

Science

Key Stage 4 Overview



What will your child study at Key Stage 4?

Numbers in brackets are the number of lessons in Collins Scheme of Work; which may be adjusted to suit time available/student ability.

Combined science topics will be shorter as some content is separate sciences or higher only.

Curriculum Overview for Year 10 2016-17

Subject	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Biology 10S1	Chp. 1 Cell biology (17)	Chp. 2 Photosynthesis (12)	Chp. 3 Moving and changing materials (18)	Chp. 4 Health matters (18)	Revision End of year exams	Chp. 5 Coordination and control (29)
Chemistry 10S1	Chp. 1 Atomic structure and the periodic table (19) Chp. 2 Structure, bonding and the properties of matter (17)	Chp. 3 Chemical quantities and calculations (14)	Chp. 4 Chemical changes (18) Chp. 5 Energy changes (7)	Chp. 6 The rate and extent of chemical change (14)	Revision End of year exams	Chp. 7 Hydrocarbons (15)
Physics 10S1	Chp. 1 Energy (14)	Chp. 2 Electricity (14)	Chp. 3 Particle model of matter (10)	Chp. 4 Atomic structure (13)	Revision End of year exams	Chp. 5 Forces (tbc)
Combined Science 10S	Chp. 1 Atomic structure and the periodic table (19) Chp. 2 Structure, bonding and the properties of matter (17)	Chp. 3 Chemical quantities and calculations (14) Chp. 4 Chemical changes (18)	Chp. 5 Energy changes (7)	Chp. 1 Energy (14) Chp. 2 Electricity (14)	Revision End of year exams	Chp. 6 The rate and extent of chemical change (14)
	Chp. 1 Cell biology (17) Chp. 2 Photosynthesis (12)	Chp. 3 Moving and changing materials (18)	Chp. 4 Health matters (18)	Chp. 3 Particle model of matter (10) Chp. 4 Atomic structure (13)	Revision End of year exams	Chp. 5 Coordination and control (29)

Curriculum Overview for Year 11 2016-17

Subject	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
GCSE Biology 11S1	<p>B2.5 Proteins - their functions and uses</p> <p>B2.6 Aerobic and anaerobic respiration</p> <p>ISA 2nd attempt (to be completed as intervention after school)</p>	<p>B2.7 Cell division and inheritance</p> <p>B2.8 Speciation</p>	<p>B3.1 Movement of molecules in and out of cells</p> <p>B3.2 Transport systems in plants and animals</p>	<p>B3.3 Homeostasis</p> <p>B3.4 Humans and their environment</p>	Revision and exams	Revision and exams
GCSE Chemistry 11S1	<p>C2.3 Atomic structure, analysis and quantitative chemistry</p> <p>C2.4 Rates of reaction</p> <p>C2.5 Exothermic and endothermic reactions</p> <p>ISA 2nd attempt (to be completed as intervention after school)</p>	<p>C2.6 Acids, bases and salts</p> <p>C2.7 Electrolysis</p>	<p>C3.1 The periodic table</p> <p>C3.2 Water</p> <p>C3.3 Calculating and explaining energy change</p>	<p>C3.4 Further analysis and quantitative chemistry</p> <p>C3.5 The production of ammonia</p> <p>C3.6 Alcohols, carboxylic acids and esters</p>	Revision and exams	Revision and exams
GCSE Physics 11S1	<p>P2.3 Currents in electrical circuits</p> <p>P2.4 Using mains electricity safely and the power of electrical appliances</p> <p>ISA 2nd attempt (to be completed as intervention after school)</p>	<p>P2.5 What happens when radioactive substances decay, and the uses and dangers of their emissions</p> <p>P2.6 Nuclear fission and nuclear fusion</p>	<p>P3.1 Medical applications of physics</p> <p>P3.2 Using physics to make things work</p>	<p>P3.3 Keeping things moving</p>	Revision and exams	Revision and exams
GCSE Additional Science 11S	<p>ISA (1st opportunity weeks 1-4)</p> <p>B2.1 Cells and simple cell transport</p> <p>B2.2 Tissues, organs and organ systems</p> <p>B2.3 Photosynthesis</p>	<p>B2.4 Organisms and their environment</p> <p>B2.5 Proteins – their functions and uses</p> <p>B2.6 Aerobic and anaerobic respiration</p>	<p>ISA (2nd opportunity weeks 1-3)</p> <p>B2.7 Cell division and inheritance</p> <p>B2.8 Speciation</p> <p>P2.1 Forces and their effects</p>	<p>P2.2 The kinetic energy of objects speeding up or slowing down</p> <p>P2.3 Currents in electrical circuits</p>	Revision and exams	Revision and exams
	<p>ISA (1st opportunity weeks 1-4)</p> <p>C2.1 Structure and bonding</p> <p>C2.2 How structure influences the properties and uses of substances</p>	<p>C2.3 Atomic structure, analysis and quantitative chemistry</p> <p>C2.4 Rates of reaction</p> <p>C2.5 Exothermic and endothermic reactions</p>	<p>ISA (2nd opportunity weeks 1-3)</p> <p>C2.6 Acids, bases and salts</p> <p>C2.7 Electrolysis</p> <p>P2.4 Using mains electricity safely and the power of electrical appliances</p>	<p>P2.5 What happens when radioactive substances decay, and the uses and dangers of their emissions</p> <p>P2.6 Nuclear fission and nuclear fusion</p>	Revision and exams	Revision and exams

Curriculum Overview for Year 11 2017-18

Subject	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Biology 11S1	Chp. 6 Genetics (14)	Revision and mock exam	Chp.7 Variation and evolution (21)	Chp.8 Ecology in action (24)	Revision and exams	Revision and exams
Chemistry 11S1	Chp. 8 Chemical analysis (12)	Revision and mock exam	Chp. 9 The atmosphere (12)	Chp. 10 Sustainable development (13)	Revision and exams	Revision and exams
Physics 11S1	Chp. 6 Waves (TBC)	Revision and mock exam	Chp. 7 Magnetism and electro - magnetism (TBC)	Catch-up Revision	Revision and exams	Revision and exams
Combined Science 11S	Chp. 7 Hydrocarbons (15) Chp. 8 Chemical analysis (12)	Revision and mock exam Chp. 9 The atmosphere (12)	Chp. 10 Sustainable development (13)	Chp. 7 Magnetism and electro - magnetism (tbc)	Revision and exams	Revision and exams
	Chp. 6 Genetics (14)	Revision and mock exam Chp.7 Variation and evolution (21)	Ch.8 Ecology in action (24) Chp. 5 Forces (TBC)	Chp. 6 Waves (TBC)	Revision and exams	Revision and exams