



Undershaw Education Trust
Curriculum Overview
Academic Year 23-24

KEY STAGE 4 CORE CURRICULUM



The Undershaw Key Stage 4 core curriculum

At Undershaw we plan and teach a broad and balanced curriculum in key stage 4; all students access and successfully complete key qualifications at the level that is appropriate to their individual needs. We equip every student with the learning skills and support that they need to achieve their best possible outcomes, using individual student data to plan a bespoke curriculum that will allow them to thrive throughout year 10 and 11.

All students in key stage 4 follow a core curriculum of English, Maths, Science, Personal Growth and physical activity. We follow a predominantly level 2 curriculum, with the opportunity for students to complete functional skills in English and Maths where this is more suitable for the individual student. Students can complete functional skills exams in year 10 if appropriate, providing them with the foundation to move on to the GCSE level qualifications in year 11.

Our personal growth curriculum follows the BTEC Personal growth and wellbeing curriculum. Students work through the units at a pace and in an order that is appropriate to their own needs. The units that we study at Undershaw are:

Unit 1: Maintaining Physical Health and Wellbeing

Unit 2: Appreciating Emotional Wellbeing

Unit 3: Developing Social Health and Wellbeing

Unit 4: Maintaining Sexual Health and Wellbeing

Unit 5: Investigating Personal Identity

Unit 8 Promoting Environmental Awareness

Unit 9: Being Financially Aware

Unit 12: Producing a Long-term Personal Progression Plan

When students have completed units, they will be able to achieve the level 1 or 2 BTEC qualification. This curriculum covers all statutory RSE elements required in year 10 and 11. We share the upcoming units and information about what is coming next for each class with parents and students so that parents are well informed about the personal growth curriculum and the topics.

Employability and life skills are a vital aspect of education throughout our students' time at Undershaw. This curriculum continues throughout key stage 4, with a strong focus on transition and preparedness for 'next steps' in year 11. This is underpinned by high levels of parental engagement in the transition process as well as work exposure and college/FE visits. For further information about the employability and life-skills curriculum, please contact [Leilah](#).

For further information about the key stage 4 curriculum, please contact [Victoria](#), Deputy Headteacher.

