Year 13 Overview

English International School

	Autumn	Spring	Summer
English	**Language Analysis** **Understand English language development throughout time** -Understand the essential features and chronology of English language development -Analyse prose text reflecting how the English language has changed over time. -Explain and evaluate given quantitative language data - Analyse how language is used in a variety of contexts **Understand child language acquisition** - Support and expand response with reference to deeper and wider study of language change - Evaluate and respond to given transcript (featuring language spoken between certain ages) - Relate observations to ideas and examples from deeper and wider study of language acquisition	**Language Topics** **Understand linguistic theories and concepts** -Demonstrate understanding with regard to theories, theorists and studies in relation to the development of English as a global language. -Understand linguistic issues, concepts, methods, approaches and studies in relation to learning and innateness, the relationship between language and thought as well as language and social identity -Respond accurately and effectively to a given text - Discuss and address the most relevant issues raised in the text with regard to a specific aspect of the role of the English language in the world - Comment on specific details in the text based on and with reference to their deeper and wider study in respect of 'English in the world'	**Exam Practice** **Revision of the A- Level Syllabus for the two years** -Exam preparation. -External exams

Year 13 Overview

English International School

	-Demonstrate knowledge of development stages in respect of child language acquisition.	- Respond accurately and effectively to a given text - Discuss and address the most relevant issues raised in the text with regard to a specific aspect of the relationship between language and the self - Comment on specific details in the text based on and with reference to their deeper and wider study in respect of 'Language and the self'	
Mathematics	**Pure Mathematics 3** **Understand mathematical proof** - Prove mathematical statements using 'Proof by Deduction'. - Prove mathematical statements using 'Proof by Exhaustion'. {Less than 5 cases} - Disprove mathematical statements using 'Counter-Examples'. - Prove mathematical statements using 'Proof by Contradiction' **Understand partial fractions**	**Mechanics** **Understand projectile motion** - Resolve velocity vectors in to horizontal and vertical components. - Know and understand that, in the absence of air resistance, horizontal acceleration is zero. - Know and understand that, in the absence of air resistance, vertical acceleration is the acceleration due to gravity. - Know and understand that the vertical and horizontal motions do not influence each other and can therefore be considered separately.	**Statistics** **Understand probability** - Know the meaning of the term 'Probability', 'Experiment', 'Event', 'Outcome', 'Sample Space', 'Mutually Exclusive', 'Independent', 'Equally Likely' and 'Biased' - The sum of the probabilities of all possible events equals one. - Use 'Sample Space Diagrams', 'Venn Diagrams', 'Tree Diagrams' and 'Histograms' to map out the probability space - 'Intersection' of A and B is denoted by $A \cap B$ and 'Union' of A and B is denoted by $A \cup B$.

Year 13 Overview

English International School

	- Use algebraic long division to convert an improper algebraic fraction into a mixed fraction: $f(x)\ g(x) = q(x) + r\ g(x)$ - Convert a proper fraction with linear factors in the denominator into partial fractions - Convert a proper fraction with linear factors, one of which is repeated, in the denominator into partial fractions (maximum of two factors) - Convert an improper fraction with linear factors in the denominator into partial fractions (maximum of two factors) **Understand differentiation** - Differentiate products of functions using the 'Product Rule', "Chain rule" - Differentiate quotients of functions using the 'Quotient Rule' - Use the derivatives of the trigonometric functions sec, cot and cosec (given). - Differentiate the inverse trigonometric functions arcsin, arccos and arctan. - Know and understand Parametric Differentiation and Implicit Differentiation	- Apply the SUVAT equations separately to the vertical and horizontal motions. - Calculate distances, speed, angles and time of flight at specific points or times. **Understand forces on extended objects. (moments and centre of mass)** - Know and understand that a 'Moment' is a turning force given by the magnitude of a force multiplied by the perpendicular distance to the pivot point. - Calculate moments using Moment = Fd or Moment = $Fd\sin\theta$. - Know and understand that moments have a direction, 'Clockwise' or 'Anticlockwise'. 2.4 Calculate the 'Resultant Moment' by taking the sum of a set of moments. - Know and use the fact that if a beam is on the point of rotating (tilting) about a pivot then the force on all other pivots is zero. - Know and understand that the 'Centre of Mass' of an object is the point at which all the mass of the object appears to act.	- Know and use the fact that if two events are mutually exclusive then $P(A \cup B) = P(A) + P(B)$. **Understand the representation and characterisation of data** - Draw histograms, box plots and stem and leaf diagrams for data sets and extract information from them. - Use 'Grouped Frequency Tables' to group data into 'Classes' and find the class boundaries, midpoint and width. - Calculate the measures of central tendency for a set of data – 'Mean', 'Median' and 'Mode', "Quartiles' and 'Percentiles". - Calculate 'Range', 'Interquartile Range' and 'Interpercentile Range', 'Standard Deviation'. - 'Cleaning' the data. **Understand discrete random variables** - 'Discrete Random Variable' can only take specific numerical values

Addresses: 14 Lobachevskogo street, Moscow, Russia, 119415
Phone: +7(495)668-70-50
Email: information@englishedmoscow.com
MAGISTER

