

## Alder Coppice Primary School Knowledge Organiser

**Subject: Science**

**Year: 5**

**Unit 5: Reversible Changes**

Links to: Unit 3 Separating Materials  
and Y4 Solids, Liquids and Gases

### What I Should Already Know:

- That changes can be reversed (Y5)
- About Solids, liquids and gases (Y4)

### Skills and Enquiry:

- What causes irreversible changes?
- What causes rusting?
- How can we make new materials from chemical reactions?
- What is the difference between heating and burning?

Fair test—A **fair test** is a **test** which controls all but one variable when attempting to answer a scientific question. Only changing one variable allows the person conducting the **test** to know that no other variable has affected the results of the **test**.

### Unit Specific Vocabulary:

**carbon dioxide** – a gas made every time something is burnt

**chemical reaction**- what happens when there is an irreversible change

**combustion** – the scientific word for burning

**irreversible** - a change that can only go one way, also known as non-reversible or permanent changes.

**product** – the new material made as a result of an irreversible change

**property** – something about how a material feels, appears and is measured i.e. strong, soft

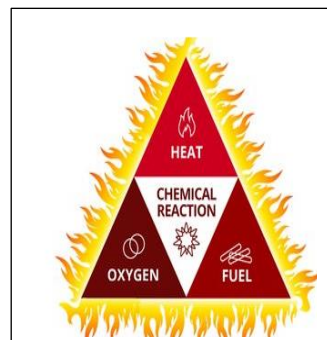
**reversible change** – a change where a material can be returned to its original state i.e. freezing water and melting ice

**rusting** - The irreversible change which causes the weakening (corrosion) of iron and steel in the presence of oxygen and water.

**yeast** – a helpful fungus used by the food industry

### What I should know by the end of this Unit:

- That some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.
- That heating and burning are two different things
- How a famous chemist has created a new material.



## Key Facts:

### What are irreversible changes?

Irreversible changes are changes that **cannot** be undone or reversed.



Heat



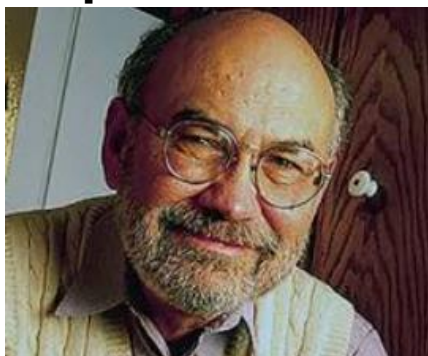
Heat

### Examples of irreversible changes:



### Significant Scientists – chemists

**Spencer Silver**



**Ruth Benrito**

