the LatimerArts College

Ace Your Exams: Topics for Revision 2023

How to use this booklet:

Please review through the topics that you need to revise for each subject.

A good starting point is colour coding or Red, Amber and Green the topics and then start on the Red. You can use GCSEpod, the revision guides Seneca etc to look at these topics.

You can use the planning sheet sent to you and rather than just putting in 2Geography" as a slot to revise, you can use specific topics that you need to focus on.

My key actions/areas of focus are:

English: The Sign of Four		
Context	**Main Characters**	**Themes**
• Arthur Conan Doyle • The Victoria Era • Colonialism • The Jack the Ripper Murders • Attitudes towards the Police • Racism/The fear of 'the other'	• Sherlock Holmes • Mary Morstan • Athelney Jones • Dr Watson • Jonathan Small • Tonga • Thaddeus Sholto	• Appearances • Racism • Wealth • Modesty • Romance • Friendship • Crime and Punishment

English: Macbeth		
Context	**Main Characters**	**Themes**
• Shakespeare's Time • The Divine Right of Kings • Witches and the Supernatural • James I • The Role of Women • Healthcare and Medicine	• Macbeth • Duncan • The Three Witches • Lady Macbeth • Macduff • Banquo	• Unchecked Ambition • Fate vs Free Will • Gender, Masculinity and Femininity • Inversion of the Natural Order • Relationships

English: An Inspector Calls		
Context	**Main Characters**	**Themes**
• J.B. Priestley • Pre and Post-War • Realism and Postmodernism • Socialism • Social and Moral Responsibility • The Titanic	• Arthur Birling • Sybil Birling • Sheila Birling • Eric Birling • The Inspector • Gerald Croft • Eva Smith/Daisy Renton	• Responsibility • Guilt • Age • Class • Gender • The supernatural • Society

Maths: Foundation Paper 1			Maths: Foundation Paper 2			Maths: Foundation Paper 3		
Q		Topic	Q		Topic	Q		Topic
1		Use standard units of time	1		Use standard units of length	1		Order integers
2		Addition - decimals	2		Multiples	2		Form an expression - linear
3		2D shape properties	3		Convert between fractions/decimals	3		Manipulate fractions
4		Solving linear equations	4		Use the inequality symbols	4		Positive powers and roots
5		Multiplication - positive integers	5	a	Positive powers and roots	5	a	Substitution
6	a	Construct frequency tree	5	b	Rounding numbers - decimal places	5	b	Simplifying - single brackets
6	b	Interpret frequency tree	6	a	Interpret pictograms	6		Addition - positive integers
7		Estimate answers	6	b		7	a	Function machines
8		Problem solving with money	6	c		7	b	
9		Division - decimals	7		Calculate median	8	a	Interpret bar charts
10		Multiplication - fractions	8	a	Calculate using bearings	8	b	Calculate mean
11		Perimeter of 2D shapes	8	b		8	c	Interpret bar charts
12	a	Substitution into expressions & formulae	8	c	Scale drawings	8	d	
12	b		8	d		9	a	Factors
13		Order of operations	9		Problem solving with money	9	b	Calculate probabilities
14	a	Sample space diagrams	10		Mixed - four operations	10		Area of compound shapes
14	b	Calculate probabilities	11		Solving linear equations	11		Standard units of time
15		Work with "ratios of ratios"	12	a	Scatter graphs - interpret	12		Order fraction, decimals & %

16	a	Use y = mx + c	12	b		13	a	Circle definitions
16	b	Plot / sketch straight line graphs	12	c	Percentage of an amount	13	b	Area of circles
17		Simplifying ie. A x B = AB	13		Angle facts - around a point	14	a	Use unit pricing
18		Convert into standard form	14		Proportional reasoning	14	b	Interpret plans and elevations
19	a	Change between standard units of volume	15		Generate terms of a sequence	15		Types of number - i.e. square, cubes, odd etc
19	b	Form an expression - linear	16		Relate ratio to fractions	16	a	Similarity
20		Area of circles	17		Convert between fractions and decimals	16	b	
21		Solve problems involving % change	18		Percentage of an amount	17	a	Apply ratio to real contexts and problems
22	a	Use density/mass/volume	19		Apply ratio to real contexts and problems	17	b	
22	b	Use speed/distance and time	20	a	Product rule for counting	18		Proportional reasoning
23		Angle facts - exterior angles	20	b	Calculate probabilities	19	a	Multiplication - positive integers
24		Relate ratio to fractions	21	a	Volume of a pyramid	19	b	Mixed - four operations
25		Averages	21	b		20		Percentage of an amount
26		Prime factorisation	22		Pythagoras' Theorem	21		Use ratio notation including simplifying
27		Exact trig values	23	a	Plot graphs of functions in real-life contexts	22	a	2D shape properties
28		Simultaneous equations algebraically	23	b	Interpret graphs of functions in real-life contexts	22	b	Conditions of congruence
			24		Interpret pie charts	23	a	Error intervals due to rounding
			25		Probability/fractions/forming equations	23	b	Apply and interpret limits of accuracy
			26	a	Recognise/plot/sketch quadratic functions	24	a	Form and solve an equation - angle facts
			26	b		24	b	Angle facts - parallel lines
			27		Convert from standard form	25	a	Fractions and probability
			28		Solving linear equations with fractions	25	b	
			29		Trigonometry	26		Expand double brackets
						27		Solve linear inequalities

Maths: Higher Paper 1			**Maths: Higher Paper 2**			**Maths: Higher Paper 3**		
Q		Topic	Q		Topic	Q		Topic
1		Positive powers and roots	1		Convert between fractions & decimals	1		Vectors - column arithmetic
2		Conditions of congruence	2		Standard units of area	2		Types of number
3		Reasoning with sequences	3		Midpoint of line segment	3		Change the subject
4		Relate ratio to fractions	4		nth term - linear sequences	4		Calculate using bearings
5		Prime factorisation	5	a	Calculate probabilities	5		Estimating frequency
6		Averages	5	b	Product rule for counting	6		Solve linear inequalities
7		Fraction of an amount	6	a	Recognise/plot/sketch quadratic functions	7	a	Error intervals due to rounding
8		Form an expression - linear	6	b		7	b	Apply and interpret limits of accuracy
9	a	Use density/mass/volume	6	c	Turning points	8	a	2D shape properties
9	b		7		Trigonometry	8	b	Conditions of congruence
10		Simultaneous equations - linear/linear	8	a	Plot graphs in real-life contexts	9	a	Fractions and probability

11		Solve problems involving % change	8	b	Graphs of functions in real-life contexts	9	b	Fractions and probability
12		Area of circles	9		Probability/fractions/forming equations	10	a	Form and solve an equation - angle facts
13		Convert into standard form	10		Interpret pie charts	10	b	Angle facts - parallel lines
14		Solving linear equations	11		Convert from standard form	11		Use ratio notation including simplifying
15		Recurring decimals and fractions	12		Apply circle theorems	12		Positive powers and roots
16	a	Probability trees - independent events	13		Form and solve an equation - linear	13		Reverse mean
16	b		14		Use y = mx + c	14		Solve problems using inverse proportion
17	a	Gradient	15	a	Pythagoras' Theorem	15	a	Interpret graphs in real-life contexts
17	b	Use y = mx + c	15	b		15	b	Interpret graphs in real-life contexts
18		Proportional reasoning - best value	16		Median from a box plot	16		Depreciation
19	a	Construct cumulative frequency diagram	17		Similarity - Area	17		Use speed/distance and time
19	b	Interpret cumulative frequency diagram	18	a	Venn diagrams	18		Recognise/plot/sketch reciprocal functions
20		Use the equation of a circle	18	b	Calculate probability from Venn diagram	19		Apply circle theorems
21	a	Reflections	19		Apply ratio to real contexts and problems	20		Upper and lower bounds
21	b	Combinations of transformations	20		Sine Rule	21		Identify/interpret roots graphically
22		Similarity	21		Solve quadratic equations - formula	22		nth term - quadratic sequences
23	a	Graphs of functions in real-life contexts	22		Solve problems using direct proportion	23		Turning points graphically - quadratics
23	b	Estimate areas under graphs	23		Vectors - Geometric problems	24		Interpret graphs in real-life contexts
24	a	Calculate with fractional indices	24		Interpret cumulative frequency diagram	25	a	Pythagoras' Theorem
24	b		25		Multiple trig methods	25	b	Trigonometry in 3D
25		Proportional reasoning/Fractions	26	a	Enlargements - Fractional	26		Form an equation - area
26		Expand triple brackets	26	b	Reflections	27		Algebraic proof
27		Equation of a tangent to a circle at a point	27	a	Interpret reverse process as an inverse function			
28		Volume of a cone	27	b				
29		Exact trig values/Surds						

Biology		
B1 Cell Biology	**Trilogy and Triple**	**Triple only**
Cell structure	• Eukaryotes – animal and plant cells, prokaryotes – bacterial cells. • Cell specialisation and differentiation • Microscopy and required practical	• Culturing micro organisms • Required practical
Cell division	• Chromosomes • Mitosis and the cell cycle • Stem cells	
Transport in cells	• Diffusion	

