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English International School

	Autumn	Spring	Summer
English	**Developing reading skills** -Exploring how to identify and unpack the explicit meanings of a text -Exploring how to extract detailed and implied meanings from a text - Considering strategies to identify relevant textual evidence and ideas -Investigating how to overcome difficult and new vocabulary choices in a text -Considering ways to unpack a text's purpose, meanings and sense of audience Exploring the effects created by a text through the use of different narrative voices -Investigating how to unpack some of the hidden meanings and attitudes contained in a text **Developing writing skills** -Considering how the language, structure and register of a text are dependent on audience -Utilising a range of appropriate vocabulary choices to convey ideas to the reader accurately -Exploring how to effectively structure and sequence our writing	**Writing summaries** - Investigating how to write an effective response to the summary question - Developing and enhancing writing to summarise skills Improving summary responses by reflecting upon how to use your own words -Developing logically sequenced summary responses -Developing precise and concise summary responses -Enhancing the fluency and clarity of summary responses **Responding to reading** -Exploring ways to identify implicit meanings and consider how they impact upon the reader -Developing ideas about a writer's ideas / use of language in a concise and logical manner Exploring how a writer's use of language affects the reader's thinking and understanding Exploring how narratives are developed and sequenced Investigating ways to analyse how a character is presented	**Selecting, analysing and using information** -Selecting and organising relevant information in a coherent and effective way -Developing coherent and logical texts by using supporting detail Investigating and analysing the effects of a range of literary devices -Exploring the effects of a range of key features of Persuasive writing, and how they can be used to convince the audience - Developing a detailed report using a range of key features Evaluating and reviewing the success of different types of texts -Exploring the key features of language and style used in a transcript Investigating the conventions of letter writing -Developing engaging and thoughtful articles using a range of key features to inform, explain and describe -Exploring how to compose effective speeches that inform and persuade -Exploring how to write an effective journal entry that informs, describes and reflects

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	-Exploring how the success of different texts depends upon different groups of key features -Developing effective written texts in a variety of styles by using a range of appropriate key features -Experimenting in using a range of vocabulary choices and sentence structures to convey different voices in our writing -Considering ways to improve the accuracy of spelling and grammar structures	Considering how an argument can effectively persuade the reader	
Mathematics	**Solving quadratic equations** - Solving quadratic equations using the quadratic formula and Vieta's formulae - Factorising quadratic equations - Solving word problems using quadratic equations - Solving rational equations **Functions/Quadratic function** - Mappings - Function notation - Domain and range of functions - Properties of functions. - The Standard, Vertex and Factored forms of quadratic functions	**Inequalities** - Numerical inequality - Properties of inequalities - Addition and multiplication of inequalities - Error and accuracy of approximation - Intersection and union of sets - Inequality, number line and interval notation of sets - Inequality with one variable - Compound and double inequalities - Systems of inequalities with one variable - Solving non-linear inequalities - Systems of inequalities with two variables - Linear programming, including inequalities **Geometry** - Solving complex problems using the area formulae (Square, Rectangle, Triangle,	**Geometry** - Bearings - Angle of elevation, angle of depression - Trigonometric ratios in right-angled triangles - Relating angles and sides of right-angled triangles using sine, cosine, and tangent - Solving problems in right-angled triangles using trigonometric ratios - Sine, Cosine functions and transformations using degrees - Modelling real-life situations using trigonometric functions - Unit circle - Radians - Trigonometric functions and transformations using radians - Sine Rule and Cosine rule, including applications (link to trigonometric functions) - Area of a triangle rule

