



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: AS English Language

Year: 12

Teacher's Name: Craig Arnold

| Term | Week Beg. | Topic | Learning Objectives |
|------|---------------------------|--------------------------------------|---|
| 2 | 3 rd January | Paper 2: Writing Q2 | To understand the conventions of particular text types |
| | 10 th January | Narrative and Descriptive Writing | To understand the main conventions of narrative writing and Freytag's Pyramid |
| | 17 th January | Narrative Writing | To write, edit and redraft own narrative To understand how redrafting shapes the writing process |
| | 24 th January | Paper 2 Q2 cont. | To understand the requirements of the extended writing task |
| | 14 th February | Paper 2 Q2 cont. | Compare answers with sample answers and examiner feedback |
| | 21 st February | Paper 2 Q2 cont. | To understand the requirements for an effective extended writing response |
| | 28 th February | Paper 2 cont. | To explore how writers make an impact in stories and descriptive texts |
| | 7 th March | Paper 2 cont. | To reflect on and evaluate the qualities of writing produced including purpose, form and audience |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: AS English Language

Year: 12

Teacher's Name: Craig Arnold

| | | | |
|------------------------|---|--|---|
| | | | |
| 14 th March | Identify the features of discursive and argumentative writing | | To reflect and identify the features of discursive and argumentative writing |
| 21 st March | Paper 2 | | To explore how speeches that argue a point create an impact on the reader |
| 28 th March | Argumentative writing in speeches | | To consolidate understanding of conventions and key features within argumentative writing |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Mathematics

Year: 12

Teacher's Name: Mr Cox

| Term | Week Beg. | Topic | Learning Objectives |
|------|---------------------------|--|--|
| 2 | 3 rd January | P2: Ch 5: Sequence and Series (cont) | <ul style="list-style-type: none"> ● Sum of Infinity ● Sigma Notation ● Recurrence Relations ● Modelling with Series |
| | 10 th January | P2: Ch 6: Trigonometric Identities and Equations | <ul style="list-style-type: none"> ● Angles in all Four Quadrants ● Exact Values of Trigonometric Ratios ● Trigonometric Identities ● Solving Simple Trigonometric Equations ● Harder Trigonometric Equations ● Equations and Identities |
| | 17 th January | P2: Ch 7: Differentiation | <ul style="list-style-type: none"> ● Increasing and Decreasing Functions ● Stationary Points ● Sketching Gradient Functions ● Modelling with Differentiation |
| | 24 th January | P2: Ch 8: Integration | <ul style="list-style-type: none"> ● Definite Integrals ● Areas Under Curves ● Areas Under the x-axis ● Areas Between Curves and Lines ● Areas Between Two Curves ● The Trapezium Rule |
| | 14 th February | S1: Ch 1: Mathematical Modelling S1: Ch 2: Measure of Location and Spread | <ul style="list-style-type: none"> ● Types of Data ● Measure of Central Tendency ● Other measure of Location ● Measures of Spread ● Variance and Standard Deviation ● Coding |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Mathematics

Year: 12

Teacher's Name: Mr Cox

| | | |
|---------------------------|--------------------------------------|--|
| 21 st February | S1: Ch 3: Representation of Data | <ul style="list-style-type: none"> ● Histogram ● Outliers ● Box plots ● Stem and Leaf Diagrams ● Skewness ● Comparing Data |
| 28 th February | S1: Ch 4: Probability | <ul style="list-style-type: none"> ● Understanding the Vocabulary Used in Probability ● Venn Diagram ● Mutually Exclusive and Independent Events ● Set Notation ● Conditional Probability ● Conditional Probabilities in Venn Diagrams ● Probability Formula ● Tree Diagrams |
| 7 th March | | |
| 14 th March | S1: Ch 5: Correlation and Regression | <ul style="list-style-type: none"> ● Scatter Diagrams ● Linear Regression ● Calculating Least Squares: Linear Regression ● The Product Moment Correlation Coefficient |
| 21 st March | S1: Ch 6: Discrete Random Variables | <ul style="list-style-type: none"> ● Discrete Random Variable ● Finding the Cumulative Distribution Function for a Discrete Random Variable ● Expected Value of a Discrete Random Variable ● Variance of a Discrete Random Variable ● Expected Value and Variance of a Function of X ● Solving Problems Involving Random Variables ● Using Discrete Uniform Distribution as a Model for the Probability Distribution of the Outcomes of Certain Experiments |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Mathematics
Year: 12
Teacher's Name: Mr Cox

| | | | |
|--|------------------------|-----------------------------------|---|
| | 28 th March | S1: Ch 7: The Normal Distribution | <ul style="list-style-type: none">● The Normal Distribution● Using Tables to Find the Probabilities of the Standard Normal Distribution Z● Using Tables to Find the Value of z Giving a Probability |
|--|------------------------|-----------------------------------|---|



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Chemistry AS Level

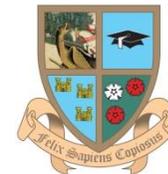
Year: 12

Teacher's Name: Ms Y Tsang

| Term | Week Beg. | Topic | Learning Objectives |
|------|-------------------------|---|--|
| 2 | 3 rd January | 13.1 Formulae, functional groups and the naming of organic compounds | <p>1 define the term hydrocarbon as a compound made up of C and H atoms only</p> <p>2 understand that alkanes are simple hydrocarbons with no functional group</p> <p>3 understand that the compounds in the table on page 26 and 27 contain a functional group which dictates their physical and chemical properties</p> <p>4 interpret and use the general, structural, displayed and skeletal formulae of the classes of compound stated in the table on page 26 and 27</p> <p>5 understand and use systematic nomenclature of simple aliphatic organic molecules with functional groups detailed in the table on page 26 and 27, up to six carbon atoms (six plus six for esters, straight chains only for esters and nitriles)</p> <p>6 deduce the molecular and/or empirical formula of a compound, given its structural, displayed or skeletal formula</p> |
| | | 13.2 Characteristic organic reactions | <p>1 interpret and use the following terminology associated with types of organic compounds and reactions:</p> <ul style="list-style-type: none">(a) homologous series(b) saturated and unsaturated(c) homolytic and heterolytic fission(d) free radical, initiation, propagation, termination (the use of arrows to show movement of single electrons is not required)(e) nucleophile, electrophile, nucleophilic, electrophilic(f) addition, substitution, elimination, hydrolysis, condensation(g) oxidation and reduction <p>(in equations for organic redox reactions, the symbol [O] can be used to represent one atom of oxygen from an oxidising agent and the symbol [H] one atom of hydrogen from a reducing agent)</p> <p>2 understand and use the following terminology associated with types of organic mechanisms:</p> <ul style="list-style-type: none">(a) free-radical substitution |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Chemistry AS Level

