



Curriculum, 2020-21

If you have any questions about our curriculum offer, please contact the Director of Teaching and Learning at matthew.martin@eastlondonscienceschool.co.uk.

This is currently under review in preparation for the 2021-22 academic year.

English

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Grammar fundamentals	Epic poetry: Beowulf and introduction to writing an essay	British poetry from Chaucer to William Blake	William Shakespeare: Macbeth with a focus on power and ambition	William Shakespeare: The Tempest	Opinion writing including speeches, and an introduction to rhetoric
Year 8	Romanticism: William Blake, William Wordsworth, Byron and Percy Bysshe Shelley	William Shakespeare: Much Ado About Nothing	Taxonomy of short stories	George Orwell: Animal Farm	Monologues: dramatic and theoretical	Autobiographies: the Diary of a Young Girl
Year 9	WWI poetry: Sorley, McCrae, Sitwell, Sassoon and Owen	Shakespeare: Julius Caesar	Dystopian fiction: Orwell, Huxley, Slesar and Bradbury	Bildungsroman: Jane Eyre by Charlotte Bronte, chapters 1-16	Bildungsroman: Jane Eyre by Charlotte Bronte, chapters 17-37	Different voices, different forms: speeches
Year 10	William Shakespeare: Romeo and Juliet, Act 1 Scene 1 to Act 3 Scene 4	William Shakespeare: Romeo and Juliet, Act 3 Scene 3 to Act 5 Scene 3	Alan Bennett: History Boys	19 th Century Novel: Dickens, Shelley, Austen and Eliot	Review: Romeo and Juliet and the History Boys	Power and Conflict Anthology
Year 11	19 th Century fiction: Dr Jekyll and Mr Hyde	Language paper 2	Power and Conflict Anthology and Language paper 1	Paper 2 and Romeo and Juliet revision	Dr Jekyll and Mr Hyde revision	GCSE examinations

Mathematics

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Fundamentals in mathematics	Place value, algebra, averages, frequency, mean and circles	Squares and cubes, cube roots, metric units, averages, mean, organising and representing data	Algebraic expressions, formulae, 2D shapes, angles and distance-time graphs	Amount, probability, ratios, Pythagoras theorem and introduction to trigonometry	Linear equations, inequalities, symmetry and statistical projects (representation and analysis of data)
Year 8	Directed numbers, angles, quadrilaterals, 2D shapes, sample-space diagrams	Scale, metric units of area and volume, volume and surface of prisms, quadratic graphs, pie charts and scatter diagrams	Algebraic manipulation, ratio and shapes, adding, subtracting and dividing fractions	Direct and inverse proportion, linear equations, and circles	Simultaneous equations, frequency diagrams, manipulating percentages	Polygons, scatter graphs, cumulative frequency, stem and leaf diagram
Year 9	Algebraic fractions, algebraic expansion, quadratic factorisation and standard form	Bounds, surface area and volume of a cylinder and triangular prism, quadratic graphs, speed, density, pressure and unit cost	Trigonometric ratios, decimals, quadratic and geometric sequence, indices, triangles	Congruent and similar shapes, quartiles, histograms, fraction, decimals and percentages	Simultaneous equations, Pythagoras Theorem in 2D, scatter graphs and cumulative frequency	Surds, sampling technique, statistical investigation
Year 10	Circle theorems, standard form, linear inequalities, fraction and percentages	Polygons, quadratic, linear, special and generating sequence, triangles	Algebraic fractions, expanding and factorising brackets, quadratics and squares	Revision	Revision	Revision
Year 11	Speed, density and pressure, vectors, indices, rate of change and surds	Trigonometric ratios, sine rule and area of a triangle, distance-time graphs, equations	Linear and quadratic inequalities, graphs, histograms, cumulative frequency and box plot	Circle theorem, loci, constructions, 3D shapes, bounds, average and frequency tree	2D shapes, circles calculations and transformation problems	GCSE examinations.

