GEMS

مدرسة جيمس كامبريدج إنترناشونال الخاصة بالشارقة

Cambridge International Private School

SHARJAH

Curriculum Mapping: IGCSE to International A-level

Connecting Curriculum, Assessments, and Career Progression

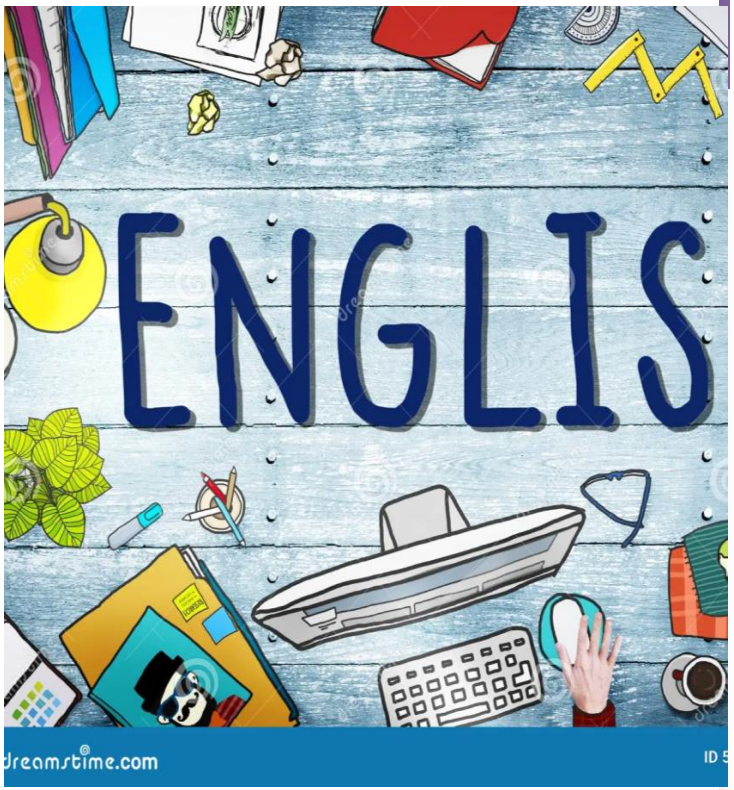
English Language Curriculum Mapping

Curriculum Content:

In **A level English Language,** students will study English Language in a global context, including the influence of other languages on the development of English. The aims and objectives of the course are to enable students to:

- Develop and apply their understanding of the concepts and methods appropriate for the analysis and study of language.
- Explore data and examples of language in use.
- Engage creatively and critically with a varied programme for the study of English.
- Develop their skills as producers and interpreters of language. l independently investigate language in use.
- Create their own text based on an unseen source text linked to a single topic.

The **IGCSE curriculum** builds a strong foundation for students to meet these objectives within the A level course. IGCSE students read a variety of texts including poetry, speeches, articles and short stories. They develop their reading and analytical skills which is crucial for A level as students continue to do this but with a stronger emphasis on phonology, discourse, syntactical features and morphology. Furthermore, the IGCSE curriculum ensures that students build their creative writing skills and write for a range of different audiences, purposes and styles. This builds a strong foundation for the writing component in A level where students need to write in a sophisticated manner.



English Language Curriculum Mapping

Assessments:

What skills and knowledge transition from IGCSE to A Level?

The following skills transition from IGCSE English as a First Language to A level English language:

Reading and Analytical Skills. IGCSE students learn to **critically analyse** a variety of texts identifying language, structural techniques, tone, purpose, audience which is crucial for A level analysis. This also builds a strong foundation for the more challenging aspects of A level English Language such as phonology and morphology.

Writing Skills. IGCSE students learn how to write in different styles including **persuasive, narrative, descriptive writing.** They also learn how to use **high level vocabulary, language, structural techniques, paragraphing and sentence structures creatively for effect.** This is needed for A level writing where students need to create their own text based on unseen sources.

English Language Curriculum Mapping

Career Progression:

What opportunities does this subject offer post-A Level?