Year: 12

Teacher's Name: Ms Y Tsang

| | | |
|--------------------------|---|---|
| | | (b) electrophilic addition (c) nucleophilic substitution (d) nucleophilic addition (in organic reaction mechanisms, the use of curly arrows to represent movement of electron pairs is expected; the arrow should begin at a bond or a lone pair of electrons) |
| | 13.3 Shapes of organic molecules; σ and π bonds | 1 describe organic molecules as either straight-chained, branched or cyclic 2 describe and explain the shape of, and bond angles in, molecules containing sp, sp ² and sp ³ hybridised atoms 3 describe the arrangement of σ and π bonds in molecules containing sp, sp ² and sp ³ hybridised atoms 4 understand and use the term planar when describing the arrangement of atoms in organic molecules, for example ethene |
| 10 th January | 13.4 Isomerism: structural and stereoisomerism | 1 describe structural isomerism and its division into chain, positional and functional group isomerism 2 describe stereoisomerism and its division into geometrical (cis/trans) and optical isomerism (use of E, Z nomenclature is acceptable but is not required) 3 describe geometrical (cis/trans) isomerism in alkenes, and explain its origin in terms of restricted rotation due to the presence of π bonds 4 explain what is meant by a chiral centre and that such a centre gives rise to two optical isomers (enantiomers) (Candidates should appreciate that compounds can contain more than one chiral centre, but knowledge of meso compounds, or nomenclature such as diastereoisomers is not required) 5 identify chiral centres and geometrical (cis/trans) isomerism in a molecule of given structural formula including cyclic compounds 6 deduce the possible isomers for an organic molecule of known molecular formula |
| | 14.1 Alkanes | 1 recall the reactions (reagents and conditions) by which alkanes can be produced: (a) addition of hydrogen to an alkene in a hydrogenation reaction, H ₂ (g) and Pt/Ni catalyst and heat (b) cracking of a longer chain alkane, heat with Al ₂ O ₃ 2 describe: |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Chemistry AS Level

Year: 12

Teacher's Name: Ms Y Tsang

| | | |
|--|---------------------|--|
| | | <p>(a) the complete and incomplete combustion of alkanes</p> <p>(b) the free-radical substitution of alkanes by Cl_2 or Br_2 in the presence of ultraviolet light, as exemplified by the reactions of ethane</p> <p>3 describe the mechanism of free-radical substitution with reference to the initiation, propagation and termination steps</p> <p>4 suggest how cracking can be used to obtain more useful alkanes and alkenes of lower M_r from heavier crude oil fractions</p> <p>5 understand the general unreactivity of alkanes, including towards polar reagents in terms of the strength of the C–H bonds and their relative lack of polarity</p> <p>6 recognise the environmental consequences of carbon monoxide, oxides of nitrogen and unburnt hydrocarbons arising from the combustion of alkanes in the internal combustion engine and of their catalytic removal</p> |
| | 14.2 Alkenes | <p>1 recall the reactions (including reagents and conditions) by which alkenes can be produced:</p> <p>(a) elimination of HX from a halogenoalkane by ethanolic NaOH and heat</p> <p>(b) dehydration of an alcohol, by using a heated catalyst (e.g. Al_2O_3) or a concentrated acid</p> <p>(c) cracking of a longer chain alkane</p> <p>2 describe the following reactions of alkenes:</p> <p>(a) the electrophilic addition of</p> <p>(i) hydrogen in a hydrogenation reaction, $H_2(g)$ and Pt/Ni catalyst and heat</p> <p>(ii) steam, $H_2O(g)$ and H_3PO_4 catalyst</p> <p>(iii) a hydrogen halide, $HX(g)$ at room temperature</p> <p>(iv) a halogen, X_2</p> <p>(b) the oxidation by cold dilute acidified $KMnO_4$ to form the diol</p> <p>(c) the oxidation by hot concentrated acidified $KMnO_4$ leading to the rupture of the carbon–carbon double bond and the identities of the subsequent products to determine the position of alkene linkages in larger molecules</p> <p>(d) addition polymerisation exemplified by the reactions of ethene and propene</p> <p>3 describe the use of aqueous bromine to show the presence of a C=C bond</p> |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Chemistry AS Level

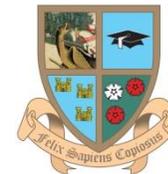
Year: 12

Teacher's Name: Ms Y Tsang

| | | | |
|--------------------------|-----------------------------|--|--|
| | | | <p>4 describe the mechanism of electrophilic addition in alkenes, using bromine / ethene and hydrogen bromide / propene as examples</p> <p>5 describe and explain the inductive effects of alkyl groups on the stability of primary, secondary and tertiary cations formed during electrophilic addition (this should be used to explain Markovnikov addition)</p> |
| 17 th January | 15.1 Halogenoalkanes | | <p>1 recall the reactions (reagents and conditions) by which halogenoalkanes can be produced:</p> <p>(a) the free-radical substitution of alkanes by Cl_2 or Br_2 in the presence of ultraviolet light, as exemplified by the reactions of ethane</p> <p>(b) electrophilic addition of an alkene with a halogen, X_2, or hydrogen halide, $HX(g)$, at room temperature</p> <p>(c) substitution of an alcohol, e.g. by reaction with HX or KBr with H_2SO_4 or H_3PO_4; or with PCl_3 and heat; or with PCl_5; or with $SOCl_2$</p> <p>2 classify halogenoalkanes into primary, secondary and tertiary</p> <p>3 describe the following nucleophilic substitution reactions:</p> <p>(a) the reaction with $NaOH(aq)$ and heat to produce an alcohol</p> <p>(b) the reaction with KCN in ethanol and heat to produce a nitrile</p> <p>(c) the reaction with NH_3 in ethanol heated under pressure to produce an amine</p> <p>(d) the reaction with aqueous silver</p> <p>4 describe the elimination reaction with $NaOH$ in ethanol and heat to produce an alkene as exemplified by bromoethane</p> <p>5 describe the SN_1 and SN_2 mechanisms of nucleophilic substitution in halogenoalkanes including the inductive effects of alkyl groups</p> <p>6 recall that primary halogenoalkanes tend to react via the SN_2 mechanism; tertiary halogenoalkanes via the SN_1 mechanism; and secondary halogenoalkanes by a mixture of the two, depending on structure</p> <p>7 describe and explain the different reactivities of halogenoalkanes (with particular reference to the relative strengths of the $C-X$ bonds as exemplified by the reactions of halogenoalkanes with aqueous silver nitrates)</p> |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Chemistry AS Level