Year 13 Overview

English International School

	Understand integration - Use the chain rule for differentiation to solve an integral by finding the function which differentiates to the integrand when the integrand is of the form $f(ax + b)$. - Use trigonometric identities to integrate functions. - Solve integrals using 'Integration by Parts' and 'Integration by Substitution' - Solve integrals using partial fractions. **Understand vectors** - Recognise and use standard notation for scalars and vector. - Know and use the 'Parallelogram Law' for addition of vectors. - Represent vectors in 'Column Vector' form and 'Unit Vectors' - Know and understand how to find the magnitude of a vector, and use the magnitude notation, $\|\boldsymbol{v}\|$. **Understand complex numbers**	- Know and use the fact that the centre of mass of a uniform bar is the mid-point of the bar. - Use moments to find the location of the centre of mass of a non-uniform bar. laminas. **Understand circular motion and simple harmonic motion** - Understand the term 'Angular Velocity' and the formula $\omega = \theta\, t$. - Know and use the link between 'Linear Speed', v, and 'Angular Speed', ω, for motion in a circle of radius r, $v = \omega r$. - Frequency of circular motion, the number of complete revolutions per second, and a 'Period' for one complete revolution. - The concept of centripetal acceleration - Use Newton's laws to show that an object undergoing centripetal acceleration must be acted upon by a 'Centripetal Force' and understand the direction of both	- Construct tables and/or diagrams to display the probability distribution for a discrete random variable. - Calculate the 'Cumulative Distribution Function' and Construct cumulative distribution tables. - Calculate the 'Expected Value' of a discrete random variable **Understand the normal distribution** - 'Continuous Random Variable' can take any value - The area under the probability distribution curve is equal to one. - Know and use the properties of the 'Normal Distribution' - Use coding to standardise a normal distribution or find unknown means or variances from a standardised distribution. **Understand correlation and regression** - 'Bivariate' data is pairs of values of two variables.

Year 13 Overview

English International School

	- Know and understand that the square root of -1 has no real solutions, and that the 'Imaginary Number' i is defined as $i = \sqrt{-1}$. - Add and subtract complex numbers. - Multiply complex numbers by real numbers. - Multiply and divide complex numbers of the form $z = a + bi$. - Know and use the fact that the complex number $z = a + bi$ has a 'Complex Conjugate' $z* = a - bi$. - Know and use the fact that the product of a complex number and its complex conjugate is real. - Know and understand how to find the two distinct complex roots of a quadratic and cubic equation where $b2 - 4ac < 0$.	- Calculate the linear speed, angular speed, centripetal acceleration, centripetal force - Know and understand that the definition of 'Simple Harmonic Motion'	- Bivariate data is plotted on 'Scatter Diagrams' - 'Correlation' is the linear relationship between the independent and the dependent variables and can be positive or negative, strong or weak, or zero. - 'Linear Regression' fits a straight line ('Line of Best Fit') to the data set - Calculate the bivariate summary statistics , 'Least Squares Linear Regression Line' , the product moment correlation coefficient - Apply coding to one or both variables
Physics	**Circular Motion** - Convert angles between radians and degrees. - Compare angular and tangential velocity - Calculate centripetal acceleration for a variety of bodies performing circular motion, both with and without a physical connection to the centre of the	**Refraction, Diffraction and Interference** - Justify what happens at the boundary between materials when the wave speed changes upon crossing the boundary – in terms of wavelength and frequency. - Define the refractive index for Material.	**Charge-Mass Field** - Calculate the force on a moving charge in a magnetic field. - Compare scalar and vector products (one produces a scalar and the other a vector perpendicular to the others). - Calculate force on a charged

Year 13 Overview

English International School

	circle. - Apply the definitive SHM formula - Analyse a system performing SHM in terms of a straight-line graph with a gradient which is negative. - Justify from various examples that to perform SHM. - Apply the formulae of SHM to theoretical examples of pendulums and springs - Illustrate the motion of SHM with a cosine or sine wave with a phase shift included if necessary. - Illustrate the motion of various damped SHM systems. - Analyse a graph of amplitude (of an SHM system) vs. driving frequency – noting that the maximum amplitude refers to the natural (resonant frequency) of the material. - Investigate a simple pendulum, varying length, mass and material used for the string – calculate the period, compare the data, plot the amplitude-time graph and choose a suitable function to model the behaviour.	- Apply Snell's law for various entry and exit angles. - Illustrate the critical angle for a combination of materials. - Illustrate total internal reflection and its role in the fibre optic industry. - Compare effect of gap size and wavelength. - Justify the result from Young's fringes experiment using the concept of interference between waves. - Recall that when electrons are fired at a diffraction grating, an interference pattern is produced. **Binding energy,Fission,Fusion** - Calculate mass defect for various reactions, using the atomic mass unit. - Use E=mc^2 for to calculate the energy released in a variety of reactions. - Analyse the graph of binding energy per nucleon vs. nucleon number. - Determine which parts of the binding energy per nucleon vs. Nucleon	particle due to a current carrying Wire. - Calculate the mutual forces between 2 current carrying wires. - Critically compare Fleming's left and right-hand rule and how they are applied. - Recall Faraday's and Lenz's laws for electromagnetic induction. - Apply Faraday's and Lenz's laws to motors and generators. - Summarise the workings behind transformers and the Hall effect in terms of fields and charges. - Summarise the workings behind particle accelerators in terms of fields and moving charges. - Recall the equations of motion. - Justify how all the equations of motion are independent of mass or shape of the projectile. - Categorise workings into horizontal and vertical. **Revision of A-level syllabus and examination preparation.**