	• Osmosis and required practical • Active transport	
B2 Organisation	**Trilogy and Triple**	**Triple only**
Principles of organisation	• Cells, tissues and organs	
Animal tissues, organs and organ systems	• Human Digestive System • Required practical – qualitative reagents (food tests) • Required practical – effect of pH on enzymes • The Heart • Blood • Coronary Heart Disease • Health/lifestyle choices • Cancer	
Plant tissues, organs and systems	• Plant tissue • Xylem/Phloem • Transpiration/Translation	
B3 Infection and response	**Trilogy and Triple**	**Triple only**
Communicable diseases	• Communicable diseases • Viral diseases • Bacterial disease • Fungal diseases • Protst diseases • Human defence systems • Vaccinations • Antibiotics and painkillers • Discovery and development of drugs	• Production and use of Monoclonal antibodies • Plant disease – detection and identification • Plant defence response
B4 Bioenergetics	**Trilogy and Triple**	**Triple only**
Photosynthesis	• Photosynthetic reactions • Rate of Photosynthesis • Required practical – Photosynthesis • Use of Glucose from Photosynthesis	
Respiration	• Aerobic and Anaerobic respiration • Response to exercise • Metabolism	
B5 Homeostasis and Response	**Trilogy and Triple**	**Triple only**
Homeostasis	• Homeostasis	• Control of body temperature
The Human Nervous System	• Structure and function • Required practical – Reaction times	• The Brain • The Eye
Hormonal coordination in humans	• Human endocrine system • Control of blood glucose concentration • Hormones in human reproduction • Contraception • Use of hormone to control infertility **(HT)** • Negative feedback **(HT)**	• Maintaining water and nitrogen balance in the body
Plant hormones		• Control and coordination • Required practical – light/gravity on the growth of seedlings • Use of plant hormones
B6 Inheritance	**Trilogy and Triple**	**Triple only**
Reproduction	• Sexual and asexual reproduction • Meiosis	• Advantages and disadvantages of sexual and asexual reproduction

	• DNA and the genome • Genetic inheritance • Inherited disorders • Sex determination	• DNA structure
Variation and evolution	• Variation • Evolution • Selective Breeding • Genetic engineering • Evidence of evolution • Fossils • Extinction • Resistant bacteria • Classification of living organisms	• Cloning • Theory of Evolution • Speciation • The understanding of genetics
B7 Ecology	**Trilogy and Triple**	**Triple only**
Adaptations, interdependence and competition	• Communities • Abiotic factors • Biotic factors • Adaptations	
Organisation of an ecosystem	• Levels of organisation • How materials are cycled	• Decomposition • Required practical – temperature and the rete of decay • Impact of environmental change
Biodiversity and the impact on humans	• Biodiversity • Waste management • Land use • Deforestation • Global Warming • Maintaining biodiversity	
Trophic levels in an ecosystem		• Trophic levels • Pyramid of biomass • Transfer of biomass
Food production		• Factors affecting food security • Farming techniques • Sustainable fisheries • Role of biotechnology

Chemistry		
C1 Atomic Structure and the Periodic Table	**Trilogy and Triple**	**Triple only**
The Atom	• Atoms, elements and compounds • Mixtures • The development of the atom • Subatomic particles • Size and mass of atoms • Relative atomic mass • Electronic Structure	
The Periodic Table	• The Periodic Table • Development of the Periodic Table • Metals and non-metals • Group 0 • Group 1 • Group 7	
Properties of Transition metals		• Comparisons with Group 1 elements • Typical properties
C2 Bonding and Structure	**Trilogy and Triple**	**Triple only**
Chemical bonds	• Chemical bonds	

	• Ionic bonding • Ionic compounds • Covalent bonding • Metallic bonding	
Properties of substances	• Three states of matter • State symbols • Properties of ionic compounds • Properties of small molecules • Polymers • Giant covalent structures • Properties of metals and alloy • Metals as conductors	
Structure and bonding of Carbon	• Diamond • Graphite • Graphene and Fullerenes	
Bulk and surface properties of matter including nanoparticles		• Size of particles and their properties • Uses of nanoparticles
C3 Quantitative Chemistry	**Trilogy and Triple**	**Triple only**
Chemical measurements	• Conservation of mass • Balancing equations • Relative formula mass • Mass changes when a gas is released • Chemical measurements	
Use of amount of substance in relation to masses of pure substances	• Moles **(HT)** • Amounts of substances in equations **(HT)** • Using moles to balance equations **(HT)** • Limiting reactants **(HT)** • Concentration of solutions	
Yield and atom economy of chemical reactions		• Percentage Yield • Atom economy • Using concentration of solutions in mol/dm^3 • Use of amounts of substance in relation to gases
C4 Chemical changes	**Trilogy and Triple**	**Triple only**
Reactivity of metals	• Metal Oxides • The reactivity series • Extraction of metals and reduction • Oxidation and Reduction in terms of electrons **(HT)**	
Reaction of acids	• Reaction of acids with metals • Neutralisation of acids and salt production • Soluble salts – required practical, preparation of a pure dry salt • The pH scale and neutralisation • Strong and weak acids	• Titrations – required practical included
Electrolysis	• The process of electrolysis • Electrolysis of molten ionic compounds • Extracting metals using electrolysis • Electrolysis of aqueous solutions – required practical • Half equations **(HT)**	

C5 Energy Changes	Trilogy and Triple	Triple only
Exothermic/Endothermic reactions	• Energy transfer during exothermic and endothermic reactions – required practical included. • Reaction profiles • The energy change of reactions **(HT)**	
Chemical cells and fuel cells		• Cells and batteries • Fuel cells
C6 The rate and extent of chemical change	**Trilogy and Triple**	**Triple only**
Rate of reaction	• Calculating rates of reaction • Factors which affect the rates of chemical reactions- required practical included • Collision theory and activation energy • Catalysts	
Reversible reactions and dynamic equilibrium	• Reversible reactions • Energy changes and reversible reactions • Equilibrium • The effect of changing conditions of equilibrium **(HT)** • The effect of changing concentration **(HT)** • The effect of changing temperature on equilibrium **(HT)** • The effect of changing pressure on equilibrium **(HT)**	
C7 Organic Chemistry	**Trilogy and Triple**	**Triple only**
Carbon compounds as fuels and feedstock	• Crude oil, hydrocarbons and alkanes • Fractional distillation and petrochemicals • Properties of hydrocarbons • Cracking and alkenes	
Reactions of alkenes and alcohols		• Structure and formulae of alkenes • Reactions of alkenes • Alcohols • Carboxylic acid
Synthetic and naturally occurring polymers		• Addition polymerisation • Condensation polymerisation • Amino acids • DNA and other naturally occurring polymers
C8 Chemical analysis	**Trilogy and Triple**	**Triple only**
Purity, formulations and chromatography	• Pure substances • Formulations • Chromatography	
Identification of common gases	• Test for Hydrogen • Test for Oxygen • Test for Carbon Dioxide	
Identification of ions by chemical and spectroscopic means		• Flame tests • Metal hydroxides • Carbonates • Halides • Sulfates • Required prac – chemical tests

		• Instrumental methods • Flame emission spectroscopy
C9 Chemistry of the atmosphere	**Trilogy and Triple**	**Triple only**
Composition of the Earth's atmosphere	• The proportions of different gases in the atmosphere • The Earth's early atmosphere • How Oxygen/Nitrogen increased • How Carbon Dioxide decreased	
Carbon Dioxide and Methane as a greenhouse gases	• Greenhouse gases • Human activities which contribute to an increase in greenhouse gases in the atmosphere • Global Climate Change • The Carbon Footprint and its reduction	
Common Atmospheric Pollutants and their sources	• Atmospheric pollutants from fuels • Properties and effects of atmospheric pollutants	
C10 Using resources	**Trilogy and Triple**	**Triple only**
Using the Earth's resources and obtaining potable water	• Using the Earth's resources and sustainable development • Potable water – including required practical • Waste Water Treatment • Alternative methods of extracting water **(HT)**	
Life cycle assessment and recycling	• Life cycle assessments • Ways of reducing the use of resources	
Using materials		• Corrosion and its prevention • Alloys as useful materials • Ceramics, polymers and composites
The Haber process and the use of NPK fertilisers		• The Haber process • Production and uses of NPK fertilisers

Physics		
P1 Energy	**Trilogy and Triple**	**Triple only**
Energy changes in a system, and the ways energy is stored before and after such changes.	• Energy stores and systems • Changes in energy • Energy changes in systems – including specific heat capacity required practical • Power	
Conservation and dissipation of energy	• Energy transfers in a system • Efficiency • National and global energy resources	• Required practical – investigating the effectiveness of different materials as thermal insulators.
P2 Electricity	**Trilogy and Triple**	**Triple only**
Current, potential difference and resistance	• Standard circuit diagram symbols • Electrical charge and current • Current, resistance and potential difference • Required practical – investigating resistance • Resistors – including required practical I/V graphs	

