

GCSE Science Curriculum Guide

AQA Specification: Year 10-11

Key Learning Objectives

- Develop comprehensive scientific knowledge and understanding
- Explore complex scientific concepts across Biology, Chemistry, and Physics
- Build advanced practical scientific skills
- Prepare students for GCSE scientific examinations

Standards Alignment

- AQA GCSE Science Specification - National Curriculum Science Requirements - Scientific Inquiry and Investigative Skills

Biology Curriculum Units

Unit	Key Topics	Duration	Assessment
Cell Biology	Cell structure, organization	6 weeks	Practical assessment
Organisation	Organ systems, health	6 weeks	Written exam
Infection & Response	Immune system, disease	5 weeks	Practical report
Bioenergetics	Photosynthesis, respiration	5 weeks	Practical investigation

Chemistry and Physics Curriculum Units





Chemistry Focus Areas:

- Atomic Structure and Periodic Table
- Chemical Bonding and Reactions
- Quantitative Chemistry
- Energy Changes in Reactions

Physics Focus Areas:

- Energy Transfers and Conservation
- Electricity and Circuits
- Particle Model of Matter
- Atomic Structure and Radioactivity

Differentiation Strategies

-  Tiered assignments for varied learning levels
-  Interactive digital learning resources
-  Collaborative learning and group projects
-  Personalized learning pathways

Assessment Plan

Formative Assessments:

- Regular class quizzes
- Practical skill evaluations
- Homework assignments
- Peer and self-assessment activities

Summative Assessments:

- Mock examinations
- End-of-unit comprehensive tests
- Final GCSE examination preparation
- External standardized assessments

Required Resources

- AQA GCSE Science Textbooks
- Advanced laboratory equipment
- Digital simulation and modeling software
- Past examination papers and practice materials
- Scientific calculators