Biology

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Introduction to Biology fundamentals: cells and life, organs, ecology and locust investigation	Evolutions: natural selection, evolution, Darwin's finches, adaptation, parasites and classification	Cells and life: 7 processes of life, bacterial cell, microscopy	Genetics and inheritance: Gregor Mendel and inheritance, genetic disorders and sex-linked disorders	Plant biology: plant structure, photosynthesis, plant reproduction	Reproduction: Hormones and puberty, menstrual cycle, pregnancy and IVF
Year 8	The circulatory system: heart dissection, components of blood, vessels and pressure	The respiratory system: the lungs, breathing, aerobic and anaerobic respiration	The nervous system: the neuron, reflex arc, synapses and neurotransmitters	The digestive system: types of digestion and enzymes, food groups	Homeostasis: kidney and water balance, control of blood sugar and negative feedback	Homeostasis: diffusion, osmosis, dialysis, writing a lab report
Year 9	Cells: Eukaryotic and prokaryotic cells, microscopy, photosynthesis, differentiated cells	Cell transport: diffusion, osmosis, active transport, xylem and phloem, dialysis	Responding to pathogens: bacteria, virus, fungi, protists, vaccinations and monoclonal antibodies	Metabolism: molecules of life, enzymes, decay and decomposition, carbon cycle	Ecology: competition in animals and plants, abiotic and biotic factors, classification	Biodiversity and human impact on the environment
Year 10	Cell division: Meiosis, mitosis, binary fission, sexual reproduction, variation of prokaryotes	Evolution: Darwin, Lamarck and Wallace, human evolution, selective breeding, genetic breeding	Pathology: cardiovascular, respiratory and autoimmune diseases, lifestyle factors	Responding to the environment: anatomy of the brain, endocrine system, positive and negative feedback	Classification, distribution and biomass: classification, distribution and abundance, pyramids and biomass	Biological mathematics: graphs, statistics and science writing
Year 11	Cell biology: cell transport, cell division, communicable diseases	Monoclonal antibodies, anatomy of the eye and brain	Hormones and fertility: genes and meiosis, hormones and negative feedback	Biological mathematics and scientific writing: different diseases, drug discovery and development	Revision	GCSE examinations

Chemistry

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Chemistry fundamental and introduction to lab safety	Atoms, elements and compounds: practical and chemical changes	Separating mixtures: evaporation, separation, filtration and distillation	Acids, bases and alkalis: neutralisation	Conservation of mass: balancing equations	Non-Newtonian fluids
Year 8	Atomic theory: atoms, ionic bonding and covalent bonding	Metals and their reactions	The Periodic Table: Group 1, group 7, transition metals and noble gases	Principles of quantitative chemistry: conservation of mass and the Mole concept	The classification of chemical compounds: ionic compounds, simple molecules and covalent structures	Nanoparticles, Group 1 and Group 2 of the Periodic Table
Year 9	Bonding, structure and properties of matter	Quantitative chemistry: Isotopes, relative formula mass, empirical formula and atom economy	Kinetics and rate of reaction: Collision theory and activation energy and the effect of concentration on reaction rate	Quantitative chemistry: Avogadro's constant, mole concept and concentration of solutions	Acids, bases and salts: neutralisation reactions and applications, soluble and insoluble salts, and redox reactions	Using materials: sustainable development, corrosion, ceramics and polymers
Year 10	Organic chemistry, functional groups and nomenclature	Chemical analysis and testing for gases and ions	Energy changes in reactions, reversible reactions and dynamic equilibrium	Acids, bases and salts: electrolysis of copper sulphate, formation of metal crystals	EoY revision	Chemistry in the atmosphere and human activities: Greenhouse effect
Year 11	The Periodic Table, chemical bonds, ionic compounds and nanoparticles	Atom economy, volumes of gases, percentage yield, solutions and concentration	Reactivity of metals, extraction of metals and reduction, ionic equations and neutralisation	Acids, electrolysis, exothermic and endothermic reactions and rates of reaction	Reversible reactions and dynamic equilibrium, alkenes, alcohols, carboxylic acids and esters	GCSE examinations

