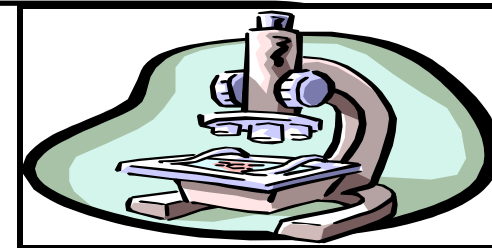


SCIENCE - YEAR 7



Subject content

We follow the National Curriculum Programme of study that includes the following:

AT2: Organisms behaviour and environment. Cells; Reproduction; Environment and feeding relationships; Variation and classification.

AT3: Materials, their properties and the earth. Acids and alkalis; Simple chemical reactions; Particle model of solids, liquids and gases; Solutions.

AT4 Energy, Forces, Space. Energy resources; Electrical circuits; Forces and their effects; The Solar System and beyond.

How Science works: Scientific enquiry
Pupils develop skills in the areas of Ideas and evidence; Planning; Obtaining and presenting evidence; Considering evidence and evaluating.

STEM studies

Assessment arrangements

- Regular homestudy marked to school marking policy
- Two assessed homestudy within each module for AT2, AT3, AT4 marked to NC levels
- Mid year exams
- End of year exams
- Scientific enquiry skills through investigations
- APP tasks

How the work in Year 7 builds on the work at KS2

These build on topics studied at KS2 as follows:

Life cycles; Keeping healthy; Micro-organisms; Interdependence and adaptation; Habitats.

More about dissolving; Reversible and irreversible changes; Gases around us; Solids and liquids and how they can be separated; Changing state.

Changing circuits; Circuits and conductors; Earth, Sun and Moon; How we see things; Keeping warm; Interdependence and adaptation; Reversible and irreversible changes; Friction; Balanced and unbalanced forces.

Extra-curricular activities

At least one timetabled activity for the whole year group, e.g.

- Creativity in Science workshop

Special requirements for the subject

- Laboratory overall
- Dictionary
- Geometry set
- Glue
- Scientific Calculator
- General writing implements including pencil, ruler, green pen, blue or black.

Useful Internet websites

- www.learn.co.uk
- www.nationalgeographic.com
- www.science-active.co.uk
- www.howstuffworks.com
- www.bglf.org
- www.brainpop.com
- www.electric-circuits.co.uk
- www.scybermonkey.co.uk

Skills that will be developed through the course of the year

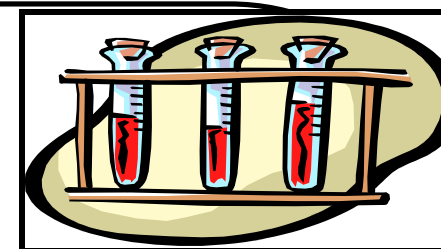
The ability to:

- Describe predictions based on scientific theories and give examples of evidence collected to test these predictions
- Identify key factors to be considered
- Make predictions based on scientific knowledge
- Measure a variety of quantities with precision
- Represent data in graphs using lines of best fit
- Draw conclusions consistent with evidence and explain these using scientific knowledge
- Identify and explain anomalous observations
- Make reasoned suggestions about how working methods could be improved
- Spell and use appropriately scientific vocabulary and language
- To organise report writing in logical and coherent forms
- To use formulae as appropriate
- To develop relevant ICT skills
- To develop thinking skills including information-processing, reasoning, enquiry, creative thinking and evaluation

Provision for Gifted and Talented

- The Library Quiz
- Young Reporters' competition
- External competitions and events, e.g. The Salters' Chemistry Competition
- Young Inventors
- Optional tasks

SCIENCE - YEAR 8



Subject content

By following National Curriculum Programme of study the following topics are covered:

AT2: Organisms, their behaviour and the environment. Food and digestion; Respiration; Microbes and disease; Ecological relationships.

AT3: Materials, their properties and the earth. Atoms and elements; Compounds and mixtures; Rocks and weathering; The Rock Cycle; Heating and cooling.

AT4: Energy, forces and space. Magnets and electro-magnets; Light; Sound and hearing.

How Science works, Scientific enquiry
Pupils develop skills in the areas of Ideas and evidence; Planning; Obtaining and presenting evidence; Considering evidence and evaluating.

Assessment arrangements

- Regular homestudy marked to school marking policy
- Two assessed homestudy within each module for AT2, AT3, AT4 marked to NC levels
- Mid year exams
- End of year exams
- Scientific enquiry skills through investigations
- APP Tasks

How the work in Year 8 builds on the work in Year 7

These build on topics studied in Year 7 as follows:

Cells; Particle model of solids, liquids and gases; Energy resources; Simple chemical reactions; Environment and feeding relationships.

Particle model of solids, liquids and gases; Solutions; Acids and alkalis; Energy resources; Simple chemical reactions.

Electrical circuits.

Extra-curricular activities

At least one timetabled activity for the whole year group, e.g.

- London Zoo
- Fairtrade activity

Special requirements for the subject

- Laboratory overall
- Dictionary
- Geometry set
- Glue
- Scientific Calculator
- General writing implements including pencil, ruler, green pen, blue/black pen.

Useful Internet websites

- www.kidshealth.org
- www.nutrition.org.uk
- www.science.demon.co.uk
- www.schoolscience.co.uk
- www.zephyrus.co.uk

Skills that will be developed through the course of the year

The ability to:

- Describe predictions based on scientific theories and give examples of evidence collected to test these predictions
- Identify key factors to be considered
- Make predictions based on scientific knowledge
- Measure a variety of quantities with precision
- Represent data in graphs using lines of best fit
- Draw conclusions consistent with evidence and explain these using scientific knowledge
- Identify and explain anomalous observations
- Make reasoned suggestions about how working methods could be improved
- Spell and use appropriately scientific vocabulary and language
- To organise report writing in logical and coherent forms
- To use formulae as appropriate
- To develop relevant ICT skills
- To develop thinking skills including information-processing, reasoning, enquiry, creative thinking and evaluation

Provision for Gifted and Talented

BTA study cards competition
Chemical Egg Race
The Library Quiz
Young Reporters' competition
External competitions and events, e.g., The Salters' Chemistry Competition
Young Inventors
The Conservation Award
GCSE Astronomy
Optional tasks