



Science - IGCSE EdExcel Course

Approximate available lessons based on 6 lessons per week over 37 week year; assuming approximately 16 lessons missed for holidays/other subject activities/PSHE/exams

Exact curriculum timings are approximate due to holidays/ other subject trips and activities / PHSE / internal examinations

All topics across KS4 will have ongoing formative assessment including:

- Questioning techniques
- Peer/self-marking and assessments
- Written exercises
- Presentations
- Class activities
- Practical work

All topics will have some form of summative assessment to test the knowledge and skills covered within the topic. These will take the forms of:

- End of topic tests
- Projects
- Scientific Investigations

All topics will include practical work to ensure that the links between practical and theory are encouraged and emphasised.

Students will attend 2 lessons per science subject a week if they follow the Dual Award Course and 3 lessons a week per science subject if they follow the Separate Science Course

| | Year 10 Biology | Year 10 Chemistry | Year 10 Physics |
|--------------------------|--|---|--|
| Topic and Content | T1: Life Processes Variety of living organisms T2: Breathing and Gas Exchange Diet and Digestion T3: Blood and Circulation Human Reproduction T4: Plants and food Transport in Plants Reproduction in plants | T1: States of Matter and Separation Techniques Atomic Structure and Periodic Trends T2: Bonding and Structure Calculations in Chemistry T3: Reactivity of Metals Electrolysis (S.S. only) T4: Organic Chemistry | T1: Forces and Motion T2: Energy and Power Pressure and Gases T3: Waves and Light Review Y10 topics |
| | Year 11 Biology | Year 11 Chemistry | Year 11 Physics |
| Topic and Content | T1: Chemical coordination in plants Chromosomes, Genes and DNA Cell division Genes and Inheritance T2: Natural Selection and Evolution Selective Breeding Using microorganisms T3: Genetic modification Ecosystems Human Influences on the Environment | T1: Physical Chemistry T2: Acids, Salts and Ions T3: Gases in the Atmosphere | T1: Electricity T2: Magnetism and Electromagnetism T3: Radioactivity (Triple complete in y10) Astrophysics |
| Skills assessed | AO1: Knowledge and understanding of scientific ideas | AO1: Knowledge and understanding of scientific ideas | AO1: Knowledge and understanding of scientific ideas |

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| | <p>AO2: Application of knowledge and understanding, analysis and evaluation of science</p> <p>AO3: Experimental skills, analysis and evaluation of data and scientific methods</p> <p>AO4: Scientific literacy and communication</p> | <p>AO2: Application of knowledge and understanding, analysis and evaluation of science</p> <p>AO3: Experimental skills, analysis and evaluation of data and scientific methods</p> <p>AO4: Scientific literacy and communication</p> | <p>AO2: Application of knowledge and understanding, analysis and evaluation of science</p> <p>AO3: Experimental skills, analysis and evaluation of data and scientific methods</p> <p>AO4: Scientific literacy and communication</p> |
| <p>Method of Summative Assessment</p> | <p>Projects</p> <p>Investigations</p> <p>End of Topic Tests</p> <p>Public Examinations in Jan and June</p> | <p>Projects</p> <p>Investigations</p> <p>End of Topic Tests</p> <p>Public Examinations in Jan and June</p> | <p>Projects</p> <p>Investigations</p> <p>End of Topic Tests</p> <p>Public Examinations in Jan and June</p> |