Physics

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Introduction to Physics fundamentals	Space Physics: the universe, the Earth, the moon and stars	Motion: distance and displacement, velocity-time and distance-time graphs	Forces: Newton's First, Second and Third Laws	Electricity: atoms, static electricity and current	Electronics: potential difference, resistance, diode and LED, LDRs and thermistors and Logic gates
Year 8	Waves: Sound waves, light waves, colour and reflection	Energy: kinetic, gravitational, power and efficiency	Kinetic Theory of Matter: density, changes of state, heat and temperature	EM spectrum: wave equation, EM spectrum, photon energy and radiation	Magnetism: magnetic materials, magnetic fields and geomagnetism	Electromagnetism: electromagnets, electric motors
Year 9	Kinetics: scalars and vectors, velocity and speed, displacement-time graphs and velocity-time graphs	Force and motion: weight and mass, Newton's Second Law, force and collisions	Machines and Engineering: Hooke's Law, Elastic potential energy, pressure in fluids	Energy: heat and temperature, power and efficiency, 1 st law of thermodynamic and entropy	Kinetic Theory of Matter: density, change of state, ideal gases and internal energy	Sound and Light: Convex and concave lenses, colours of light, black body radiation and sound waves
Year 10	Waves: laws of reflection, refraction of light and Snell's Law	Radioactivity: The atom, Rutherford's discovery of the nucleus, nuclear decay, fission and fusion	Electricity: static electricity, electric fields, Ohms Law and series and parallel circuits	Mains Electricity: electrical power, domestic appliances, the National Grid and energy resources	Light: convex and concave lenses, and black body radiation	Sound and Space Physics: the solar system, orbits, and red-shift
Year 11	Electromagnetism: electric motors, electromagnets, and transformers	Paper 1 revision: energy, circuits and thermal equilibrium	Heat and Sound Waves: sound waves, echo-sounding, and black body radiation	Required practicals 1-4	Radiation: alpha, beta and radiation contamination, nuclear fission and fusion	GCSE examinations.

History

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Key events in human history	Ancient History: Ancient Egypt, Ancient Greece and Ancient Rome	The Middle Ages: Saxons, Normans, and the rise of Islam in the Middle East	Medieval kingship and society: from Henry II to the Wars of the Roses	Renaissance and Reformation in Europe	Early Modern Britain: The Tudors, the Stuarts and the Georgians
Year 8	Enlightenment and Empire: British Empire, slavery, the Americas and the French Revolution	The Age of Revolutions: Industrial, suffragette, extension of the Franchise, Marxism and Liberal Reforms	The Great War: Causes and course of the war, and the Treaty of Versailles	The Interwar Years: The rise of Nazism and the establishment of the Soviet Union	The Second World War: course and course of the war	Post-1945: Civil Rights, the Cold War, Thatcherism and modern terrorism
Year 9	History of warfare: From the Romans to the Normans	History of warfare: from the Normans to the Plantagenets	History of warfare: The Tudors	The English Civil War: from James I to 1646	The English Civil War: changes and experiences of war	The English Civil War: the Rump, the Republic, the Commonwealth and Restoration
Year 10	History of warfare, 1700-1850: India, America, Napoleon and the Crimea	International relations : Causes and course of the war, and the impact of war on populations and governments	International Relations: Versailles, League of Nations, Wall Street Crash and Appeasement	International Relations: WWII and the rise of Communism	International Relations: Red Scare and the Cold War	International Relations: The Cold War in Europe and Asia
Year 11	Civil Rights: Context and 1950s America	Civil Rights: 1960s and 1970s America	Modern warfare: terrorism, 9/11 and the Iraq War	Revision	Revision	GCSE examinations

Geography

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Introduction to Geography fundamentals: the world and the UK	Ordinance survey mapping: grid references, distance, direction, scale, and topography	Geology: rock cycle, igneous rocks, sedimentary rocks and metamorphic rocks	Population: demographic transition model, youthful populations, aging populations	Europe: Migrations, the European Union and the impacts of leaving the EU	Cold environments: the Ice Age, the Little Ice Age, Antarctica and the Arctic
Year 8	Meteorology: climate graph analysis, weather fronts, synoptic charts and hydrological cycle	Development: measuring development, factors that affect uneven development and strategies to close it	Africa: the Sahara, the Sahel, the Savannah and Madagascar	Rivers: the upper course, the middle course, the lower course, flooding and flood hydrographs	China: human and physical geography, China's development, and neo-colonialism	Coral reef systems: locations, ecosystems, treatments, management and coral farming
Year 9	Natural hazards: Disaster risk equation, plate margins, Haiti and Japan	Population and urbanisation: Mumbai and Dharavi	Glaciation: glacial erosions, Lake District National Park, and tourism in the Lake District	London: 4 Ds of decline, 4Rs of regeneration, sustainable housing and sustainable transport	Ecosystems: River Lea case study	Urban regeneration in Olympic Fieldwork
Year 10	UK coastal landscapes: coastal management, coastal erosion and soft/hard engineering	Development: urban development, tourism in Jamaica, and Nigeria's development	Tropical studies: global atmospheric circulation, typhoon Haiyan and Hurricane Katrina	Hot deserts: development opportunities and challenges, the Spiny Thicket	UK weather hazards: climate change and the Beast from the East	Coastal management fieldtrip write-up: results and data analysis, and evaluation
Year 11	Tropical storms: Tropical storms, Typhoon Haiyan and Hurricane Katrina	Challenge of resource management: Lesotho and Baobab Wells	Weather and Ecosystems: UK weather hazards and River Lea case study	Paper 3 pre-release	Revision	GCSE examinations

