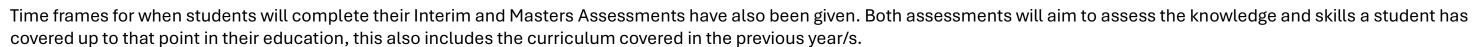
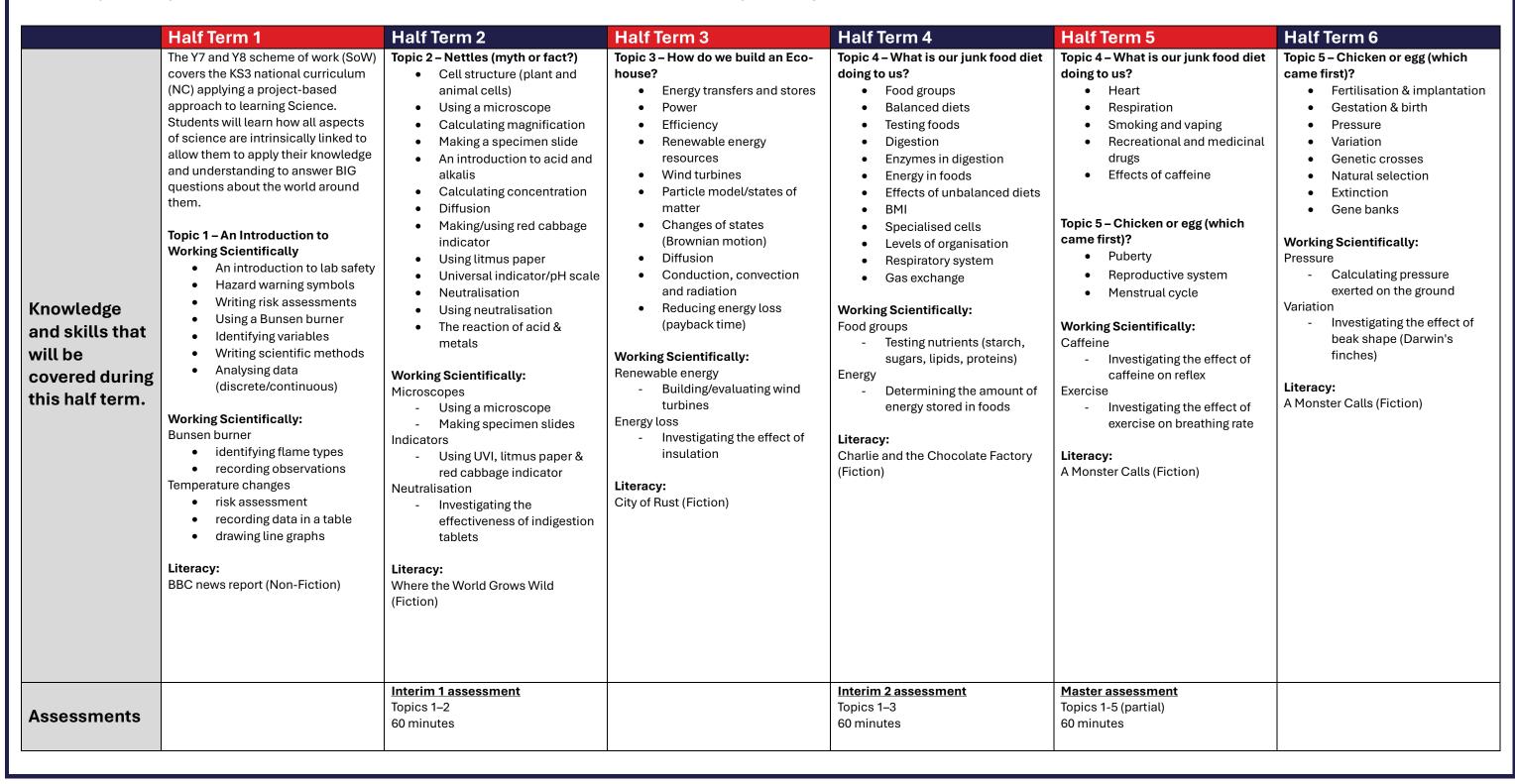
Curriculum & Rubric Map Overview 2025-2026

Year 7

The table below details the skills and knowledge students will be covering each half term in science.

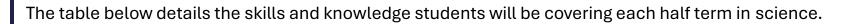






Curriculum & Rubric Map Overview 2025-2026

Year 8



Time frames for when students will complete their Interim and Masters Assessments have also been given. Both assessments will aim to assess the knowledge and skills a student has covered up to that point in their education, this also includes the curriculum covered in the previous year/s.

