NAS DUBAI

Year 12 A-Level Learning Overview

How to Support Your Child

Programme of Study

The A-Level programme spans across two academic years and consists of academically rigorous, creatively stimulating and challenging courses taken at Post 16 level. The programme enables students to access the world's best universities as well as providing them with the skills and knowledge required for their future careers. We offer a breadth of subjects across the curriculum, supporting students in all their future pathways. Typically, students will select three to four A Level subjects and the Extended Project Qualification (EPQ). The programme of courses encourages students to harness their skills and prepare them for their future university studies.

A-Level's at NAS Dubai will give our students access to an outstanding pastoral and academic experience and foster a community spirit, encompassing empathy, vision, ambition and most importantly inspire students to be the best versions of themselves. All students at NAS Dubai are developed in line with the IB learning philosophy and IB learner profile. We encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints.

Students are encouraged to develop the attributes of the learner profile and the IB mission, thereby providing an excellent preparation for life in the 21st century.

This A-Level Programme of Study gives an overview of what students will be covering in the first term so that students have a road map to their courses.

Assessment

Throughout the academic year students will be assessed both formatively (Assessment for Learning) and summatively (assessments, coursework etc) to enhance the learning outcomes for students.

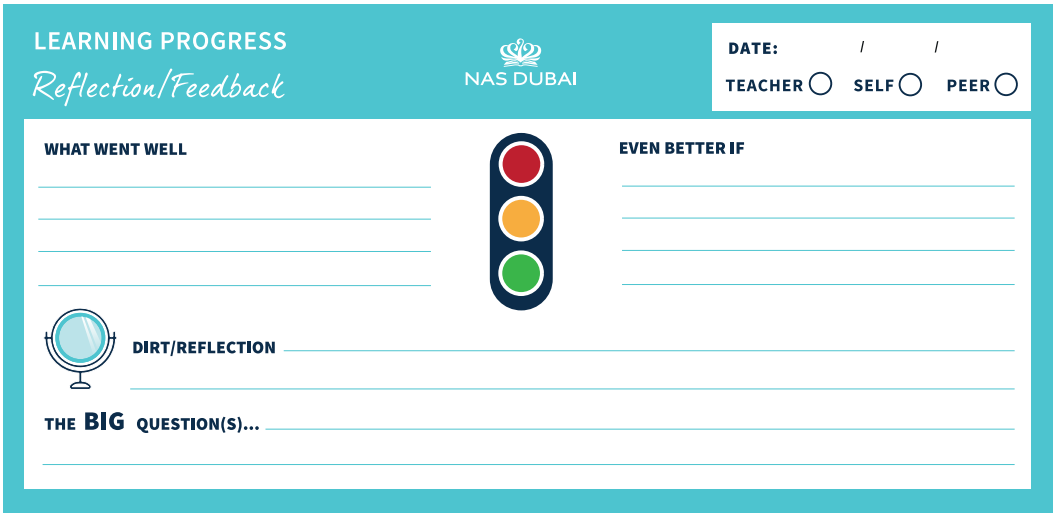
Marking and Feedback

Marking and Feedback is one of the most constructive tools that a teacher can use to empower students and aid their learning. Outstanding marking, feedback and DIRT (Dedicated Improvement & Reflection Time) is an integral aspect of Learning and Teaching here at NAS Dubai, supporting students to make outstanding progress.

Each half term students will receive two pieces of documented feedback by the teacher, which students can access easily and refer back to (one of which may be an assessment). Students will also have one piece of work that will be peer or self-assessed.

Programme of Study

DIRT/Learning Progress Reflection Sticker



What went well:

Teacher/student identifies what went well on the piece of work that is being reflected on.

Even better if:

Teacher/student identifies areas for development from the piece of work that is being reflected on.

DIRT/Reflection:

This is where the students respond to the feedback given.

The BIG Question:

A question that will provoke the student to think deeper about the topic assessed.