Year: 12

Teacher's Name: Ms Y Tsang

| | | |
|--|--|--|
| | | <p>16.1 Alcohols</p> <p>1 recall the reactions (reagents and conditions) by which alcohols can be produced:</p> <ul style="list-style-type: none">(a) electrophilic addition of steam to an alkene, $\text{H}_2\text{O}(\text{g})$ and H_3PO_4 catalyst(b) reaction of alkenes with cold dilute acidified potassium manganate(VII) to form a diol(c) substitution of a halogenoalkane using $\text{NaOH}(\text{aq})$ and heat(d) reduction of an aldehyde or ketone using NaBH_4 or LiAlH_4(e) reduction of a carboxylic acid using LiAlH_4(f) hydrolysis of an ester using dilute acid or dilute alkali and heat <p>2 describe:</p> <ul style="list-style-type: none">(a) the reaction with oxygen (combustion)(b) substitution to halogenoalkanes, e.g. by reaction with HX or KBr with H_2SO_4 or H_3PO_4; or with PCl_3 and heat; or with PCl_5; or with SOCl_2(c) the reaction with $\text{Na}(\text{s})$(d) oxidation with acidified $\text{K}_2\text{Cr}_2\text{O}_7$ or acidified KMnO_4 to:<ul style="list-style-type: none">(i) carbonyl compounds by distillation(ii) carboxylic acids by refluxing(primary alcohols give aldehydes which can be further oxidised to carboxylic acids, secondary alcohols give ketones, tertiary alcohols cannot be oxidised)(e) dehydration to an alkene, by using a heated catalyst, e.g. Al_2O_3 or a concentrated acid(f) formation of esters by reaction with carboxylic acids and concentrated H_2SO_4 or H_3PO_4 as catalyst as exemplified by ethanol <p>3 (a) classify alcohols as primary, secondary and tertiary alcohols, to include examples with more than one alcohol group</p> <p>(b) state characteristic distinguishing reactions, e.g. mild oxidation with acidified $\text{K}_2\text{Cr}_2\text{O}_7$, colour change from orange to green</p> <p>4 deduce the presence of a $\text{CH}_3\text{CH}(\text{OH})-$ group in an alcohol, $\text{CH}_3\text{CH}(\text{OH})-\text{R}$, from its reaction with alkaline $\text{I}_2(\text{aq})$ to form a yellow precipitate of tri-iodomethane and an ion, RCO_2-</p> <p>5 explain the acidity of alcohols compared with water</p> |
|--|--|--|



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Chemistry AS Level

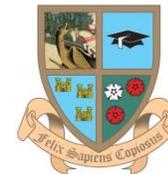
Year: 12

Teacher's Name: Ms Y Tsang

| | | |
|---------------------------|-----------------------------------|---|
| 24 th January | 17.1 Aldehydes and ketones | <p>1 recall the reactions (reagents and conditions) by which aldehydes and ketones can be produced:</p> <p>(a) the oxidation of primary alcohols using acidified $K_2Cr_2O_7$ or acidified $KMnO_4$ and distillation to produce aldehydes</p> <p>(b) the oxidation of secondary alcohols using acidified $K_2Cr_2O_7$ or acidified $KMnO_4$ and distillation to produce ketones</p> <p>2 describe:</p> <p>(a) the reduction of aldehydes and ketones, using $NaBH_4$ or $LiAlH_4$ to produce alcohols</p> <p>(b) the reaction of aldehydes and ketones with HCN, KCN as catalyst, and heat to produce hydroxynitriles</p> <p>exemplified by ethanal and propanone</p> <p>3 describe the mechanism of the nucleophilic addition reactions of hydrogen cyanide with aldehydes and ketones in 17.1.2(b)</p> <p>4 describe the use of 2,4-dinitrophenylhydrazine (2,4-DNPH reagent) to detect the presence of carbonyl compounds</p> <p>5 deduce the nature (aldehyde or ketone) of an unknown carbonyl compound from the results of simple tests (Fehling's and Tollens' reagents; ease of oxidation)</p> <p>6 deduce the presence of a CH_3CO- group in an aldehyde or ketone, CH_3CO-R, from its reaction with alkaline $I_2(aq)$ to form a yellow precipitate of tri-iodomethane and an ion, RCO_2-</p> |
| 14 th February | 18.1 Carboxylic acids | <p>1 recall the reactions by which carboxylic acids can be produced:</p> <p>(a) oxidation of primary alcohols and aldehydes with acidified $K_2Cr_2O_7$ or acidified $KMnO_4$ and refluxing</p> <p>(b) hydrolysis of nitriles with dilute acid or dilute alkali followed by acidification</p> <p>(c) hydrolysis of esters with dilute acid or dilute alkali and heat followed by acidification</p> <p>2 describe:</p> <p>(a) the redox reaction with reactive metals to produce a salt and $H_2(g)$</p> <p>(b) the neutralisation reaction with alkalis to produce a salt and $H_2O(l)$</p> <p>(c) the acid-base reaction with carbonates to produce a salt and $H_2O(l)$ and $CO_2(g)$</p> <p>(d) esterification with alcohols with concentrated H_2SO_4 as catalyst</p> |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Chemistry AS Level

