BRITANNICA INTERNATIONAL SCHOOL, SHANGHAI

Curriculum Plan

Academic Year 2022-23:

Subject: History
Exam Board: Cambridge

Year: 11
Syllabus Code: 0470

	Term 1	Term 2	Term 3
	Depth Study – Germany 1918 – 1945 The Weimar Republic Hitler's Rise and Domination of Germany Nazi control in Germany Life in Nazi Germany	**Revision** Content recall Paper 1 – Exam Skills Paper 2 – Exam Skills Paper 4 – Exam Skill	**Revision** Content recall Paper 1 – Exam Skills Paper 2 – Exam Skills Paper 4 – Exam Skill
Assessment	Mock IGCSE exam style questions	Paper 1, Paper 2 and Paper 4 Mock Exams	Paper 1, Paper 2 and Paper 4 Mock Exams

Curriculum Plan

Academic Year 2022-23:

Subject: Music
Exam Board: Cambridge iGCSE

Year: 11
Syllabus Code: 0410

	Term 1	Term 2	Term 3
	The students will be reintroduced to the iGCSE Cambridge Music course and understand the assessment criteria and its requirements. Students will begin to select and rehearse their performance pieces (A02) based on the grading criteria, they will then begin to start weekly practice on these and target areas for improvement. A01 Listening exam skills will be intermittently refreshed and revised. A03 Composition coursework will be checked and developed on a regular basis	Students will focus directly on weaker elements of their individual preparation. All students will continue to work on their individual and ensemble performance pieces, with weekly mock presentations A03 Compositions should be complete within first half of term. A01 Listening exam skills will be intermittently refreshed and revised.	Revision and completion of all assessment criteria: AO1 Listening • Aural awareness, perception and discrimination in relation to Western music. • Identifying and commenting on a range of music from cultures in different countries. • Knowledge and understanding of one World Focus from a non-Western culture and one Western Set Work. AO2 Performing • Technical competence on one or more instruments. • Interpretative understanding of the music performed. AO3 Composing • Discrimination and imagination in free composition. • Notation, using staff notation and, if appropriate, other suitable systems.
Assessment	A01, A02, A03 skills assessed	A01, A02, A03 skills assessed	A01, A02, A03 skills assessed

Curriculum Plan Academic Year 2022-2023

Subject: Physical Education

Year: 10/11

Year Group	Term 1	Term 2	Term 3
10 & 11	**Block 1** **Invasion Games** Sports could include Football, Basketball, Netball and Hockey. • Passing/Receiving. • Dribbling. • Shooting. • Tactical Awareness. • Match Fitness. • Rules and Regulations. • Gameplay. **Block 2** **Health Related Exercise** • Fitness Testing (Circuit Training/Continuous Training/Multi Stage Fitness Testing). • Muscles/Bones. • Components of Fitness. • Skill Related Fitness. • Knowledge and understanding.	**Block 3** **Swimming** • Water Safety/Evaluation (Treading Water for different lengths of time). • Entry and Exit (Seated Dive/Crouch Dive/Standing Dive). • Water Skills (Push and Glide/Skull Diving/Retrieving Objects under water). • Swimming Stokes (Freestyle/Front Crawl/Back Stroke/Butterfly). **Block 4** **Net/Wall** • Racket Shot Techniques. • Movement and positioning on the court. • Tactical Awareness. • Rules and Regulations. • Match Fitness. • Singles and Doubles Gameplay.	**Block 5** **Athletics** • Running Events – 100m/200m/400m/1500m. • Jumping Events – Long Jump/Triple Jump/High Jump. • Throwing Events – Javelin/Discus/Shot Putt. **Block 6** **Striking and Fielding** • Throwing/Catching/Bowling. • Batting. • Fielding. • Tactical Awareness. • Rules and Regulations. • Team/Social Building. • Match Fitness. • Gameplay.
Assessment	Teacher Observations. Peer-Assessment. Self-Assessment. Video Analysis.	Teacher Observations. Peer-Assessment. Self-Assessment. Video Analysis.	Teacher Observations. Peer-Assessment. Self-Assessment. Video Analysis.

Curriculum Plan

Academic Year 2022-23:

Subject: IGCSE Business Studies
Exam Board: CIE Cambridge

Year: 11
Syllabus Code: 0450

	Term 1	Term 2	Term 3
	4 Operations management • Production of goods and services • Costs, scale of production and break-even analysis Achieving quality production • Location Decisions	**5 Financial information and decisions** • Business finance: needs and sources • Cash-flow forecasting and working capital • Income Statements • Statement of Financial Position • Analysis of accounts	**6 External influences on business activity** • Economic issues • Environmental and ethical issues • Business and the international economy
Assessment	• Exam Style Questions • End of Unit Tests • Presentations	• Exam Style Questions • Mock • Presentations	• Exam Style Questions • Final Mock • Presentations

Curriculum Plan **Academic Year 2022-23**

Subject: iGCSE Chemistry **Year**: 11
Exam Board: Cambridge International Examinations (CIE) **Syllabus Code**: 0620

	Term 1	Term 2	Term 3
	Organic Chemistry Formulae, functional groups and terminology Naming organic compounds Alkanes Alkenes Alcohols Carboxylic Acids Polymers **Acid, Bases & Salts** The characteristic properties of acids and bases Oxides Preparation of Salts	**Electrochemistry** Electrolysis Extraction of Metals Hydrogen fuel cells **Chemical Energetics** Exothermic and endothermic reactions	**Chemical Reactions** Physical and Chemical changes Rate of reaction Reversible reactions and equilibrium Fertilisers Redox **Exam Revision**
Assessment	End of Unit Tests, Exam based questions Practice Papers	End of Unit Tests, Exam based questions Practice Papers	End of Unit Tests, Exam based questions Practice Papers