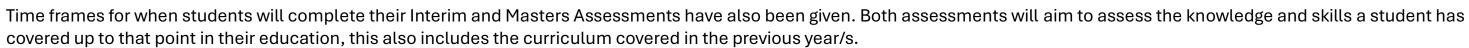
	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
inowledge nd skills that vill be overed during his half term.	Topic 6 – The maths behind the magic Calculating averages, range and uncertainty Using significant figures Converting units/SI units Ratios Calculating percentages and percentage change Drawing and analysing bar charts Drawing and analysing scatter graphs Drawing tangents and calculating gradients (HT) Substituting values and rearranging scientific formula Calculating surface area & volume Working scientifically: Determining the density of a regular object Literacy: The maths that made us (Nonfiction)	Topic 7 – A life on our planet The Earth The effect of fossil fuels Global warming Climate change Static electricity (weather) Atmospheric pressure Leaf structure Photosynthesis Effect of pollution Food webs Alternative protein sources Water cycle Carbon cycle Rock cycle Working scientifically: Microscopy Investigating leaf structure Analysis Investigating rock types and their properties Renewable energy Investigating the effectiveness of wind turbines Literacy: The Last Bear (Fiction)	Topic 8 – Smoke and mirrors	Topic 8 – Smoke and mirrors Colour The eye Camera Reflection Refraction Topic 9 – Rock it! Forces Balanced forces Unbalanced forces Pressure in liquid (depth, upthrust, floating, sinking) Big bang theory Solar system Mass vs. weight Working scientifically: Forces Using Newton meters to determine forces Solar system Modelling the Earth Literacy: Cosmic (Fiction)	Topic 9 – Rock it! Day and night Seasons Constellation Space travel Streamlining Investigating the effectiveness of different shaped materials Design Investigating the effect of design on space travel Topic 10 – The Human machine Skeleton Joints Muscles Levers Working scientifically: Muscles Investigating muscles and how they work	Topic 10 – The Human machine Pivots Moments Hooke's Law Work done Working scientifically: Hookes Law Investigating the limit of elasticity of different materials Levers Investigating how arm length affects effort Literacy: Skellig (Fiction)
Assessments		Interim 1 assessment Topics 1-6 60 minutes		Interim 2 assessment Topics 1–8 60 minutes	Master assessment Topics 1-9 60 minutes	



Curriculum & Rubric Map Overview 2025-2026

Year 9

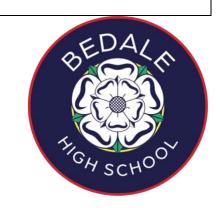
The table below details the skills and knowledge students will be covering each half term in science.



Th de tra	reparing for GCSE he year 9 scheme of work (SoW) is	Topic 3 – Voltage, current &	Topic 6 - Insulation	Topic 8 - Photosynthesis	Topic 11 – Energy reactions	Topic 13 – Electromagnets
Knowledge and skills that will be covered during this half term. W	esigned to support students in their ansition from KS3 into KS4. Itudents will cover key skills and nowledge from the KS3 national surriculum (NC) in more detail and rork to develop these skills further in readiness for the demands of the S4 syllabus. In Periodicity Periodic table Development of the periodic table Group 1 Group 7 Group 0 History of the atom Atomic structure Metals and non-metals Formula mass calculations (HT) In Group 7 displacement reactions Popic 2 – Using microscopes Cells Specialised animal cells Microscopes Magnification In Vorking scientifically: Determining magnification using pre-prepared slides Preparing and viewing slides Preparing and viewing slides	resistance	 Particle model Brownian motion Diffusion in liquid/gases (concentration) Conduction Convection Radiation Working scientifically: Investigating the effect of insulation on energy loss Topic 7 – Separating mixtures Drawing scientific equipment Elements, compound & mixtures Distillation (simple/fractional) Filtration Chromatography Working scientifically: Carrying out simple distillation Paper chromatography of soluble inks Separating rock salt 	 Plant cells Specialised plant cells Plant tissues Photosynthesis Working scientifically: Testing leaves for starch Investigating if light is needed for photosynthesis Topic 9 – Chemical reactions States of matter Chemical reactions Conservation of mass Writing equations Balancing equations (HT) Working scientifically: Investigating changes of mass in a chemical reaction Topic 10 – Speed Calculating speed Speed, distance, time graphs Acceleration (HT) Variables, accuracy & precision Working scientifically: Investigating the effect of different variable on speed 	 Burning fuels Thermal decomposition Exothermic and endothermic reactions Reaction profile diagrams Bond energy calculations (HT) Working scientifically: Classifying reactions as exothermic or endothermic using Energy changes in chemical reactions using calorimetry Topic 12 – Respiration Aerobic respiration Response to exercise Anaerobic respiration (animal cells) Anaerobic respiration (yeast) Working scientifically: Investigating the link between heart rate and exercise Investigating the effect of temperature on the respiration of yeast 	 Magnetism Electromagnets Measuring current in electromagnets Working scientifically: Plotting magnetic field lines Building and testing electromagnets Topic 14 - Materials Reactivity series Use of carbon to extract metals Chemical/physical properties of metals Catalysis Properties of ceramics Properties of polymers Properties of ceramics Working scientifically: Making/testing reinforced concrete Making polymers
	nterim 1 assessment opics 1-2 (plus Y7-8 content)		Interim 2 assessment Topics 1-7 (plus Y7-8 content)			Master assessment Topics 1-12 (plus Y7-8 content)