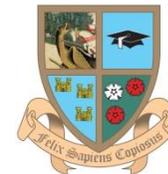
Year: 12

Teacher's Name: Ms Y Tsang

| | | |
|---------------------------|--|---|
| | | (e) reduction by LiAlH ₄ to form a primary alcohol |
| | 18.2 Esters | 1 recall the reaction (reagents and conditions) by which esters can be produced: (a) the condensation reaction between an alcohol and a carboxylic acid with concentrated H ₂ SO ₄ as catalyst 2 describe the hydrolysis of esters by dilute acid and by dilute alkali and heat |
| 21 st February | 19.1 Primary amines | 1 recall the reactions by which amines can be produced: (a) reaction of a halogenoalkane with NH ₃ in ethanol heated under pressure Classification of amines will not be tested at AS Level. |
| | 19.2 Nitriles and hydroxynitriles | 1 recall the reactions by which nitriles can be produced: (a) reaction of a halogenoalkane with KCN in ethanol and heat 2 recall the reactions by which hydroxynitriles can be produced: (a) the reaction of aldehydes and ketones with HCN, KCN as catalyst, and heat 3 describe the hydrolysis of nitriles with dilute acid or dilute alkali followed by acidification to produce a carboxylic acid |
| 28 th February | 20.1 Addition polymerisation | 1 describe addition polymerisation as exemplified by poly(ethene) and poly(chloroethene), PVC 2 deduce the repeat unit of an addition polymer obtained from a given monomer 3 identify the monomer(s) present in a given section of an addition polymer molecule 4 recognise the difficulty of the disposal of poly(alkene)s, i.e. non-biodegradability and harmful combustion products |
| 7 th March | 21.1 Organic synthesis | 1 for an organic molecule containing several functional groups: (a) identify organic functional groups using the reactions in the syllabus (b) predict properties and reactions 2 devise multi-step synthetic routes for preparing organic molecules using the reactions in the syllabus 3 analyse a given synthetic route in terms of type of reaction and reagents used for each step of it, and possible by-products |
| 14 th March | 22.1 Infrared spectroscopy | 1 analyse an infrared spectrum of a simple molecule to identify functional groups (see the Data section for the functional groups required) |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Chemistry AS Level

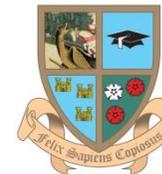
Year: 12

Teacher's Name: Ms Y Tsang

| | | | |
|------------------------|-------------------------------|---|--|
| | | | |
| 21 st March | 22.2 Mass spectrometry | <p>1 analyse mass spectra in terms of m/e values and isotopic abundances (knowledge of the working of the mass spectrometer is not required)</p> <p>2 calculate the relative atomic mass of an element given the relative abundances of its isotopes, or its mass spectrum</p> <p>3 deduce the molecular mass of an organic molecule from the molecular ion peak in a mass spectrum</p> <p>4 suggest the identity of molecules formed by simple fragmentation in a given mass spectrum</p> <p>5 deduce the number of carbon atoms, n, in a compound using the $M + 1$ peak and the formula</p> $n = 100 \times \frac{\text{abundance of } M + 1 \text{ ion}}{\text{abundance of } M \text{ ion}}$ <p>6 deduce the presence of bromine and chlorine atoms in a compound using the $M + 2$ peak</p> | |
| 28 th March | Practical Skills | | |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Biology AS Level

Year: 12

Teacher's Name: Ms Y Tsang

| Term | Week Beg. | Topic | Learning Objectives |
|------|--------------------------|---|---|
| 2 | 3 rd January | 6.1 Structure of nucleic acids and replication of DNA | <p>1 describe the structure of nucleotides, including the phosphorylated nucleotide ATP (structural formulae are not expected)</p> <p>2 state that the bases adenine and guanine are purines with a double ring structure, and that the bases cytosine, thymine and uracil are pyrimidines with a single ring structure (structural formulae for bases are not expected)</p> <p>3 describe the structure of a DNA molecule as a double helix, including:</p> <ul style="list-style-type: none">• the importance of complementary base pairing between the 5' to 3' strand and the 3' to 5' strand (antiparallel strands)• differences in hydrogen bonding between C–G and A–T base pairs• linking of nucleotides by phosphodiester bonds <p>4 describe the semi-conservative replication of DNA during the S phase of the cell cycle, including:</p> <ul style="list-style-type: none">• the roles of DNA polymerase and DNA ligase (knowledge of other enzymes in DNA replication in cells and different types of DNA polymerase is not expected)• the differences between leading strand and lagging strand replication as a consequence of DNA polymerase adding nucleotides only in a 5' to 3' direction <p>5 describe the structure of an RNA molecule, using the example of messenger RNA (mRNA)</p> |
| | 10 th January | 6.2 Protein synthesis | <p>1 state that a polypeptide is coded for by a gene and that a gene is a sequence of nucleotides that forms part of a DNA molecule</p> <p>2 describe the principle of the universal genetic code in which different triplets of DNA bases either code for specific amino acids or correspond to start and stop codons</p> |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Biology AS Level

Year: 12

Teacher's Name: Ms Y Tsang

| | | |
|--------------------------|------------------------------------|---|
| | | <p>3 describe how the information in DNA is used during transcription and translation to construct polypeptides, including the roles of:</p> <ul style="list-style-type: none"> • RNA polymerase • messenger RNA (mRNA) • codons • transfer RNA (tRNA) • anticodons • ribosomes <p>4 state that the strand of a DNA molecule that is used in transcription is called the transcribed or template strand and that the other strand is called the non-transcribed strand</p> <p>5 explain that, in eukaryotes, the RNA molecule formed following transcription (primary transcript) is modified by the removal of non-coding sequences (introns) and the joining together of coding sequences (exons) to form mRNA</p> <p>6 state that a gene mutation is a change in the sequence of base pairs in a DNA molecule that may result in an altered polypeptide</p> <p>7 explain that a gene mutation is a result of substitution or deletion or insertion of nucleotides in DNA and outline how each of these types of mutation may affect the polypeptide produced</p> |
| 17 th January | 7.1 Structure of transport tissues | <p>1 draw plan diagrams of transverse sections of stems, roots and leaves of herbaceous dicotyledonous plants from microscope slides and photomicrographs</p> <p>2 describe the distribution of xylem and phloem in transverse sections of stems, roots and leaves of herbaceous dicotyledonous plants</p> <p>3 draw and label xylem vessel elements, phloem sieve tube elements and companion cells from microscope slides, photomicrographs and electron micrographs</p> <p>4 relate the structure of xylem vessel elements, phloem sieve tube elements and companion cells to their functions</p> |
| 24 th January | 7.2 Transport mechanisms | <p>1 state that some mineral ions and organic compounds can be transported within plants dissolved in water</p> |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Biology AS Level