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	- Different forms of quadratic functions and text problems - Graphing different types of functions(quadratic) and understanding their characteristics - Transformation of linear and quadratic functions - Translations reflections and dilations - Exponential functions - Transformation of rational functions - Transforming cubic functions - Composite functions - Inverse functions	Parallelogram, Trapezium, Circle) - Pythagoras theorem - Similar triangles - Triangle and trapezium mid-segment theorems - Finding the volume and surface area of regular and compound shapes, capacity - Secant, tangent - Arc length, sector area - Using circle theorems to find lengths of chords. - Measurement of angles and arcs - Inscribed and central angles - Relationships of tangent and secant lines in circles	- Trigonometric identities
Physics	**Motion** - Scalars and vectors. - Understand displacement, velocity and acceleration. - Understand motion graphs. - Understand the equations of motion. - Understand momentum. **Forces** - Define a 'Force' as an interaction that	**Energy** - Define 'Work' as the energy transferred when a force causes an object to move a distance. - Solve problems using. - Define 'Energy' as the capacity to do Work. - List examples of 'Energy Stores'. - Describe the energy transfers. - Define 'Power' as the rate at which energy is transferred. - Solve problems using formulae	**Electricity** - Define 'Current' as the rate of flow of charge - Solve problems using formulae. - State that the current in metals - Recall that electrons flow in the opposite direction to 'Conventional Current'. - Define 'Potential Difference' at the energy transferred per unit charge (moving across component in a circuit). {use of the term 'e.m.f.' will not be expected}

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	tries to change an objects momentum. - List examples of forces. - Draw force vectors as arrows with length proportional to the magnitude of the force. - Describe how multiple forces can be represented by a single resultant force. - Calculate the resultant of several parallel forces. - Use vector diagrams to find the resultant force in an unbalanced (non-equilibrium) system, or to find the unknown force in a balanced (equilibrium) system. - Draw free-body diagrams for simple systems. - Explain why stretching, compressing or bending an object requires more than one force to be acting on the object. - Distinguish between internal (acting between two objects inside the system) forces and external (acting on an object in the system from outside it) forces. - State and use Newton's First Law – An object maintains its state of motion unless acted upon by an external resultant force. - State and use Newton's Second Law – An object accelerates when acted upon by – an external resultant force. - Solve problems using, where m is the	- State that energy is conserved. - Define 'Useful' energy as the energy output in the forms a device was intended to produce- Identify useful and wasted energies in common devices or situations. - Calculate an unknown energy - Explain how energy tends to dissipate/spread out among objects in a system, and that system's surroundings, so that it is stored in less useful ways. - Draw Sankey diagrams from data. - Calculate the efficiency of a system using - Solve problems using (equation given). - Solve problems involving the transfer of energy between K.E., G.P.E. and E.P.E. - Explain how the main energy sources available on Earth are used to generate electricity. - Define 'Renewable Energy sources' as sources which replenish themselves faster than they can be used. - Compare and contrast the main energy sources in terms of renewability, reliability, cost to set-up, cost to run environmental impact and limitations. **Waves** - Describe waves as oscillations	- Solve problems. - State that for current to flow a closed circuit - Define 'Resistance' as the ratio of the potential difference across a component - Solve problems using formulae - State that a component with constant resistance is called an 'Ohmic Conductor'. - Identify an ohmic conductor from a graph - Calculate the resistance of an ohmic conductor from a graph or data table. - Sketch and identify I-V graphs for fixed resistors, bulbs/lamps, an diodes/LED's. - Sketch the I-V graph for a (negative coefficient) thermistor or LDR when the conditions change, given the original curve. - Explain I-V graphs for fixed resistors, bulbs/lamps, and diodes/LED's. - Explain the changes in the I-V graph for a thermistor or LDR when the conditions change. - Calculate the resistance of a component at specified potential difference given its I-V graph. - Solve problems using (components and devices). - Draw and identify common component symbols. (wire,cell, battery, switch, fixed resistor, variable resistor, LDR, thermistor,

