

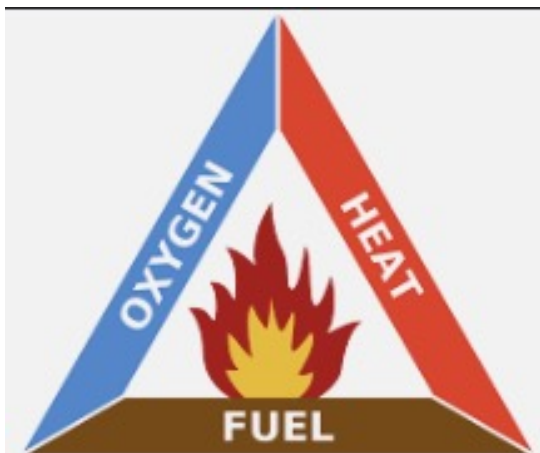
**What I should already know:**

1	Observe that some materials change state when they are heated or cooled,
2	That some materials can be dissolved
3	That dissolving and mixing are reversible changes

**What I will learn:**

1	Demonstrate that dissolving, mixing <b>and</b> changes of state are reversible changes.
2	Identify and explain irreversible chemical changes.
3	That new materials are created in irreversible chemical changes

Reversible	Irreversible
<ul style="list-style-type: none"> <li>✓ States of matter </li> <li>✓ Solid + Liquid </li> <li>✓ Solid + Solid </li> <li>✓ Soluble solid + Liquid </li> </ul>	<ul style="list-style-type: none"> <li>✗ Burning </li> <li>✗ Rusted metals </li> <li>✗ Heating food </li> <li>✗ Mixed ingredients </li> </ul>



**Working scientifically skills:**

1	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
2	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
3	Use test results to make predictions to set up further comparative and fair tests.
4	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.

**Key Vocabulary:**

1	burning	a specific type of chemical change, particularly in fuels
2	irreversible change	a change that cannot be undone
3	reversible change	a change that can be undone
4	rust	a reddish- or yellowish-brown flaking coating that forms on the surface of iron when exposed to air and moisture
5	acid	a chemical substance that dissolves in water, has a sour taste, and turns blue litmus paper red.
6	reaction	chemical transformation or change
7	material	anything used for building or making something else or cloth or fabric
8	hypothesis	an idea about how something works that can be tested using experiments
9	variable	A variable is any one of the elements of the test which could be changed.

**Scientists/Inventors:**

Spencer Silver & Arthur Fry	Chemical Engineer and chemist who worked together to invent the post-it note
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