	• Series and parallel circuits	
Domestic uses and safety	• Direct and alternating potential difference • Mains electricity	
Energy transfers	• Power • Energy transfers in everyday appliances • The National Grid	
Static Electricity		• Static charge • Electric fields
P3 Particle model of matter	**Trilogy and Triple**	**Triple only**
Changes of state and the particle model	• Density of materials • Density required practical • Changes of state	
Internal energy and energy transfers	• Internal energy • Temperature changes in a system and specific heat capacity • Changes of heat and specific latent heat	
Particle model	• Particle motion in gases	• Pressure in gases • Increasing the pressure of a gas
P4 Atomic Structure	**Trilogy and Triple**	**Triple only**
Atoms and isotopes	• The structure of an atom • Mass number, atomic number and isotopes • Development of the model of the atom	
Atoms and nuclear radiation	• Radioactive decay and nuclear radiation • Nuclear Equations • Half-life and the random nature of radioactive decay • Radioactive contamination	
Hazards and uses of radioactive emissions and the background radiation		• Background radiation • Different half-lives of radioactive isotopes • Uses of nuclear radiation
Nuclear fission and fusion		• Nuclear fission • Nuclear fusion
P5 Forces	**Trilogy and Triple**	**Triple only**
Forces and their interactions	• Scalar and vector quantities • Contact and non-contact forces • Gravity • Resultant forces • Work done and energy transfer • Forces and electricity • Required practical – force and extension of a spring	Moments, levers and gears
Pressure and pressure differences in fluids		• Pressure in a fluid • Atmospheric pressure
Forces and motion	• Distance and displacement • Speed • Velocity • The distance-time relationship • Acceleration	

Forces, acceleration and Newton's Laws of motion	• Newton's First Law • Newton's Second Law • Required practical – investigating the effect of varying the force on the acceleration of an object. • Newton's Third Law	
Forces and braking	• Stopping distance • Reaction time • Factors affecting braking distance	
Momentum **(HT only)**	• Momentum is a property of moving objects • Conservation of momentum	• Changes in momentum
P6 Waves	**Trilogy and Triple**	**Triple only**
Waves in air, fluids and solids	• Transverse and longitudinal waves • Properties of waves • Required practical Ripple tank	• Reflection of waves – required practical reflection of light on different surfaces. • Sound waves • Waves for detection and exploration
Electromagnetic waves	• Types of EM waves • Properties of EM waves • Use and application of EM waves	• Lenses • Visible Light
Black body radiation		• Emission and absorption of infrared radiation • Perfect black bodies and radiation
P7 Magnetism and electromagnetism	**Trilogy and Triple**	**Triple only**
Permanent and induced magnetism, magnetic forces and fields	• Poles of a magnet • Magnetic fields	
The motor effect	• Electromagnetism • Fleming's Left Hand Rule **(HT)** • Eclectic motors **(HT)**	• Loudspeakers
Induced potential, transformers and the National Grid		• Induced potential • Uses of the generator effect • Microphones • Transformers
P8 Space Physics	**Trilogy and Triple**	**Triple only**
Solar system; stability of orbital moons; satellites		• Our solar system • The life cycle of a star • Orbital motion, natural and artificial satellites • Red Shift

Psychology		
Paper 1: Cognition and behaviour		
Memory	Processes of memory: encoding (input) storage and retrieval (output)	Different types of memory: episodic memory, semantic memory and procedural memory. How memories are encoded and stored.
	Structures of memory	The multi-store model of memory: sensory, short term and long term. Features of each store: coding, capacity, duration. Primacy and recency effects in recall: the effects of serial position. Murdock's serial position curve study.
	Memory as an active process	The Theory of Reconstructive Memory, including the concept of 'effort after meaning'. Bartlett's War of the Ghosts study. Factors affecting the accuracy of memory, including interference, context and false memories.
Perception	Sensation and perception	The difference between sensation and perception.

	Visual cues and constancies	Monocular depth cues: height in plane, relative size, occlusion and linear perspective. Binocular depth cues: retinal disparity, convergence.
	Gibson's direct theory of perception – the influence of nature	The real world presents sufficient information for direct perception without inference. Role of motion parallax in everyday perception.
	Visual illusions	Explanations for visual illusions: ambiguity, misinterpreted depth cues, fiction, size constancy. Examples of visual illusions: the Ponzo, the Müller-Lyer, Rubin's vase, the Ames Room, the Kanizsa triangle and the Necker cube.
	Gregory's constructivist theory of perception – the influence of nurture	Perceptual set and the effects of the following factors affecting perception: culture, motivation, emotion, expectation. The Gilchrist and Nesberg study of motivation and the Bruner and Minturn study of perceptual set.
	Factors affecting perception	Perceptual set and the effects of the following factors affecting perception: culture, motivation, emotion, expectation. The Gilchrist and Nesberg study of motivation and the Bruner and Minturn study of perceptual set.
Cognitive Development	Early brain development	A basic knowledge of brain development, from simple neural structures in the womb, of brain stem, thalamus, cerebellum and cortex, reflecting the development of autonomic functions, sensory processing, movement and cognition. The roles of nature and nurture.
	Piaget's stage theory and the development of intelligence The role of Piaget's theory in education	Piaget's Theory of Cognitive Development including concepts of assimilation and accommodation. The four stages of development: sensorimotor, pre-operational, concrete operational and formal operational. Application of these stages in education. Reduction of egocentricity, development of conservation. McGarrigle and Donaldson's 'naughty teddy study'; Hughes' 'policeman doll study'.
	The effects of learning on development	Dweck's Mindset Theory of learning: fixed mindset and growth mindset. The role of praise and self-efficacy beliefs in learning. Learning styles including verbalisers and visualisers. Willingham's Learning Theory and his criticism of learning styles.
Research methods	Formulation of testable hypotheses	Null hypothesis and alternative hypothesis
	Types of variable	Independent variable, dependent variable, extraneous variables.
	Sampling methods	Target populations, samples and sampling methods and how to select samples using these methods: • random • opportunity • systematic • stratified. Strengths and weaknesses of each sampling method. Understanding principles of sampling as applied to scientific data.
	Designing research	Quantitative and qualitative methods: • The experimental method (experimental designs, independent groups, repeated measures, matched pairs, including strengths and weaknesses of each experimental design) • Laboratory experiments • Field and natural experiments • Interviews • Questionnaires • Case studies • Observation studies (including categories of behaviour and inter-observer reliability). Strengths and weaknesses of each research method and types of research for which they are suitable.

	Correlation	An understanding of association between two variables and the use of scatter diagrams to show possible correlational relationships. The strengths and weaknesses of correlations. Computation of formulae is not required.
	Research procedures	The use of standardised procedures, instructions to participants, randomisation, allocation to conditions, counterbalancing and extraneous variables (including explaining the effect of extraneous variables and how to control for them).
	Planning and conducting research	How research should be planned, taking into consideration the reliability and/or validity of: • Sampling methods • Experimental designs • Quantitative and qualitative methods.
	Ethical considerations	• Ethical issues in psychological research as outlined in the British Psychological Society guidelines. • Ways of dealing with each of these issues.
	Data handling	• The difference between quantitative and qualitative data. • The difference between primary and secondary data. • Computation - Recognise and use expressions in decimal and standard form: use ratios, fractions and percentages, estimate results, find arithmetic means and use an appropriate number of significant figures. • Descriptive statistics - Understand and calculate mean, median, mode and range. • Construct and interpret frequency tables and diagrams, bar charts, histograms and scatter diagrams for correlation. • The characteristics of normal distribution.
Paper 2: Social context and behaviour		
Social influence	Conformity	• Identification and explanation of how social factors (group size, anonymity and task difficulty) and dispositional factors (personality, expertise) affect conformity to majority influence. • Asch's study of conformity.
	Obedience	• Milgram's Agency theory of social factors affecting obedience including agency, authority, culture and proximity. • Explanation of dispositional factors affecting obedience including Adorno's theory of the authoritarian personality.
	Prosocial behaviour	Bystander behaviour: identification and explanation of how social factors (presence of others and the cost of helping) and dispositional factors (similarity to victim and expertise) affect bystander intervention. • Piliavin's subway study
	Crowd and collective behaviour	Prosocial and antisocial behaviour in crowds: identification and explanation of how social factors (social loafing, deindividuation and culture) and dispositional factors (personality and morality) affect collective behaviour.
Language, thought and communication	The possible relationship between language and thought. The effect of language and thought on our view of the world	• Piaget's theory: language depends on thought. • The Sapir-Whorf hypothesis: thinking depends on language. • Variation in recall of events and recognition of colours, e.g. in Native American cultures.
	Differences between human and animal communication	• Limited functions of animal communication (survival, reproduction, territory, food). • Von Frisch's bee study. • Properties of human communication not present in animal communication, e.g. plan ahead and discuss future events.