BRITANNICA INTERNATIONAL SCHOOL, SHANGHAI

Curriculum Plan **Academic Year 2022-23**

Subject: English Language and Literature **Year**: 11
Exam Board: Cambridge **Syllabus Code**: 0500/0475

	Term 1	Term 2	Term 3
	Literature: Journey's End (Drama) • Understanding the key literary aspects of a drama text • Contextual information surrounding the play • Analysing writer's choice of structure and language **Creative Writing: Description** Students read a range of extracts from renowned authors and focus on their creation of images, emotion and environment. Students begin to analyse extracts before reconstructing their own vivid descriptions. • Language analysis • Structure analysis • Grammatical accuracy • Vocabulary building • Sentencing for effect • Language for effect • Punctuation for effect • Structure for effect •Sound for effect • Latin roots **Creative Writing: Narrative** Students build on their development of language for effect to create original, believable and interesting characters and narrative structures. • Freytag's pyramid	**Directed Writing** Students focus on writing to argue, persuade and inform through the forms of letter, diary, reports, articles and speeches. They will analyse and range of examples before constructing their own. • Writing letters/diaries/ reviews/articles/speeches /reports • Language analysis • Structure analysis • Persuasive techniques (personal pronouns; emotive language; rhetorical question; statistic and fact; use of authority; anecdote; description; exaggeration; rule of three; repetition) • Idiom use • Vocabulary building • Debate • Reading comprehension • Summary skills **Paper 1: Reading Analysis** Students draw on and revise their learning of language and structural devices in order to analyse a range of unseen extracts and short stories. • Analysing sound • Analysing language • Analysing structure • Analysing form • Formulating original ideas • Formulating analytical responses • Grammatical accuracy • Reading comprehension • Summary skills • Latin roots	**Paper 1: Analytical Interpretation** Students study a range of articles from a British newspaper. Students are exposed to a range of tier 3 vocabulary and diverse subject matter. • Multiple interpretation • Interpreting character • Interpreting the implicit • Formulating originality • Analysing language • Analysing structure • Analysing sound • Writing letters/diaries/ reviews/articles/speeches /reports **Revision** Students conclude their year with a focus on revision and the completion of past papers. All papers will be marked in class and the students will be given opportunity to revise their answers in order to create models. • Analysing sound • Analysing language • Analysing structure • Analysing form • Formulating original ideas • Formulating analytical responses • Grammatical accuracy • Reading comprehension • Summary skills • Latin roots • Multiple interpretation

	• Cyclical narrative • Characterisation (implicit, explicit, physiognomic) • Language for effect • Structure for effect • Latin roots • Language analysis • Structure analysis		• Directed writing • Descriptive writing • Narrative writing
Assessment	• End of Unit Tests • Multiple Choice Quizzes • Extended Writing	• End of Unit Test/ Mock Exam • Multiple Choice Quizzes • Extended Writing	• 2nd Mock Exam / External Exam • Multiple Choice Quizzes • Extended Writing

BRITANNICA INTERNATIONAL SCHOOL, SHANGHAI

Curriculum Plan **Academic Year 2022-23**

Subject: English as a Second Language
Exam Board: Cambridge

Year: 11
Syllabus Code: 0511

	Term 1	Term 2	Term 3
	Reading and Writing: Film Students read a range of extracts from renowned authors and focus on their creation of images, emotion and environment. Students begin to analyse extracts before reconstructing their own vivid descriptions. • Review writing • Report writing • Skimming and scanning • Cloze reading • Grammatical accuracy • Vocabulary building • Sentencing for effect • Language for effect • Summary writing • Reading comprehension • Film vocabulary • Idiom use • Latin roots **Listening: The Terror of Blue John Gap** Students listen to Conan Doyle's: 'The Terror of Blue John Gap' in six parts. Students focus on listening skills as whilst debating key issue. • Listening for synonyms • Listening and comparing • Listening and summarising • Vocabulary building • Summary writing • Latin roots • Informal writing • Grammatical accuracy • Idiom use	**Speaking: Hot Topics** Students expand their vocabulary and confidence with speaking and presenting on 'hot topics' in the news. Students will read about current affairs and present their opinions to the class. • Developing originality • Pronunciation • Vocabulary building • Persuasive techniques (personal pronouns; emotive language; rhetorical question; statistic and fact; use of authority; anecdote; description; exaggeration; rule of three; repetition) • Idiom use • Grammatical accuracy • Debate • Reading comprehension • Summary skills **Reading and Writing: Short Stories** Students draw on and revise their learning of reading and writing skills in order to discuss a range of short stories. Students produce a range of informal pieces of writing. • Emotive language • Grammatical accuracy • Idiom use • Inverted conditionals • Language for effect • Developing originality • Grammatical accuracy • Reading comprehension • Skimming and scanning • Cloze reading • Summary skills • Latin roots	**Exam Skills** Students focus on their exam skills and look at a range of ways to save time effectively. • Formal writing • Informal writing • Skimming and scanning • Cloze reading • Grammatical accuracy • Vocabulary building • Sentencing for effect • Language for effect • Summary writing • Reading comprehension • Film vocabulary • Idiom use • Latin roots • Grammatical accuracy **Revision** Students conclude their year with a focus on revision and the completion of past papers. All papers will be marked in class and the students will be given opportunity to revise their answers in order to create models. • Formal writing • Informal writing • Skimming and scanning • Cloze reading • Grammatical accuracy • Vocabulary building • Sentencing for effect • Language for effect • Summary writing • Reading comprehension

