

# Owl class: Material World 2 Knowledge Organiser

## Subject vocabulary

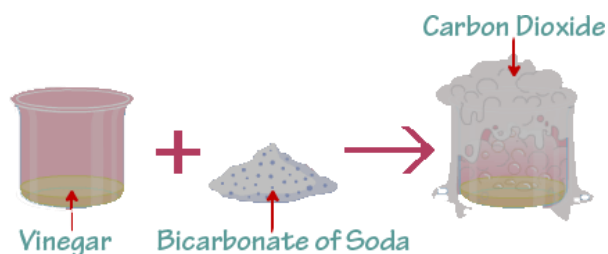
<b>Irreversible change</b>	A change that cannot be undone. In an irreversible change, new materials are formed.
<b>chemical change</b>	A change that happens when substances react with one another to create a different substance
<b>Physical change</b>	An irreversible change where the appearance of the substance changes in some way
<b>gas</b>	A gas does not keep its shape. It spreads out to fill whatever space or container it is in and can be squashed. Gases are often invisible
<b>solid</b>	A solid keeps its shape and does not spread out and always takes up the same amount of space
<b>liquid</b>	Liquids change their shape according to the container they are in
<b>burning</b>	An irreversible change caused by extreme heat / fire.

Some changes that cannot be reversed.

- When wood burns you cannot get it back again. It becomes smoke and ash.



- When iron rusts this change is irreversible.



## Cooking Eggs

Cooking eggs is an example of an **irreversible change**.



It does not matter how the egg is cooked, the change will always be **irreversible**.

## Key facts to know by the end of this unit

When vinegar and bicarbonate of soda are mixed, a gas is produced.

When a candle is lit, although the wax melts first, it then releases a gas which burns, making this an irreversible change.

Adding water to casting powder (plaster of Paris) causes a chemical change. Heat is released and the liquid hardens to a solid

Cooking causes an irreversible change caused by heat. Often liquids can become solids, such as flour, salt and water being baked to create salt dough or cooking an egg.

You can spot an irreversible change by looking for:

- Fizzing or bubbling to show a gas is produced
- The colour changes
- A liquid becomes solid (heating will not return it to a liquid)
- A smell is produced
- The substances become warmer or cooler.