Curriculum & Rubric Map Overview 2025-2026 Year 10

The table below details the skills and knowledge students will be covering each half term in science.



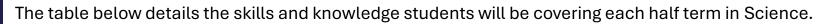
Time frames for when students will complete their Interim and Masters Assessments have also been given. Both assessments will aim to assess the knowledge and skills a student has covered up to that point in their education, this also includes the curriculum covered in the previous year/s.

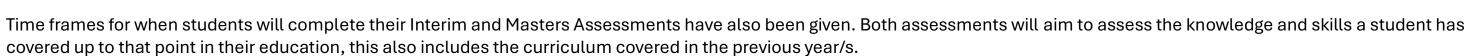
На	alf Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Knowledge and skills that will be covered during this half term.	- Cell Biology: - Eukaryotes and prokaryotes - Animal and plant cells - Cell specialisation - Cell differentiation - Microscopy - Chromosomes - Mitosis and the cell cycle - Stem cells - Diffusion - Osmosis - Active transport - Atomic structure & the riodic table: - Atoms, elements & compounds - Mixtures - Development of the model atom - Structure of the atom - Relative atomic mass - Electronic structure - Development of the periodic table - Metals and non-metals - Groups 1, 7 & 0 - Energy: - Energy stores and systems - Changes in energy - Energy changes in systems - Power - Energy transfers in a system - Efficiency - National and global energy resources	Half Term 2 B2 - Organisation: Principles of organisation Human digestive system The heart and blood vessels Blood C2 - Structure & Bonding: Chemical bonds Ionic bonding, compounds and their properties Covalent bonding, simple compounds and their properties Metallic bonding Three states of matter State symbols Polymers Giant covalent compounds and their properties Properties Properties Properties Circuit diagram symbols Electrical charge & current Current, resistance & potential difference resistors Series & parallel circuits AC/DC potential difference Mains electricity Power Energy transfer National grid Working Scientifically: Required practical activity 3: use qualitative reagents to test for a range	B2 - Organisation: Continued into half- term 3.	Half Term 4 B4 - Bioenergetics: Photosynthetic reaction Rate of photosynthesis Uses of glucose from photosynthesis Metal oxides Reactivity series Extraction of metals Oxidation and reduction (HT) Reactions of acids & metals PH and neutralisation Soluble salts Strong & weak acids P3 - Particle model of matter: Continued into half-term 4. Specific heat capacity Specific latent heat Particle motion in gases Working Scientifically: Required practical activity 5: investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed Required practical activity 8: preparation of a pure, dry sample of a soluble salt from an insoluble oxide or carbonate, using a Bunsen burner to heat dilute acid and a water bath or electric heater to evaporate the solution.	Half Term 5 B4 - Bioenergetics: Continued into half-term 5.	Half Term 6 B7 - Ecology:

	Required practical activity 1: use a light microscope to observe, draw and label a selection of plant and animal cells. Required practical activity 2: investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue. Required practical activity 14: an investigation to determine the specific heat capacity of one or more materials. The investigation will involve linking the decrease of one energy store (or work done) to the increase in temperature and subsequent increase in thermal energy stored.	Required practical activity 4: investigate the effect of pH on the rate of reaction of amylase enzyme. Required practical activity 15: use circuit diagrams to set up and check appropriate circuits to investigate the factors affecting the resistance of electrical circuits.	and irregular solid objects and liquids.		
Assessments		Interim 1 assessment Biology – B1, B3 Chemistry – C1 Physics - P1		Interim 2 assessment Biology – B1, B2, B3 Chemistry – C1, C2, C3 Physics – P1, P2	Master assessment Mock examinations – 1 Combined papers: 1h 15min Triple papers: 1h 45 mins Paper 1 – Biology (B1-4) Paper 1 – Chemistry (C1-5) Paper 1 – Physics (P1-4)

