Foxford Learning Plan

Year 7

Summer 2

Making Materials Through Reactions

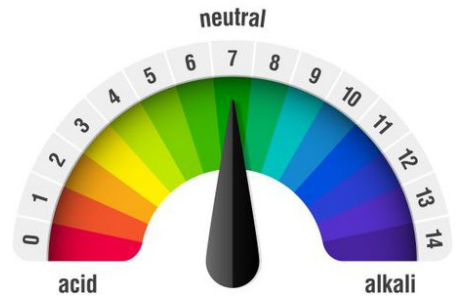
Key Vocabulary

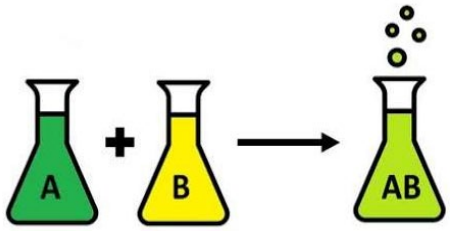
Hazard symbol	A warning pictogram showing the type of danger a substance presents.
Acid and alkali	Acids have pH below 7; alkalis are soluble bases with pH above 7.
Indicator	A substance that changes colour to show whether a solution is acidic or alkaline.
pH	A scale showing how acidic or alkaline a solution is; pH 7 is neutral.
Neutralisation	A reaction between an acid and a base; acid + alkali makes salt + water.
Salt	A compound formed when the hydrogen in an acid is replaced by a metal or ammonium.
Reversible reaction	A reaction whose products can react to form the original reactants.
Ceramic	A usually hard, heat-resistant and brittle material, such as fired clay.
Polymer	A substance made of very large molecules containing repeating units.
Composite	A material made by combining materials to achieve useful properties.
Corrosion	The gradual destruction of a metal by chemical reactions; rusting affects iron.
Catalyst	A substance that speeds up a reaction without being used up overall.

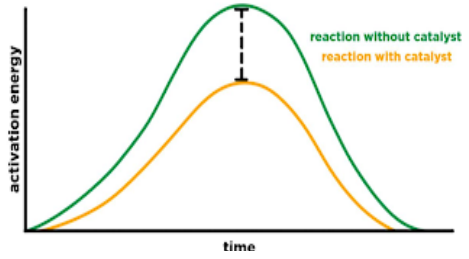
Over this course I will be able to

Key Skills

- Recognise hazard symbols, identify risks and follow safe methods when handling chemicals.
- Use indicators and the pH scale to identify acids and alkalis and record observations accurately.
- Investigate neutralisation, compare indigestion remedies and describe how salts are made.
- Compare material properties and explain why ceramics, polymers and composites suit different uses.
- Plan fair tests of rusting or catalysts, control variables and use evidence to explain results.







I will understand

- How hazard symbols support safe working, and how indicators and pH distinguish acids, neutral solutions and alkalis.
- How acid strength differs from concentration, and how neutralisation makes salts and helps indigestion remedies work.
- Why some reactions can be reversed, while others are difficult to undo under everyday conditions.
- How the properties of ceramics, polymers and composites determine their uses, and how combining materials can improve them.
- Why iron rusts when water and oxygen are present, what changes the rate, and how catalysts speed up reactions without being used up.