	Non-verbal communication	• Definitions of non-verbal communication and verbal communication. • Functions of eye contact including regulating flow of conversation, signaling attraction and expressing emotion. • Body language including open and closed posture, postural echo and touch. • Personal space including cultural, status and gender differences.
	Explanations of non-verbal behaviour	• Darwin's evolutionary theory of non-verbal communication as evolved and adaptive. • Evidence that non-verbal behaviour is innate, e.g. in neonates and the sensory deprived. • Evidence that non-verbal behaviour is learned. Yuki's study of emoticons.
Brain and neuropsychology	Structure and function of the nervous system	• The divisions of the human nervous system: central and peripheral (somatic and autonomic), basic functions of these divisions. • The autonomic nervous system and the fight or flight response. The James-Lange theory of emotion.
	Neuron structure and function	• Sensory, relay and motor neurons. Synaptic transmission: release and reuptake of neurotransmitters. Excitation and inhibition. An understanding of how these processes interact. • Hebb's theory of learning and neuronal growth.
	Structure and function of the brain	• Brain structure: frontal lobe, temporal lobe, parietal lobe, occipital lobe and cerebellum. • Basic function of these structures. • Localisation of function in the brain: motor, somatosensory, visual, auditory and language areas. • Penfield's study of the interpretive cortex.
	An introduction to neuropsychology	• Cognitive neuroscience: how the structure and function of the brain relate to behaviour and cognition. • The use of scanning techniques to identify brain functioning: CT, PET and fMRI scans. • Tulving's 'gold' memory study. • A basic understanding of how neurological damage, e.g. stroke or injury can affect motor abilities and behaviour.
Psychological problems	An introduction to mental health. How the incidence of significant mental health problems changes over time	• Characteristics of mental health, e.g. positive engagement with society, effective coping with challenges. • Cultural variations in beliefs about mental health problems. • Increased challenges of modern living, e.g. isolation. • Increased recognition of the nature of mental health problems and lessening of social stigma.
	Effects of significant mental health problems on individuals and society	• Individual effects, e.g. damage to relationships, difficulties coping with day to day life, negative impact on physical wellbeing. • Social effects, e.g. need for more social care, increased crime rates, implications for the economy.
	Characteristics of clinical depression	• Differences between unipolar depression, bipolar depression and sadness. • The use of International Classification of Diseases in diagnosing unipolar depression: number and severity of symptoms including low mood, reduced energy levels, changes in sleep patterns and appetite levels, decrease in self-confidence.
	Theories of depression Interventions or therapies for depression	• Biological explanation (influence of nature): imbalance of neurotransmitters, e.g. serotonin in the brain. • Psychological explanation (influence of nurture): negative schemas and attributions. • Use of antidepressant medications.

		• Cognitive behaviour therapy (CBT). • How these improve mental health, reductionist and holistic perspectives. • Wiles' study of the effectiveness of CBT.
	Characteristics of addiction	• The difference between addiction/dependence and substance misuse/abuse. • The use of International Classification of Diseases in diagnosing addiction (dependence syndrome), including a strong desire to use substance(s) despite harmful consequences, difficulty in controlling use, a higher priority given to the substance(s) than to other activities or obligations.
	Theories of addiction Interventions or therapies for addiction	• Biological explanation (influence of nature): hereditary factors/genetic vulnerability. Kaij's twin study of alcohol abuse. • Psychological explanation (influence of nurture): Peer influence. • Aversion therapy. • Self-management programmes, e.g. self-help groups, 12 step recovery programmes. • How these improve mental health, reductionist and holistic perspectives.

French

Below are the topics that are covered in GCSE French. Students need to be able to recognise the vocabulary from the topic when listening and reading, and also be able to use it accurately when speaking and writing.

Identity and culture	Local, national, international and global areas of interest	Current and future study and employment
• Me, my family and friends • Technology in everyday life • Free time activities • Customs and festivals in French-speaking countries/communities	• Home, town, neighbourhood and region • Social issues • Global issues • Travel and tourism	• My studies • Life at school/college • Education post-16 • Jobs, career choices and ambitions

Geography: Paper 1

Hazardous Earth	Development Dynamics	Challenges of an Urbanising World
• How winds, air pressure and ocean currents (Labrador/Gulf Stream) regulate Earth's temperature. • What causes the ITCZ, "movement" of the ITCZ and how it affects rainfall in West Africa. • Global circulation patterns, hadley cells & how to interpret climate graphs. • Climate change theories (eruption, asteroid, orbital & sunspots), studying past climates (tree rings, ice cores, historical sources) • Climate change/global warming causes & impacts. • What are cyclones, formation of cyclones, how they're measured. • Stages of cyclone formation, where they develop and why. • Cyclone Aila: causes, SEE effects and responses.	• Measuring development & development indicators, Human Development Index • Interpreting population pyramids, development factors affecting populations (women's health & education) • Global inequality, why there's a North-South divide, how development is changing (NIC, RIC, BRIC countries) • Physical, social & political barriers to development: Malawi (Landlocked, pollution, trade, cash crops, WTO) • Why are some countries poor? • Rostow's Model: Five Stages of Economic Development. • Frank's Dependency Theory: how the developing 'periphery' (LICs) depend on the developed 'core' (HICs).	• Past, present & future trends of urbanisation • Explaining why the world is becoming more urbanised • What a megacity, world city & primate city (urban primacy) is. What makes a city a world city'. • Net growth & causes of net growth. • Causes of migration: rural-urban in Mumbai, knowledge & international migration in other cities and population decline (Detroit) • How and why informal & formal economies differ in developed (New York), emerging (New Delhi) & developing (Kampala) cities. • New York/ Mumbai: How and why suburbanisation, counter-urbanisation & re-urbanisation took place • How urban land use changes in cities & why (New York/ Mumbai)

• Hurricane Katrina, causes SEE effects and responses. Why was it more severe than expected? • Warning systems Bangladesh and USA. • Layers of the Earth, differences between the layers & differences between oceanic & continental crust • Convection currents, radioactive decay, formation of Earth's magnetic field • Plate boundaries (convergent, divergent, conservative & collision) • Features of volcanoes, volcanic hazards & primary and secondary effects of volcanoes. • Earthquake causes, how they're measured, primary & secondary effects. • Earthquakes in developed and developing countries: Haiti, Japan	• How globalisation benefits different countries & effects of Foreign Direct Investment (FDI) • Clark-Fisher Model: how employment structure changes with development • Impacts/benefits of globalisation & industrialisation in India • Case Study: India as an emerging country • Understanding India's significance socially, politically, environmentally & culturally. • Why rapid globalisation is happening in India, operation & impact of TNC's e.g. BT • Economic, environmental and social change • How top-down and bottom-up development is helping India (Narmada River Project & Biogas by ASTRA). • India's next steps: challenges ahead.	• Case study: Mumbai as a megacity in an emerging country • Mumbai's site & situation, city structure and connections. Mumbai's spatial growth. • Mumbai's rapid growth causes: rural-urban migration and natural increase. • Inequality in Mumbai, reasons for variations in quality of life. • Challenges facing Mumbai caused by population growth. Social & environmental issues. • Opportunities for Mumbai's population • Sustainable development in Mumbai. What sustainability is. • Top-down development • Bottom-up development

Geography: Paper 2		
UK's Evolving Physical Landscape	**UK's Evolving Human Landscape**	**Geographical Investigations**
• How geology (rock type, strata); tectonics (uplift, fault scarps); and glaciation (glaciers) created/changed UK's upland landscapes. • Igneous, Metamorphic and Sedimentary rock. How they influence landscapes & relief. • Processes affecting upland (Lake District) and lowland (Herefordshire) landscapes. • How people affect the landscape through agriculture, forestry and settlements • Difference between hard and soft rock coasts. Concordant & discordant coastlines. • Headland/hard rock erosion. (Caves, arches, stacks & stumps) • Waves: how they're caused and difference between constructive & destructive waves. • Types of erosion (solution, attrition, hydraulic action & abrasion) • Deposition process & landforms: beaches and how longshore drift creates spits, bars etc. • Human impacts on coastal landscapes (development,	• UK's urban core: population density of the UK, why it is different around the country • UK's rural periphery: demographics of rural periphery areas • The gap between urban and rural development: ways to reduce the gap • Causes of population growth: net immigration & rising birth rate. Impacts of immigration • Why the 'old economy' declined (primary and secondary sectors) in Dinnington • Why the 'new knowledge economy' rose (tertiary and quaternary sectors) in Canary Wharf • Impacts of TNCs, globalisation, privatisation and FDI in the UK. • Case study: London as a major UK city • Location, site & situation, connectivity (with UK and world) and city structure. • Causes of migration in London. Impacts on 3 suburbs: Newham (low income), Lambeth (middle	• River fieldwork • Location and sites of your fieldwork (river Ise) • Fieldwork methods you used and sampling strategies (random, stratified and systematic) • Limitations of your fieldwork • Secondary data- EA flood map, newspaper articles • Findings of your fieldwork- what is the flood risk? How does the river change downstream? • Ways you can present your findings, GIS, proportional circles, wordle • Ways to improve the accuracy and reliability of your fieldwork • Rural deprivation • Kettering Borough Case study • Explaining aims of the fieldwork (are rural areas deprived and why?) • Describe the 7 measures of deprivation • Why Kettering Borough was chosen (range of deprivation & easy to collect data from our local area