<p>Autumn 1</p>	<p>English IGCSE</p> <p>Book openings.</p> <p>Genre - Dystopia (Fiction & narratives)</p> <p>Features of Dystopian literature.</p> <p>Writers' techniques: build up of tension and literary techniques. Using PEE in written answers.</p> <p>Creative writing, writing in role (preparation for IGCSE exam extended response question)</p> <p>Reading texts: examples of dystopian fiction, including short stories.</p>	<p>English Functional Skills</p> <p>Revision of basic skills – dictionary & thesaurus skills</p> <p>Genre, Audience & Purpose, formal & informal writing.</p> <p>Class reading text over the term: Introduction to animals in fiction and allegory. Introduction to 'Animal Farm' – George Orwell</p>	<p>Maths Higher</p> <p>Number operations Rounding & estimation & bounds Squares/ Cubes Roots Powers inc rules for multiplication/division and brackets Factors, Multiples, Primes HCF LCM Surds Algebraic words definitions Form expressions Simplify expressions Substitution Recap simplifying expressions & expanding brackets. Solve linear equations. Averages & range inc Quartiles and IQR from table</p>	<p>Maths Foundation</p> <p>Number operations Rounding & estimation & bounds Squares/ Cubes Roots Powers inc rules for multiplication/division and brackets Factors, Multiples, Primes HCF LCM Directed numbers Bidmas Algebraic words definitions Form expressions Simplify expressions Substitution Expand single & double brackets Factorise single & double brackets</p> <p>Entry Level & Number & Measure</p> <p>Counting & sequences Place value & rounding Operations 2D shapes</p>	<p>Science GCSE</p> <p>Communicable disease</p> <p>What is a pathogen?</p> <p>Different types of communicable disease.</p> <p>Human defence against disease</p> <p>Organisation</p> <p>Levels of organisation</p> <p>Organ systems</p>	<p>Science BTEC</p> <p>Nick: Planning an investigation</p> <p>Health and safety</p> <p>Equipment</p> <p>Variables</p> <p>Collecting measurements</p> <p>Harriet: Personal progression plan</p> <p>What is a personal progression plan?</p> <p>What are your goals for the future?</p> <p>What skills do you have for the future?</p>
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					Bioenergetics Plant tissue and organs Rate of photosynthesis Aerobic and anaerobic respiration Harriet: Atomic structure Different components of an atom Development of the model of the atom Electronic structure	
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Autumn 2	<p>Non-fiction: arguing a point of view. Recognising bias, objective/subjective language.</p> <p>DAFORREST techniques</p> <p>Reading persuasive texts (posters, leaflets, speeches) & writing own piece.</p> <p>Discussion/debate.</p> <p>Class text: 'Animal Farm' - George Orwell</p>	<p>Recognising and giving a point of view.</p> <p>Reading for information, finding evidence, recognising fact & opinion, bias.</p> <p>Writing to present a point of view.</p> <p>Speaking & Listening: Discussion on topic in the news.</p> <p>Text: 'Animal Farm'</p>	<p>Bar charts Pie Charts Pictograms Frequency Polygons Scatter Graphs Stem & Leaf Vertical Line Graphs Time series Two-way tables Misleading graphs Equivalent fractions Fraction of an amount Convert between mixed numbers and improper fractions FDP conversions Recurring decimals Properties of triangles & quadrilaterals Pythagoras Constructions of triangles & basic bisectors (Xmas themed)</p>	<p>Box Plots Cumulative Frequency Frequency Polygons Scatter Graphs Stem & Leaf Histograms Time series Two Way tables Equivalent fractions inc mixed numbers. FDP conversions Recurring decimals Pythagoras / Trig Constructions of triangles & basic bisectors (Xmas themed)</p> <hr/> <p>Entry Level & Number & Measure</p> <p>Fractions & Decimals Fractions of amounts Number operations 3D shapes</p>		
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	English iGCSE	English Functional Skills	Maths Higher	Maths Foundation	Science GCSE	Science BTEC
Spring 1	<p>Introduction to exam skills: information retrieval and inference Comprehension of non-fiction texts and vocabulary.</p> <p>Use of literary techniques and devices. Introduction to language analysis for examinations.</p> <p>Writing in response to language of a text</p>	<p>Revision and practice of key skills (Reading and writing) Inference & deduction. Reading information in different formats. Recognising layout, presentation and style.</p> <p>Uplevelling writing skills: SPAG, layout and presentation of different types of text, use of vocabulary.</p>	<p>Percent of an amount Non calculator Calculator Compound interest & Depreciation Solving fraction equations. Changing the subject of an equation (1) Inequalities. Linear sequences Geometric sequences Fibonacci sequences Quadratic sequences Algebraic Proof</p>	<p>Percent of an amount Non calculator Calculator Compound interest & Depreciation Recap simplifying expressions & expanding brackets. Solve linear equations. Inequalities. Linear sequences Fibonacci & Geometric sequences Measure & Draw angles Tessellations</p> <p>Entry Level & Number & Measure</p> <p>Factors & Multiples Number facts for pairs of numbers Recap 3D shapes Co-ordinates Vectors Rotations</p>	<p>Nick: Quantitative chemistry</p> <p>Conservation of mass</p> <p>Balanced equations</p> <p>Moles</p> <p>Harriet: Structure and bonding</p> <p>Different types of bonding</p> <p>Properties of different structures</p> <p>Alloys</p>	<p>Nick: Planning an investigation</p> <p>Carrying out an investigation</p> <p>Drawing a graph from your results</p> <p>Writing a conclusion</p> <p>Harriet: Personal progression plan</p> <p>Writing a personal progression plan.</p> <p>Analysing what skills are required for different roles.</p>