Consistent Colour Codes

Students to write in **BLACK** •

Teachers to mark in **GREEN** •

Students to peer/self-assess in **RED** •

Students to redraft full/partial work or complete feedback task in **BLUE (DIRT)**

Mathematics

Term	Units and Subtopics	
Term 1	Pure 1 – Algebraic Expressions	
	Pure 1 - Quadratics	
	Pure 1 – Equations and Inequalities	
	Pure 1 – Trigonometric Ratios	
	Pure 1 – Radians	
	Pure 1 – Straight line graphs	
	Half Term 1	
	Pure 1 Differentiation	
	Pure 1 - Integration	
	Pure 2 – Algebraic Methods	Mock Assessment – Date (TBC)
	Pure 2 – Coordinate Geometry	
End of Term 1		

English

Term	Units and Subtopics	
Term 1	Voices in Speech and Writing Anthology (4 weeks) Introduction to literary genres and integrated linguistic and literary approaches.	Introduction to language frameworks (graphology, phonology, morphology, lexis, semantics, syntax, grammar and discourse analysis) Contextual factors to be used when analysing texts (mode, audience, field, function) both non literary and spoken using a range of texts (anthology and other sources) Genre conventions The study of voices using literary texts Prosodic features and transcripts Utilising the formality continuum to analyse factors impacting the expression of voices in texts
	Varieties in Language and Literature	Introduction to techniques and terminology Literary eras, timeline, forms and genre conventions Combined language and literature approach to a literary text
	Half Term 1	
	Voices in Speech and Writing Literary Varieties in Language and Literature	Analysis of Anthology/ range of texts/ unseen texts to focus on how language (lexis and semantics) is used to represent a variety of personal factors: • Social factors • Accent • Idiolect/ dialect/sociolect • Analysis of key genres: life writing – diaries, memoirs, autobiography, blog • Introduction to transforming texts – writing tasks focused on life writing Continued application of a range of analytical lexical frameworks to consolidate knowledge and application of a range of technical features Reading of chosen anchor text using a variety of strategies (directed reading, class reading with specific focus, close textual

		analysis, reading to generate character/theme/profiles, etc) to focus on: • Narrative perspective and voices in texts (characterization) • Setting/ tone/ atmosphere/ of texts • Exploration of theme through wider reading • Chronology and sequencing, timeframes, characterization • Context Reading supported by textual analysis that utilizes relevant literary and linguistic terminology
End of Term 1		

Geography

Term	Units and Subtopics
Term 1 Topic 1 Core Physical Paper Rocks and Weathering	Plate tectonics • Names of plates and global patterns • Plate boundaries • Processes and Associated Landforms
	Finish Processes and Associated Landforms Weathering • Physical, Chemical and Mechanical Weathering • General factors affecting rates of weathering. • Specific factors affecting rates of weathering (peltier diagram)
	Slope Process • Slope Processes and conditions that effect each one. • Mass Movement • Water and Sediment movement on Slopes
	The human impact • Impact of humans on slop stability • Strategies to modify slopes to reduce mass movement. • Case Study – human impact on slopes (Shenzhen landslide/Aberfan disaster)
Topic 2 Core Human Paper Population	Natural increase as a component of population change • Key definitions – birth rate, death rate, fertility rate, infant mortality rate. • Factors affecting levels of fertility and infant mortality. • Interpretation of age/sex structure diagrams • Population structure.
	Demographic Transition • Changes in birth and death rate over time • Demographic Transition Model • Issues with a youthful and aging population • Links between population and development.
	Population-resources management: • The concept of food security • The role of technology and innovation in development of food production. • Concept of carrying capacity. • Critically evaluate the concept of optimum population.
	Half Term 1
Topic 3 Core Human Paper Migration	The management of natural increase • Case Study – how a nation managed population increase by using policy (China's One child policy)
	Migration as a component of population change: • Movements of Population • Causes of migration – push and pull factors, process of migration, patterns of migration and obstacles

Geography

Topic 4 Core Physical Paper Hydrology & Geomorphology	Internal Migration • Rural to Urban, Urban to Rural movement – causes and impacts. • Stepped migration within the settlement hierarchy. • Causes and impacts of intra-urban migration.
	International Migration • Voluntary and forced migration. • Causes and patterns of international migration. • Case Study – one international migration stream – its causes, character, scale, pattern and impacts.
	Week 14: The Drainage Basin System and Hydrographs • Outputs, Stores, Flows and Underground water linked to the Drainage Basin system. • Understanding the storm hydrograph. • Influences on hydrographs – climate and drainage basin characteristics.
End of Term 1	

Physics

Term	Units and Subtopics	
Term 1	Physics Fundamentals	
	Vectors	
	SUVAT	Practical 1 – Acceleration of freefall
	Projectile motion	
	Newton's Laws	
	Energy and Efficiency	
	Momentum	
	Revision/ Mechanics Test	
	Half Term 1	
	Density	Practical 2 – Viscosity of Liquid
	Hooke's Law	
	Young's Modulus	Practical 3 – Young's Modulus
	Revision/Mechanics Test.	
End of Term 1		