housing, industry & coastal management • Coastal flooding: causes (storm surges & sea level rise) & risks to people and property (2014 Storms) • Coastal management: hard and soft engineering. (Christchurch Bay) • Upper course: erosion & transportation, waterfall formation, weathering & mass movement • Middle course: meander & ox bow lake formation. How valley shape changes. • Lower course: landforms (levees, mudflats, valley shape), Bradshaw Model & river long profile • Interpreting storm hydrographs, what human & physical factors affect their shape • Sheffield floods '07: human & physical causes, SEE impacts and responses • Increasing risks of flooding (Somerset), physical and human causes • Managing flood risks: hard and soft engineering. Advantages and disadvantages	income) and Richmond upon Thames (high income). • Inequalities within London, causes and impacts (comparing Newham & Richmond upon Thames) • London's decline (suburbanisation, decentralisation, dock closures) • Regeneration (re-urbanisation). rebranding (Olympics 2012), opportunities • Improving London (sustainability problems/challenges and solutions) • London's rural periphery (Terling, Essex) accessibility and dependency on London. • Social and economic change in rural areas (Devon) and pressures as a result (on housing, leisure and recreation • Challenges (rural deprivation) and opportunities for development in Cornwall	• Primary and secondary sources of data. How primary data was collected. • Sampling strategies used • How data was presented (graphs, charts, diagrams, sketches) • Accuracy and reliability of primary and secondary data collection (why/why not reliable?) • Evaluation of fieldwork: were the right sites chosen? Good methods of data collection? What could have affected results? Reasons for any anomalous data/results • Conclusion & results: is Kettering Borough a deprived area? Why or why not?

Geography: Paper 3		
People and the Biosphere	**Forests Under Threat**	**Consuming Energy Resources**
• What are the world's major biomes and where are they found? • How temperature, latitude & elevation affect biome location • How precipitation (rainfall) affects biome location • Atmospheric circulation (hadley cells, ferrel cells & polar cells) and how they affect air pressure & rainfall • How sunshine hours affects biomes • Local factors affecting biomes: rock & soil type, water availability & drainage, altitude. • How soil type influences type of trees in UK • Biotic & abiotic factors of ecosystems & biomes • Interpreting climate graphs	• How abiotic & biotic factors influence the forest ecosystem • How plants and animals are adapted to their climate • The nutrient cycle in the Rainforest and Taiga • Food webs and biodiversity in the Rainforest and Taiga • Causes of deforestation in the Rainforest and Taiga (BR163, Athabasca Tar Sands) • Why climate change is an indirect threat to the Rainforest How acid rain, forest fires, disease and pests result in a loss of biodiversity in the Taiga • The cost and benefits of global approaches to conserving the biosphere (CITES & REDD) • Sustainable forestry management (Kilum Ijim & Juma) • The costs and benefits of national parks (Buffalo, Canada)	• The categories and examples of different types of energy: non-renewable; renewable and recyclable • How extracting energy through mining and drilling can have negative impacts on the environment • To explain how the global distribution of energy is influenced by geology, accessibility and climate. • To describe the global pattern of energy consumption and explain why there are differences between developed, emerging and developing places. • Describe the variations in patterns of oil reserves • Explain why the global consumption of oil is increasing (rising GDP, rapid industrialisation)

• What goods and services ecosystems (e.g. tropical rainforest) provide • Sustainable use: how the Efe tribe use the rainforest sustainably. • How ecosystems are being exploited, role of TNCs. • Main causes of deforestation in the rainforest in LICs (ranching, palm oil, farming, mining, logging) • Consequences of exploiting the rainforest; future of the rainforest.	• Conflicting views on the use of different biomes	• Explain why oil supply is affected by political relations (conflicts & diplomatic relations) as well as economic factors such as recession or under supply.

History: Paper 1 Medicine in Britain, c1250–present		
c1250–c1500: Medicine in medieval England	**c1500–c1700: The Medical Renaissance in England –**	**c1700–c1900: Medicine in eighteenth- and nineteenth-century Britain**
• Supernatural and religious explanations of the cause of disease. • Rational explanations: the Theory of the Four Humours and the miasma theory; the continuing influence in England of Hippocrates and Galen. • Approaches to prevention and treatment and their connection with ideas about disease and illness: religious actions, bloodletting and purging, purifying the air, and the use of remedies. • New and traditional approaches to hospital care in the thirteenth century. The role of the physician, apothecary and barber surgeon in treatment and care provided within the community and in hospitals, c1250–1500. • Dealing with the Black Death, 1348–49; approaches to treatment and attempts to prevent its spread.	• Continuity and change in explanations of the cause of disease and illness. • A scientific approach, including the work of Thomas Sydenham in improving diagnosis. • The influence of the printing press and the work of the Royal Society on the transmission of ideas. • Continuity in approaches to prevention, treatment and care in the community and in hospitals. • Change in care and treatment: improvements in medical training and the influence in England of the work of Vesalius. • Key individual: William Harvey and the discovery of the circulation of the blood. • Dealing with the Great Plague in London, 1665: approaches to treatment and attempts to prevent its spread.	• Continuity and change in explanations of the cause of disease and illness. • The influence in Britain of Pasteur's Germ Theory and Koch's work on microbes. • The extent of change in care and treatment: improvements in hospital care and the influence of Nightingale. The impact of anaesthetics and antiseptics on surgery. • New approaches to prevention: the development and use of vaccinations and the Public Health Act 1875. • Key individual: Jenner and the development of vaccination. • Fighting Cholera in London, 1854; attempts to prevent its spread; the significance of Snow and the Broad Street pump.

c1900–present: Medicine in modern Britain	**British sector of the Western Front, 1914–18: injuries, treatment and the trenches**
• Advances in understanding the causes of illness and disease: the influence of genetic and lifestyle factors on health. • Improvements in diagnosis: the impact of the availability of blood tests, scans and monitors. • The extent of change in care and treatment. The impact of the NHS and science and technology: improved access to care; advances in medicines, including magic bullets and antibiotics; high-tech medical and surgical treatment in hospitals.	• The context of the British sector of Western Front and the theatre of war in Flanders and northern France: the Ypres salient, the Somme, Arras and Cambrai. The trench system - its construction and organisation, including frontline and support trenches. • The use of mines at Hill 60 near Ypres and the expansion of tunnels, caves and quarries at Arras. Significance for medical treatment of the nature of the terrain and problems of the transport and communications infrastructure.

• New approaches to prevention: mass vaccinations and government lifestyle campaigns • Key individuals: Fleming, Florey and Chain's development of penicillin. • The fight against lung cancer in the twenty-first century: the use of science and technology in diagnosis and treatment; government action.	• Conditions requiring medical treatment on the Western Front, including the problems of ill health arising from the trench environment. The nature of wounds from rifles and explosives. The problem of shrapnel, wound infection and increased numbers of head injuries. The effects of gas attacks. • The work of the RAMC and FANY. The system of transport: stretcher bearers, horse and motor ambulances. The stages of treatment areas: aid post and field ambulance, dressing station, casualty clearing station, base hospital. The underground hospital at Arras. • The significance of the Western Front for experiments in surgery and medicine: new techniques in the treatment of wounds and infection, the Thomas splint, the use of mobile x-ray units, the creation of a blood bank for the Battle of Cambrai. • The historical context of medicine in the early twentieth century: the understanding of infection and moves towards aseptic surgery; the development of x-rays; blood transfusions and developments in the storage of blood. • Knowledge of national sources relevant to the period and issue, e.g. army records, national newspapers, government reports, medical articles. • Knowledge of local sources relevant to the period and issue, e.g. personal accounts, photographs, hospital records, army statistics. • Recognition of the strengths and weaknesses of different types of source for specific enquiries. • Framing of questions relevant to the pursuit of a specific enquiry. • Selection of appropriate sources for specific investigations.