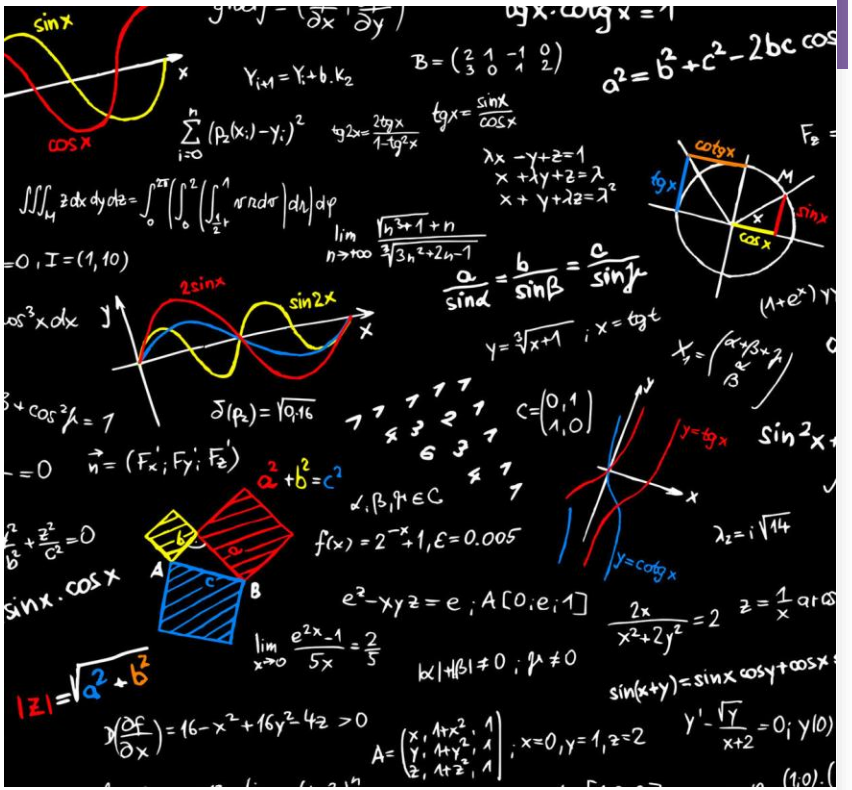
A-Level English Language opens up a wide range of career and academic pathways due to its focus on communication, analysis, and critical thinking. A-Level English Language is highly valued for various degree courses, including:

- **English Language/Linguistics** – Further study in language structure, phonetics, sociolinguistics, and discourse analysis.
- **Journalism/Media Studies** – Prepares for careers in reporting, broadcasting, and digital content creation.
- **Creative Writing/English Literature** – Ideal for careers in publishing, scriptwriting, and literature analysis.
- **Law** – Strong writing and argumentation skills are beneficial for legal studies and careers in law.
- **Education** – Leads to teaching opportunities, including primary, secondary, or TEFL (Teaching English as a Foreign Language).
- **Psychology/Sociology** – English Language complements courses that involve understanding human behavior, communication, and society.

Mathematics Curriculum Mapping

Curriculum Content:

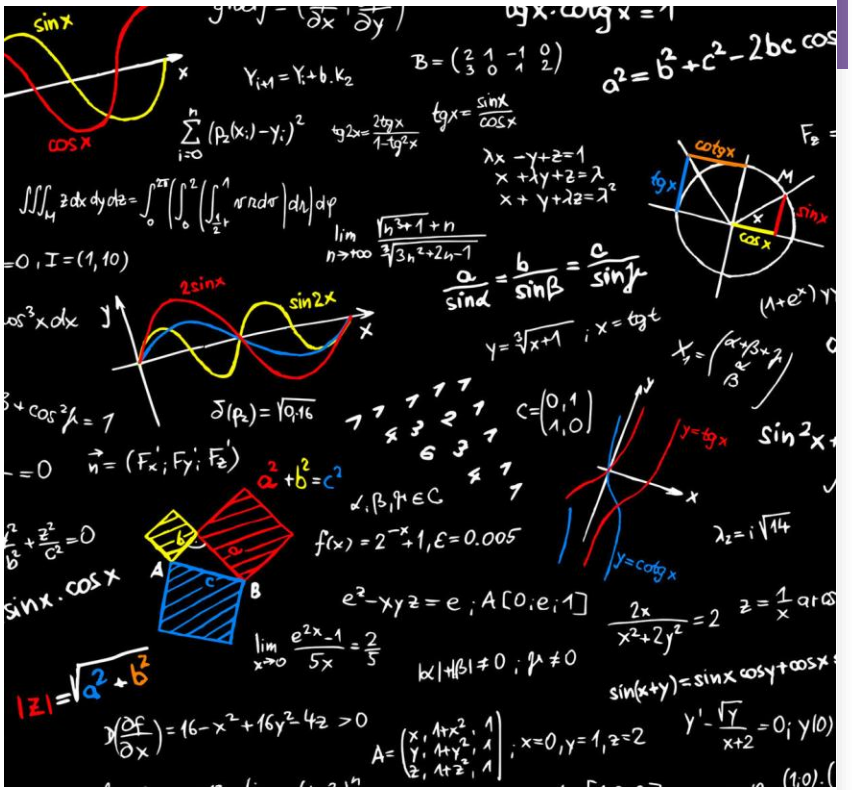
- The IGCSE Mathematics curriculum introduces core mathematical concepts, including algebra, geometry, trigonometry, and basic calculus, which serve as foundational knowledge for A-Level study.
- Key topics such as functions, equations, and data handling are expanded at A-Level, allowing for a deeper understanding of mathematical theory and application.