Biology

Term	Units and Subtopics	
Term 1	2.2-2.5 Cell Membranes	1.1-1.3 Molecules
	2.3 Membrane Properties	1.3, 1.4 Nutrient tests
	2.1,2.6 Gas Exchange	1.4 Circulation
	2.7, 2.8 Enzymes	1.5, 1.6 Blood vessels
	1.7 Cardiac Cycle	
	2.9, 2.10 DNA Replication	1.8, 1.9 Atherosclerosis
	2.11-2.13 Protein Synth.	
	2.14-2.16 Inheritance	1.10-1.12 Antioxidants
	Half Term 1	
	2.17-2.18 Gen Screening	1.13, 1.14 Risk Factors
	1.14, 1.16 Data analysis	
	3.1, 3.5 Ultrastructure	1.17, 1.18 Cholesterol
	3.6, 3.7 Organelles	1.19, 1.20 Treatment CVD
	3.8 Microscopes	
End of Term 1		

Economics

Term	Units and Subtopics
Term 1	1.1! Nature of Economics Economics as a social science Positive & normative economic statements The economic problem Production possibility frontiers
	1.1 Nature of economics Specialisation and the division of labour 1.2 How markets work Rational decision making Alternative views of consumer behaviour
	Demand Supply
	Price determination Price mechanism Price, income & cross elasticities of demand
	Elasticity of supply Price determination
	Consumer and producer surplus Indirect taxes and subsides Price, income & cross elasticities of demand Free market economies, mixed economy and command economy
	Half Term 1
	1.2 Market failure Types of market failure Externalities
	Public goods Information gaps
	1.2 Government intervention Government intervention in markets
	Government failure
End of Term 1	

Business

Term	Units and Subtopics
Term 1	1.1.1 The market
	1.1.2 Market research 1.1.3 Market positioning
	1.2.1 Demand 1.2.2 Supply
	1.2.3 Markets 1.2.4 Price elasticity of demand
	1.2.5 Income elasticity of demand
	1.3.1 Product/service design
	1.3.2 Branding and promotion
	1.3.3 Pricing strategies
	Half Term 1
	1.3.3 Pricing strategies 1.3.4 Distribution
	1.3.5 Marketing strategy
	1.4.1 Approaches to staffing 1.4.2 Recruitment, selection and training
	1.4.3 Organisational design 1.4.4 Motivation in theory and practice
	1.4.4 Motivation in theory and practice
	1.4.5 Leadership
End of Term 1	

Psychology

Term	Units and Subtopics	
Term 1	Social influence	Research methods
	Types of conformity: internalisation, identification and compliance.	Experimental method: Types of experiment, laboratory and field experiments; natural and quasi-experiments.
	Explanations for conformity: informational social influence and normative social influence, and variables affecting conformity including group size, unanimity and task difficulty as investigated by Asch	Aims, Hypotheses, Pilot studies & Variables: manipulation and control of variables, including independent, dependent, extraneous, confounding; operationalisation of variables.
	Conformity to social roles as investigated by Zimbardo	Experimental designs: Repeated measures, independent groups, matched pairs.
	Explanations for obedience: agentic state and legitimacy of authority, and situational variables affecting obedience including proximity, location and uniform, as investigated by Milgram. Dispositional explanation for obedience: the Authoritarian Personality	Control: Random allocation and counterbalancing, randomisation and standardisation. Demand characteristics and investigator effects.
	Explanations of resistance to social influence, including social support and locus of control.	Observational techniques: Types of observation: naturalistic and controlled observation; covert and overt observation; participant and non-participant observation
	Minority influence including reference to consistency, commitment and flexibility.	Observational design: Behavioural categories; event sampling; time sampling.
	The role of social influence processes in social change.	Self-report techniques: Questionnaires; interviews, structured and unstructured.
		Case studies and content analysis
	Half Term 1	
	Approaches	Correlations: Analysis of the relationship between co-variables. The difference between correlations and experiments.
	Learning approaches:	Ethics:
	The behaviourist approach, including classical conditioning and Pavlov's research, operant conditioning, types of reinforcement and Skinner's research; social learning theory including imitation, identification, modelling, vicarious reinforcement, the role of mediational processes and Bandura's research.	Including the role of the British Psychological Society's code of ethics; ethical issues in the design and conduct of psychological studies; dealing with ethical issues in research.