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	Inertial mass. -Define the 'Inertial Mass' as the resistance to changing the velocity of an object, given by . {The distinction between inertial and gravitational mass will not be examined, and use of the term 'inertial' will not be expected by the student} - Define 'Weight' as the force exerted on an object (with mass) by gravity. - Recall that the gravitational field strength, g, is 10 m/s at the Earth's surface, and that it will be different on other planets/moons/etc. - Solve problems using, where g is given if the object is not on the Earth's surface. - Explain why motion in a circle at a constant speed requires a constant force (towards the centre of the circle). - State and use Newton's Third Law – When an object exerts a force on a second object, the second object exerts an equal and opposite force on the first. - Identify Newton's Third Law force pairs. -State that a force can change the shape of an object. - State that if an object returns to its original shape when the force deforming it is removed then the change was elastic, otherwise, the change is inelastic. - State Hooke's Law as the extension of a	that transfer energy without transferring matter. - Define the term 'Amplitude' as - Define the term 'Wavelength' as the distance between two adjacent maxima (or minima). - Define the term 'Frequency' as the number of wavelengths passing a point per second. - Define the term 'Period' as the time taken for one whole wavelength to pass a point. - Label diagrams of waves with: amplitude, wavelength or period, crest and trough. - Solve problems. - Compare and Contrast transverse and longitudinal waves and give examples. - Define the term 'Reflection' as an abrupt change in direction of a wave. - Define the term 'Refraction' as an abrupt change in direction of a wave when it meets a boundary. - Define the term 'Diffraction'. - Explain refraction. - Solve problems using where a light wave passes between air and a transparent material.	lamp, diode, ammeter, voltmeter). -Describe the difference between series and parallel circuits. - Draw and interpret simple circuit diagrams using common component symbols. - Explain why the resistance of two identical resistors in series is higher than one of the resistors (qualitative only). - Calculate the total resistance. - Explain why the resistance of two identical resistors in parallel is lower than one. - Calculate the total resistance of two Resistors in parallel - Recall that the domestic supply in the UK is A.C. at 50 Hz, and that the voltage is equivalent to D.C. at 230V. {rms is a useful term but is not required} - Describe the functions of the 'Live', 'Neutral' and 'Earth' wires in a mains cable or electrical appliance. - Identify 'Live', 'Neutral' and 'Earth' wires by their colour codes. {Only the current UK colour codes will be examined, but an appreciation of the existence of past codes and variation across countries should be encouraged} - Describe how to safely wire a mains plug. {The position of wires will not be examined}

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	spring is directly proportional to the force causing the extension. - Solve problems using. Outline an experiment to find the spring constant of a metal spring. - Define the 'Limit of Proportionality' as the point beyond which Hooke's law no longer applies.		- Identify common faults from mains plug diagrams. - Explain common electrical hazards in the home.
Biology	**Cell formation, structure, and functions** -Understand the characteristics of living organisms. -Understand the basic structures and functions of cells. -Understand the working functions of a light microscope. -Understand levels of human organisation. -Understand levels of plant organisation. **Movement in and out of cells** - Understand the processes involved in diffusion. - Understand the processes involved in osmosis. - Understand the process of active transport. **Biological molecules and human digestion**	**Respiratory system** - Understand the role of gaseous exchange in human beings. **Transport in animals** - Understand the function of the human heart and the circulatory system. **Disease, immunity, and drugs** - Understand the impact on the human body and plants from diseases and immunity. - Understand the impact of medicinal and recreational drugs on the human body. - Understand the use of drugs in sport.	**Plants** - Understand the role of photosynthesis in plants. - Understand the structure of plant tissues and their key functions. - Understand the plant transport function. **Coordination, response and excretion** - Understand the nervous system in the human body. - Understand chemical coordination in humans. - Understand chemical coordination in plants. - Understand the role of excretion in human beings. **Reproduction** Understand reproductive cell division. Understand plant reproduction.

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	- Understand the structure of biological molecules. - Understand the properties of Deoxyribonucleic Acid (DNA). - Understand the function of enzymes. - Understand animal nutrition and the digestive system.		
Chemistry	**States of matter** - Describe solids, liquids, and gases in terms of particle arrangement proximity and motion. - Diffusion and factors which influence diffusion - Describe the pressure and temperature of gases in terms of motion of particles - Differences of solids, liquids, and gases in terms of (i) volume, (ii) ability to flow, (iii) ability to be compressed, and (iv) relative kinetic energy of particles. **Methods of purification** - Apparatus for the measurement of time, temperature, mass, and volume - Paper chromatography and how to carry out the practical experiment - Purity of substances based on melting and boiling points	**Understand the Periodic Table** - The changes from metallic to non-metallic character across a period - The relationship between group number and number of electrons in outer shell and between period and number of electron shells - The differences between metals and non-metals - The trends in physical and chemical properties of group 1 metals - The trends in physical properties of the group VII elements (Halogens) - Describe properties of transition elements - Describe the noble gases including their electronic structure **Chemical bonding** - Formation of ions by electrons loss or gain, ionic bonding, formation of ionic bonds	**Quantitative Chemistry** - Differentiate between metals and non-metals, metal and non-metal compounds - Define the terms ‘products’ and ‘reactants” - Outline the following states of matter symbols: (i) s, (ii) l, (iii) g, (iv) aq - Define the term ‘spectator ions’ - Deduce formula of ionic compounds - Construct word, chemical and balanced chemical equations - Describe titrations, ‘percentage yield’ and ‘percentage purity’ - Deduce relative atomic mass and relative formula mass **Air and water Chemistry** - Describe the chemical tests for water. - Explain the problems of an inadequate supply of water.