			• Film vocabulary • Idiom use • Latin roots • Grammatical accuracy
Assessment	• End of Unit Tests • Multiple Choice Quizzes • Extended Writing	• End of Unit Test/ Mock Exam • Multiple Choice Quizzes • Extended Writing	• 2nd Mock Exam / External Exam • Multiple Choice Quizzes • Extended Writing

BRITANNICA INTERNATIONAL SCHOOL, SHANGHAI

Curriculum Plan **Academic Year 2022-23**

Subject: IGCSE ICT

Year: Year 11

	Term 1	Term 2	Term 3
	Input and output devices: • Input devices and their uses. • Output devices and their uses. • Direct data entry. • Associated devices.	**Images:** • Precision. • Aspect ratio. • Cropping. • Colour Manipulation. • Resolution. • Compression. **Layout:** • Preparation. • Text and numbers. • Editing techniques. • Tables. • Objects. • Wrapping. • Headers and Footers. • Automated objects.	**Exam Prep:** **Website Authoring:** • Web development layers. • Create a web page. • HTML. • CSS. • JavaScript. • Syntax. • Tags. • Style Sheets. • Hyperlinking. • Tables.
	Storage devices and media: • Storage devices and media. • Optical. • SSD. • Advantages and Disadvantages.	**Styles:** • Corporate house styles. • Branding. • Consistent styles using a variety of application packages. • Consistent styles.	**Exam Prep:** **Spreadsheets-** • Lists. • Filters. • IF. • VLOOKUP. • HLOOKUP. • Data Validation.

		• Text enhancements.	
	Audience: • Audience appreciation. • Legal issues. • Moral appreciation. • Ethical appreciation. • Cultural appreciation.	**Presentations:** • master slides. • Consistency. • Objects. • Font Styles. • Space. • Colour scheme. • Sound. • Charts imported from a spreadsheet. • Symbols. • consistent animation. • Timing.	**Exam Prep:** **Database ACCESS-** • Forms • Queries. • Reports. • Referential Relational Databases. • Printing.
	File management: • Manage files effectively. • Reduce file sizes for storage. • Transmission.	**Proofing:** • Software tools. • Proofing techniques. • Accuracy of data entry. • Verification. • Double data entry.	**Exam Prep**
Assessment	End of Unit Tests	End of Unit Test/ Mock Exam	2nd Mock Exam / External Exam

BRITANNICA INTERNATIONAL SCHOOL, SHANGHAI

Curriculum Plan - Academic Year 2022-23

Subject: Physics **Year**: 11
Exam Board: CIE **Syllabus Code**: 0625

	Term 1	Term 2	Term 3
	Electricity and Magnetism 4.1.1 Simple phenomena of magnetism 4.1.5 Simple phenomena of magnetism 4.1.3 Simple phenomena of magnetism 4.5.3.1 Magnetic effect of current 4.2.1.1 Electric charge 4.2.1.8 Electric charge 4.2.1.5 Electric charge 4.2.2.3 Electric current 4.2.2.1 Electric current 4.3.2.1 Series and parallel circuits 4.2.3.1 Electromotive force and potential difference 4.3.2.3 Series and parallel circuits 4.2.4.1 Resistance 4.3.1.1 Circuit diagrams and circuit components 4.2.5.1 Electrical energy and electrical power 4.4.1 Electrical safety 4.5.3.3 Magnetic effect of a current 4.5.4.1 Force on a current-carrying conductor 4.5.5.1 The d.c. motor 4.5.1.1 Electro-magnetic induction 4.5.2.1 The a.c. generator 4.5.6.1 The transformer	Nuclear Physics 5.1.1.1 The atom 5.1.2.1 The nucleus 5.2.2.1 The three types of emission 5.2.3.1 Radioactive decay 5.2.1.1 Detection of radioactivity 5.2.4.1 Half-life 5.1.2.6 The nucleus 5.2.5.1 Safety precautions Space Physics 6.1.1.1 The Earth 6.1.2.1 The Solar System 6.1.2.4 The Solar System 6.2.1.1 The Sun as a star 6.2.2.1 Stars 6.2.3.1 The Universe	IGCSE Exam Review

Assessment	End of Unit Assessments Mock Examination	End of Unit Assessments Mock Examination	End of Unit Assessments Mock Examination

Curriculum Plan Academic Year 2022-2023

Subject: PSHE **Year:** 11

Year Group	Term 1 Health & Wellbeing	Term 2 Relationships	Term 3 Living in the Wider World
11	**Self-Concept:** • H3. how different media portray idealised and artificial body shapes; how this influences body satisfaction and body image and how to critically appraise what they see and manage feelings about this • H4. strategies to develop assertiveness and build resilience to peer and other influences that affect both how they think about themselves and their health and wellbeing **Mental Health and emotional wellbeing:** • H8. to recognise warning signs of common mental and emotional health concerns (including stress, anxiety and depression), what might trigger them and what help or treatment is available • H9. the importance of and ways to pre-empt common triggers and respond to warning signs of unhealthy coping strategies, such as self-harm and eating disorders in themselves and others [NB It is important to avoid teaching methods and resources that provide instruction on ways of self-harming, restricting food/ inducing vomiting, hiding	**Positive Relationships:** • R5. the legal rights, responsibilities and protections provided by the Equality Act 2010 • R6. about diversity in romantic and sexual attraction and developing sexuality, including sources of support and reassurance and how to access them • R7. strategies to access reliable, accurate and appropriate advice and support with relationships, and to assist others to access it when needed • R8. to understand the potential impact of the portrayal of sex in pornography and other media, including on sexual attitudes, expectations and behaviours **Bullying, Abuse and Discrimination:** • R31. the skills and strategies to respond to exploitation, bullying, harassment and control in relationships • R32. about the challenges associated with getting help in domestic abuse	**Work and Career:** • L10. to develop their career identity, including values in relation to work, and how to maximise their chances when applying for education or employment opportunities • L11. the benefits and challenges of cultivating career opportunities online • L12. strategies to manage their online presence and its impact on career opportunities **Employment Rights and Responsibilities:** • L14. about confidentiality in the workplace, when it should be kept and when it might need to be broken • L15. about the unacceptability and illegality of discrimination and harassment in the workplace, and how to challenge it **Media Literacy and Digital Resilience:** • L26. how data may be used with the aim of influencing decisions,

