Science Learning Journey

BYRCHALL HIGH SCHOOL

'Inspiring young scientists of the futures, atom by atom'.

Science at Byrchall has a strong emphasis on the applying knowledge to the real world and how science works.

Understanding and Applying Scientific Skills

Year 7 → Year 11

- Understanding variables
- Drawing graphs and analysing graphical data
- Writing methods
- Analysis of secondary data
- Assessing impact of scientific concepts
- Modelling scientific concepts
- Drawing conclusions
- Understanding relationships between science and society
- Risk Assessment
- Describe patters
- IDEAL Identify, describe, explain, apply, link
- Applying math's to the scientific concepts
- Evaluating data and investigations
- Evaluation of scientific concepts

Year 7

Weathering

Types of rock

Sedimentary rocks

Metamorphic rocks

Rock cycle

Igneous rocks

YEAR 8

Climate and earths resources

Earths structure

Carbon cycle

The greenhouse

Climate change

Adaptations for hot and cold environments

Random Sampling- Quadrats and Transects

Food chains and webs

Human impact on the environment

Water cycle

Acid rain

Interdependence and recycling

Ecosystems

Predator prey

Disruption to food chains and webs

Trophic level

Decomposition

Recycling

Identifying forces

Balancing forces

Drag forces & friction

Representing forces

Forces

Calculating work done

Forces at a distance

Stretching & squashing

Distillation

Chromatography

Flowers and pollination

The menstrual cycle

Fertilisation and implantation

Development of a fetus

Separation

Filtering

Evaporation

Chemical formulae

Fertilisation and germination

Seed dispersal

Reproduction

Elements, compounds and mixtures

Reproductive systems

Adolescence

Contraception / fertility

Elements

Compounds

Mixtures

Solubility

Boiling

The particle model

Movement: joints

Levels of organisation

Movement of substances

Specialised cells

Observing cells

Gas pressure

Particles / change of state

Cells and organisation

YEAR 7

Diffusion

Melting & Freezing

States of matter

Movement: Muscles

Skeleton

Stem cells

Cell division

Unicellular organisms

Plant and animal cells