny appearance**.
- **Corrosion** is an **irreversible change**
- **Water** and **air** (oxygen) cause **iron** to corrode. **Salt** can also speed this process up.
- Rust **weakens metal** which can affect the use of metal objects.

2. 





- **Chemical changes** cannot be **reversed** because they create new substances (e.g. dough baked to make bread cannot be reversed).
- **Physical changes** just changes the **appearance** of something e.g. a change of state (ice, water, water vapour).
- Physical changes are reversible.

5. 





- A **burning** reaction is often known as **combustion**.
- This is when there is a **high temperature** chemical reaction between **fuel**, **heat** and **oxygen**. This commonly produces **carbon dioxide**.
- **Combustion** is an **irreversible change**.

3. 



- **Irreversible changes** are changes that cannot be reversed e.g. an egg fried.
- Many irreversible changes are **chemical changes** because a new product has been made.
- **Sugar solution** is a **reversible change** because we can heat the solution to separate the mixture.

6. 



- **Acids** and **bicarbonates** are another common reaction that cannot be reversed.
- The product of this reaction is most commonly **salt** and **carbonic acid**, which decomposes to **carbon dioxide** and **water**.

Helpful links

Learn more about Stephanie Kwolek!



What is chemistry?



Combustion or burning?



Reversible and irreversible changes