	behaviour from others etc., or that might provide inspiration for pupils who are more vulnerable (e.g. personal accounts of weight change).] • H10. how to recognise when they or others need help with their mental health and wellbeing; to explore and analyse ethical issues when peers need help; strategies and skills to provide basic support and identify and access the most appropriate sources of help **Healthy Related Decisions:** • H15. the purpose of blood, organ and stem cell donation for individuals and society1 • H16. how to take increased personal responsibility for maintaining and monitoring health including cancer prevention, screening and self-examination • H17. to assess and manage risks associated with cosmetic and aesthetic procedures, including tattooing, piercings and the use of sunbeds H18. the ways in which industries and advertising can influence health and harmful behaviours **Managing Risk and Personal Safety:** • H20. wider risks of illegal substance use for individuals, including for personal safety, career, relationships and future lifestyle • H21. to identify, manage and seek help for unhealthy behaviours, habits and addictions including smoking cessation	situations of all kinds; the importance of doing so; sources of appropriate advice and support, and how to access them • R33. The law relating to 'honour'-based violence and forced marriage; the consequences for individuals and wider society and ways to access support • R34. strategies to challenge all forms of prejudice and discrimination **Forming and maintaining respectful relationships:** • R15. the legal and ethical responsibilities people have in relation to online aspects of relationships • R16. to recognise unwanted attention (such as harassment and stalking including online), ways to respond and how to seek help • R17. ways to access information and support for relationships including those experiencing difficulties	including targeted advertising and other forms of personalisation online; strategies to manage this • L27. strategies to critically assess bias, reliability and accuracy in digital content L28. to assess the causes and personal consequences of extremism and intolerance in all their forms • L29. to recognise the shared responsibility to challenge extreme viewpoints that incite violence or hate and ways to respond to anything that causes anxiety or concern
Assessment	Teacher Observations.	Teacher Observations.	Teacher Observations.

	Peer-Assessment. Self-Assessment. Q&A.	Peer-Assessment. Self-Assessment. Q&A.	Peer-Assessment. Self-Assessment. Q&A.

Term	Week Beg.	Topic	Learning Objectives
1	29th August (2 days)	4.1.1 Simple phenomena of magnetism	Describe the forces between magnetic poles and between magnets and magnetic materials, including the use of the terms north pole (N pole), south pole (S pole), attraction and repulsion, magnetised and unmagnetised Describe induced magnetism State the difference between magnetic and non-magnetic materials
	5th September	4.1.5 Simple phenomena of magnetism	Describe a magnetic field as a region in which a magnetic pole experiences a force Draw the pattern and direction of the magnetic field lines around a bar magnet State that the direction of a magnetic field at a point is the direction of the force on the N pole of a magnet at that point Describe the plotting of magnetic field lines with a compass or iron filings and the use of a compass to determine the direction of the magnetic field Explain that magnetic forces are due to interactions between magnetic fields Know that the relative strength of a magnetic field is represented by the spacing of the magnetic field lines
	12th September	4.1.3 Simple phenomena of magnetism	State the differences between the properties of temporary magnets (made of soft iron) and the properties of permanent magnets (made of steel) Describe uses of permanent magnets and electromagnets
	19th September	4.5.3.1 Magnetic effect of current	Describe the pattern and direction of the magnetic field due to currents in straight wires and in solenoids

			Describe an experiment to identify the pattern of a magnetic field (including direction) due to currents in straight wires and solenoids State the qualitative variation of the strength of the magnetic field around straight wires and solenoids Describe the effect on the magnetic field around straight wires and solenoids of changing the magnitude and direction of current
	26th September	4.2.1.1 Electric charge	State that there are positive and negative charges State that positive charges repel other positive charges, negative charges repel other negative charges, but positive charges attract negative charges State that there are positive and negative charges State that positive charges repel other positive charges, negative charges repel other negative charges, but positive charges attract negative charges Describe simple experiments to show the production of electrostatic charges by friction and to show the detection of electrostatic charges Explain that charging of solids by friction involves only a transfer of negative charge (electrons) State that charge is measured in coulombs
	3rd October	**HOLIDAY**	
	10th October	4.2.1.8 Electric charge	Describe an electric field as a region in which an electric charge experiences a force State that the direction of an electric field at a point is the direction of the force on a positive charge at that point Describe simple electric field patterns, including the direction of the field: (a) around a point charge (b) around a charged conducting sphere (c) between two oppositely charged parallel conducting plates (end effects will **not** be examined)
	17th October	4.2.1.5 Electric charge 4.2.2.3 Electric current	Describe an experiment to distinguish between electrical conductors and insulators