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	- Effect of impurities on melting and boiling points of substances - Methods of purification including in terms of solubility, density, boiling points **Atoms and the Periodic Table** - Relative mass and charge of a proton, neutron, and electron - Define the term relative atomic mass and relative formula mass, isotopes - The significance of the noble gas electronic structure and outer shell electrons in terms of chemical reactivity - The differences between elements, compounds, and mixtures	- Describe the lattice structure of ionic compounds - Describe covalent bonding in terms of sharing of electrons, formation of simple covalent bonds, 'lone pair of electrons' - Single, double and triple covalent bonds - Describe giant covalent structures - Define the term 'metallic bonding', properties of metals	- relative composition of gases in the atmosphere - Uses of nitrogen and oxygen - Explain the negative effects of air pollutants - Explain the various stages of the carbon cycle - Rusting and various methods of rust prevention
Business Studies	**Business Functions** -The aim of this subject content is to improve the ability of learners in business functions. - Learners will be introduced to a range of business activities such as sales, marketing, operations, people and systems (including processes). -The intention is for learners to gain insight as to how business is driven by a cross-	**Organisation in Business** -The aim of this subject content is to allow learners to demonstrate a basic understanding as to the importance of organisation within business. -Learners must be able to demonstrate their knowledge of simple organisation structures, complex (e.g. – hierarchal) structures and how these align with certain types of business organisations.	**Internal and external influences in business** -The aim of this subject content is to improve the candidate's understanding as to the way in which internal and external influences affect business decisions, funding, management and overall functions within business.

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	section of activities which interweave and rely on each other to function successfully.	-Learners must also demonstrate a basic understanding as to the importance of effective employee engagement in business operations.	
History	**Understand the motives and aims of the Big Three at Versailles.** -Describe the map of Europe, particularly the German Empire and how it changed; the challenges faced by both old and new nations. -Explain to what extent they agree with the peace settlements. Justify their answer with well-supported facts.	**Understand the extent of the League of Nations' success.** -Analyse sources and describe how they portrayed the League of Nations. Moreover, explain if they agree or disagree with the message. - Describe how the League of Nations and Japan were portrayed. - Explain the how Japan ignored the power of the League.	**Understand how Hitler's foreign policy to blame for the outbreak of war in Europe in 1939.** -Explain how effective or ineffective was Neville Chamberlain's employment of the appeasement policy. Provide historical facts to support their answer. -Explain what determines the leaders' responsibility for the outbreak of the Second World War. Make a rating scale.
Geography	**Rivers** -Explain the main hydrological characteristics and processes which operate in rivers and drainage basins. -Describe and explain the formation of the landforms associated with these processes. -Demonstrate an understanding that rivers present hazards and offer opportunities for	**Population** -Describe and give reasons for the rapid increase in the world's population. -Show an understanding of over-population and under-population. - Understand the main causes of a change in population size.	**Settlements (rural and urban) and service provision** -Explain the patterns of settlement -Describe and explain the factors which may influence the sites, growth and functions of settlements. -Give reasons for the hierarchy of settlements and services.

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	people. Explain what can be done to manage river flooding's impacts. **Coastal areas** -Demonstrate an understanding of the work of the sea and wind in eroding, transporting, and depositing. -Describe and explain the formation of the landforms associated with these processes. -Describe coral reefs and mangrove swamps and the conditions required for their development.	Give reasons for contrasting rates of natural population change. -Describe and evaluate population policies. Case Studies required for; -A country which is overpopulated. -A country which is underpopulated. -A country with a high rate of natural population growth. • A country with a low rate of population growth (or population decline). **Migration** -Explain and give reasons for population migration. -Demonstrate an understanding of the impacts of migration.	**Urban settlement** -Describe and give reasons for the characteristics of, and changes in, land use in urban areas. -Explain the problems of urban areas, their causes and possible solutions. Case Study required for**;** -An urban area or urban areas. **Urbanization**