Year 13 Overview

English International School

	Capacitance - Describe the design of a basic capacitor with 2 plates and dielectric between them. - Justify from given data, the relationship between capacitance, area of plates, distance between them and the dielectric constant of the material used. - Distinguish whether a capacitor is charging, storing or discharging. - Design a circuit which can switch between charging and discharging, involving only one battery, one resistor and one capacitor. - Analyse a given circuit in terms of time constant (RC). - Analyse given discharging data of V or Q vs time. - Analyse given charging data of V or Q vs. time. - Rearrange exponential decay functions (using logs) for charging or discharging to find unknown values of R, C, time, Q or V.	number graph represent fusion or Fission. - Justify how both fission and fusion result in an increased of binding energy. - Calculate the energy generated from fusion or fission from the graph of binding energy per nucleon vs. nucleon number. **Fields and their sources** - Conclude that all fields are invisible, 3 dimensional and behave as vectors. - Justify that electric and magnetic fields have both sources and sinks while gravitational fields have only sources. - Calculate resultant fields when two or more of the same field type act upon the same point. - Justify that gravitational fields are always attractive. - Apply the inverse square law to calculate the attractive force between two masses. - Calculate the gravitational field	

Year 13 Overview

English International School

	Photons, photo-electric effect - Draw the apparatus setup for the Photoelectric experiment - Justify from data that as intensity plays no role in releasing photoelectrons below a certain energy level, that light cannot be acting as a wave. - Justify that a new concept (for light) was necessary to explain the phenomena of the PE. - Justify that modelling light as a particle could explain the PE effect. - Apply the stopping potential concept to find the kinetic energy of the emitted Photoelectrons. - Determine work function and max kinetic energy from a graph of KE vs. frequency using a straight line graph. - Use E=hf and E=hc/lambda in various Calculations. - Recall the ranges of typical values of frequency and wavelength for the different categories of electromagnetic radiation. - Apply the unit of electron-volt in	strength at any point. - Calculate the potential at any point around a mass. - Calculate the potential energy of a Mass. - Calculate the work done when a mass moves across a gravitational potential difference. - Apply the inverse square law to calculate the attractive force between two charges. - Conclude that electric potential energy arises when a charge exists within the field of another charge. - Calculate the work done when a charge moves across an electric potential difference. - Contrast ways in which electric fields arise – either sole charges or potential difference (such as capacitors). - Calculate the force on a charge within an electric field. - Calculate the magnetic flux density due to a current in a wire. - Calculate the magnetic flux density due to a current flowing through a	

Year 13 Overview

English International School

	calculations regarding the energy of photons. - Justify electron transitions between energy levels as giving rise to the emission or absorption of photons. - Compare the characteristic patterns of these emissions/absorptions to identify Elements.	solenoid. - Apply the right-hand-grip rule to find the direction of the magnetic field around a current carrying wire. - Define magnetic flux as the product of area and magnetic flux density, when normal to each other. - Investigate planets in our solar system from given data, using knowledge from circular motion, calculate the period of these planets due to gravitational.	
Biology	**Energy and ecosystems** - Understand energy and ecosystems. - Understand nutrient cycling. - Understand populations in ecosystems. **Genetics, variation, and evolution** - Understand inheritance. - Understand variation and evolution.	**Gene technologies** - Understand gene expression. - Understand gene technology. **Revision of the A- Level Syllabus for the two years**	**Revision of the A- Level Syllabus for the two years** **Exam preparation.** **External exams**

Year 13 Overview

English International School

Chemistry	**Kinetics** - Measuring the rate of reaction - Rate equations - Determining order of reaction - Activation energy and catalysts **Entropy and lattice energy** - Introducing entropy - Calculating total entropy - Entropy change - Experimental and theoretical lattice energy - Enthalpy change of solution and hydration **Acid-base equilibria** - PH scale, ionic product of water - Acid-base titrations - Indicators - Buffer solutions **Organic chemistry and instrumental techniques** - Chiral compounds and optical activity - Aldehydes and ketones	**Redox equilibria** - Standard electrode potential - Electrochemical cells - Thermodynamic feasibility - Fuel cells - Redox titrations **Transition metals** - Transition metals and electronic configurations - Ligands and complexes - Common shapes of complexes - Transition metals reactions - Catalysts **Organic Chemistry** - Arenes: reactions of benzene - Electrophilic substitution mechanisms - Phenol **Organic nitrogen compounds** - Amines and their physical and chemical properties	**Organic synthesis** - Organic analysis and organic synthesis - Hazards, risks and control measures - Practical techniques in organic Chemistry Which include recrystallisation, vacuum filtration, drying, heating under reflux, distillation, purification - Creating a route of an organic compound synthesis - Determining the missing step in a given organic synthesis **Exam practice** - Practising exam style questions Working on past papers - Practical sessions on a)titration b) lattice energy c) entropy change

Addresses: 14 Lobachevskogo street, Moscow, Russia, 119415
Phone: +7(495)668-70-50
Email: information@englishedmoscow.com
MAGISTER

Year 13 Overview

English International School

	- Carboxylic acids - Acyl chlorides and esters, polyesters **Chromatography and nuclear magnetic resonance** - Gas chromatography - Thin layer chromatography - C13 NMR - H1 NMR - Splitting pattern - Determination of the structure using NRM	- Amides and their physical and chemical properties - Amino acids and proteins and their physical and chemical properties - Application of organic nitrogen compounds	
Business Studies	**Introduction to Business and Enterprise** -Explore the interrelationship between multinationals and the international market. -Describe the strengths and limitations of privatisation and internationalisation in business. -Discuss the motivation behind fluctuation in overseas production involving off- shoring and re-shoring. -Examine major issues arising with international businesses such as pressures with local responsiveness and cost reduction. -Explore different global strategies aiding management of international business	**Introduction to Marketing** -Summarise major strategies to calculate market share and growth. -Compare primary and secondary research methods. -Examine strengths and limitations of major ways of information gathering and sampling methods. -Examine the techniques to interpret market research results. -Compare elements of the 4Ps and 4Cs of marketing. -Judge the advantages and disadvantages of detailed marketing plan.	**Introduction to Accounting** -Analyse the technique used for contribution costing. -Explore methods for resolving numerical problems involving costing methods. -Compare major techniques to improve cash flow. -Judge the goals and value of budgeting in a business in processes. -Examine the major factors which influence a budget. -Compare the strengths and limitations associated with budgeting.

