

Key Stage 4 Overview for Science

Exam Board: AQA

Course Outline:

Biology – Cell structure and transport; cell division; digestive system; organising plants and animals; communicable diseases; preventing and treating disease; non-communicable diseases; photosynthesis; respiration; the human nervous system; reproduction; variation; genetics and evolution; adaptation and interdependence; biodiversity and ecosystems. Required practical experiments.

Chemistry – Atoms; periodic table; structure and bonding; quantitative chemistry, chemical and energy changes; electrolysis; rates of reaction; crude oil and fuels; chemical analysis; the Earth's atmosphere and resources. Required practical experiments.

Physics – Energy conservation and dissipation; energy transfer by heating; energy resources; electrical circuits; electricity in the home; molecules and matter; radioactivity; forces and motion; forces and pressure; wave properties; electromagnetic waves; light; electromagnets. Required practical experiments.

Skills Developed:

Experimental procedures, handling scientific equipment safely, investigating scientific questions, planning investigations, testing hypotheses, scientific literacy, numeracy, team work, data presentation, data collection, data analysis, data presentation, method writing, conclusion writing, evaluating scientific technique, identifying command words, answering six mark questions and scientific exam technique.