Year: 12

Teacher's Name: Ms Y Tsang

| | | | |
|---------------------------|----------------------------|--|---|
| | | | <p>2 describe the transport of water from the soil to the xylem through the:</p> <ul style="list-style-type: none"> • apoplast pathway, including reference to lignin and cellulose • symplast pathway, including reference to the endodermis, Casparian strip and suberin <p>3 explain that transpiration involves the evaporation of water from the internal surfaces of leaves followed by diffusion of water vapour to the atmosphere</p> <p>4 explain how hydrogen bonding of water molecules is involved with movement of water in the xylem by cohesion-tension in transpiration pull and by adhesion to cellulose in cell walls</p> <p>5 make annotated drawings of transverse sections of leaves from xerophytic plants to explain how they are adapted to reduce water loss by transpiration</p> <p>6 state that assimilates dissolved in water, such as sucrose and amino acids, move from sources to sinks in phloem sieve tubes</p> <p>7 explain how companion cells transfer assimilates to phloem sieve tubes, with reference to proton pumps and cotransporter proteins</p> <p>8 explain mass flow in phloem sieve tubes down a hydrostatic pressure gradient from source to sink</p> |
| 14 th February | 8.1 The circulatory system | | <p>1 state that the mammalian circulatory system is a closed double circulation consisting of a heart, blood and blood vessels including arteries, arterioles, capillaries, venules and veins</p> <p>2 describe the functions of the main blood vessels of the pulmonary and systemic circulations, limited to pulmonary artery, pulmonary vein, aorta and vena cava</p> <p>3 recognise arteries, veins and capillaries from microscope slides, photomicrographs and electron micrographs and make plan diagrams showing the structure of arteries and veins in transverse section (TS) and longitudinal section (LS)</p> <p>4 explain how the structure of muscular arteries, elastic arteries, veins and capillaries are each related to their functions</p> <p>5 recognise and draw red blood cells, monocytes, neutrophils and lymphocytes from microscope slides, photomicrographs and</p> |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Biology AS Level

Year: 12

Teacher's Name: Ms Y Tsang

| | | |
|---------------------------|--|---|
| | | electron micrographs 6 state that water is the main component of blood and tissue fluid and relate the properties of water to its role in transport in mammals, limited to solvent action and high specific heat capacity 7 state the functions of tissue fluid and describe the formation of tissue fluid in a capillary network |
| 21 st February | 8.2 Transport of oxygen and carbon dioxide | 1 describe the role of red blood cells in transporting oxygen and carbon dioxide with reference to the roles of: <ul style="list-style-type: none">• haemoglobin• carbonic anhydrase• the formation of haemoglobinic acid• the formation of carbaminohaemoglobin 2 describe the chloride shift and explain the importance of the chloride shift 3 describe the role of plasma in the transport of carbon dioxide 4 describe and explain the oxygen dissociation curve of adult haemoglobin 5 explain the importance of the oxygen dissociation curve at partial pressures of oxygen in the lungs and in respiring tissues 6 describe the Bohr shift and explain the importance of the Bohr shift |
| 28 th February | 8.3 The heart | 1 describe the external and internal structure of the mammalian heart 2 explain the differences in the thickness of the walls of the: <ul style="list-style-type: none">• atria and ventricles• left ventricle and right ventricle 3 describe the cardiac cycle, with reference to the relationship between blood pressure changes during systole and diastole and the opening and closing of valves 4 explain the roles of the sinoatrial node, the atrioventricular node and the Purkyne tissue in the cardiac cycle (knowledge of nervous and hormonal control is not expected) |
| 7 th March | 9.1 The gas exchange system | 1 describe the structure of the human gas exchange system, limited to: |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Biology AS Level

Year: 12

Teacher's Name: Ms Y Tsang

| | | |
|------------------------|--------------------------|--|
| | | <ul style="list-style-type: none"> • lungs • trachea • bronchi • bronchioles • alveoli • capillary network <p>2 describe the distribution in the gas exchange system of cartilage, ciliated epithelium, goblet cells, squamous epithelium of alveoli, smooth muscle and capillaries</p> <p>3 recognise cartilage, ciliated epithelium, goblet cells, squamous epithelium of alveoli, smooth muscle and capillaries in microscope slides, photomicrographs and electron micrographs</p> <p>4 recognise trachea, bronchi, bronchioles and alveoli in microscope slides, photomicrographs and electron micrographs and make plan diagrams of transverse sections of the walls of the trachea and bronchus</p> <p>5 describe the functions of ciliated epithelial cells, goblet cells and mucous glands in maintaining the health of the gas exchange system</p> <p>6 describe the functions in the gas exchange system of cartilage, smooth muscle, elastic fibres and squamous epithelium</p> <p>7 describe gas exchange between air in the alveoli and blood in the capillaries</p> |
| 14 th March | 10.1 Infectious diseases | <p>1 state that infectious diseases are caused by pathogens and are transmissible</p> <p>2 state the name and type of pathogen that causes each of the following diseases:</p> <ul style="list-style-type: none"> • cholera – caused by the bacterium <i>Vibrio cholerae</i> • malaria – caused by the protoctists <i>Plasmodium falciparum</i>, <i>Plasmodium malariae</i>, <i>Plasmodium ovale</i> and <i>Plasmodium vivax</i> • tuberculosis (TB) – caused by the bacteria <i>Mycobacterium tuberculosis</i> and <i>Mycobacterium bovis</i> |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Biology AS Level

Year: 12

Teacher's Name: Ms Y Tsang

| | | | |
|------------------------|------------------|--|--|
| | | | <ul style="list-style-type: none">• HIV/AIDS – caused by the human immunodeficiency virus (HIV) 3 explain how cholera, malaria, TB and HIV are transmitted 4 discuss the biological, social and economic factors that need to be considered in the prevention and control of cholera, malaria, TB and HIV (details of the life cycle of the malarial parasite are not expected) |
| 21 st March | 10.2 Antibiotics | | 1 outline how penicillin acts on bacteria and why antibiotics do not affect viruses 2 discuss the consequences of antibiotic resistance and the steps that can be taken to reduce its impact |
| 28 th March | Practical Skills | | |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Computer Science