Curriculum & Rubric Map Overview 2025-2026

Year 11





	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
	B7 - Ecology: How materials are cycled Biodiversity Waste management Land use Deforestation Global warming Maintaining biodiversity C6 - Rate of reaction: Calculating rates of reaction rates	B5 - Homeostasis and response: Homeostasis Human nervous system human endocrine system Control of blood glucose Hormones in human reproduction Contraception The use of hormones to treat infertility (HT) Feedback systems (HT) C7 - Organic chemistry:	B6 - Inheritance, variation & evolution: Sexual & asexual reproduction Meiosis DNA & the genome Genetic inheritance Inherited disorders Sex determination Variation Evolution Selective breeding Genetic engineering	Half Term 4 P8 – Space (Triple only): Our solar system Life cycle of a star Orbital motion, natural and artificial satellites Red shift	Half Term 5 Lessons personalised to the needs of the students in preparation of GCSE examinations.	Half Term 6 Lessons personalised to the needs of the students in preparation of GCSE examinations.
Knowledge and skills that will be covered during this half term.	 Collision theory Activation energy Catalysts Reversible reactions Equilibrium Dynamic equilibrium (concentration, temperature, pressure) P5 - Forces: Scalar & vector quantities Contact & non-contact forces Gravity 	 Crude oil, hydrocarbons & alkanes Fractional distillation Properties of hydrocarbons Cracking & alkenes C8 - Chemical analysis: Pure substance Formulations Chromatography Testing for common gases P6 - Waves: Transverse & longitudinal 	 Evidence for evolution Fossils Extinction Resistant bacteria Classification of living organisms C9 - Chemistry of the atmosphere: Proportions of gases in the atmosphere Earths early atmosphere How oxygen increased How carbon dioxide decreased 			
	 Resultant forces Work done & energy transfer Forces & elasticity Distance & displacement Speed Velocity Distance-time relationship Acceleration Newton's first law Newton's second law Newton's third law Stopping distance Reactions times Factors affecting braking distances 	Properties of waves Types of EM waves Properties of EM waves Uses & applications of EM waves Working Scientifically: Required practical activity 12: investigate how paper chromatography can be used to separate and tell the difference between coloured substances. Students should calculate R _f values. Required practical activity 20: make observations to identify the	Greenhouse gases Human activities that affect levels of greenhouse gases Global climate change Carbon footprint Atmospheric pollutants C10 Using resources: Earth's resources Sustainable development Potable water Waste water treatment Alternative methods of extracting metals Life cycle assessments			



	Momentum (HT)	suitability of apparatus to measure the frequency, wavelength and speed of waves in a ripple tank and	Ways to reduce the use of resources			
	Working Scientifically: Required practical activity 6: plan and carry out an investigation into the effect of a factor on human reaction time. Required practical activity 11: investigate how changes in concentration affect the rates of reactions by a method involving measuring the volume of a gas produced and a method involving a change in colour or turbidity. Required practical activity 18: investigate the relationship between force and extension for a spring.	waves in a solid and take appropriate measurements. Required practical activity 21: investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface.	Working Scientifically: Required practical activity 13: analysis and purification of water samples from different sources, including pH, dissolved solids and distillation.			
Assessments		Mock Examinations - 2 Combined papers: 1h 15min Triple papers: 1h 45 mins Paper 1 – Biology (B1-4) Paper 1 – Chemistry (C1-5) Paper 1 – Physics (P1-4)		Mock Examinations - 3 Combined papers: 1h 15min Triple papers: 1h 45 mins Paper 2 – Biology (B5-8) Paper 2 – Chemistry (C6-10) Paper 2 – Physics (P5-8)	GCSE Examinations Combined papers: 1h 15min Triple papers: 1h 45 mins Paper 1 – Biology (B1-4) Paper 1 – Chemistry (C1-5) Paper 1 – Physics (P1-4)	GCSE Examinations Combined papers: 1h 15min Triple papers: 1h 45 mins Paper 2 – Biology (B5-8) Paper 2 – Chemistry (C6-10) Paper 2 – Physics (P5-8)