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	-Demonstrate an understanding that coasts present hazards and offer opportunities for people. -Explain what can be done to manage the impacts of coastal erosion.	-Identify and give reasons for and implications of different types of population structure. **Population density and distribution** -Describe the factors influencing the density and distribution of population. Case Studies required for; -A densely populated country or area (at any scale from local to regional). -A sparsely populated country or area (at any scale from local to regional).	-Identify and suggest reasons for rapid urban growth. -Describe the impacts of urban growth on both rural and urban areas, along with possible solutions to reduce the negative impacts. Case Study required for; -A rapidly growing urban area in a developing country and migration to it.
Economics	**The basic economic problem** -Definition and examples of the economic problem in the contexts of: consumers; workers; producers; and governments. -The difference between economic goods and free goods. -Definitions and examples of land, labour, capital and enterprise. Examples of the nature of each factor of production.	**The allocation of resources – price determination** -Definition, drawing and interpretation of demand and supply schedules and curves used to establish equilibrium price and sales in a market. -Definition, drawing and interpretation of demand and supply schedules and curves used to identify disequilibrium prices and	**Microeconomic decision makers** -The forms, functions and characteristics of money. -The role and importance of central banks and commercial banks for government, producers and consumers. -Including income, the rate of interest and confidence – between different households and over time.

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	-The influences on the mobility of the various factors. -The causes of changes in the quantity and quality of the various factors. -Definition and examples of opportunity cost in different contexts. -Definition, drawing and interpretation of appropriate diagrams. -The significance of the location of production points. -Movements along a PPC and opportunity cost. -The causes and consequences of shifts in a PPC in terms of an economy's growth. **The allocation of resources** -The difference between microeconomics and macroeconomics and the decision makers involved in each. -How a market system works; including buyers, sellers, allocation of scarce resources, market equilibrium, and market disequilibrium. -Establishing that the economic problem creates three key questions about determining resource allocation – what to produce, how, and for whom. -How the price mechanism provides answers to these key allocation questions.	shortages (demand exceeding supply) and surpluses (supply exceeding demand). -Changing market conditions as causes of price changes. -Demand and supply diagrams to be used to illustrate these changes in market conditions and their consequences for equilibrium price and sales. -Calculation of PED using the formula and interpreting the significance of the result. -Drawing and interpretation of demand curve diagrams to show different PED. -The key influences on whether demand is elastic or inelastic. -The relationship between PED and total spending on a product/revenue, both in a diagram and as a calculation. -The implications for decision making by consumers, producers and government. -Calculation of PES using the formula and interpreting the significance of the result. -Drawing and interpretation of supply curve diagrams to show different PES. -The key influences on whether supply is elastic or inelastic. -The implications for decision making by consumers, producers and government. -definition of market failure -causes of market failure and consequences of market failure	-Wage and non-wage factors. -The influences of demand and supply, relative bargaining power and government policy, including minimum wage. -Reasons for differences in earnings -Advantages and disadvantages for workers, firms and the economy. -definition of a trade union -the role of trade unions in the economy -Including engaging in collective bargaining on wages, working hours and working conditions; protecting employment; and influencing government policy. Factors influencing the strength of trade unions. -Understand the advantages and disadvantages of trade union activity -classification of firms -small firms - The advantages and disadvantages of small firms, the challenges facing small firms and reasons for their existence. -Causes and forms of the growth of firms -mergers - Examples, advantages and disadvantages of different types of mergers: horizontal, vertical, and conglomerate. -Economies and diseconomies of scale -Influences to include demand for the product, the price of different factors of production, their availability and their productivity.