			Recall and use a simple electron model to explain the difference between electrical conductors and insulators and give typical examples Describe electrical conduction in metals in terms of the movement of free electrons
	24th October	4.2.2.1 Electric current 4.3.2.1 Series and parallel circuits	Know that electric current is related to the flow of charge Describe the use of ammeters (analogue and digital) with different ranges Know the difference between direct current (d.c) and alternating current (a.c.) Define electric current as the charge passing a point per unit time; recall and use the equation: $I=\frac{Q}{t}$ State that conventional current is from positive to negative and that the flow of electrons is from negative to positive Know that the current at every point in a series circuit is the same State that, for a parallel circuit, the current from the source is larger than the current in each branch Recall and use in calculations, the fact that: (a) the sum of the currents entering a junction in a parallel circuit is equal to the sum of the currents that leave the junction Explain that the sum of the currents into a junction is the same as the sum of the currents out of the junction
	31st October	4.2.3.1 Electromotive force and potential difference 4.3.2.3 Series and parallel circuits 4.2.4.1 Resistance	Define electromotive force (e.m.f) as the electrical work done by a source in moving a unit charge around a complete circuit Know that e.m.f is measured in volts (V) Define potential difference (p.d) as the work done by a unit charge passing through a component Know that p.d between two points is measured in volts (V) Describe the use of voltmeters (analogue and digital) with different ranges Recall and use the equation for e.m.f $E=\frac{W}{Q}$

			Recall and use the equation for p.d $V=\frac{W}{Q}$ Calculate the combined e.m.f of several sources in series Recall and use in calculations, the fact that: (b) the total p.d across the components in a series circuit is equal to the sum of the individual p.d.s across each component (c) the p.d across an arrangement of parallel resistances is the same as the p.d across one branch in the arrangement of the parallel resistances
	7th November	4.3.1.1 Circuit diagrams and circuit components 4.2.5.1 Electrical energy and electrical power	Draw and interpret circuit diagrams containing cells, batteries, power Draw and interpret circuit diagrams containing cells, batteries, power supplies, generators, potential dividers, switches, resistors (fixed and variable), heaters, thermistors (NTC only), light-dependent resistors (LDRs), lamps, motors, ammeters, voltmeters, magnetising coils, transformers, fuses, relays, and know how these components behave in the circuit Draw and interpret circuit diagrams containing diodes and light-emitting diodes (LEDs), and know how these components behave in a circuit Know how to construct and use series and parallel circuits State the advantages of connecting lamps in parallel in a lighting circuit Know that the p.d across an electrical conductor increases as its resistance increases for a constant current Describe the action of a variable potential divider Recall and use the equation for two resistors used as a potential divider $\frac{R_1}{R_2}=\frac{V_1}{V_2}$ Understand that electric circuits transfer energy from a source of electrical energy, such as an electrical cell or mains supply, to the circuit components and then into the surroundings Recall and use the equation for electrical power $P=IV$

			Recall and use the equation for electrical energy $E=IVt$ Define the kilowatt-hour (kW h) and calculate the cost of using electrical appliances where the energy unit is the kW h
	14th November	4.4.1 Electrical safety 4.5.3.3 Magnetic effect of a current 4.5.4.1 Force on a current-carrying conductor	State the hazards of: (a) damaged insulation (b) overheating cables (c) damp conditions (d) excess current from overloading of plugs, extension leads, single and multiple sockets when using a mains supply Know that a mains circuit consists of a live wire (line wire), a neutral wire and an earth wire and explain why a switch must be connected to the live wire for the circuit to be switched off safely Explain the use and operation of trip switches and fuses and choose appropriate fuse ratings and trip switch settings Explain why the outer casing of an electrical appliance must be either non-conducting (double insulated) or earthed State that a fuse without an earth wire protects the circuit and the cabling for a double-insulated appliance Describe how the magnetic effect of a current is used in relays and loudspeakers and give examples of their application Describe an experiment to show that a force acts on a current-carrying conductor in a magnetic field, including the effect of reversing: (a) the current (b) the direction of the field (c) Recall and use the relative directions of force, magnetic field and current Determine the direction of the force on beams of charged particles in a magnetic field
	21st November	4.5.5.1 The d.c. motor 4.5.1.1 Electro-magnetic induction	Know that a current-carrying coil in a magnetic field may experience a turning effect and that the turning effect is increased by increasing: (a) the number of turns on the coil

			(b) the current (c) the strength of the magnetic field Describe the operation of an electric motor, including the action of a split-ring commutator and brushes Know that a conductor moving across a magnetic field or a changing magnetic field linking with a conductor can induce an e.m.f in the conductor Describe an experiment to demonstrate electromagnetic induction State the factors affecting the magnitude of an induced e.m.f Know that the direction of an induced e.m.f opposes the change causing it State and use the relative directions of force, field and induced current
	28th November	4.5.2.1 The a.c. generator 4.5.6.1 The transformer	Describe a simple form of a.c. generator (rotating coil or rotating magnet) and the use of slip rings and brushes where needed Sketch and interpret graphs of e.m.f. against time for simple a.c. generators and relate the position of the generator coil to the peaks, troughs and zeros of the e.m.f. Describe the construction of a simple transformer with a soft iron core, as used for voltage transformations Use the terms primary, secondary, step-up and step-down Recall and use the equation $\frac{V_P}{V_S} = \frac{N_P}{N_S}$ where *p* and *s* refer to primary and secondary Describe the use of transformers in high-voltage transmission of electricity State the advantages of high-voltage transmission Explain the principle of operation of a simple iron-cored transformer