Psychology

	The cognitive approach: The study of internal mental processes, the role of schema, the use of theoretical and computer models to explain and make inferences about mental processes. The emergence of cognitive neuroscience	Sampling: the difference between population and sample; sampling techniques including random, systematic, stratified, opportunity and volunteer; implications of sampling techniques, including bias and generalisation.
	The biological approach: The influence of genes, biological structures and neurochemistry on behaviour. Genotype and phenotype, genetic basis of behaviour, evolution and behaviour.	The implications of psychological research for the economy.
	The psychodynamic approach: The role of the unconscious, the structure of personality, that is ID, ego and superego, defence mechanisms including repression, denial and displacement, psychosexual stages.	Quantitative and qualitative data; the distinction between qualitative and quantitative data collection techniques.
	Humanistic psychology: Free will, self-actualisation and Maslow's hierarchy of needs, focus on theself, congruence, the role of conditions of worth. The influence on counselling psychology.	Primary and secondary data, including meta-analysis.
	Comparison of approaches. Understanding the similarities and difference between the approaches	Descriptive statistics: measures of central tendency – mean, median, mode; calculation of mean, median and mode; measures of dispersion; range and standard deviation; calculation of range; calculation of percentages; positive, negative and zero correlations.
	Presentation and display of quantitative data: graphs, tables, scattergrams, bar charts.	
	Distributions: normal and skewed distributions; characteristics of normal and skewed distributions.	
	Introduction to statistical testing; the sign test.	
End of Term 1		

Psychology

Term 2	Psychopathology	Attachment
	Definitions of abnormality, including deviation from social norms, failure to function adequately, statistical infrequency and deviation from ideal mental health.	Caregiver-infant interactions in humans: reciprocity and interactional synchrony. Stages of attachment identified by Schaffer. Multiple attachments and the role of the father.
	The behavioural, emotional and cognitive characteristics of phobias, depression and obsessivecompulsive disorder (OCD).	Animal studies of attachment: Lorenz and Harlow.
	The behavioural, emotional and cognitive characteristics of phobias, depression and obsessivecompulsive disorder (OCD).	Explanations of attachment: learning theory and Bowlby's monotropic theory. The concepts of a critical period and an internal working model.
	The cognitive approach to explaining and treating depression: Beck's negative triad and Ellis's ABC model; cognitive behaviour therapy (CBT), including challenging irrational thoughts.	Ainsworth's 'Strange Situation'. Types of attachment: secure, insecure-avoidant and insecure resistant. Cultural variations in attachment, including van Ijzendoorn.
	The biological approach to explaining and treating OCD: genetic and neural explanations; drug therapy.	Bowlby's theory of maternal deprivation. Romanian orphan studies: effects of institutionalisation.
	The influence of early attachment on childhood and adult relationships, including the role of an internal working model.	
	Half Term 2	
	Memory	Issues and debate
	The multi-store model of memory: sensory register, short-term memory and long-term memory. Features of each store: coding, capacity and duration.	Gender and culture in psychology – universality and bias. Gender bias including androcentrism and alpha and beta bias; cultural bias, including ethnocentrism and cultural relativism.
	Types of long-term memory: episodic, semantic, procedural.	Free will and determinism: hard determinism and soft determinism; biological, environmental and psychic determinism. The scientific emphasis on causal explanations.
	The working memory model: central executive, phonological loop, visuo-spatial sketchpad andepisodic buffer. Features of the model: coding and capacity.	The nature-nurture debate: the relative importance of heredity and environment in determining behaviour; the interactionist approach.
	Explanations for forgetting: proactive and retroactive interference and retrieval failure due to absence of cues.	Holism and reductionism: levels of explanation in psychology. Biological reductionism and environmental (stimulus-response) reductionism.