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	-Definition, drawing and interpretation of appropriate diagrams. -A supply curve to be drawn and used to illustrate movements along a supply curve with appropriate terminology, for example extensions and contractions in supply. -The link between individual and market supply in terms of aggregation. -The causes of shifts in a supply curve with appropriate terminology, for example increase and decrease in supply.	-Definition of the mixed economic system -Government intervention to address market failure	-The reasons for adopting the different forms of production and their advantages and disadvantages. -The difference between, and influences on, production and productivity. -definition of costs of production -calculation of costs of production -definition of revenue -calculation of revenue -objectives of firms -The effect of having a high number of firms on price, quality, choice, profit. -Characteristics, advantages and disadvantages of monopoly.
French	**Ma famille et mes amis** - Describing my family and myself • physical descriptions and descriptions of personality using the key verbs avoir and être + accurate adjectival agreement. • describing family relationships • use of reflexive verbs • what is a good friend? • reinforcement of the above + expansion of vocabulary. • a person I admire • use of the comparative and superlative • marriage – pros, cons, and future • use of the conditional tense • use of the near/ simple future tense • use of modal verbs to express desire. - expressions of preference using a variety of quality language structures • festivals and	**Mes passe- temps** - Sports • use of jouer and faire • reinforcement of the conjugation of -er verbs • depuis + present tense • expressing complex opinions • Technology • - saying how you use technology using a wide variety of regular and irregular verbs • use of a variety of infinitive structures to express advantages and disadvantages • - Reading and music • opportunities to express preferences and reinforce all quality language structures studied to date. - TV and Film.	**Mes vacances** - A usual holiday • use of key verbs to describe a usual holiday • booking a hotel • A past holiday • formation of the perfect tense with avoir and être • use of the imperfect +/ pluperfect tense to describe a holiday disaste -A dream holiday • use of a variety of future tense expressions to discuss a future/ dream holiday (conditional, near & simple future tenses) - This topic allows students to expand on knowledge gained at KS3 and reinforces the use of three tenses and quality language structures essential for GCSE success.

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	traditions • how we celebrate big events (birthdays/ Christmas etc). - This topic revisits and expands on basic vocabulary and grammatical structures seen in Y7. Opportunities to explore complex grammatical structures are introduced (comparative/ superlative) and expressions of future wishes using a variety of structures are reinforced. The new topic of marriage allows students to adapt previously seen vocabulary and structures in a new	- discussing genres and preferences ▪ use of the comparative ▪ reinforcement of adjectival agreement ▪ use of direct object pronouns ▪ -- -Reinforcement of the use of 3 tenses with all key verbs. - This topic consolidates and expands on much of the KS3 curriculum, allowing students opportunities to reinforce the use of quality language structures, three tenses and expand into giving more complex reasons for preferences.	Opportunities for narration of events allow for more complex descriptions. - Students will be given provision for Spiritual development through the awareness of other people's faiths and values in the Francophone world, reflecting on and sharing experiences with others and using imagination and creativity in their learning. - Students will be given the opportunity for Moral development through understanding and abiding by the rules and expectations of the classroom and examining cultural traditions in the Francophone world, discussing them in a safe and respectful environment. -Students will be given the opportunity for social development through the vast array of opportunities for pair work and teamwork in the classroom which foster an ethos of cooperation, support, and respect with their peers, all different religious, ethnic, and socio-economic backgrounds. - Students will be given the opportunity for Cultural development by exploring different beliefs, traditions and festivals in the Francophone world and comparing them with those in Britain. Their greater understanding of diverse cultures in the world will enable them to develop respect and to celebrate diversity. Students will gain an understanding

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			of the notion of 'politesse' and its importance in Francophone culture.
Computer Science	**Systems architecture** **Aim** The aim of this unit is to enable students to demonstrate a theoretical and practical understanding of computing systems. - Understand Systems architecture- - **Analyse** the purpose of the CPU - **Analyse** Von Neumann architecture/ MAR (Memory Address Register)/ MDR (Memory Data Register)/ Program Counter/ Accumulator - **Analyse** ALU (Arithmetic Logic Unit) CU (Control Unit) Cache - **Analyse** CPU as fetch and execute instructions stored in memory - A**nalyse** CPUs affect their performance: /clock speed /cache size / number of cores - **Analyse** purpose of embedded systems3 **Memory** **Aim** The aim of this unit is to enable students to demonstrate a theoretical understanding of Memory	**Principles of data Storage** **Aim** The aim of this unit is to enable students to demonstrate a theoretical understanding of Data Storage - **Differentiate** between common types of storage: optical/magnetic/solid state. - **Differentiate** between common types of storage: optical/magnetic/solid state- e advantages and disadvantages of these capacity speed portability durability reliability cost. **Wired and wireless Networks** **Aim** The aim of this unit is to enable students to demonstrate a theoretical understanding of wired/wireless networks - **Investigate** LAN (Local Area Network) WAN (Wide Area Network) - **Investigate** client-server and a peer-to-peer network - **Investigate** DNS (Domain Name Server) hosting the cloud	**Concepts of Network topologies, protocols and layers** **Aim** The aim of this unit is to enable students to demonstrate a theoretical understanding of Network topologies, protocols and layers - **Describe** star and mesh network topologies - **Describe** protocols including TCP/IP (Transmission Control Protocol/Internet Protocol) HTTP (Hyper Text Transfer Protocol) HTTPS (Hyper Text Transfer Protocol Secure) FTP (File Transfer Protocol) POP (Post Office Protocol) IMAP (Internet Message Access Protocol) SMTP (Simple Mail Transfer Protocol - Describe packet switching. - **Describe** encryption **Principles of System security** **Aim** The aim of this unit is to enable students to demonstrate a theoretical understanding of System security