Year: 7

Teacher's Name: Laurence Bell

| Term | Week Beg. | Topic | Learning Objectives |
|------|---------------------------|--|---|
| 2 | 3 rd January | Sound and video editing: | <ul style="list-style-type: none"> Describe how file sizes depend on sampling rate and sampling resolution |
| | 10 th January | The digital divide | <ul style="list-style-type: none"> Understand that the digital divide can exist between: – people in cities and people in rural areas – the educated and the uneducated – socioeconomic groups – more and less industrially developed nations – high and low performance computers, wireless connections |
| | 17 th January | Spreadsheets: | <ul style="list-style-type: none"> explain the purpose of cells, rows, columns, ranges, worksheets and multiple worksheets in a single data file insert a row and a column, delete a row and a column, resize a row and a column, hide a row and a column use functions (including: sum, average, minimum, maximum, integer, rounding, counting, IF, nested IF, lookup (including: vertical, horizontal), INDEX/MATCH, conditional formulae to include counting, sum, average) use validation rules, extract data search using: text, numeric, date, time, Boolean operators (AND, OR, NOT), >, <, =, .>=, .<=, contains, starts with, ends with sort data (including: ascending, descending) on multiple columns |
| | 24 th January | Normalisation to third normal form (3NF) | Describe the characteristics of data in unnormalized form (0NF), first normal form (1NF), second normal form (2NF) and third normal form (3NF) |
| | 14 th February | Expert systems and other types of processing: | <ul style="list-style-type: none"> explain how the components of an expert system produce possible solutions explain how an expert system can be used by organisations describe the terms backward chaining and forward chaining |
| | 21 st February | Using networks | <ul style="list-style-type: none"> describe the characteristics and purpose of intranets and extranets describe the characteristics and purposes of the internet define the term the internet describe how the internet is used for communication (including: IM, VOIP and news services) discuss the benefits and drawbacks of using the internet |
| | 28 th February | Exam Revision: Past | Papers Paper 1 Theory |
| | 7 th March | Exam Revision: | Past Papers; |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Computer Science

Year: 7

Teacher's Name: Laurence Bell

| | | | |
|------------------------|-----------------------|--|---|
| | | | Paper 1 Theory (WALKTHROUGH) |
| 14 th March | Exam Revision: | | Past Papers Paper 2 Practical |
| 21 st March | Exam Revision: | | Past Papers; Paper 2 Practical (WALKTHROUGH) |
| 28 th March | END of TERM EXAMS | | |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Art & Design

Year: 12

Teacher's Name: Ineke Oosthuizen

| Term | Week Beg. | Topic | Learning Objectives |
|------|---|---|--|
| 2 | 3 rd January 10 th January 17 th January | Media experiments AO2 Explore and select appropriate resources, media, materials, techniques and processes, reviewing and refining ideas as work develops AO3 Develop ideas through investigations informed by contextual and other sources | <p>Learners develop ideas using media experiments</p> <p>At this point in the course learners will be following a variety of interests, processes and using a range of media. Try and direct learners to appropriate media choice that suit their interest. Continually referring back to artists for inspiration is useful.</p> <p>Learners should select an artist that relates to their choice of media and complete an artist study. This includes making a copy of a section of the work and analysing it as in Project 1, Week 6. Learners should annotate their work to outline the media used, technique, characteristics of the process and the effect they give.</p> |
| | 24 th January | Reflect on work AO2 Review and refine ideas as work develops | <p>Use peer / self-assessment to reflect on work completed so far and complete three thumbnail sketches of possible final outcome compositions</p> <ul style="list-style-type: none"> • Learners review their own work and identify strengths in terms of media and process and consider ideas for a final outcome. Share these with a peer explaining their concerns and problems they foresee. • Peer assessment – learner's review each other's work to identify areas that they think have worked well and that could be developed further. • Annotate ideas and reflections making links to artists' research where necessary. <p>Learners reflect on this review of their work and complete three thumbnail sketches of possible final outcomes.</p> |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Art & Design

Year: 12

Teacher's Name: Ineke Oosthuizen

| | | |
|---|--|--|
| <p>14th February 21st February 28th February</p> | <p>Create a final outcome AO4 Present a personal and coherent response that realises intentions and, where appropriate, makes connections between visual and other elements</p> | <p>Learners select the most successful composition option from the three thumbnail sketches and develop this into a final outcome using ideas, media and process from the previous weeks to inform their work. They may adapt and change the work as it progresses and they should be encouraged to annotate and reflect on any changes during this process.</p> |
| <p>7th March 14th March</p> | <p>Select and present work for submission of Component 1 to Cambridge</p> <p>AO4 Present a personal and coherent response that realises intentions and, where appropriate, makes connections between visual and other elements</p> | <p>Select work from Project 1 and Project 2 for submission of Component 1 Coursework, to include a final outcome and a portfolio</p> <p>From the work completed in Project 1 and Project 2, learners select their best outcome; this could be a single response or a series of outcomes (if related).</p> <p>Learners select work from Project 1 and Project 2 that best demonstrates a personal and coherent process leading to the production of the final outcome. Make sure there is evidence of work to cover all of the assessment objectives and select work to be presented on up to a maximum of five sheets of A2 paper or card (learners may use both sides if required).</p> <p>The portfolio should demonstrate that the learner has:</p> <ul style="list-style-type: none"> • Recorded ideas and observations from first-hand studies, such as drawings and photography, and secondary imagery and sources • Explored and experimented with different media, techniques and processes • Carried out in-depth research into artists, designers and cultural influences to inform the development of ideas • Selected, reviewed and refined their work throughout the whole process to plan and produce a personal and coherent outcome. Use peer and self-assessment to review the selection. (F) • Get learners to present their work to a peer and explain why they selected the pieces they did. • In turn their partner can point out any areas they feel are not covered or communicated well. |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Art & Design