History: Paper 2 The American West, c1835-c1895		
c1835–c1862 **The early settlement of the West**	**c1862–c1876** **Development of the plains**	**c1876–c1895** **Conflicts and conquest**
• Social and tribal structures, ways of life and means of survival on the Plains. • Beliefs about land and nature and attitudes to war and property. • US government policy: support for US westward expansion and the significance of the Permanent Indian Frontier. The Indian Appropriations Act 1851. • The factors encouraging migration, including economic conditions, the Oregon Trail from 1836, the concept of Manifest Destiny, and the Gold Rush of 1849 • The process and problems of migration, including the experiences of the Donner Party	• The significance of the Civil War and post war reconstruction, including the impact of the Homestead Act 1862, the Pacific Railroad Act 1862, and the completion of the First Transcontinental Railroad, 1869. • Attempts at solutions to problems faced by homesteaders: the use of new methods and new technology; the impact of the Timber Culture Act 1873 and of the spread of the railroad network. • Continued problems of law and order in settlements, and attempted solutions, including the roles of law officers and increases in federal government influence.	• Changes in farming: the impact of new technology and new farming methods. • Changes in the cattle industry, including the impact of the winter of 1886–87. The significance of changes in the nature of ranching: the end of the open range. • Continued growth of settlement: the Exoduster movement and Kansas (1879), the Oklahoma Land Rush of 1893. • Extent of solutions to problems of law and order: sheriffs and marshals. The significance of Billy the Kid, OK Corral (1881), Wyatt Earp. • The range wars, including the Johnson County War of 1892.

and the Mormon migration, 1846–47. • The development and problems of white settlement farming. • Reasons for tension between settlers and Plains Indians. The significance of the Fort Laramie Treaty 1851. • The problems of lawlessness in early towns and settlements. • Attempts by government and local communities to tackle lawlessness.	• The cattle industry and factors in its growth, including the roles of Iliff, McCoy and Goodnight, the significance of Abilene and of the increasing use of the railroad network. • The impact of changes in ranching on the work of the cowboy. • Rivalry between ranchers and homesteaders. • The impact of railroads, the cattle industry and gold prospecting on the Plains Indians. • The impact of US government policy towards the Plains Indians, including the continued use of reservations. President Grant's 'Peace Policy', 1868. • Conflict with the Plains Indians: Little Crow's War (1862) and the Sand Creek Massacre (1864), the significance of Red Cloud's War (1866–68) and the Fort Laramie Treaty (1868)	• Conflict with the Plains Indians: the Battle of the Little Big Horn, 1876 and its impact; the Wounded Knee Massacre, 1890. • The hunting and extermination of the buffalo. • The Plains Indians' life on the reservations. • The significance of changing government attitudes to the Plains Indians, including the Dawes Act 1887 and the closure of the Indian Frontier.

History: Paper 2 The Anglo-Saxon and Norman England, c1060–88		
1060–66 **Anglo-Saxon England and the Norman Conquest**	**1066–87** **Key topic 2: William I in power: securing the kingdom**	**1066-88** **Norman England**
• Monarchy and government: the power of the English monarchy; earldoms, local government and the legal system. • The economy and social system: towns and villages; the influence of the Church • The house of Godwin: Harold Godwinson's succession as Earl of Wessex; the power of the Godwins • Harold Godwinson's embassy to Normandy • The rising against Tostig and his exile • The death of Edward the Confessor • The motives and claims of William of Normandy, Harald Hardrada and Edgar • The Witan and the coronation and reign of Godwinson • Reasons for, and significance of, the outcome of the Battles of Fulford and Stamford Bridge • The Battle of Hastings • Reasons for William's victory, including the leadership skills of	• The submission of the earls, 1066 • Rewarding followings and establishing control on the borderlands through the use of earls • The Marcher earldoms • Reasons for the building of castles; their key features and importance • The revolts of Earls Edwin and Morcar in 1068 • Edgar the Aethling and the rebellions in the North, 1069 • Hereward the Wake and rebellion at Ely, 1070–71 • The reasons for and features of the Harrying of the North, 1069–70 • Its immediate and long-term impact, 1069–1087 • Changes in landownership from Anglo-Saxon to Norman, 1066–87 • How William I maintained royal power • Reasons for and features of the revolt • The defeat of the revolt and its effects	• The feudal hierarchy: the role and importance of tenants-in-chief and knights; the nature of feudalism (landholding, homage, knight service, labour service); forfeiture • The Church in England: its role in society and relationship to government, including the roles of Stigand and Lanfranc; the Normanisation and reform of the Church in the reign of William I • The extent of change to Anglo-Saxon society and economy • Changes to government after the Conquest: centralised power and the limited use of earls under William I; the role of regents • The office of the sheriff and the demesne; introduction and significance of the 'forest' • Domesday Book and its significance for Norman government and finance • The culture and language of the Norman aristocracy • The career and significance of Bishop Odo

Harold and William, Norman and English troops and tactics		• Character and personality of William I and his relations with Robert • Robert and revolt in Normandy, 1077–80 • William's death and the disputed succession • William Rufus and the defeat of Robert and Odo

History: Paper 3: Modern Depth Study: Weimar and Nazi Germany, 1918-1939	
1918–29 **The Weimar Republic**	**1919-33** **Hitler's rise to power**
• The legacy of the First World War. The abdication of the Kaiser, the armistice and revolution, 1918–19. • The setting up of the Weimar Republic. The strengths and weaknesses of the new Constitution. • Reasons for the early unpopularity of the Republic, including the 'stab in the back' theory and the key terms of the Treaty of Versailles. • Challenges to the Republic from Left and Right: Spartacists, Freikorps, the Kapp Putsch. • The challenges of 1923: hyperinflation; the reasons for, and effects of, the French occupation of the Ruhr. • Reasons for economic recovery, including the work of Stresemann, the Rentenmark, the Dawes and Young Plans and American loans and investment. • The impact on domestic policies of Stresemann's achievements abroad: the Locarno Pact, joining the League of Nations and the Kellogg-Briand Pact. • Changes in the standard of living, including wages, housing, unemployment insurance. • Changes in the position of women in work, politics and leisure. • Cultural changes: developments in architecture, art and the cinema.	• Hitler's early career: joining the German Workers' Party and setting up the Nazi Party, 1919–20. • The early growth and features of the Party. The Twenty-Five Point Programme. The role of the SA. • The reasons for, events and consequences of the Munich Putsch. • Reasons for limited support for the Nazi Party, 1924–28. Party reorganisation and *Mein Kampf*. The Bamberg Conference of 1926. • The growth of unemployment – its causes and impact. The failure of successive Weimar governments to deal with unemployment from 1929 to January 1933. The growth of support for the Communist Party. • Reasons for the growth in support for the Nazi Party, including the appeal of Hitler and the Nazis, the effects of propaganda and the work of the SA. • Political developments in 1932. The roles of Hindenburg, Brüning, von Papen and von Schleicher. • The part played by Hindenburg and von Papen in Hitler becoming Chancellor in 1933.
Nazi control and dictatorship	**1933-39** **Life in Nazi Germany**
• The Reichstag Fire. The Enabling Act and the banning of other parties and trade unions. • The threat from Röhm and the SA, the Night of the Long Knives and the death of von Hindenburg. Hitler becomes Führer, the army and oath of allegiance. • The role of the Gestapo, the SS, the SD and concentration camps. • Nazi control of the legal system, judges and law courts. • Nazi policies towards the Catholic and Protestant Churches, including the Reich Church and the Concordat. • Goebbels and the Ministry of Propaganda: censorship, Nazi use of media, rallies and sport, including the Berlin Olympics of 1936. • Nazi control of culture and the arts, including art, architecture, literature and film. • The extent of support for the Nazi regime.	• Nazi views on women and the family. • Nazi policies towards women, including marriage and family, employment and appearance. • Nazi aims and policies towards the young. The Hitler Youth and the League of German Maidens. • Nazi control of the young through education, including the curriculum and teachers. • Nazi policies to reduce unemployment, including labour service, autobahns, rearmament and invisible unemployment. • Changes in the standard of living, especially of German workers. The Labour Front, Strength Through Joy, Beauty of Labour. • Nazi racial beliefs and policies and the treatment of minorities: Slavs, 'gypsies', homosexuals and those with disabilities. • The persecution of the Jews, including the boycott of Jewish shops and businesses (1933), the Nuremberg Laws and Kristallnacht.

• Opposition from the Churches, including the role of Pastor Niemöller. • Opposition from the young, including the Swing Youth and the Edelweiss Pirates.	