Psychology

	Factors affecting the accuracy of eyewitness testimony: misleading information, including leading questions and post-event discussion; anxiety.	Idiographic and nomothetic approaches to psychological investigation.
	Improving the accuracy of eyewitness testimony, including the use of the cognitive interview.	Ethical implications of research studies and theory, including reference to social sensitivity
End of Term 2		
Term 3	Biopsychology	Research Methods A2 level
	The divisions of the nervous system: central and peripheral (somatic and autonomic).	Introduction to statistical testing; the sign test.
	The structure and function of sensory, relay and motor neurons. The process of synaptic transmission, including reference to neurotransmitters, excitation and inhibition.	Probability and significance: use of statistical tables and critical values in interpretation of significance.
	The function of the endocrine system: glands and hormones.	Type I and Type II errors.
	The fight or flight response including the role of adrenaline.	Factors affecting the choice of statistical test, including level of measurement and experimental
	Revision	
	EOY exams	
	Dedicated Improved Reflection Time (DIRT)	
End of academic year 2021/22		

Islamic Education

Term	Units and Subtopics	Strand/Theme
Term 1	Intro	
	Steadfastness to Truth	Wahy al-Elahi (Divine Revelation) (Theme 1)
	Aql (Reason) and Naql (Revelation)	Aqeedah (Belief) (Theme 1)
	Isti'faf (Abstinence)	Akhlaq (Islamic Values and Morals) (Theme 1)
	Financial contracts in Islam	Fiqh (Worship/Islamic Rulings) (Theme 1)
	Arabic Language and Culture	Identity and Contemporary Issues (Theme 1)
	The Battle of the Confederates	Wahy al-Elahi (Divine Revelation) (Theme 2)
	Scientific Miracles in the Qur'an	Wahy al-Elahi (Divine Revelation) (Theme 2)
	Half Term 1	
	Manners of Dialogue	Akhlaq (Islamic Values and Morals) (Theme 2)
	Revision, Examination & DIRT	
End of Term 1		
Term 2	Sources for Islamic Shariah	Fiqh (Worship/Islamic Rulings) (Theme 2)
	Planning Milestones in the Prophet's Seerah	Seerah (Biography of the Prophet and Personlaities) (Theme 2)
	Emulating Allah's Messenger (Surah Ahzab 21-27)	Wahy al-Elahi (Divine Revelation) (Theme 3)
	The Mutawatir (Mass Transmitted) and Ahaad (Isolated)	Wahy al-Elahi (Divine Revelation) (Theme 3)
	The Methodology of Islam in Family Building	Fiqh (Worship/Islamic Rulings) (Theme 3)
	Umm Salamah	Seerah (Biography of the Prophet and Personalities) (Theme 3)
	Ethical Advice and Instructions (Ahzab 28-35)	Wahy al-Elahi (Divine Revelation) (Theme 3)
	Half Term 2	
	Revision, Examination & DIRT	
	Introduction to next Term's topics and Projects (Units 5 and 6 topics)	Theme 5: • Prohibited degrees of female relations (al-Muharramat)

		• Aspects of the mercifulness of the Messenger Theme 6: • Social controls (Ahzab 57-62) • Man and Trust (Ahzab 63-73) • Methodology of Thinking in Islam • Islam and Social Networking • Imam Bukhari
End of Term 2		
Term 3	Authentic, good and weak	Wahy al-Elahi (Divine Revelation) (Theme 4)
	Shura (Consultation) in Islam	(Theme 4)
	Rules of Jurisprudence	Fiqh (Worship/Islamic Rulings) (Theme 4)
	Presentation of Projects (Unit 5 and 6 topics)	
	Sustainability in Islamic Methodology	(Theme 4)
	Allah's Messenger, the Seal of Prophets (Ahzab 36-48)	Wahy al-Elahi (Divine Revelation) (Theme 5)
	The Rulings and Etiquettes Specific to the Prophet's House (Ahzab 49-56)	Wahy al-Elahi (Divine Revelation) (Theme 5)
	Equity in Islam	Wahy al-Elahi (Divine Revelation) (Theme 5)
	Revision, Examination & DIRT	
End of academic year 2021/22		

Drama & Theatre Studies

Term	Units and Subtopics
Term 1	An Introduction to Drama and Theatre Studies
	Study of a Theatre Theorist
	Devised rehearsals
	Devising showcase
	Half Term 1
	Study of a Play Text

PE

Term	Units and Subtopics
Term 1	Components of fitness
	Preparation and Training Methods
	Principles of Training
	Technologies to monitor fitness
	Periodisation
	End of unit exam/DIRT
	Half Term 1
	Cardiovascular System
End of Term 1	

Art and Design

Term	Units and Subtopics	
Term 1	Component 1 Portfolio	The emphasis of this component will be on the development of understanding and skills using an appropriate range of materials, processes and techniques. Students should produce a collection of materials that exemplifies work carried out during the AS course
	Half Term 1	
	Component 1 continued	Each student must include in their portfolio:
End of Term 1		