Spring 2	<p>Responding to a point of view (IGCSE coursework practice). Summary writing skills.</p> <p>Reinforced understanding of viewpoint & vocabulary skills – formal discussion to give a point of view.</p> <p>Written response to non-fiction source material to give a point of view.</p>	<p>Discussion (Oracy coursework)</p> <p>Information Texts – reading & giving a formal response with explanations for opinions given. Using quotations in written answers.</p> <p>Discussion skills: introducing a topic. Moving discussion forward. Disagreeing in an appropriate manner. Justifying a point of view.</p>	<p>Angle Notation Basic angle rules Parallel angle rules Angles in a Polygon Area & perimeter recap for rectangles. Form and solve equations (inc angle and area questions) Data- sampling methods inc stratified sampling Recap averages Averages from a frequency table Averages from stem & leaf Metric units</p>	<p>Angle Notation Basic angle rules Parallel angle rules Angles in a Polygon Area & perimeter recap for rectangles. Form and solve equations (inc angle and area questions) Data- sampling methods inc stratified sampling Recap averages Averages from a frequency table Averages from stem & leaf Metric units</p> <p>Entry Level & Number & Measure</p> <p>Copy shape patterns and continue them. Practice tasks and papers for the ELC papers.</p>	<p>Nick: Chemical changes</p> <p>Reactivity of metals</p> <p>Reactivity of acids</p> <p>Electrolysis</p> <p>Harriet: Energy</p> <p>Energy stores and systems</p> <p>Conservation and dissipation of energy</p>	
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	English iGCSE	English Functional Skills	Maths Higher	Maths Foundation	Science GCSE	Science BTEC
Summer 1	<p>Responding to non-fiction articles – oral discussion and written response.</p> <p>Examination skills practice – comprehension, summary skills, analysing language Writing in different forms</p> <p>Practice and preparation for end of year examinations</p>	<p>Giving a formal presentation.</p> <p>Understanding Standard English, adapting talk and body language according to audience and purpose.</p> <p>Understanding FS questions – inference & deduction, understanding fact and opinion.</p> <p>Understanding writing formats: structure, vocabulary and SPAG, using past papers as a model.</p>	<p>Rectilinear areas Area of trapeziums Compound area Names of 3d shapes and properties Plans & Elevations Volume of prisms & pyramids Nets Surface area Linear / Area / Volume scale factors for similar shapes Compound Units Real life graphs Function machines.</p>	<p>Rectilinear areas (Rectangles, triangles, parallelograms) Area of trapeziums Compound area Names of 3d shapes and properties Plans & Elevations Volume of prisms Nets Surface area Compound Units Function machines. Real life graphs</p>	<p>Particle model and matter</p> <p>Density</p> <p>Changes of state</p> <p>Internal energy</p> <p>Electricity</p> <p>Current, potential difference and resistance</p> <p>VI characteristics</p> <p>Series and parallel circuits</p>	<p>Exploring chemistry:</p> <p>Exploring the periodic table and the arrangement of elements.</p> <p>Considering the model of the atom and creating a 3D model.</p> <p>Looking at simple chemical reactions – predicting what might happen and then carrying out these practically.</p>
				Entry Level & Number & Measure		
					Entry Level papers Feedback from papers for students Consolidation of number facts and operations	

	English iGCSE	English Functional Skills	Maths Higher	Maths Foundation		
Summer 2	<p>Practice and preparation for end of year examinations</p> <p>Examining ways of structuring a description or story.</p> <p>Narrative and descriptive writing, in response to reading of a story; eg 'Stone Cold'. (Preparation for coursework elements of IGCSE)</p>	<p>Preparation for end of year exams.</p> <p>Understanding effect on an audience.</p> <p>Extending writing skills.</p>	<p>Preparation for end of year exams</p> <p>Linear graphs $Y=mx+c$</p> <p>Circle equations</p> <p>Transformations</p> <p>Proportion (Direct & Indirect)</p> <p>Ratio</p>	<p>Preparation for end of year exams</p> <p>Linear graphs $Y=mx+c$</p> <p>Transformations</p> <p>Proportion (Direct & Indirect)</p> <p>Ratio</p>	Radiation	
				<p>Entry Level & Number & Measure</p>	<p>Different types of radiation</p> <p>Isotopes</p> <p>Half-life</p>	
				<p>Measuring lines and angles</p> <p>Metric Units</p> <p>Imperial Units</p> <p>Number revision or possible real life maths project.</p>	<p>Atoms and isotopes</p> <p>Structure of an atom</p> <p>History of an atom</p> <p>Mass number, atomic number and isotope</p>	

Year 11

	English iGCSE	English Functional Skills	Maths Higher	Maths Foundation	Science GCSE	Science ELC
Autumn 1	<p>Descriptive Writing: IGCSE Coursework piece. Examples of descriptive writing examined, looking at success criteria in practice. Students write coursework piece, focusing on use of literary techniques, atmosphere, paragraphing, vocabulary, SPAG.</p> <p>Non-fiction coursework: writing to respond to a point of view. Point of view Features of formal</p>	<p>Revision of Genre, Audience, Purpose. Revision of core skills.</p> <p>Formal/informal Language</p> <p>Layout & presentation of texts. Fact v opinion, bias, use of layout.</p> <p>Comprehension – dictionary skills, location of key facts and information.</p>	<p>Basic probability Expected outcomes Frequency trees Product rule for counting Two-way tables Probability trees Set notation Venn diagrams Trig Pythagoras / Sohcahtoa / Complex rules as appropriate for group Area under a graph Gradients of</p>	<p>Basic probability Expected outcomes Definitions Frequency trees Two-way tables Probability trees Set notation Venn diagrams Trig / Pythagoras as appropriate for group Angle measuring Bearings Scale Factors Scale drawings Construction Loci</p> <p>Entry Level & Number & Measure</p>	<p>Nick:</p> <p>Waves Electromagnetic waves</p> <p>Radiation and risk Different types of radiation Radioactive decay Half-life Penetration properties of radiation</p> <p>Harriet: Evolution and variation: Mutations</p>	<p>Reaction of acids</p> <p>Energy and rate of reaction</p> <p>Earth's atmosphere Fuels and human impact on the atmosphere</p> <p>Water for drinking</p>

