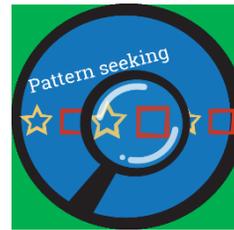
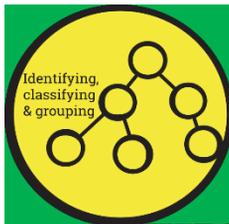


## Scientific Enquiries



WHO?

Stephanie Kwolek



Year 1, 2 and 4

Chemistry



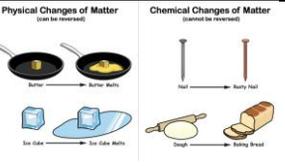
### Vocabulary

<b>reversible</b>	A change to a substance that can be reversed or changed	<b>combustion</b>	An irreversible change where a fuel uses oxygen to burn and release energy
<b>chemical change</b>	A type of change in which a new substance is formed	<b>extinguish</b>	To put out fire
<b>effervescence</b>	Bubbling or fizzing	<b>reaction</b>	The process in which substances are converted into different substances
<b>corrosion</b>	The reaction of a metal with oxygen	<b>carbon dioxide</b>	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**.

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.

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.

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.

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**.

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