Mathematics Curriculum Mapping

Assessments:

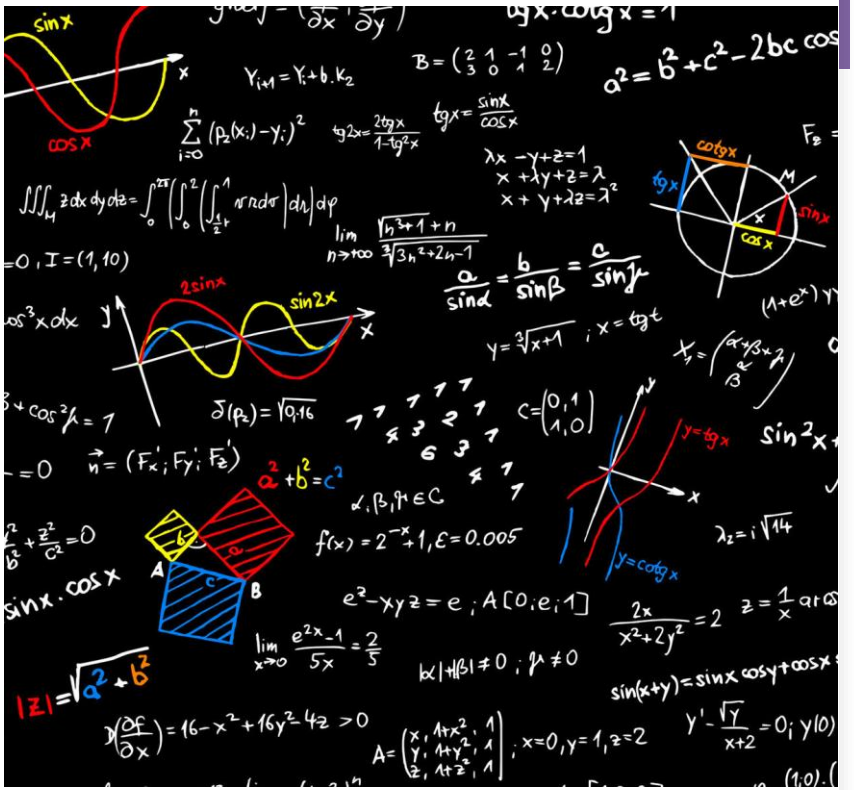
- **IGCSE:** Focuses on foundational knowledge and skills in algebra, geometry, trigonometry, and basic data analysis. It emphasises problem-solving, basic mathematical techniques, and applying knowledge to real-world situations.
- **A-Level:** Focuses on higher-level skills, including mathematical reasoning, proof, and complex problem-solving. The transition requires a much deeper level of understanding, the ability to apply skills in abstract scenarios and requires a significant amount of independent learning.



Mathematics Curriculum Mapping

Career Progression:

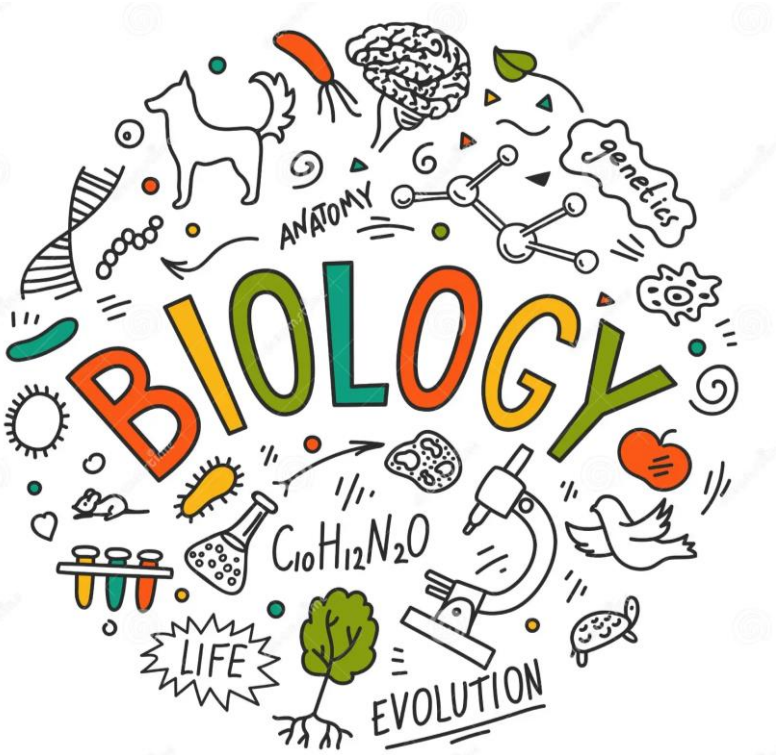
- A-Level Mathematics is essential for many university courses, such as Engineering, Physics, Economics, and Computer Science.
- This qualification opens career paths in fields such as finance, technology, actuarial science, and research, providing a strong foundation for critical thinking and analytical skills.