Year 13 Overview

English International School

	including Bartlett and Ghoshal`s international, multi domestics and translational strategies. -Explain the stages of business growth. Compare the major methods of inorganic growth for businesses such as: (i) joint ventures, (ii) strategic alliances, (iii) franchising, (iv) mergers, and (v) takeovers. -Discuss the issues accompanying growth problems such as: (i) economies of scale, (ii) economies of scope, (iii) diseconomies of scale, (iv) the experience curve, (v) synergy, and (vi) over trading. -Explore the usage of strategic management to deal with issues arising from growth, such as Griener`s model of growth. -Examine key types of growth such as: (i) conglomerate, (ii) vertical, and (iii) horizontal integration. -Summarise the influence of the state within a business involving (i) conditions of workplace, (ii) role of regulators, (iii) infrastructure, (iv) employmeCnt rate, (v) local competition, (vi) marketing behaviour, and (vii) minimum wage.	-Examine the influence of major concepts of elasticity such as cross, promotional, and income elasticity. -Explain the key stages used in process of product development. -Compare external and internal sources of ideas for product development. -Explain the role of research and development in improving and expanding a business. -Examine the top techniques used for forecasting such as: (i) simple linear and (ii) multiple linear regression, (iii) moving average, and (iv) straight line. -Judge the role of forecasting in marketing. -Examine the influence of coordinated marketing mix strategies on services. -Explain the effect of globalisation on the marketing strategy of a business. -Examine the strengths and limitations of BRICS with respect to the process of globalisation. -Judge the requirements of international marketing for a business in a given institution. -Examine the key stages of international market development.	-Examine the key elements involved in production of budget. -Compare features of common types of budgeting such as imposed, negotiate and incremental budgeting. -Examine major techniques used to analyse budgets such as variance analysis. -Explain the factors inflicting changes within income statement and statement of financial position. -Examine the impact of given changes such as depreciation, valuing inventories and non-current assets, on the statement of financial position and income statement. -Differentiate between major elements of income statement and statement of financial position. -Examine the major techniques of inventory valuation and the limitations that accompany the process. -Judge the strengths and limitations of net realisable valuation method. -Assess the importance of depreciation in accounts. -Examine the importance of probability ratio analysis and its limitations.

Year 13 Overview

English International School

	-Examine the advantages and disadvantages of international business agreements for a country. -Explain how the government could intervene to help local businesses. -Explain primary macroeconomic objectives of government such as: (i) reduction in inflation and unemployment, (ii) business growth, (iii) fluctuation of wealth, and (iv) stable exchange rate. -Examine the importance of policies used to fulfil macroeconomic objectives such as: (i) fiscal, (ii) monetary, and (iii) exchange rate policy. -Discuss the negative and positive impact of community within businesses, with respect to competitive advantage. -Summarise the influence of environmental changes and hazards on businesses. -Explore how a business adapts to competition and demographic changes such as urbanisation and migration. -Assess the relevance of digital technology in business and its evolution overtime.	-Apply a global marketing strategy to a given situation while explaining its key components. -Use main techniques of measuring market shares to calculate percentage of sales of any industry of your choice. -Use secondary research approach to analyse growth of a specific market. -Investigate the process and stages of interpreting given market research content. -Apply and recommend an appropriate marketing plan for a growing business. -Apply the appropriate forecasting method on a given business situation. **Introduction to Project and Operations Management** -Explain main features and functions of Enterprise Resource Planning (ERP) such as: (i) automation, (ii) data analysis, (iii) integration, and (iv) reporting. -Summarise the significance of ERP in business activities such as capacity utilisation, costing and pricing. -Explain the significance of capacity utilisation in a business.	-Compare the main features of major efficiency ratios such as inventory turnover, payable and receivables days. -Compare the characteristics for determining positive or negative gearing ratios. -Examine the significance of investor ratios. -Examine major goals of investment appraisal. -Explain the key elements involved in investment appraisal such as payback, net present value and average rate of return. -Explain the role of risk analysis in investment appraisal. -Judge the strengths and limitations of the accounting rate of return. -Evaluate analysis methods employing discounting cash flow concepts such as net present value and internal rate of return. -Explain external factors which influence investment decisions. **Introduction to Strategic Management** -Examine the primary goals of strategic management in business activities.