Year: 12

Teacher's Name: Ineke Oosthuizen

| | | |
|------------------------|---|---|
| | | <ul style="list-style-type: none"> • Learners should consider how the work has been placed on the A2 sheets and make sure links are made between pieces either visually and /or written. • Get the learners to complete a mark sheet that you create based on the mark scheme in the syllabus to see if there are areas that need more communication or evidence. • Time allowed for reflection and refining the selection. |
| 21 st March | Introduction to Component 2 (total 8 weeks) | <p>Introduce the Externally Set Assignment</p> <ul style="list-style-type: none"> • Start Component 2 Externally Set Assignment, by explaining the process. • Supporting studies – 7 weeks. • 15 hour supervised test – 1 week. • Read through the question paper with the learners. Remind them that the question is to act as a starting point. • Make sure they understand that the supporting studies must be completed before the supervised test and must be taken into the supervised test with them. They will use these to inform their final outcome. Supporting studies must be mounted on up to a maximum of three sheets of A2 paper or card (learners may use both sides if required). Refer to the syllabus and the Cambridge Handbook for more information on presenting and submitting work to Cambridge. • You will already have had access to the question paper and will have had time to create a PowerPoint showing a collection of artists whose work relates in some way to the questions. • Encourage a class discussion gathering ideas for each question generated by these images and collect them by writing them on a board. The class could combine ideas in small groups and feedback to the whole class. • Learners select a question and use photography and second source images to gather initial images that explore the question. |
| 28 th March | Investigation and recording | Explore the question through gathering, recording and investigating using drawings and paintings |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Art & Design

Year: 12

Teacher's Name: Ineke Oosthuizen

| | | | |
|--|--|--|---|
| | | <p>AO1 Record ideas, observations and insights relevant to intentions AO2 Explore and select appropriate resources, media, materials, techniques and processes, reviewing and refining ideas as work develops (use a range of media)</p> | <ul style="list-style-type: none">• Focus on observation from objects relating to the starting point that learners have brought in to class.• Ideas for these will have been generated from their investigations with photography and the initial class discussion. You may also bring in a collection of interesting objects and items that could relate to the questions.• Supply a variety of coloured paper and materials for the learners to choose from to draw on and with.• Learners complete between two and three observational studies each week. Vary the scale and focus in each study. Use a range of media, refer back to Project 1 for ideas.• Learners may work from second source images and own photographs as well as first hand sources. |
|--|--|--|---|



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: AS Media Studies

Year: 12

Teacher's Name: Sebastian Edwards

| Term | Week Beg. | Topic | Learning Objectives |
|------------------------|---------------------------|--|---|
| 2 | 3 rd January | Film Analysis | To recall key cinematic techniques |
| | 10 th January | Film Analysis | To understand representation in media |
| | 17 th January | Film Analysis | To understand micro and macro level analysis |
| | 24 th January | Film Analysis | To understand the mark scheme and apply it to example answers |
| | 14 th February | Film Analysis | To understand how to write analytically |
| | 21 st February | Film Analysis | To understand how to write analytically |
| | 28 th February | Media Industries | To understand the challenges of marketing and distribution |
| | 7 th March | Media Industries | To understand what media industries are by examining case studies |
| | 14 th March | Media Industries | To understand marketing, production, and distribution in media industries |
| | 21 st March | Media Industries | To understand global and local issues and audience consumption |
| 28 th March | Media Industries | To understand what synergy and convergence are in media industries | |



Britannica International School, Shanghai



Secondary Long Term Plan

Subject: Psychology

Year: 12

Teacher's Name: A O'Brien

| Term | Week Beg. | Topic | Learning Objectives |
|------|--------------------------|---|--|
| 2 | 3 rd January | <u>Biological approach</u> Canli et al. study | <p>the psychology that is being investigated</p> <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |
| | 10 th January | <u>Biological approach</u> Dement and Kleitman study | <p>the psychology that is being investigated</p> <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |
| | 17 th January | <u>Biological approach</u> Schachter and Singer study | <p>the psychology that is being investigated</p> <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |



Britannica International School, Shanghai



Secondary Long Term Plan

Subject: Psychology

Year: 12

Teacher's Name: A O'Brien

| | | |
|---------------------------|---|--|
| 24 th January | <p><u>Cognitive approach</u></p> <p>Andrade study</p> | <p>the psychology that is being investigated</p> <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |
| 14 th February | <p><u>Cognitive approach</u></p> <p>Baron-Cohen et al. study</p> | <p>the psychology that is being investigated</p> <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |
| 21 st February | <p><u>Cognitive approach</u></p> <p>Laney et al. study</p> | <p>the psychology that is being investigated</p> <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |
| 28 th February | <p><u>Learning approach</u></p> | <p>the psychology that is being investigated</p> |

Britannica International School, Shanghai

Secondary Long Term Plan



Subject: Psychology

Year: 12

Teacher's Name: A O'Brien

| | | | |
|------------------------|---------------------------------|------------------------------|--|
| | | Bandura et al. study | <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |
| 7 th March | <u>Learning approach</u> | Saavedra and Silverman study | <p>the psychology that is being investigated</p> <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |
| 14 th March | <u>Learning approach</u> | Pepperberg study | <p>the psychology that is being investigated</p> <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |
| 21 st March | <u>Social approach</u> | | the psychology that is being investigated |

Britannica International School, Shanghai

Secondary Long Term Plan



Subject: Psychology

Year: 12

Teacher's Name: A O'Brien

| | | | |
|------------------------|-------------------------------|-----------------------|--|
| | | Milgram study | <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |
| 28 th March | <u>Social approach</u> | Piliavin et al. study | <p>the psychology that is being investigated</p> <ul style="list-style-type: none"> • the background to the study; the aim(s) of the study; the procedure of the study • ethical issues regarding the study • the results of the study, including key quantitative and qualitative findings • the conclusion(s) the psychologist(s) drew from the study • the strengths and weaknesses of all elements of the study • describe and evaluate the research methods used • consider how the study relates to psychological issues and debates • apply the findings of the study to the real world in two different ways |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: AS Business

