

GENERAL SCIENCE

Curriculum Content

Seven topics, three Biology, two Chemistry and two Physics are taught in this year.

The topics are :

- Cells – plant cells, animal cells, sex cells (egg and sperm).
- Reproduction – the male and female reproductive system, fertilisation, the menstrual cycle.
- Solutions and dissolving – an investigation into speeding up dissolving, indicators, the pH scale.
- Mixtures and separating mixtures – melting point and boiling point of water, making water fit to drink, separating mixtures by filtration, distillation and chromatography.
- Forces – types of forces, measuring forces, friction, levers and see-saws, magnetic forces.
- Energy – different types of energy, energy changes, devices which change energy, energy from food, energy conservation.
- Plants and plant reproduction – the processes of pollination; fertilisation; sexual and asexual reproduction and seed dispersal.

Knowledge, skills and understanding

A General Science course is taught in Year 7 to give an introduction to the separate sciences taught from Year 8 onwards.

Experimental skills and developing understanding of How Science Works (HSW)

Individual practical work and work in pairs is designed to develop these practical skills :

- Controlling variables: being able to plan a simple practical scheme in which variables are controlled so as to make it a fair test. Identifying independent and dependent variables, identifying continuous and categorical variables.
- Obtaining and presenting evidence: following written instructions, working safely and using equipment to measure and observe results. Recording results in labelled tables and drawing line graphs or bar charts of the results.
- Analysing results: using tables and graphs to find patterns in the results. Identifying anomalous results. Drawing a valid conclusion from an investigation. Explaining the conclusion using what they know about science.
- Evaluation of the investigation: suggesting improvements to the investigation, giving reasons.

Assessment opportunities

The investigative skills above are developed and assessed by practical work including individual practical investigations.

Knowledge and recall are assessed by tests at the end of each topic and by the examination at the end of the year.

Within the summer term there will be the opportunity to carry out a Bronze Crest Award, alongside the taught topic.