Latin and Classics

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	The Iliad: nouns and present tense verbs	The Iliad: war, genitive case, adjectives and Homeric similes	The Odyssey: imperfect tense, irregular perfect and perfect tense	Xenia in the Odyssey: dative case, nouns and ablative case	Oedipus rex 1 and rex 2: modal verbs and adjectival agreement	Athens: buildings, 5 th century history, democratic institutions, verb paradigm and declensions
Year 8	The Aeneid: the vocative case, comparatives and superlatives	The Aeneid: the dative case, war in the Aeneid, adverbs and prepositions	Ovid's metamorphoses: personal pronoun and reflexive pronouns	The Argonautica: hic, haec, hoc, ille, illa, illud, qui, quae, quod, irregular perfect tense	Greek tragedy and Greek comedy: the passive voice, the present passive	Julio-Claudians: Augustus, Tiberius, Caligula, Claudius and Nero
Year 9	Pluperfect, future, noun endings and active/passive verbs	Plato's symposium, adverbs, pronouns and present participles	Plato v Aristotle on tragedy, pluperfect passive, perfect passive, future participles, deponent verbs	Plato's Republic: ablative verbs, imperatives, question words, irregular comparative and superlative	Indirect statements and irregular verbs	Prepositions, the Aeneid, Virgil's Eclogues and Georgics
Year 10	Roman Civil War, Lucan's Pharsalia, subjunctive mood, purpose clauses, indirect commands	Cicero in Catilinam and Philippics, pluperfect, cum causes, gerundive as purpose	Translating complex sentences and translation practice	Germanicus and Piso, the style of Tacitus and Tacitus analysis	Tacitus essay, subjunctive clauses, verb conjugations	Regulus language and style, the Aeneid
Year 11	The Aeneid: translation and discussion	Translating complex passages and translation practice	The Aeneid: translation and discussion	Germanicus and Piso one to five	Revision	GCSE examinations

Ancient Greek

	HT1	HT2	HT3	HT4	HT5	HT6
Year 9	The Greek alphabet, present tense verbs and the definite article	First and second noun declensions, imperatives, infinitives and adverbs, the imperfect tense	Archaic Greece, Aorist Tense, gender and declension, the Odyssey Translation	Accents and Homeric Greek, the Odyssey translation, present participles, Aeolus translations	Alexander the Great Translation: definite article and autos	Aorist participles, Gordian knot, possessive dative, future participles and translation
Year 10	The passive voice, the passive infinitive, comparison of adjectives and comparison of adverbs	Plato's apology, the middle voice, the Aorist middle, the Aorist passive, genitive absolute and reflexive pronouns	The development of mythos, irregular epsilon verbs and futures, Aorist imperative and negatives, Perseus extended translation	Herodotus, indirect statements, alpha contraction, prepositions and compound verbs, direct and indirect questions	Conditional sentences, purpose clauses, indirect statements and indirect questions	Herodotus translation, Gyges and Candaules, and Solon and Croesus. The Hellenistic period of literature
Year 11	Herodotus translation, prose literature including parody, symposium, Homer and Thersites and Odysseus	Thersites, Odysseus, Helen of Troy, Meelaus, Rhadamanthys, Homeric Greek and the Iliad	Verse literature: Aphrodite, similes, Argos, repetition, sacrifices and revision	Translation practice and Iliad essay practice	Translation practice: Maronius and Xerxes, the sons of Pythius and Sparta and Thermopylae	GCSE examinations