Year: 12

Teacher's Name: Mr. M. L. O'Brien

| Term | Week Beg. | Topic | Learning Objectives |
|------|--------------------------|---|---|
| 2 | 3 rd January | Start up capital, capital for expansion Working capital | why businesses need finance to start up and to grow why different needs for finance might mean different sources are appropriate the meaning and significance of working capital as a source of finance significance of the distinction between revenue expenditure and capital expenditure |
| | 10 th January | Legal structure and sources of finance Short term finance and long term finance Internal sources External sources Factors influencing the sources of finance Selecting the source of finance | the relationship between the legal structure of a business and its sources of finance distinction between short and long term sources of finance internal sources of finance: retained earnings, sale of unwanted assets, sale and leaseback of non-current assets, working capital external sources of finance: share capital, new partners, venture capital, overdrafts, leasing, hire purchase, bank loans, mortgages, debentures, micro-finance, crowd funding and government grants factors influencing the choice of sources of finance in a given situation: cost, flexibility, need to retain control, the use to which it is put, level of existing debt [but note, at Cambridge International AS Level, candidates will not be expected to know the term 'gearing'] the appropriateness of each possible source in a given situation |
| | 17 th January | Cost information Uses of cost information Break-even analysis | the need for accurate cost data types of costs: fixed, variable, marginal; direct and indirect problems of trying to allocate costs in given situations cost information for decision making purposes, e.g., average, marginal, total costs how costs can be used for pricing decisions how costs can be used to monitor and improve business performance, including using cost information to calculate profits determining the minimum level of production needed to break even or the profit made define, calculate and interpret the margin of safety uses and limitations of break-even analysis |
| | 24 th January | Income statement Statement of financial position Liquidity ratios Profitability ratios | contents of an income statement including: revenue, cost of sales, gross profit, operating profit, profit for the year, retained earnings contents of a statement of financial position including: noncurrent assets, current assets, current liabilities, working capital, net assets, non-current liabilities, reserves and equity acid test ratio, current ratio |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: AS Business

Year: 12

Teacher's Name: Mr. M. L. O'Brien

| | | | |
|---------------------------|--|---------------------------------|---|
| | | Practical use of ratio analysis | gross profit margin, profit margin how each of these ratios is used reasons for the results obtained ways that businesses might try to improve ratio results, including reducing working capital problems |
| 14 th February | Main users of accounts Limitations of published accounts | | comparison of ratios results between businesses limitations of these accounting ratios identification of the kind of information that individual stakeholder groups might seek limitations of the usefulness of published accounts: historical, may not reflect the future, may be out of date, does not reflect qualitative aspects of a business possibility of 'window dressing', may not have d |
| 21 st February | Purposes of cash flow forecasts Cash flow forecasts in practice Methods of improving cash flow | | difference between cash and profits the need to hold a suitable level of cash within a business, and the consequences of not doing so uses of cash flow forecasts construction of cash flow forecasts, including recognising the uncertainty of cash flows interpretation of simple cash flow forecasts from given data amendment of cash flow forecasts in the light of changes in business circumstances how reducing costs or improving the management of trade receivables and trade payables can improve cash flow further methods of improving cash flows: debt factoring, sale and leaseback, leasing, hire purchase recognition of situations in which the various methods of improving cash flow can be used |
| 28 th February | Revision | | N/A |
| 7 th March | Revision | | N/A |
| 14 th March | Revision | | N/A |
| 21 st March | Revision | | N/A |
| 28 th March | Revision | | N/A |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: History

Year: 12

Teacher's Name: Chris Davis

| Term | Week Beg. | Topic | Learning Objectives |
|------------------------|---|------------------------|--|
| 2 | 3 rd January | Leadership of crusades | - Explain the priorities and relationships between the leaders of the First Crusade |
| | 10 th January | | - Explain the rivalries and failures of the leaders of the Second Crusade |
| | 17 th January | | - Explain the rivalries and evaluate the success of the leaders of the Third Crusade |
| | 24 th January | Crusader states | - Describe the geographical and economic features of the Crusader States |
| | 14 th February | | - Evaluate the defensive features of the Crusader States |
| | 21 st February | | - Explain the development of government in the Crusader States |
| | 28 th February | Muslim response | - Describe the early divisions of setbacks suffered by the Muslims before 1099 |
| | 7 th March | | - Explain the growth of Muslim power during 1144-69 |
| | 14 th March | | - Evaluate the factors that led to the Muslims regaining control of Jerusalem |
| | 21 st March | Fourth Crusade | - Describe the forces/leadership of the crusade, its plan and the failure of that plan |
| 28 th March | - Explain the role of Venice - Evaluate the significance of the sack of Constantinople | | |



Britannica International School, Shanghai



Secondary Long-Term Plan 2021-22

Subject: Physical Education

Year: 11-12-13 (Core PE)

Teacher's Name: Anthony Chevrier & Jaco Olivier

| Term | Week Beg. | Topic | Learning Objectives |
|------|---------------------------|-----------------------|--|
| 2 | 3 rd January | Swimming | To learn how to describe and evaluate the quality of their own swimming, and to recognise what needs improving. |
| | 10 th January | Swimming | To learn how to describe and evaluate the quality of their peers swimming, and to recognise what needs improving. |
| | 17 th January | Net/Wall | To learn how to prepare physically for a game of badminton as well as increase their ability to work well with others. |
| | 24 th January | Net/Wall | To learn how to adapt and refine existing skills as well as evaluate the strengths and weaknesses in their own performances and that of others. |
| | 14 th February | Net/Wall | To develop their observational skills and abilities in order to offer advice on how to correct technique. To learn the correct scoring system for doubles. |
| | 21 st February | Net/Wall | To develop knowledge of different doubles formations as well as further develop knowledge on the rules of the game. |
| | 28 th February | Net/Wall | To learn and develop key leadership skills through umpiring. |
| | 7 th March | Net/Wall | To learn how to organise/run a round robin tournament both singles and doubles games. |
| | 14 th March | Striking and Fielding | To learn how to catch the ball from long distances, heights and speeds as well as learn how to throw accurately over arm. To learn how to field the ball at distances including long barriers as well as learn how to consistently bat the ball from a medium paced bowl. To learn how to bowl the ball at a medium height accurately. |

Britannica International School, Shanghai

Secondary Long-Term Plan 2021-22



Subject: Physical Education

Year: 11-12-13 (Core PE)

Teacher's Name: Anthony Chevrier & Jaco Olivier

| | | |
|------------------------|-----------------------|--|
| 21 st March | Striking and Fielding | To learn how to make team decisions appropriately as well as make the decision on who catches the ball if two players go for it at the same time. To learn how to choose who plays in what position on the field. |
| 28 th March | Striking and Fielding | To learn how to identify an appropriate warm up to help skills in oncoming activities (Rounders) as well as learn how to identify and name muscles that are being exercised during activities. To gain an understanding of how to identify wide balls, no balls, high balls, and body balls as well as know the score system and how to umpire |