Year 13 Overview

English International School

	E-xplore the influence of objectives such as pressure for short termism and business ownership on business activities. -Examine changes in economic data including (i) taxation, (ii) open rate, (iii) protectionism, (iv) GDP. -Differentiate between stakeholder and shareholder concept. -Explain the strengths and limitations of Corporate Social Responsibility. **Introduction to Organisational Behaviour** -Explore HRM approaches such as: (i) system, (ii) proactive and (iii) humanistic approach, and (iv) hard vs soft approach. -Examine the purpose of setting HRM objectives such as: (i) training, (ii) diversity, (iii) alignment of values, (iv) skill development, and (v) employee involvement -Explain the reasons behind use of HR data such as labour turnover and productivity, retention rates. -Examine advantages and disadvantages of main employment contracts such as temporary, permanent and independent.	-Examine how to measure capacity utilisation. -Summarise major factors which influence capacity planning. -Examine the impact of maximum capacity on a business. -Compare approaches in improving capacity utilisation such as sub-contracting and rationalisation. -Explain the inter-relationship between capacity utilisation and efficiency. -Examine the strengths and limitations of outsourcing. -Analyse the key stages of outsourcing process. -Judge the benefits and limitations to lean production. -Examine the inter-relationship between lean production and relevant business activities. -Compare Kaizen, Just In Time (JIT), six sigma and lean production. -Examine the impact of JIT on business productivity. -Explain the requirement of quality within a business. -Examine the problems arising with implementation of the JIT system.	-Compare features of major types of corporate strategies such as growth, renewal and stability. -Examine the key distinguishing factors between strategy and tactics. -Explain the impact of strategy on business structure with respect to Alfred Chandler`s assertion. -Explain the interrelationship between corporate objectives and strategy. -Examine the role of strategic management in determining which market to compete in. -Examine strengths and limitations of SWOT analysis. -Analyse the influence of strategic analysis on functional decision making within business activities. -Explain the key steps involved in SWOT analysis. -Judge the issues associated with turning SWOT analysis into actionable strategies. -Compare the features of PEST and SWOT analysis. -Examine the interrelationship between mission, corporate objectives and strategic analysis.

Year 13 Overview

English International School

	-Summarise main methods of measuring employee performance such as: (i) self-evaluation, (ii) management by objectives, (iii) 360-degree feedback, and (iv) graphic rating scales. -Compare the key reasons behind poor employee performance, its impact on business and possible adaptations. -Explain the purpose of UK labour legislation with respect to its principles. -Analyse the role of cooperative measures between management and employees in order to improve workplace culture. -Explain the basic stages of workforce planning. -Examine the interrelationship between labour union and HRM. -Assess the influence of key elements of organisational structure including departmentalisation, centralisation, decentralisation and span of control. -Compare the strengths and limitations of main types of organisational structure such as (i) hierarchical, (ii) functional, (iii) horizontal, (iv) network and (v) divisional structure.	-Judge the methods of improving quality such as quality assurance, -Examine the consequences of poor quality management within business production. -Compare major quality control methods. -Examine key principles of Total Quality Management. -Compare major types of benchmarking such as: (i) performance, (ii) internal, (iii) external, and (iv) practice benchmarking. -Explain the factors acting as precursors for development of projects. -Examine the factors influencing project success and failure. -Judge the strengths and limitations of network diagram. -Examine the key stages of international market development. -Explain key components of network diagram such as nodes, activities and dummy activities. -Judge the value and usefulness of a Critical Path Analysis in business. -Compare types of float such as total, free and project float.	-Compare the value of Boston Matrix and product portfolio analysis in strategic management. -Judge the advantages and disadvantages of Boston Matrix. -Examine the role of Porter`s five forces in developing competitive strategy. -Compare the implications and possible changes Porter`s five forces might go through, involving substitute and entry threat, buyer and supplier power, and rivalry. -Explain the significance of core competency analysis in business strategy. -Compare the possible indicators when using the Ansoff matrix such as diversification, market development and penetration. -Explain the basic structure of the Ansoff Matrix. -Summarise the role of force field analysis in business adaptation. -Examine the purpose of decision trees to include an understanding of risk, uncertainties and rewards. -Compare the structure and types of decision trees in strategic management.

Year 13 Overview

English International School

	-Examine the different ways of accomplishing organisational change such as remedial and structural change, along with key motives behind it. -Summarise the differentiating factors between formal and informal structure. -Explain the role of delegation and accountability in a business. -Examine the stages of delegation, and its strengths and limitations. -Judge negative and positive impact of line vs staff organisational structure. -Explain the requirement of efficient communication in a given situation. -Examine the predominant types of organisational communication such as: (i) written, (ii) verbal, (iii) oral, and (iv) visual communication. -Judge the key issues arising with main channels of communication. -Examine the purpose and requirement of informal communication within a workplace. -Apply basic cognitive theories on given organisations.	-Compare the main methods of data interpretation in project management.	-Assess the strengths and limitations of decision trees in making strategic decisions. -Judge the main components of a business plan. -Compare main features of business and corporate strategy. -Examine the major goals of corporate planning. -Examine the features of key corporate cultures in the context of strategic management. -Judge the importance of governing the process of strategic implementation. -Examine the major steps in the strategic change process. -Explain the key principles guiding implementation of strategic change. -Judge the value of contingency planning. -Examine the possible difficulties in case of strategic implementation. -Use major corporate strategies to devise a competitive framework for a business of your choice. -Investigate the current condition of any business of your choice by using Alfred Chandler`s assertions.