Computer Science

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Algorithms and Scratch: if-else statements, robotic procedures and relational and logical operators	Web design: HTML and Dreamweaver, building interactive webpages, forms and buttons	Computer hardware and microbit: LEDs, Microbit, types of storage and computer networks	Photoshop and illustrator: photo editing, red eyes, blemishes, merging images and vector images	After effects: simple animation, keyframes, effects and presets, animating text and shapes	Extended project: combining Photoshop, Illustrator, Scratch, Marty, Microbit and Aftereffects
Year 8	Building interactive websites using JavaScript: if-statements, dot operators and using sounds	App inventor: games, animations, quizzes, informational apps, and artificial intelligence	Photoshop and illustrator: merging images, digital painting, vector images and logo creation	Robotics: building a robot, sensors (colour, touch, ultrasonic), programming loops and switches	Arduino: circuits, commands, blinking an LED, interface and variables, temperature sensor and serial monitor	After Effects project: keyframes, effects and presets, animating text and shapes
Year 9	Basic programming structures: If and if-else statements, Boolean operators, input and output in Java	Solving problems using iterations: repeat-until loops, do-while loops, nested loops	Data structures and procedures in Java: String and Boolean functions, 1D arrays as parameters	Data structures and system functions: Java math functions, Java string functions, Array Lists	File reading and writing: Reading and writing data from a file, Java classes, objects and constructors	Programming project using computational language
Year 10	Algorithms: binary and linear search, bubble, merge and insertion sort, pseudocode, flowcharts	Programming: local variables, arrays, global variables, and SQL commands	Logic and languages: errors and testing, defensive campaign, integrated development environment	Data representation: binary arithmetic and hexadecimal, images, characters, sound, and compression	Algorithm and programming revision: logic and languages, data representation.	Controlled Assessment: java code, completion of pseudocode
Year 11	Computer systems and fundamentals of networks: CPU and Fetch, memory, networks	Cyber security: threats, social engineering, malicious code, ethical issues	Revision: programming, fundamentals of networks, cyber security, ethics	Revision: algorithms, programming, data representation, and computer systems	Revision: practice problems on cyber security and ethics	GCSE examinations.

Art

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Observational drawing and paintings	Still Life: Gustav Courbet, poster painting techniques	Modern British sculpture: Henry Moore, Barbara Hepworth	Modern British architecture	Proportions of the face: Stanley Spencer, Charles White	Final piece creation and submission
Year 8	Natural forms: Peter Randall-Page, William Morris and Karl Blossfeldt	Collages: building multi-coloured collages and lino carvings	Local landscapes: foreground, midground and background, Doreen Fletcher	Painting creation: building a painting, foreground, midground and background	Final piece creation and submission: Dada and Cubism	Facial features: drawing the face, face and body photography
Year 9	Structures: old and new London, Ian Murphy	Structures: monotypes, monoprints, John Pipa, parasitic architecture	Final Piece rehearsal and creation, printmaking, Andy Warhol, Hannah Firmin	Printmaking: stencil cutting, Still life, understanding narrative in art	A Rake's Progress: David Hockney, Kara Walker, Francis Bacon, Margaret Harrison	Final piece creation and submission
Year 10	Observational drawings: Georgia O'Keeffe, oil pastels and acrylic painting	Peter Randall, first-hand studies, plaster tile design, clay imprints	Painting tiles and large-scale drawings	Paolozzi collage and screen prints, independent artist research, autonomous first hand	Refining final piece and final piece creation.	What makes us human? Portraiture, Jenny Saville and Lucian Freud
Year 11	Self-portraits: acrylic painting, transitional objects and Vanitas	Autonomous artist research and idea refinement	Artist 1 research and artist 2 research	Mark-making, artist 3 research, final piece rehearsal	Robert Longo: men in cities and compiling portfolios	Fine Art exhibition

Music

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Musical elements including duration, tempo, dynamics, timbre, notation	A ceremony of carols, harmonies, notating melodies (diatonic and chromatic)	Grieg's Peer Gynt, notes and keys on the major scale	Binary, ternary and Rondo forms, Sonata forms, Beethoven's Eroica Symphony	Orpheus legend, Monteverdi and L'Orfeo and Gluck and Orfeo ed Euridice	Offenback and Orphee aux enfers, instrumental programme music, the birth of the blues
Year 8	The blues: Leadbelly, Boogie Woogie, electric blues and female pioneers	Jazz: Ragtime, traditional jazz, swing jazz, Bebop jazz, Miles Davis and John Coltrane	Dido and Aeneas: Ah Belinda and the librettist	Lieder and Opera: Berlioz's legend dramatique, Faust Symphony, Mephisto Waltzes	Dante's Inferno: Tchaikovsky, Liszt and Verdi	Wagner: Der Ring des Nibelungen