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	- **Explain the** purpose of ROM in a computer system - **Explain the** purpose of RAM in a computer system - **Explain** the difference between RAM and ROM - **Explain** virtual memory - **Explain** flash memory	- **Investigate** DNS (Domain Name Server) hosting the cloud - **Investigate** virtual networks.	- **Describe** forms of attack malware phishing brute force attacks denial of service attacks poor network policy - **Describe** preventing vulnerabilities network policies anti-malware software firewalls user access levels passwords
P.E	**Handball** -To be able to rally co-operatively with a partner. -To be able to play in different positions (attack, defence, goalkeeper) -To be able to perform a technically basic standard. -To be able to be judging the game. -To be able to perform teamwork (communication) -To be able to basic the rules/regulations and safety procedures. -To be able to understand the importance of physical test	**Football** -Studying rules of safety in the lessons of Football. -Studying and developing dribbling, inside -the foot pass, long pass, foot trap, passing, outside the foot pass, -ball control; tackling -goalkeeping, kicking goals, kick-off -punting, volleying -team play and strategy -defensive manoeuvres, -football rules, game -Improving stamina, agility, strength.	**Volleyball** -Studying rules of safety in the lessons of Volleyball. -Studying and developing underhand serve, simple returns, overhand serve, -Studying and developing forearm passing (set shot) -Studying and developing dig shot - Setting -Blocking -Spike/attacking -Basic games rules, game strategy, rotation Improving stamina, agility, strength.
EAL	**Listening** - Can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure, etc.	**Listening** - Can understand extended speech and lectures and follow even complex lines of argument provided the topic is reasonably familiar.	**Listening** - Understand complex information from different types of recordings. - Give a relevant, cogent response in appropriate language

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	- Can understand the main point of many radio or TV programmes on learnt topics when the delivery is relatively slow and clear. **Reading** - Can read and understand text that consists mainly of high frequency everyday or learnt topics language. - Obtain specific information through detailed reading - Be able to locate the information in the text. **Writing** - Can write simple connected texts on familiar topics or personal interests. - Use basic grammar including appropriate verb tenses and subject –verb agreement - Be able to check work for accuracy and spelling **Speaking Topics** -Body and Health -Cooking and Healthy Eating **Grammar:**	- Can understand most TV news and programmes in familiar topics. **Reading** - Read and understand texts that consist mainly of high frequency language or learnt vocabulary. - Read and understand texts in detail. - Utilise information contained in texts; identify suitable responses to texts. **Writing** - Write clearly and coherently, including an appropriate level of detail. -Present information in a logical sequence. - Ensure written work includes generally accurate punctuation and spelling and that meaning is clear. **Speaking Topics** -Education - Further Studies and Future Plans **Grammar**	**Reading** - Read and summarize information /ideas from different sources. - Detect point of view, implicit meaning of the text. -Utilize information contained in texts. **Writing** - Present information/ideas concisely and logically. - Use a range of sentence structures, including complex sentences. - Give the reasons in support of or against a particular point of view. **Speaking Topics** -Tourism and Travel -The Natural world **Grammar** -Modal Verbs -Reported Speech

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	-Present Simple vs Present Continuous (Review) -Future Forms (Present Continuous, Future Simple, be going to...) -Time Clauses -Past Simple/Past Continuous/Past Perfect	-Countable/uncountable Nouns -Plural of Nouns -Definite and Indefinite Articles -Quantifiers: some/any/no/much/many -Demonstratives -Adjectives and Adverbs: position in the sentence; comparison.	-Conditionals