Biology Curriculum Mapping

Curriculum Content:

- The IGCSE Biology curriculum introduces essential biological concepts, including cell structure, biological molecules, genetics, ecosystems, and physiological processes in plants and animals. It emphasises practical skills, scientific inquiry, and data analysis, providing a strong foundation for the advanced topics and analytical thinking required in A-Level Biology.
- Key topics such as cell biology, genetics, and ecology are expanded at A-Level, allowing for a deeper understanding of biological processes, complex physiological mechanisms, and the application of scientific principles to real-world contexts.



Biology Curriculum Mapping

Assessments:

IGCSE: Focuses on foundational knowledge and skills in cell biology, genetics, ecology, and physiological processes. It emphasizes scientific inquiry, experimental techniques, data analysis, and understanding key biological principles with applications to everyday life.

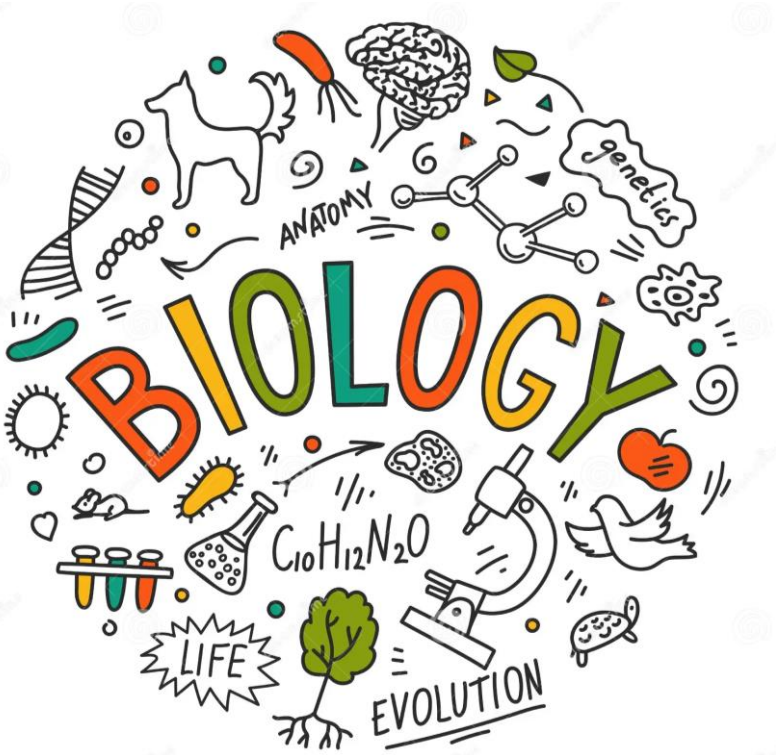
A-Level: Develops higher-level skills, including critical evaluation of experimental data, understanding complex biochemical pathways, and analyzing detailed biological mechanisms such as enzyme activity, gene expression, and cellular communication. The transition requires a deeper level of analytical thinking, the ability to integrate concepts across topics, and strong independent research and problem-solving skills.

Biology Curriculum Mapping

Career Progression:

A-Level Biology: This qualification is essential for many university courses, such as Medicine, Biotechnology, Environmental Science, Veterinary Science, and Biomedical Research.

It opens career paths in fields like healthcare, pharmaceuticals, genetics, conservation, forensic science, and agriculture, providing a strong foundation for analytical thinking, problem-solving, and research skills crucial for scientific innovation and real-world applications.



Chemistry Curriculum Mapping

Curriculum Content:

- The IGCSE curriculum establishes a solid foundation in fundamental chemical principles, including atomic structure, bonding, stoichiometry, and periodicity, which are crucial for A Level. It introduces essential laboratory techniques such as titrations, qualitative analysis, and simple reaction kinetics, preparing students for more complex practical assessments in A Level. Core topics like acids and bases, rates of reaction, and organic chemistry are introduced at a basic level and are expanded upon in greater detail at A Level.
- A Level Chemistry covers transition metals, entropy, reaction mechanisms, and electrochemistry in greater depth while developing key analytical skills. Transition metals are explored in terms of their properties, color changes, and catalytic roles. Thermodynamics introduces entropy and Gibbs free energy, enhancing problem-solving and mathematical reasoning. Organic chemistry includes reaction mechanisms like nucleophilic substitution and electrophilic addition, improving logical thinking. Electrochemistry expands to electrode potentials and electrochemical cells, strengthening data interpretation. These topics require critical analysis, quantitative skills, and structured problem-solving, preparing students for higher studies and scientific research.