Year 13 Overview

English International School

	-Using an organisation of your choice, explain the role of motivation in its culture as a hypothetical concept. -Apply the concept of employee satisfaction to a given organisation`s structure and analyse its impact. -Investigate the causes of problems arising from poor communication, in an organisation of your choice and recommend possible solutions. -Apply remedial and structural change concepts to any developing organisation of your choice. -Use main methods of measuring employee performance to evaluate given organisation's structure.		-Apply SWOT analysis to a given business model. -Investigate the problems arising with implementation of SWOT analysis to the given business model and recommend possible solutions. -Use Boston Matrix to amplify the growth rate of any business of your choice. -Investigate the competitive framework of given business using Porter`s Five Forces Analysis. -Apply Ansoff Matrix to construct a strategy for growth of a given developing business. -Apply an appropriate strategy for change management for a business of your choice.
Psychology	**Atypical psychology: Schizophrenia and related psychosis.** -Explain the characteristics of schizophrenia and psychotic disorders. -Explain the difference between schizophrenia and delusional disorder.	**Applied psychology: Workplace and consumer behaviour** -Explain intrinsic and extrinsic motivation. -Evaluate traditional (behaviourist) remuneration systems: pay, bonuses, performance-related pay and profit sharing.	**Know and understand buyer behaviour** -Evaluate the utility theory, satisficing (Simon, 1956), and prospect theory (Kahneman and Tversky, 1979) models of decision-making. -Evaluate the black box stimulus-response (Kotler, 1997), the EBK consumer decision

Year 13 Overview

English International School

	-Examine how Freeman, 2008's VR symptom assessment procedure is used to study schizophrenia. -Evaluate the evidence for a genetic component to schizophrenia. -Examine how schizophrenia may have biochemical sources (dopamine hypothesis, vitamin D deficiency). -Evaluate cognitive (Frith, 1992) and psychodynamic (Laing, e.g., 1960) accounts of schizophrenia. -Examine how CBT, ECT, biochemical interventions and conditioning (token economies) can be used in the treatment and management of schizophrenia. -Explain the characteristics of generalised anxiety disorders and phobias. -Explain the difference between agoraphobia and specific phobias (e.g., hemophobia, claustrophobia, arachnophobia). -Evaluate classical and operant conditioning explanations for phobias. -Evaluate psychodynamic explanations of phobias (e.g., Freud, 1909). -Evaluate cognitive explanations of phobias (e.g., DiNardo et all, 1988).	-Evaluate non-monetary rewards: praise, respect, recognition, empowerment and a sense of belonging. -Examine need theories of motivation: Maslow's hierarchy of needs, ERG (Alderfer, 1972) and McClelland's achievement motivation theory. -Examine cognitive theories of motivation: goal-setting theory, VIE (expectancy) theory and equity theory. -Evaluate job satisfaction as a motivator: Herzberg's two-factor theory, Hackman & Oldham's jobs characteristics model. -Evaluate methods of measuring job satisfaction: job descriptive index, QWL questionnaire and Minnesota satisfaction questionnaire. -Examine what research into absenteeism, workplace sabotage and commitment suggest about job satisfaction. -Explain how enrichment, rotation and enlargement can enhance job design and thereby job satisfaction. -Explain the effect of manipulating physical work conditions, including open plan offices, and temporal conditions, such as shift work.	model (Engel, Blackwell, and Kollat, 1968) and the theory of planned behaviour (Ajzen 1991). -Examine the significance of product colour (Grossman & Wisenbit (1999). -Examine the environmental influences on consumers: cognitive maps of retail locations (Mackay and Olshavsky, 1975), crowding (Machleit et al., 2000) and patterns of shopper movements (Gil et al., 2009). -Examine the significance of sound, lighting, odours and colour in stores (Guéguen et al., 2007, Kutlu et al., 2013, Chebat & Michon, 2003).

Year 13 Overview

English International School

	-Evaluate biomedical/genetic explanations of phobias. -Examine how systematic desensitization, CBT and applied tension can be used in the treatment and management of phobias.	-Examine the impact of psychological changes in the workplace: additional attention and bullying interventions. -Explain the levels and causes of organisational and interpersonal conflict. -Evaluate Belbin's theories on team roles (including the team role inventory) Explain the differences between authoritarian, participative, delegative, transactional and transformational leadership styles. -Explain the relationship between leaders and followers ((Dansereau,1994, 1996 Kelley, 1988)	
Art	**Personal Portfolio** AO1: Students will record ideas, observations and insights relevant to intentions as work progresses. They will be able to: -Use line to accurately record shape and proportion -Use graduated tone and mark making techniques to describe volume and texture -Create effective compositions by carefully considering the layout of their subject -Use a camera to record a subject with emphasis on technical ability -Record their thoughts and ideas as work develops using subject specific language -Demonstrate skill in recording observations from a variety of relevant sources and show intentions effectively AO2: Students will explore and select appropriate resources, media, materials, techniques and processes. They will be able to:		**Personal Portfolio** Component 3: Coursework – 50% -Students will independently be choosing a theme to base their portfolio of work. -Their choice can be a response from several starting points or based on an area of their own personal interest. -Students will work in accordance with the Assessment Objectives 1,2,3 and 4. Through

Year 13 Overview

English International School

	-Use artistic processes to develop and extend ideas -Experiment with relevant combinations of media, materials, techniques, processes and compositions -Reflect on their ideas as they develop -Select the most appropriate material for the purpose of their study -Refine their handling of materials as their work progresses -Demonstrate excellent exploration of media, materials, techniques and processes, showing effective selection of relevant sources AO3: Students will develop ideas through investigation, demonstrating critical understanding. They will be able to: -Research, record and contribute verbally, their understanding of the work of other artists -Produce transcriptions to show understanding of artists' techniques and methods -Incorporate the style and traditions of their chosen artists into their own work -Use subject specific key words to analyse the work of other artists -Have used the experience of gallery visits (virtual) to contextualise their project -Demonstrate excellent development of ideas through investigation, showing effective critical understanding AO4: Students will present a personal and coherent response that realises intentions and demonstrates an understanding of visual language. They will: -Produce personalised outcomes that demonstrate clear and effective connections to source materials -Show clear and confident evidence of interpretation of other artists' responses -Appreciate the importance of resolving the project with a final piece or pieces ready for exhibition -Present their work on A2 boards in preparation for external assessment -Apply visual elements as practised in earlier development stages skilfully in final outcomes	producing observational studies, artist research and developmental studies and finally completing their final piece.

