

## Subject Overview

Science is the systematic study of the natural and physical world by observation, experimentation and reasoning. Scientific knowledge is organised in the form of testable hypotheses and predictions about the universe. Studying sciences enable students to build on their natural curiosity and foster critical thinking.

The subject includes:

- **Biology:** Pupils cover key biological concepts such as cell structure and function, human anatomy and physiology, nutrition and digestion, gas exchange systems, reproduction, health, genetics and ecology.
- **Chemistry:** Pupils explore essential topics including the nature of matter at a particle level, atoms, elements, compounds, pure and impure substances, chemical reactions, and energetics.
- **Physics:** Pupils explore in-depth subjects including energy and electricity, forces and motion, waves, light, magnetism, and space physics.
- **Scientific skills:** Pupils develop their understanding of the scientific method of planning, collecting and analysing data and evaluation.

## Student Outcomes

By studying Science, learners will develop a broad range of knowledge and skills:

- **Scientific Literacy:** the ability to understand, use and communicate science information through reading, writing and speaking, identify misleading or inaccurate information and empower students to make informed choices about scientific ideas in their everyday life through a critical lens.
- **Substantive Knowledge:** Develop scientific concepts, laws, and theories through the specific discipline of biology, chemistry and physics.
- **Disciplinary and procedural knowledge:** understand how scientists collect, and evaluate scientific evidence, and gain the opportunity to explore their own ideas using the scientific method.
- **Careers and Employment:** students will learn about a range of science career pathways available to them in STEM industries.

## Qualifications

In key stage 4, students follow the AQA GCSE Science Trilogy courses,

- AQA GCSE Single Science, Biology
- AQA GCSE Single Science, Chemistry

# Science: Intent

- AQA GCSE Single Science Physics.
- AQA Combined Science.
- Entry Level Certificate in Science.

GCSE exams are split into two tiers, Foundation (Grades 1-5) and Higher (Grades 4-9). The final tier of entry for the GCSE exams will depend on the student's performance in end of topic tests and mock exams.