Chemistry Curriculum Mapping

Assessments:

- IGCSE Chemistry assessments test knowledge recall, application, and practical skills. Students must understand fundamental concepts like atomic structure and bonding while solving problems such as mole calculations. Practical skills include making observations, conducting titrations, and analyzing experimental data. They also interpret graphs, tables, and trends to draw conclusions. Critical thinking is assessed through evaluating experimental reliability and suggesting improvements.
- A Level Chemistry assessments emphasize problem-solving, data analysis, and independent experimental planning. Students tackle complex calculations, reaction mechanisms, and thermodynamic principles with strong mathematical reasoning. Practical work requires precision, including risk assessments and controlled variable experiments. Data interpretation includes advanced topics like spectroscopy and electrochemical cells. Structured, long-answer questions demand critical evaluation and clear scientific communication

Chemistry Curriculum Mapping

Career Progression:

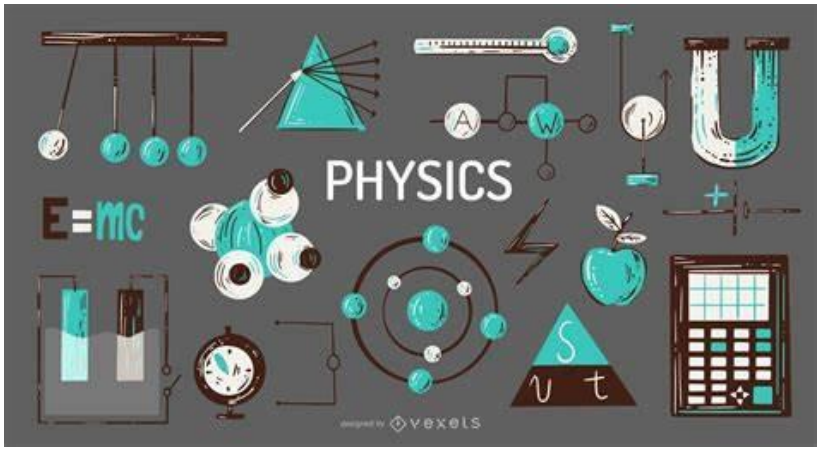
A Level Chemistry opens the door to a wide range of careers in science, healthcare, and industry. Here are some top career paths:

- **Medicine & Healthcare** – Essential for degrees in medicine, dentistry, pharmacy, and biomedical sciences.
- **Chemical & Pharmaceutical Industry** – Careers in drug development, formulation chemistry, and toxicology.
- **Engineering** – Chemical, materials, and environmental engineering roles in manufacturing and sustainability.
- **Forensic Science** – Application of analytical chemistry in crime investigation and legal cases.
- **Environmental Science & Sustainability** – Roles in pollution control, renewable energy, and climate change research.
- **Food & Cosmetic Science** – Development of safe, innovative products in food technology and cosmetics.
- **Research & Academia** – Advanced study in chemistry, biochemistry, and nanotechnology leading to research positions.

Physics Curriculum Mapping

Curriculum Content:

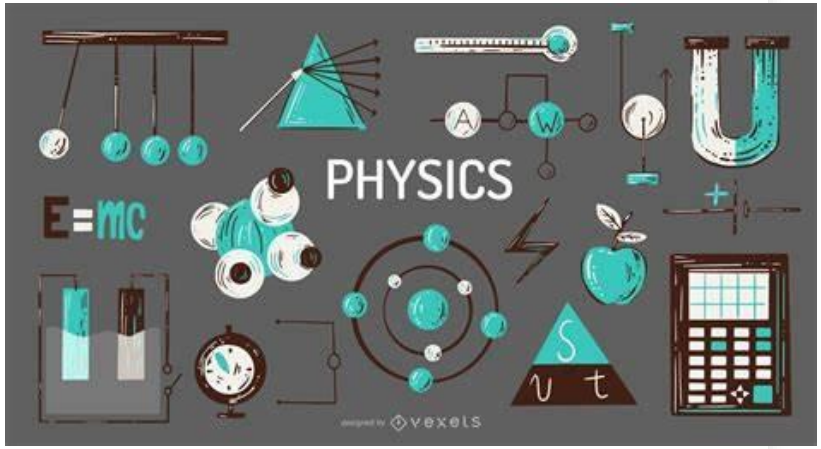
- The IGCSE Physics curriculum introduces fundamental concepts such as mechanics, waves, electricity, magnetism, and thermal physics, providing a strong foundation for the advanced study of physics in Edexcel IAL. It emphasises practical skills, scientific inquiry, and data analysis, equipping students with essential problem-solving techniques and experimental knowledge.
- At the IAL level, these foundational topics are expanded with more rigorous mathematical applications, deeper theoretical understanding, and real-world applications. Concepts such as motion, forces, and energy covered in IGCSE are further developed into advanced mechanics, materials, and circular motion. Similarly, electricity and magnetism extend to electromagnetic induction, capacitors, and electric fields. Additionally, IAL Physics introduces new areas such as quantum physics, particle physics, and medical physics, allowing students to explore the subject in greater depth and preparing them for higher education in science and engineering fields.