Philosophy and Ethics: Christian Beliefs and Practices		
Beliefs	**Practices: *Worship and festivals:* Different forms of worship and their significance**	**Good and Evil**
• The nature of God: God as omnipotent, loving and just and the problem of evil. • The oneness of God and the Trinity: Father, Son and Holy Spirit. • Different Christian beliefs about creation including the role of Word and Spirit (John 1:1-3 and Genesis 1:1-3). • Jesus Christ and Salvation**:** Beliefs and teaching about the incarnation and Jesus as the Son of God and the crucifixion. • Jesus Christ and Salvation**:** Beliefs and teaching about the resurrection and ascension and life after death • Jesus Christ and Salvation**:** Different Christian beliefs about the afterlife and their importance, including: resurrection and life after death: judgement, heaven and hell. • Jesus Christ and Salvation**:** Beliefs and teaching about sin, including original sin, the means of salvation, including, law, grace and Spirit, the role of Christ in salvation and atonement.	• Liturgical, non-liturgical and informal, including the use of the Bible and private worship. Prayer and its significance, including Lord's Prayer and informal prayer. • The role and meaning of the sacraments: The meaning of sacrament, the sacrament of baptism and its significance for Christians; infant and believers baptism; different ways in which it is celebrated and different interpretations of its meaning. • The sacrament of Eucharist (Holy Communion) and its significance for Christians, including different ways in which it is celebrated and different interpretations of its meaning. • The role and importance of pilgrimage and celebrations including: two contrasting examples of Christian pilgrimage: Lourdes and Iona. The celebrations of Christmas and Easter, including their importance for Christians in Great Britain today. • *The role of the church in the local and worldwide community*: The role of the Church in the local community, including food banks and street pastors. The place of mission, evangelism and Church growth. • The importance of the worldwide church including: The work for reconciliation, how Christian church respond to persecution and the work of Christian Aid.	• Different ideas about what makes an act 'wrong'? • Religious and ethical ideas about relative and absolute morality, conscience, virtues, sin. • Beliefs and attitudes about the causes of crime and the aims of punishment: justice, retribution, deterrence and reformation. • The treatment of criminals and the work of prison reformers and prison chaplains. • Varied Conservative and Liberal Christian responses to the Death Penalty, including interpretations of Christian teaching: Exodus 20:13, Matthew 5:38-39, 43-47. • Christian teachings about forgiveness, including interpretations of teachings: Matthew 18:21-22, Matthew 6: 14-15. • Examples of forgiveness arising from personal beliefs (eg. Gee Walker). • Philosophical perspectives on the origin of evil: Original Sin (free will) and 'soul-making' (Irenaeus and John Hick). • Philosophical challenges posed by belief in God, free will and the existence of evil and suffering. • The key concepts and their definitions for this unit.

Philosophy and Ethics: Islam Beliefs and Practices	
Beliefs	**Practices: Worship**
• The six articles of faith in Sunni Islam and five roots of Ulul ad-Din in Shi'a Islam, including key similarities and differences.	• Five Pillars of Sunni Islam and the Ten Obligatory Acts of Shi'a Islam (student should study the 5 pillars and jihad in both Sunni and Shi'a Islam and the

• The oneness of God (Tawhid), Quran Surah 112 and the nature of God: omnipotence, beneficence, mercy, fairness and justice (Adalat in Shi'a Islam), including different ideas about God's relationship with the world: immanence and transcendence. • Angels, their nature and role including Jibril and Mikar'il and predestination and human freedom and its relationship to the Day of Judgement. • Life after Death (Akhirah), human responsibility and accountability, resurrection, heaven and hell. • Authority: Prophet hood (Risalah) including the role and importance of Adam, Ibrahim and Muhammad. • The six articles of faith in Sunni Islam and five roots of Ulul ad-Din in Shi'a Islam, including key similarities and differences. • Authority: The Holy Books – Qur'an: revelation and authority, the Torah, the Psalms, the Gospel, the Scrolls of Abraham and their authority. The imamate in Shi'a Islam: its role and significance.	additional duties of Shi'a Islam). Shahadah: Declaration of faith and its place in Muslim practice. • Salah and its significance: how and why Muslims pray including times, directions, ablution (wudu), movements (rak'ahs) and recitations; salah in the home and mosque and elsewhere; Friday prayer (Jummah); key differences in practices of Salah in Sunni and Shi'a Islam, and different Muslim views about the importance of prayer. • Duties and festivals: Sawm: the role and significance of fasting during the month of Ramadan including origins, duties, benefits of fasting, the exceptions and their reasons, and the Night of Power • Duties and festivals: Zakah: The role and significance of the pilgrimage to Makkah including origins how hajj is performed, the actions pilgrims perform at sites including the Ka'aba at Makkah, Mina, Arafat, Muzdalifah and their significance. • Duties and festivals: Jihad: Different understandings of jihad: the meaning and significance of great and lesser jihad, origins and conditions for the declaration of lesser jihad. • Duties and festivals: Festivals and commemorations and their importance for Muslims in Great Britain today, including the origins and meaning of Id-ul-Adha, Id-ul-Fitr, Ashura.

Philosophy and Ethics: Component 1 Theme 1 - Issues of Relationships (Christian Denominations)		
	Sexual Relationships	**Issues of Equality: Gender prejudice and discrimination**
• Christian beliefs, attitudes and teachings about the nature and purpose of relationships in the twenty first century • The role of families and how Christianity encourages family units. The roles of women and men • The purpose of families, including: procreation, stability and the protection of children, educating children in a faith. • Contemporary family issues including: same-sex parents and polygamy • Marriage outside the religious tradition and cohabitation • The nature and purpose of marriage as expressed through the Christian marriage ceremonies and teachings: Mark 10:6-10 and the Church of England Synod • Varying Christian attitudes towards adultery, divorce and annulment and separation and re-marriage. Interpretations of Matthew 19:8-9, Mark 10:9	• Christian teachings about the nature and purpose of sex • Christian teachings about the use of contraception including varied interpretations of Thomas Aquinas' Five Precepts • Diverse attitudes within and across Christian traditions towards same sex relationships, including varied interpretations of: Leviticus 18:22, 20:3 and 1 Timothy 1: 8-10 • Human sexuality including: heterosexual and homosexual relationships.	• Diverse attitudes within Christianity toward the roles of women and men in worship and authority • Interpretations of teachings: 1 Timothy 2:11-12, Galatians 3:2729 • Gender equality: Gender prejudice and discrimination including examples

Philosophy and Ethics: Component 1 Theme 3 - Issues of Good and Evil (Christian Denominations)		
Crime and Punishment	**Forgiveness**	**Good, Evil and Suffering**
• Religious and ethical responses: relative and absolute morality, conscience, virtues, sin • Beliefs and attitudes about the causes of crime and the aims of punishment: justice, retribution, deterrence and reformation • The treatment of criminals and the work of prison reformers and prison chaplains • Varied Christian responses to the Death Penalty, including interpretations of Christian teaching: Exodus 20:13, Matthew 5:38-39, 43-47	• Christian teachings about forgiveness, including interpretations of teachings: Matthew 18:21-22, Matthew 6: 14-15 • Examples of forgiveness arising from personal beliefs.	• Philosophical perspectives on the origin of evil: Original Sin (free will) and 'soul-making' • Philosophical challenges posed by belief in God and the existence of evil and suffering **Key Concepts** • good/evil • forgiveness • free will • justice • morality • punishment • sin • suffering

Philosophy and Ethics: Component 1 Theme 4 - Issues of Life and Death (Christian Denominations)		
The World	**The Origin and Value of Human Life**	**Beliefs about Death and the Afterlife**
• Diverse Christian beliefs, teachings and attitudes about the accounts of the origin of the universe: **Genesis 1 and 2** • The relationship between Christian views and non-religious views of creation and the extent to which they conflict • Christian beliefs, teachings and attitudes about dominion, stewardship, environmental responsibility, sustainability, and global citizenship: **Genesis 1:28, Psalm 8:6**	• Diverse Christian beliefs, teachings and attitudes toward the origin and sanctity of human life: **Genesis 1:31, Jeremiah 1:5** • Diverse Christian attitudes towards abortion and euthanasia • Non-religious views about the origin and value of human life, including attitudes toward abortion and euthanasia	• Christian beliefs and teachings about life after death, including soul, judgement, heaven and hell: **John 11:24-27, 1 Corinthians 15: 42-44** • Diverse Christian beliefs about the after-life • How Christian and non-religious funerals reflect beliefs about the after-life **Key Concepts** • afterlife • environmental sustainability • euthanasia • evolution • abortion • quality of life • sanctity of life • soul

Computer Science

Both are 90 minute written papers (non-calculator) with no formula sheets or pre-information. Each one is worth 50% of the overall grade.

Paper 01:

1.1 Systems architecture
1.1.1 Architecture of the CPU
1.1.2 CPU Performance
1.1.3 Embedded Systems
1.2 Memory and storage
1.2.1 Primary storage (memory)
1.2.2 Secondary storage
1.2.3 Units
1.2.4 Data storage (numbers, characters, images sound)
1.2.5 Compression

1.3 Computer networks, connections and protocols
1.3.1 Networks and topologies
1.3.2 Wired and wireless networks, protocols and layers
1.4 Network security
1.4.1 Threats to computer systems and networks
1.4.2 Identifying and preventing vulnerabilities
1.5 Systems software
1.5.1 Operating systems
1.5.2 Utility software
1.6 Ethical, legal, cultural and environmental impacts of technology

2.1 Algorithms
2.1.1 Computational thinking
2.1.2 Designing, creating and refining algorithms
2.1.3 Searching and sorting algorithms
2.2 Programming fundamentals
2.2.1 Programming fundamentals
2.2.2 Data types
2.2.3 Additional programming techniques
2.3 Producing robust programs
2.3.1 Defensive design
2.3.2 Testing
2.4 Boolean logic
2.5 Programming languages and Integrated Development Environments
2.5.1 Languages
2.5.2 The Integrated Development Environment (IDE)

Food and Nutrition

Food, Nutrition and Health

NUTRIENTS:
- Proteins
- Fats
- Carbohydrates
- Vitamins
- Minerals
- Dietary Fibre & Water
- Energy needs