			Recall and use the equation for 100% efficiency in a transformer $I_pV_p = I_sV_s$ where *p* and *s* refer to primary and secondary Recall and use the equation $P = I^2R$ to explain why power losses in cables are smaller than the voltage is greater
	5th December		**End of Term Exams (6 – 10)**
	12th December		**Mock Exams (11 – 13) TBD**
	19th December	**HOLIDAY**	
Term	**Week Beg.**	**Topic**	**Learning Objectives**
2	2nd January (3 days)	5.1.1.1 The atom	Describe the structure of an atom in terms of a positively charged nucleus and negatively charged electrons in orbit around the nucleus Know how atoms may form positive ions by losing electrons or form negative ions by gaining electrons Describe how the scattering of alpha (α) particles by a sheet of thin metal supports the nuclear model of the atom, by providing evidence for: (a) a very small nucleus surrounded by mostly empty space (b) a nucleus containing most of the mass of the atom (c) a nucleus that is positively charged
	9th January	5.1.2.1 The nucleus 5.2.2.1 The three types of emission	Describe the composition of the nucleus in terms of protons and neutrons State the relative charges of protons, neutrons and electrons as +1, 0 and -1 respectively Define the terms proton number (atomic number), *Z* and nucleon number (mass number), *A* and be able to calculate the number of neutrons in a nucleus Use the nuclide notation ${}^{A}_{Z}X$ Explain what is meant by an isotope and state that an element may have more than one isotope

			Know the relationship between the proton number and the relative charge on a nucleus Know the relationship between the nucleon number and the relative mass of a nucleus Describe the emission of radiation from a nucleus as spontaneous and random in direction Identify alpha (α), beta (β) and gamma (γ) emissions from the nucleus by recalling: (a) their nature (b) their relative ionising effects (c) their relative penetrating abilities (β^+ are not included, β-particles will be taken to refer to β^-) Describe the deflection of α-particles, β-particles and γ-radiation in electric fields and magnetic fields Explain their relative ionising effects with reference to: (a) kinetic energy (b) electric charge
	16th January	5.2.3.1 Radioactive decay 5.2.1.1 Detection of radioactivity 5.2.4.1 Half-life	Know that radioactive decay is a change in an unstable nucleus that can result in the emission of α-particles or β-particles and/or γ-radiation and know that these changes are spontaneous and random State that during α-decay or β-decay, the nucleus changes to that of a different element Know that isotopes of an element may be radioactive due to an excess of neutrons in the nucleus and/or the nucleus being too heavy Describe the effect of α-decay, β-decay and γ-emissions on the nucleus, including an increase in stability and a reduction in the number of excess neutrons; the following change in the nucleus occurs during β-emission neutron→proton+electron Use decay equations, using nuclide notation, to show the emission of α-particles, β-particles and γ-radiation Know what is meant by background radiation

			Know the sources that make a significant contribution to background radiation including: (a) radon gas (in the air) (b) rocks and buildings (c) food and drink (d) cosmic rays Know that ionising radiation can be measured using a detector connected to a counter Use count rate measured in counts/s or counts/minute Use measurements of background radiation to determine a corrected count rate Define the half-life of a particular isotope as the time taken for half the nuclei of that isotope in any sample to decay; recall and use this definition in simple calculations, which might involve information in tables or decay curves (calculations will not include background radiation) Calculate half-life from data or decay curves from which background radiation has been subtracted Explain how the type of radiation emitted and the half-life of the isotope determine which isotope is used for applications including: (a) household fire (smoke) alarms (b) irradiating food to kill bacteria (c) sterilisation of equipment using gamma rays (d) measuring and controlling thicknesses of materials with the choice of radiations used linked to penetration and absorption (e) diagnosis and treatment of cancer using gamma rays
	23rd January	**HOLIDAY**	
	30th January (3 days)	5.1.2.6 The nucleus 5.2.5.1 Safety precautions	Describe the processes of nuclear fission and nuclear fusion as the splitting or joining of nuclei, to include the nuclide equation and qualitative description of mass and energy changes without values State the effects of ionising radiations on living things, including cell death, mutations and cancer Describe how radioactive materials are moved, used and stored in a safe way

			Explain safety precautions for all ionising radiation in terms of reducing exposure time, increasing distance between source and living tissue and using shielding to absorb radiation
	6th February	6.1.1.1 The Earth	Know that the Earth is a planet that rotates on its axis, which is tilted, once in approximately 24 hours, and use this to explain observations of the apparent daily motion of the Sun and the periodic cycle of day and night Know that the Earth orbits the Sun once in approximately 365 days and use this to explain the periodic nature of the seasons Know that it takes approximately one month for the Moon to orbit the Earth and use this to explain the periodic nature of the Moon's cycle of phases Define average orbital speed from the equation $v = \frac{2\pi r}{T}$, where *r* is the average radius of the orbit and *T* is the orbital period; recall and use this equation
	13th February	6.1.2.1 The Solar System	Describe the Solar System as containing: (a) one star, the Sun (b) the eight named planets and know their order from the Sun (c) minor planets that orbit the Sun, including dwarf planets such as Pluto and asteroids in the asteroid belt (d) moons, that orbit the planets (e) smaller Solar System bodies, including comets and natural satellites Know that, in comparison to each other, the four planets nearest the Sun are rocky and small and the four planets furthest from the Sun are gaseous and large, and explain this difference by referring to an accretion model for Solar System formation, to include: (a) the model's dependence on gravity (b) the presence of many elements in interstellar clouds of gas and dust (c) the rotation of material in the cloud and the formation of an accretion disk Know that the strength of the gravitational field