Physics Curriculum Mapping

Assessments:

- **IGCSE:** Focuses on foundational knowledge and skills in mechanics, waves, electricity, magnetism, and thermal physics. It emphasizes scientific inquiry, experimental techniques, data analysis, and understanding key physical principles with applications to real-world scenarios.
- **IAL Physics:** Develops higher-level skills, including advanced problem-solving, mathematical modeling, and critical evaluation of experimental data. It expands on mechanics with topics like circular motion and momentum, deepens understanding of electricity and magnetism with capacitors and electromagnetic induction, and introduces modern physics concepts such as quantum and particle physics. The transition requires a stronger grasp of mathematical applications, the ability to integrate concepts across topics, and independent analytical thinking.

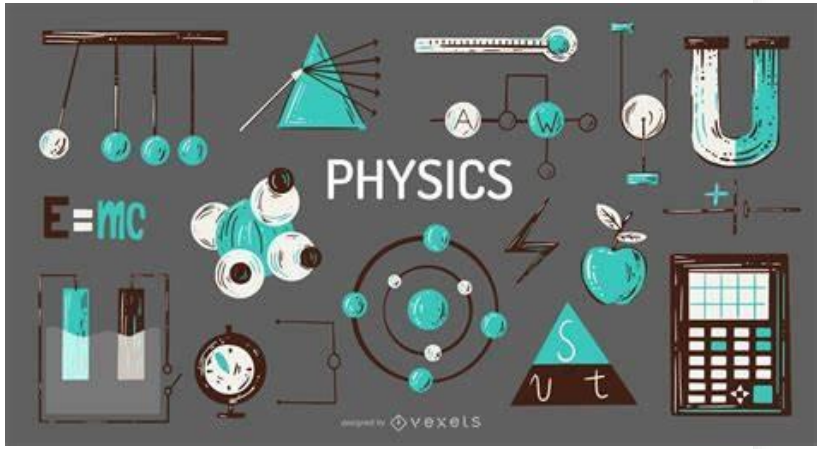


Physics Curriculum Mapping

Career Progression:

Edexcel IAL Physics: This qualification is highly valued for university courses in Engineering, Physics, Computer Science, Aerospace, and Applied Sciences. It provides a strong foundation for careers in engineering, robotics, data science, renewable energy, medical physics, and telecommunications.

- Engineering- Mechanical, Electrical, Civil, Aerospace, Robotics, Nuclear
- Data Science & Artificial Intelligence- Machine Learning, Big Data, Financial Modeling, Cybersecurity
- Research & Academia- Astrophysics, Quantum Mechanics, Theoretical & Experimental Physics
- Medicine & Healthcare Technology- Medical Physics, Radiology, Biomedical Engineering
- Aviation & Space Industry- Aerospace Engineering, Pilot Training, Space Exploration, Satellite Technology



Business Studies Curriculum Mapping

Curriculum Content:

IGCSE Business curriculum introduces fundamental business concepts, including business activity, marketing, finance, and operations, which form the foundation for further study at A-Level. This curriculum is designed to ignite students' interest in the dynamic world of business, providing them with the essential tools to understand and navigate real-world business scenarios.

In Business A-Levels, students expand on these topics, exploring more advanced areas such as strategic management, global business, financial decision-making, and the role of leadership. This deeper focus allows students to delve into complex business environments, engage in strategic analysis, and make informed decisions, preparing them for the exciting challenges of the business world.

Business Studies Curriculum Mapping

Assessments:

Business IGCSE: Assessments focus on foundational business concepts and are divided into two papers: **Paper 1** (short style questions) and **Paper 2** (longer style questions based on case studies). The emphasis is on applying basic business knowledge to real-world scenarios.