NUTRITIONAL NEEDS AND HEALTH:
- How to carry out nutritional analysis
- Making informed choices for a varied and balanced diet
- Diet, nutrition and health

Food Science

COOKING OF FOOD AND HEAT TRANSFER:
- Why food is cooked and how heat is transferred to food
- Selecting appropriate cooking methods

FUNCTIONAL & CHEMICAL PROPERTIES OF FOOD:
- Proteins
- Carbohydrates
- Fats and oils
- Raising agents

Food Safety

FOOD SPOILAGE AND CONTAMINATION:
- Micro-organisms and enzymes
- Micro-organisms in food production
- The signs of food spoilage
- Bacterial contamination

PRINCIPLES OF FOOD SAFETY:
- Buying and storing food
- Preparing, cooking and serving food

Food Choice

- Factors that influence food choice
- Food choice
- Food labelling and marketing influences
- British & International cuisines
- Sensory Evaluation

Food Provenance

ENVIRONMENTAL IMPACT AND SUSTAINABILITY:
- Food sources
- Food and environment
- Sustainability of food

PROCESSING AND PRODUCTION:
- Food production
- Technological developments associated with better health and food production

Design & Technology		
Core Technical Principles (10% overall GCSE)	**Specialist Technical Principles (40% overall GCSE)**	**Designing and Making Principles (NEA 50% and Exam)**
• Energy generation and storage • New technologies • New materials • Systems approach to designing, • Mechanical devices • Materials and working properties	• Selection of materials and components • Forces and stresses • Ecological and social footprint • Sources and origins • Using and working with materials • Stock forms, types and sizes • Scales of production • Specialist techniques and processes • Surface treatments and finishes	• Investigation • Primary and Secondary data • Environmental, Social and Economic challenge • The work of others • Design strategies • Communication of design • Prototype development • Selection of materials and components • Tolerances • Materials management • Specialist tools and equipment • Specialist techniques and processes • Designing and making principles

GCSE Physical Education (PE)
• Skeletal System • Muscular System • CV system • Respiratory System • Levers • Axes and Planes • Training Principles • Fitness Components

Drama: Component 1 – 40% of the total GSCE Grade		
Written Paper - Section A	**Written Paper - Section B**	**Written Paper - Section C**
• Theatre roles • Responsibilities • Terminology • Staging/stage space *Students will need to look at the theatre roles/responsibilities and terminology lists and staging configurations to remind themselves of this information*	• Blood Brothers *Read over notes and any character work. Revise WAGOLLs and exam technique information. Students will have a copy of the play in the exam so DO NOT NEED to learn quotes but knowing where useful sections are will help save time in the exam* The 6.4 Q alone is worth 10% of your final GCSE grade. That means it is worth as much as one of your extract performances or your devised performance. Put the same amount of effort and work into revising this.	• Live theatre (Frankenstein) *Students need to remember **THE PRODUCTION, THE VENUE AND DATE.** They must know in detail **several KEY MOMENTS** from the production they have seen. **Revise 5 KEY MOMENTS and at least 2 ACTORS/CHARACTERS in detail linking to specific moments.*** This section alone is worth nearly 20% of the final GCSE grade. It is essential you revise this in detail.

Music Listening Paper – 40% of the total GSCE Grade	
Core Knowledge	**Analytical Skills**
• The Concerto Through Time – Baroque, Classical and Romantic Concerto • Rhythms of the World - Indian Classical, Bhangra, African Drumming, Greek, Israeli, Palestine, Samba, Calypso	Instrumental recognition Timbre description Intervals and melodic dictation Describing music accurately and chronologically using key terminology Comparisons

• Conventions of Pop - Rock and Roll, Rock, Pop Ballads, Solo Artists, Film	Theory (Time signatures, key signatures, staff notation, dynamics. tempo General set topic listening.

Dance

Performance: Knowledge, understanding and skills	Solo performance (two of the following set phrases to perform as a soloist)	Duet/trio performance
Physical skills and attributes: • posture • alignment • balance • coordination • control • flexibility • mobility • strength • stamina • extension • isolation **Technical skills**: • action content • dynamic content • spatial content • relationship content – for duet/trio performance only • timing content • rhythmic content • movement in a stylistically accurate way **Expressive skills:** • projection • focus • spatial awareness • facial expression • phrasing **<u>For duet/trio performance only</u>**: • musicality • sensitivity to other dancers • communication of choreographic intent, including mood(s), meaning(s), idea(s) **Mental skills and attributes (during performance)**: • movement memory • commitment • concentration • confidence **Safe working practices (during performance)**: • safe execution • appropriate dancewear, including: footwear, hairstyle, absence of jewellery **Mental skills and attributes (process)**: • systematic repetition • mental rehearsal • rehearsal discipline • planning of rehearsal • response to feedback • capacity to improve **Safe working practices (process)**: • warming up • cooling down • nutrition • hydration	• breathe • flux • shift • scoop	• opportunities for students to demonstrate the additional knowledge, skills and understanding specific to duet/trio performances ie relationship content, musicality and sensitivity to other dancers • opportunities for students to demonstrate safe practice at a challenging level, eg physical contact and interaction with other dancers, elevations, moving into and out of the floor at speed • an appropriate aural setting Focus on ability to demonstrate application of: • physical skills and attributes safely during performance • technical skills accurately and safely during performance • expressive skills • mental skills and attributes during performance

Professional set works: be prepared to describe, analyse, interpret, evaluate and reflect on the works

Dance work	Dance company	Choreographer
Artificial Things	Stopgap Dance Company	Lucy Bennett
A Linha Curva	Rambert Dance Company	Itzik Galili
Infra	The Royal Ballet	Wayne McGregor
Shadows	Phoenix Dance Theatre	Christopher Bruce
Within Her Eyes	James Cousins Company	James Cousins
Emancipation of Expressionism	Boy Blue Entertainment	Kenrick H2O Sandy

Dance: Choreography

Knowledge, understanding and skills for choreography:	Documenting the choreography: (programme note of approximately 120–150 words)
Action content: • travel • turn • elevation • gesture • stillness • use of different body parts • floor work • transfer of weight **Dynamic content:** • fast/slow • sudden/sustained • acceleration/deceleration • strong/light • direct/indirect • flowing/abrupt **Spatial content:** •pathways • levels • directions • size of movement • patterns • spatial design **Relationship content:** • lead and follow • mirroring • action and reaction • accumulation • complement and contrast • counterpoint • contact • formations **Choreographic processes:** • researching • improvising • generating • selecting • developing • structuring • refining and synthesising **Structuring devices and form:** • binary • ternary • rondo • narrative • episodic • beginning/middle/end • unity • logical sequence • transitions **Choreographic devices:** • motif and development • repetition • contrast • highlights • climax • manipulation of number • unison and canon **Aural settings (and how they affect choreographic outcomes):** • song • instrumental • orchestral • spoken word • silence • natural sound • found sound • body percussion **Effects on choreographic outcomes:** • mood and atmosphere • contrast and variety • structure • relationship to theme/idea **Performance environments:** • proscenium arch • end stage • site-sensitive • in-the-round **Communication of choreographic intent:** • mood(s) • meaning(s) • idea(s) • theme(s) • style/style fusion(s)	• the choice of the set assessment stimulus to which the student responded, and the specific stimulus (eg poem, painting etc) that the student used • a description of how the choreographic intent of the work eg the idea(s), theme(s), mood(s), meaning(s) and/or style/style fusion(s) of the dance was achieved • citations of title and musician/artist for any aural accompaniment used **Critical appreciation of professional set works:** **Features of production:** • staging/set eg projection, furniture, structures, backdrop, screens and features of these such as colour, texture, shape, decoration, materials • lighting eg colour, placement, direction, angles etc • properties eg size, shape, materials, how used etc • **costume** (including footwear, masks, make-up and accessories): features such as colour, texture, material, flow, shape, line, weight, decoration and how they define character or gender, identify dancers, enhance or sculpt the body and enhance the action • dancers (number, gender) • aural settings eg song, instrumental, orchestral, spoken word, silence, natural sound, found sound, body percussion, style, structure and musical elements such as tone, pitch and rhythm • dance for camera eg placement, angle, proximity, special effects **Performance environments:** • proscenium arch • end stage • site-sensitive • in-the-round **Choreographic content:** • movement content as per the knowledge, skills and understanding for choreography specified in Choreography • structuring devices and • choreographic devices **Choreographic intent:** • mood(s) • meaning(s) • idea(s) • theme(s) • style/style fusion(s) **Critical appreciation of own work:** **Performance:** • the meaning of the relevant performance terminology in Performance • the contribution of performance to audience understanding of the choreographic intent of the work being performed including the mood(s), meaning(s), idea(s), theme(s) and/or style/style fusion(s) **Choreography:** • the meaning of relevant choreography terminology in Choreography • the contribution of choreography to audience understanding of the choreographic intent of the work including the mood(s), meaning(s), idea(s), theme(s) and/or style/style fusion(s)