Year 13 Overview

English International School

	Demonstrate excellent realisation of intentions, showing effective understanding of visual language.		
Computer Science	**Databases** **Aim** - Enable learners to demonstrate a theoretical understanding and practical experience with database concepts, DBMS - Understand database concepts and database management system. - Be able to demonstrate a practical application of databases. **Computational Thinking, Algorithm Design, and Problem Solving** **Aim** - Enable candidates to demonstrate a theoretical understanding and practical knowledge of computational thinking skills and algorithms. - Understand theoretical concepts of computational thinking, algorithm design and problem solving.	**Data Types and Structures** **Aim** - Enable learners to demonstrate a theoretical understanding and practical knowledge of data types, records, arrays, files, and ADT. - Understand the concepts of data types, records, arrays, files, and abstract data types. - Be able to demonstrate a practical knowledge of data types and structures. **Programming** **Aim** - Enable learners to demonstrate a theoretical understanding and practical knowledge of programming and structured programming. - Understand the concepts of programming. - Be able to demonstrate a practical application of	**Artificial Intelligence** **Aim** - Enable learners to demonstrate a theoretical understanding and practical experience with artificial intelligence graphs and applications. - Understand artificial intelligence graphs and applications. - **Analyse** how graphs can be used to aid Artificial Intelligence. - **Assess** how artificial neural networks help with machine learning - **Evaluate** the use of Deep Learning, Machine Learning and Reinforcement Learning and the reasons for using these methods. - **Justify** the reasons for using Deep Learning, Machine Learning and Reinforcement Learning. - **Appraise** back propagation and regression methods in machine learning. - Be able to demonstrate a practical application of

Year 13 Overview

English International School

	- Be able to demonstrate a practical application of computational thinking algorithm design and problem solving.	Programming. **Software Development** **Aim** - Enable learners to demonstrate a theoretical understanding and practical experience with software development lifecycle, program design, testing and maintenance. - Understand the program development lifecycle. - Be able to demonstrate a practical application of software development.	Artificial Intelligence. - **Use** A* and Dijkstra's algorithms to perform searches on a graph. - **Create** a game using sequence/selection/loops-using variables/Constants/maths symbols/input/output.
Economics	**Economic Fundamentals** -Judge the conditions required for productive and allocative efficiency. -Differentiate between external benefits of consumption and production. -Judge the influence of social costs in the existence of externalities. -Explore major types of positive and negative externalities. -Be able to demonstrate a practical application of basic principles of economics.	**Macroeconomics** -Summarise the role of terms of trade in an economy. -Compare short-run and long-run growth. -Differentiate between positive and negative output gaps. -Compare actual and potential growth**.** -Understand the model of circular flow of income. -Examine key causes of economic growth such as: (i) FDI, (ii) Domestic investment and (iii) innovation.	**Government Interventions** -Differentiate between internal and external value of money. -Analyse the interconnection between inflation and balance of payments. -Examine the purpose of Phillip`s curve in macroeconomic policy making. -Examine possible problems arising from conflict within macroeconomic policy objectives. -Explore main causes and consequences of government failure within

Year 13 Overview

English International School

	-Calculate the following: (i) price elasticity of demand and supply, (ii) Average total, (iii) total, (iv) variable and (v) average variable costs, (vi) average and (vii) total revenue. -Draw and interpret the following: (i) Production Possibility Curve diagrams, (ii)diagrams representing demand and supply, diagrams associated with (iii)Maximum and (iv) minimum prices in economic markets, (v) subsidies and (vi) indirect taxation. **Microeconomics** -Assess the significance of diminishing marginal utility. -Explain the law of equi-marginal utility. -Explain main features of total and marginal utility theories. -Explore advantages and disadvantages of marginal utility analysis. -Explain the concept of economic productivity. -Examine the major stages in short-run production function.	-Examine possible benefits of growth such as: (i) lower unemployment, (ii) increased tax revenue, (iii) increased profits, and (iv) higher level of investment. -Analyse possible costs of growth such as: (i) opportunity and (ii) environmental costs. -Assess possible limitations in measuring output gaps. -Explain the circular flow of income concept. -Explain the multiplier and multiplier concept. Compare average and marginal propensities to save, withdraw and consume. -Examine causes and consequences of given output gap. -Explain the accelerator effect. -Explain the key role of Aggregate Expenditure. -Explore the components of Aggregate Expenditure. -Examine the purpose of measuring national income. -Compare Gross Domestic Product and Gross National Income as measures of economic growth.	macroeconomic spaces. Revision of AS topics