	and persuasive writing, Reading non-fiction text based around a theme. IGCSE Coursework writing task, writing a formal letter to respond to a writer's point of view.		non-linear graphs Bearings Scale drawings Construction Loci	Calculator use Time & Money questions Patterns Expressions & Equations	Evolution through natural selection Selective breeding Genetic engineering. The periodic table: Atomic number Metals and non-metals Properties of different groups	
	English iGCSE	English Functional Skills	Maths Higher	Maths Foundation		
Autumn 2	Mock exam Preparation for mock exam series. Revision of question types and expected responses. Coursework assessments - Narrative writing. Creating atmosphere Figurative language Narrative structure Extracts from texts.	Oracy (Functional Skills level 1/2). Giving a point of view for discussion. Formal presentations: researching, preparation and presentation on a topic (to be recorded for Functional Skills assessment) Understanding of persuasive language, bias & techniques. Format of text types. Preparation for autumn mock exams	Quadratic graphs Cubic & Reciprocal graphs Solving quadratics Parts of a circle Circumference Area of a circle. Sectors. Volume of cylinders and cones Surface area of cylinders, pyramids and cones. MOCKS	Quadratic graphs Cubic & Reciprocal graphs Solving quadratics by factorising Parts of a circle Circumference Area of a circle. Sectors. Volume of cylinders and cones Surface area of cylinders, pyramids and cones. MOCKS Entry Level & Number &	Nick: Chemical quantities: Chemical equations Concentration calculations Relative formula mass Forces and motion Speed and velocity Newton's laws Stopping distance Harriet: The periodic table Forces and energy changes: Force calculations for kinetic energy, gravitational potential energy	

				Measure	and elastic energy	
				Data & statistics 2D, 3D shapes recap Area & Perimeter Angles Mocks	Electricity: Current, resistance and potential difference Circuit symbols	
	English iGCSE	English Functional Skills	Maths Higher	Maths Foundation	Science GCSE	Science ELC
Spring 1	Completion of written coursework: narrative writing Examination Practice – Reading skills. Particular focus on analysing language and writing a detailed response. Examination	Exam revision and practice of key skills (for Spring exams if appropriate) Inference & deduction Uplevelling writing skills: SPAG, use of vocabulary. Close reading of the exam questions. Planning answers to	Simplify algebraic Fractions. Standard form Proving Similarity & Congruence using the formal conditions Vectors Re-arranging	Fraction calculations. Reciprocals. Standard form Similarity & Congruence Vectors Re-arranging equations Simultaneous equations Entry Level & Number & Measure	Acids and alkalis: Reactions of acids Making salts The pH scale and neutralisation Magnetism and electromagnetism: Magnets The Earth's magnetism	Electrical current Domestic electricity Magnetism and electromagnetism Different types of waves Electromagnetic waves

	Practice – Writing Skills, particular focus on final question, written response to reading text.	give detail. Use of past papers for practice. Oral coursework: Introducing a topic. Moving discussion forward in an appropriate manner. Justifying a point of view with examples. Concluding the discussion.	equations Simultaneous equations	Following their mocks and teacher assessment these classes have finished their scheme of work. They will be following a teacher designed revision schedule until their ELC (After Easter) and N&M (Early May) exams.	Electricity: Mains power The national grid Rate and extent of chemical reactions: Factors that affect reaction rates.	
	English iGCSE	English Functional Skills	Maths Higher	Maths Foundation		
Spring 2	Mock examinations and review of results. Focus on high tariff examination questions and success criteria. Completion/final	Continued revision and practice for Functional Skills examinations. Close reading of the exam questions. Planning answers to give detail, particularly in writing. Oral coursework: Completion of oral	Following their mocks and teacher assessment these classes have finished their scheme of work. They will be following a teacher designed revision schedule until their GCSE exams.		Carbon chemistry: Bonding in carbon Hydrocarbons Cracking hydrocarbons	

	redrafts of written coursework.	coursework as required, including regular practice in discussions using newspaper articles and online resource, 'The Day'.		The rate and extent of chemical reactions Resources of materials and energy: Metal extraction Energy resources Energy efficiency Life cycle and recycling	
Summer 1 & 2	Final revision and preparation for examinations.	Final revision and preparation for examinations using past papers. Focus on higher tariff examination questions. Final revision and timed preparation for examinations.	Following their mocks and teacher assessment these classes have finished their scheme of work. They will be following a teacher designed revision schedule until their GCSE exams.	Final revision and preparation for exams using past papers and seneca. Walking talking mocks with teachers and reviewing of mark schemes. Equation practice including rearranging.	Energy, energy transfers and energy resources Forces and work Speed and stopping distances Atoms and nuclear radiation

Undershaw 