			(a) at the surface of a planet depends on the mass of the planet (b) around a planet decreases as the distance from the planet increases Know that the Sun contains most of the mass of the Solar System and this explains why the planets orbit the Sun Know that the force that keeps an object in orbit around the Sun is the gravitational attraction of the Sun Know that planets, minor planets and comets have elliptical orbits, and recall that the Sun is not at the centre of the elliptical orbit, except when the orbit is approximately circular Analyse and interpret planetary data about orbital distance, orbital period, density, surface temperature and uniform gravitational field strength at the planet's surface Know that the strength of the Sun's gravitational field decreases and that the orbital speeds of the planets decrease as the distance from the Sun increases Know that an object in an elliptical orbit travels faster when closer to the Sun and explain this using the conservation of energy
	20th February	6.1.2.4 The Solar System	Calculate the time it takes light to travel a significant distance such as between objects in the Solar System
	27th February	6.2.1.1 The Sun as a star	Know that the Sun is a star of medium size, consisting mostly of hydrogen and helium, and that it radiates most of its energy in the infrared, visible and ultraviolet regions of the electromagnetic spectrum Know that stars are powered by nuclear reactions that release energy and that in stable stars the nuclear reactions involve the fusion of hydrogen into helium
	6th March	6.2.2.1 Stars	State that: (a) galaxies are each made up of many billions of stars (b) the Sun is a star in the galaxy known as the Milky Way (c) other stars that make up the Milky Way are much further away from the Earth than the Sun is from the Earth

			(d) astronomical distances can be measured in light-years, where one light-year is the distance travelled in (the vacuum of) space by light in one year Know that one light-year is equal to 9.5×10^{15} m Describe the life cycle of a star: (a) a star is formed from interstellar clouds of gas and dust that contain hydrogen (b) a protostar is an interstellar cloud collapsing and increasing in temperature as a result of its internal gravitational attraction (c) a protostar becomes a stable star when the inward force of gravitational attraction is balanced by an outward force due to the high temperature in the centre of the star (d) all stars eventually run out of hydrogen as fuel for the nuclear reaction (e) most stars expand to form red giants when most of the hydrogen in the centre of the star has been converted to helium (f) a red giant from a less massive star forms a planetary nebula with a white dwarf at its centre (g) a red supergiant explodes as a supernova, forming a nebula containing hydrogen and new heavier elements, leaving behind a neutron star or a black hole at its centre the nebula from a supernova may form new stars with orbiting planets
	13th March	6.2.3.1 The Universe	Know that the Milky Way is one of many billions of galaxies making up the Universe and that the diameter of the Milky Way is approximately 100 000 light-years. Describe redshift as an increase in the observed wavelength of electromagnetic radiation emitted from receding stars and galaxies Know that the light emitted from distant galaxies appears redshifted in comparison to light emitted on the Earth Know that redshift in the light from distant galaxies is evidence that the Universe is expanding and supports the Big Bang theory

			Know that the Milky Way is one of many billions of galaxies making up the Universe and that the diameter of the Milky Way is approximately 100 000 light-years. Describe redshift as an increase in the observed wavelength of electromagnetic radiation emitted from receding stars and galaxies Know that the light emitted from distant galaxies appears redshifted in comparison to light emitted on the Earth Know that redshift in the light from distant galaxies is evidence that the Universe is expanding and supports the Big Bang theory Know that microwave radiation of a specific frequency is observed at all points in space around us and is known as cosmic microwave background radiation (CMBR) Explain that the CMBR was produced shortly after the Universe was formed and that this radiation has been expanded into the microwave region of the electromagnetic spectrum as the Universe expanded Know that the speed *v* at which a galaxy is moving away from the Earth can be found from the change in wavelength of the galaxy's starlight due to redshift Know that the distance of a far galaxy *d* can be determined using the brightness of a supernova in that galaxy Define the Hubble constant H_0 as the ratio of the speed at which the galaxy is moving away from the Earth to its distance from the Earth; recall and use the equation $H_0 = \frac{v}{d}$ Know that the current estimate for H_0 is 2.2 x 10^{-18} per second Know that the equation $\frac{d}{v} = \frac{1}{H_0}$ represents an estimate for the age of the Universe and that this is evidence for the idea that all matter in the Universe was present at a single point
	20th March		**End of Term Exams (6 – 10)**
	27th March	Review	
	3rd April	**HOLIDAY**	

Term	Week Beg.	Topic	Learning Objectives
3	10th April	Review	
	17th April		**Mock Exams (11 – 13) TBD**
	24th April		
	1st May		
	8th May		
	15th May		
	22nd May		
	29th May		
	5th June		
	12th June		**End of Year Exams (6 – 10)**
	19th June (3 days)		

Curriculum Plan **Academic Year 2022-23**

Subject: Mathematics **Year**: 11
Exam Board: Cambridge IGCSE **Syllabus Code**:

	Term 1	Term 2	Term 3
	Graphs of Functions Mensuration Ordering and Set Notation Ratio, Proportion and Rate Number Sequences Indices Proportion Symmetry Estimation and Limits of Accuracy	Standard Form Completing the Square/Solving Equations Linear Programming Functions Trigonometry II Vectors Probability Transformations Differentiation	Review and revision for final examinations
Assessment	End of topic assessments and the first mock examination	End of topic assessments and assessed past papers	Second formal mock examination, assessed past papers and the IGCSE examinations

Curriculum Plan

Academic Year 2022-23:

Subject: IGCSE 1st Language Chinese **Year: Y11**

Exam Board: CIE **Syllabus Code: 0509**

	Term 1	Term 2	Term 3
	快乐源泉 **生活小百科** **主题下包括：** 描写与叙述 议论与讨论 指导写作及文言文 **历年考卷复习**	**历年考卷复习** **主题下包括:** 描写与叙述 议论与讨论 指导写作及文言文 **历年考卷复习**	
Assessment	**单元练习** **Mock Exam**	**单元练习**	**IGCSE Exam**