Photography

	HT1	HT2	HT3	HT4	HT5	HT6
Year 9	Introduction to photography: landscape, depth field, how to use a DSLR	Photo-joiners, panoramic planets, compositional rules, Henri Cartier-Bresson	Surrealism: research, initial shoot, refining work and final piece	Conflict: research, initial shoot, refining and second shoot, Nan Goldin, Nicola Hilditch-Short	Transformation: Anzeri, Kardinal and Meyer, sewing into photographs	Man Ray, John Stezaker and final piece rehearsal and submission
Year 10	Abstraction: Paul Strand, Jaromir Funke, Jane Thomas and Frances Bruguiere	Abstract landscapes: Photoshop editing, Claire Lyons, and Kim Keever	Collages, John Baldessari, digital collages, the history of Photography, Chemigrams and Cyanotypes	Camera obscuras, pinhole photography, Cyanotype, autonomous artist study, shoot and edit	Final piece research, edit and review	Reflection and Refraction: Daniel Kukla, Sebastian Magnani and Murray Fredericks
Year 11	Reflection and refraction: Bjoern Ewers, Kaleidoscopes, Makoto Azuma and Susan Dergens	Autonomous photographer research, response and refinement	Autonomous photographer research, response and refinement	Autonomous photographer research, response and refinement	Autonomous photographer research, response and refinement	Photography exhibition

Economics

	HT1	HT2	HT3	HT4	HT5	HT6
Year 9	Economics foundation concepts: Adam Smith, market systems, command system, economic sectors	Supply and demand, market equilibrium, elasticity of demand	Elasticity of supply, revenue and calculations, production costs, economies of scale factors	Perfect competition and competitive markets, monopolies, oligopolies	Labour demand and curve, labour market equilibrium and changes to market equilibrium	Market failure, private costs and social costs, private benefits and social benefits
Year 10	Aggregate demand and components, national economy, aggregate supply curve	Government income and revenue, government expenditure, economic growth, inflation, unemployment	Trade balance and current account, balance of payments, impact of fiscal policies and monetary policies	Supply-side policies and impact, negative externalities, taxation, subsidies and market failure	Free Trade and David Ricardo, aggregate demand and supply, benefits and costs of trade	Exchange rates, demand of currency, supply of currency, exchange rate equilibrium
Year 11	Globalisation, financial markets, the Bank of England, aggregate demand	Economic growth analysis, inflation, unemployment, exchange rates and trade theory	Fiscal and monetary policies in the UK, shortages and surplus, elasticity of demand	Cost and revenue analysis, market structures, perfect competition, government policies	Revision	GCSE examinations

Electronics

	HT1	HT2	HT3	HT4	HT5	HT6
Year 9	Electronic subsystems, current, P.D, resistance and Ohm's Law, Resistors	Potential dividers, measuring voltage, electrical power, E24 series, resistors in series and parallels	Potentiometers, switches and outputs, sensing circuits, npn transistors	MOSFETs, voltage comparators, diodes, Zener diodes	Revision	Logic gates, logic ICs, logic diagrams, NAND gates, door alarm and fire alarm project
Year 10	D-type flip-flop, binary counters, segment displays, Schmitt inverters, switch bounces, logic systems	Capacitors, monostable circuits, oscilloscopes, monostable circuits, astable circuits 555 timers	Schmitt inverters, switch bounces, logic systems, microcontrollers, flowcharts, servo motors	Amplifiers, bandwidth, non-inverting amplifiers, inverting amplifiers, mixer amplifiers	Revision	System development, system realisation, system evaluation
Year 11	Binary counters, 2-bit binary counter, counter ICs, segment displays, switch bounces, logic systems	Microcontrollers, simple flowcharts, servo motors, amplifiers	Non-inverting amplifiers, inverting amplifiers, summing amplifiers, mixer amplifiers	System development, system realisation, system evaluation	Revision	GCSE examination