Year 13 Overview

English International School

	-Compare the following types of products: (i) average, (ii) total and (iii) marginal product. -Examine advantages and disadvantages of law of diminishing returns. -Compare major types of costs such as: (i) Fixed, (ii) marginal, (iii) average, and (iv) variable costs. -Explore major types of return to scales such as: (i) constant, (ii) increasing and (iii) decreasing. -Evaluate causes of economies and diseconomies of scale. -Analyse internal and external economies of scale. -Compare the following types of revenue: (i) total, (ii) marginal and (iii) average. -Compare following types of profit: (i) supernormal, (ii) normal and (iii) accounting. -Understand the nature of major market structures. -Understand the structure of firms. -Explain the characteristics of perfect competition.	-Examine the significance of size of national debts. -Understand the structure of international economy. -Judge the factors influencing size of national debt. -Judge the role of major macroeconomic measures and indicators in calculation of economic development. -Examine the features of less-developed economies. -Compare objectives of key monetary and non-monetary policies. -Explain possible non-monetary considerations. -Evaluate the impact of performance of emerging economies on other economies. -Examine components of Human Development Index such as: (i) Education, (ii) Health, and (iii) Income. -Judge strengths and limitations of key macroeconomic measures. -Examine main characteristics of developed, developing and emerging economies.	

Year 13 Overview

English International School

	-Compare the strengths and limitations of monopolistic competition. -Compare characteristics of: (i) monopoly, (ii) oligopoly and (iii) natural monopoly. -Assess major factors used to differentiate between main market structures. -Explain the role of market contestability in terms of improved performance. -Examine the stages of delegation, and its strengths and limitations. -Examine the significance and method of calculating concentration ratios. -Explain the main objectives of small firms. -Explain the satisficing principle. -Judge the strengths and limitations of growth for small firms. -Examine the features of economic integrations such as: (i) free trade areas, (ii) monetary, (iii) customs and (iv) economic unions. -Judge the purpose of trade diversion. -Examine the role of mergers and cartels in growth of firms. -Judge the significance of traditional profit maximization.	-Compare the role of trade and aid in development and growth. -Examine main constraints on growth and development such as: (i) dependency, (ii) debt, (iii) infrastructure, (iv) demographic factors, and (v) corruption. -Explore the significance of savings and investments. -Assess the role of multinationals and Foreign Direct Investment in globalisation. -Evaluate the key goals of International Monetary Fund and World Bank in terms of globalisation. -Understand the impact of employment and unemployment on economy. -Explain the components of the labour force. -Explain labour productivity. -Explain the impact of full employment. -Examine the factors influencing demand for labour. -Assess causes and consequences of unemployment. -Judge measures of unemployment such as: (i) labour force survey, and (ii)claimant count. -Examine major types of unemployment.	

Year 13 Overview

English International School

	-Compare main features of maximisation and non-maximisation objectives. -Explain the principal agent problem. -Analyse the reasons for and the consequences of a divorce of ownership from control. -Explain key behavioural analysis approaches to the decision making process of a firm. -Examine key pricing strategies such as: (i) price discrimination, (ii) leadership and (iii) mutual interdependence. -Analyse key factors influencing firm performances such as (i) profits, (ii) efficiency and (iii) revenue	-Explain the concept of Non-Accelerating Inflation Rate of Unemployment. -Understand significant macroeconomic theories. -Compare Fischer's equation of exchange and Quantity theory of Money. -Explain the concept of the money supply. -Compare narrow and broad money. -Explore factors influencing the money supply. -Explain the monetary policy transmission mechanism. -Differentiate between Keynesian and Monetarist theories. -Judge the role of liquidity preference theory in interest rate determination.	
Well-being	Unit 4 **Mental and Emotional Health: Stress management, coping strategies, self-care techniques** This unit will help learners explore various stress management techniques, such as mindfulness, meditation, and physical activity. They will also learn how to identify stressors in their lives and develop coping strategies to	Unit 5 **Mindfulness Practices: Developing self-awareness and focus** The unit will begin by exploring the definition and origins of mindfulness, emphasizing its adaptation in contemporary psychology. Learners will learn about the key principles of mindfulness, such as living in the present	They are writing their A2 -Level exams (the second year exams of the A-Level studies) We focus on exam preparations and exam practice. Revision timetables. Question Analysis Exam conditions (how to handle different exam situations)

Year 13 Overview

English International School

	effectively manage and reduce stress levels. Additionally, learners will explore the importance of self-care practices, including healthy habits, relaxation techniques, and positive self-talk. Demonstrate a clear understanding of why positive relationships are important in various aspects of their lives, such as personal relationships, professional relationships, and social connections. Topic 2 Career guidance. They focus on their career choices and which universities they would like to attend. They have practise interviews for these universities. Topic 3 Writing personal statements for UCAS and universities.	moment, non-judgmental awareness, and acceptance of oneself and others. Explore the role of an individual's thoughts, emotions, and reactions in various situations. Unit 6 **Building Resilience - Developing healthy habits, fostering positive relationships** This unit aims to equip learners with the necessary skills and knowledge to navigate the challenges of daily life with confidence and resilience. Learners will learn about the importance of maintaining a balanced lifestyle, including regular exercise, healthy eating habits, and adequate sleep. They will explore the impact of these habits on their physical and mental well-being, as well as their ability to cope with stress and adversity. This unit will also emphasize the importance of fostering positive relationships. Learners will learn how to communicate effectively, resolve conflicts peacefully, and build strong, supportive relationships with their peers and family members. They will also explore the role of empathy, understanding, and	

Year 13 Overview

English International School

		compassion in creating meaningful connections with others. Explore ways of building resilience through healthy habits and fostering positive relationships	