BRITANNICA INTERNATIONAL SCHOOL, SHANGHAI

Curriculum Plan

Academic Year 2022-23:

Subject: Mandarin Foreign language **Year**: Y11
Exam Board: CIE **Syllabus Code**: 0547

	Term 1	Term 2	Term 3
	Weather and climate Transportation Travel experience and planning a trip Public service and customs Work experience and future education and career plans Chinese festivals Technology and social media Learning Chinese as a foreign language Saving the planet Revision	Revision of topics from A1 to A4 Revision of topics from B1 to B4 Revision of topics from C1 to C9 Revision with past paper	Revision with past paper
Assessment	**Formative assessment on each topic.** **Mock Exam**	**Formative assessment on each topic.** **Mock Exam**	**IGCSE Exam**

BRITANNICA INTERNATIONAL SCHOOL, SHANGHAI

Curriculum Plan **Academic Year 2022-23**

Subject: Art & Design **Year**: 11
Exam Board: CIE **Syllabus Code**: 0410

	Term 1	Term 2	Term 3
	The students will be introduced to the IGCSE Cambridge Art & Design course and understand the assessment criteria and its requirements. Students will begin to select and rehearse their performance pieces based on the grading criteria, they will then begin to start weekly practice on these and target areas for improvement.	Students will continue to develop their compositions, become more familiar with the Set Works and continue to improve their performances, ready for recording. The Five Assessment Objectives (AO) re: A01 -Gathering, recording, research, and investigation AO2 – Exploration and development of ideas AO3 – Organisation and relationships of visual and/or other forms AO4-Selection and control of materials, media and processes AO5 – Personal vision and presentation	Students will continue to develop coursework through a variety of dry and wet media and mixed media based on their theme of Expressive Portraits. Students will have a full body of Portfolio work to meet the following IGCSE Assessment Objectives (AO): A01 - Gathering, recording, research, and investigation; AO2 – Exploration and development of ideas; AO3 – Organisation and relationships of visual and/or other forms; AO4-Selection and control of materials, media and processes; AO5 – Personal vision and presentation.
Assessment	AO1, AO2, AO3 skills assessed	AO1, AO2, AO3 skills assessed	AO1, AO2, AO3 skills assessed

Curriculum Plan **Academic Year 2022-23**

Subject: iGCSE Biology **Year**: 11
Exam Board: Cambridge International Examinations (CIE) **Syllabus Code**: 0610

	Term 1	Term 2	Term 3
	Disease & Immunity **Excretion in humans** **Coordination and response** **Drug**	**Reproduction** **Inheritance** **Variation & Selection** **Organisms and their environment**	**Human influences on ecosystems** **Biotechnology & genetic modification**
Assessment	End of Unit Tests, Exam based questions Practice Papers	End of Unit Tests, Exam based questions Practice Papers	End of Unit Tests, Exam based questions Practice Papers

Curriculum Plan **Academic Year 2022-23**

Subject: IGCSE Geography Y11 **Year**: 11
Exam Board: CIE Cambridge **Syllabus Code**:

	Term 1	Term 2	Term 3
	Development Inequalities between and within countries. Classification of production into different sectors with illustrations of each. The proportions employed in each sector vary according to the level of development The process of globalization its impacts **Globalisation** The process of globalisation, and its impacts **Food Production** The main features of an agricultural system: inputs, processes and outputs Farming types: commercial and subsistence; arable, pastoral and mixed; intensive and extensive. Their combined influences on the scale of production.	**Industry** Industrial system: inputs, processes and outputs (products and waste) Industry types: manufacturing, processing, assembly and high technology industry Location of factories and industrial zones. The influence of land, labour, raw materials and fuel and power, transport, markets and political factors **Energy** Non-renewable fossil fuels, renewable energy supplies, nuclear power and fuelwood. The benefits and disadvantages of nuclear power and renewable energy sources Case Study: Energy supply in a country or area.	**Water** Methods of water supply and the proportions of water used for agriculture, domestic and industrial purposes in countries at different levels of economic development Water shortages and management **Case study** Water supply in a country or area. **Environmental risks of economic development** Economic activities threats to the natural environment and people, locally and globally Sustainable development and management. The importance of resource conservation. Case Study: An area where economic development is taking place and causing

	Case Studies: A farm or agricultural system; A country or region suffering from food shortages	**Tourism** the growth of tourism in relation to the main attractions of the physical and human landscape The benefits and disadvantages of tourism to receiving areas Management for sustainability	the environment to be at risk.
Assessment	Past/specimen papers and mark schemes	Past/specimen papers and mark schemes	Past/specimen papers and mark schemes

Curriculum Plan

Academic Year 2022-23:

Subject: Global Perspectives
Exam Board: Cambridge

Year: 11
Syllabus Code: 0457

	Term 1	Term 2	Term 3
	Collaboration Skills • Team Work • Decision Making • Creativity • Memory • Note-Taking • Reflection • Evaluation • Developing Independent Learning Skills • Establishing Independent Learning Skills • Enhancing Independent Learning Skills	**Information Skills** • Perspectives • Research • Analysis • Synthesis • Planning • Questioning **Critical Thinking Skills** • Reasoning • Evidence • Claims • Drawing Conclusions • Bias & vested Interest	**Revision** • Exam practice for the written paper
Assessment	**Team Project raising awareness of a chosen issue**	**Independent Report 2000 word research essay**	**IGCSE written examination**