A-Level (Pearson Edexcel): Assessments require deeper analysis and critical evaluation through essays, data response, and case studies. Students demonstrate advanced skills in strategic decision-making, business analysis, and independent learning.

Business Studies Curriculum Mapping

Career Progression:

This qualification is a gateway to exciting careers in business management, finance, marketing, and entrepreneurship. It provides a robust foundation for university courses in Business, Economics, and Management, opening doors to dynamic sectors such as consulting, banking, retail, and international business.

The skills gained also pave the way for influential roles in leadership, strategy, and operations, equipping students to thrive in the fast-paced world of business and make a significant impact.

Psychology Curriculum Mapping

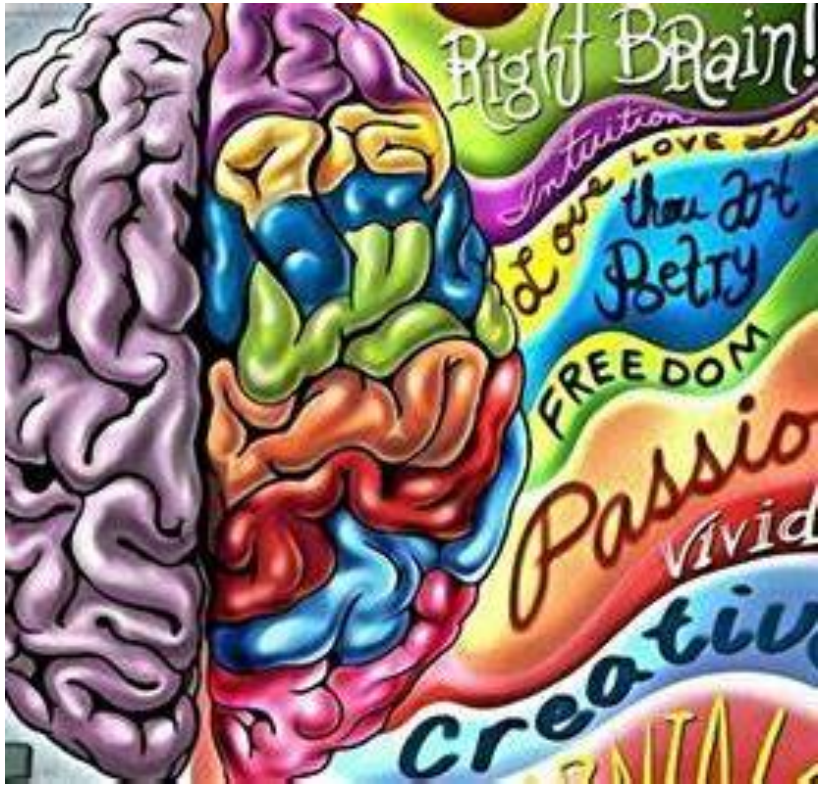
Curriculum Content:

IGCSE Psychology

The iGCSE Psychology curriculum provides students with a comprehensive introduction to the field of psychology. Students will explore a variety of topics across two main papers including memory, biopsychology, mental health as well as research methods. The curriculum combines theoretical knowledge with practical applications, preparing students to understand and critically evaluate psychological theories and research forming the foundation for further study at A-Level.

A-Level Psychology

At A-Level Psychology students expand on these areas looking in more detail at different models of memory and delving into further detail when evaluating studies and theories. Students will study a synoptic unit in A2 where they will be expected to draw on their knowledge and understanding of other areas of the course to illustrate and inform their responses.



Psychology Curriculum Mapping

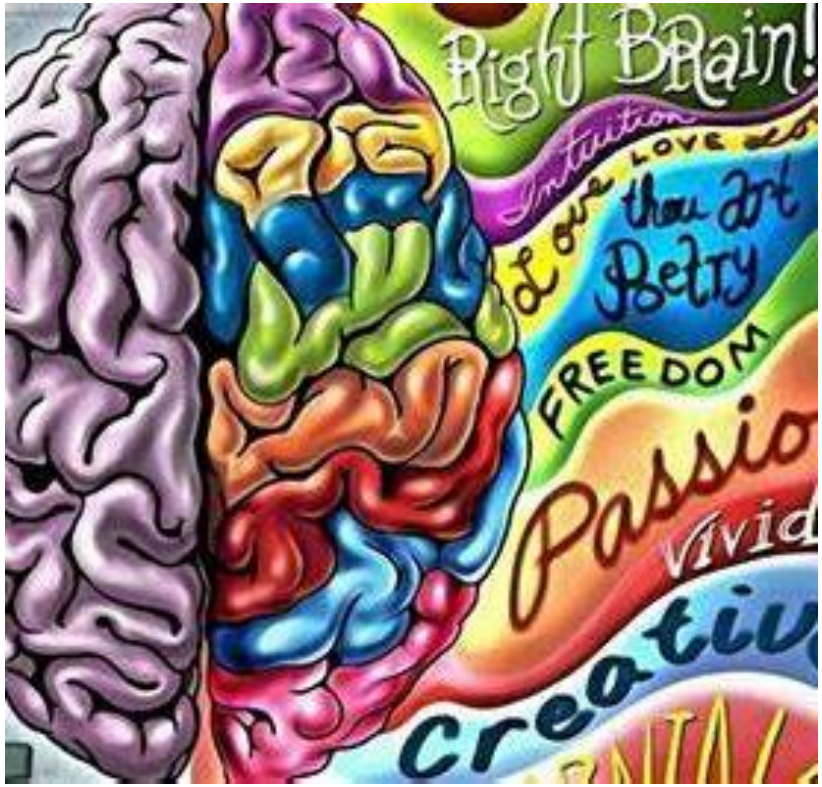
Assessments:

IGCSE Psychology

Assessments focus on testing students on core areas of psychology split across 2 papers. Paper 1 focuses on cognition and behaviour and paper 2 focusses on social context and behaviour. Both papers also include a research methods unit and the questions are a range of multiple-choice, short and extended writing questions.

A-Level Psychology

Assessments at A-Level require higher level thinking, deeper analysis and critical evaluation through a range of short and longer essay responses. Students will be assessed on introductory topics and biopsychology, development and research methods in AS. In A2 students will be assessed on advanced topics and research methods 2 as well as approaches and application.

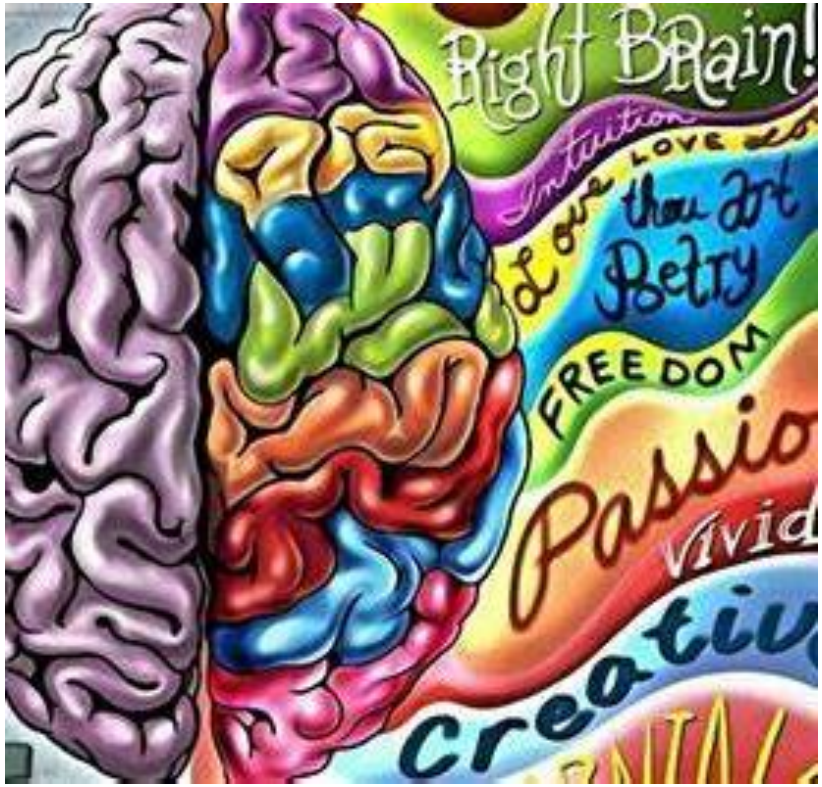


Psychology Curriculum Mapping

Career Progression:

A-Level Psychology opens the door to a wide range of exciting careers within healthcare, education as well as a range of other industries. Some of the most popular career paths are:

- **Clinical psychologist** - assess, diagnose, and treat individuals dealing with mental health issues like depression, anxiety, and trauma.
- **Educational psychologist** - work with children, teachers, and schools to support learning and development. They address learning difficulties, emotional issues, and behavioral problems, aiming to improve educational outcomes.
- **Social workers** - use psychological knowledge to help individuals and families deal with personal and social issues, such as abuse, poverty, and addiction.
- **HR and Recruitment -** A psychology background is valuable in HR, where understanding human behavior can help with hiring the right people, conflict resolution, employee motivation, and organisational development.



Economics Curriculum Mapping

Curriculum Content:

IGCSE Economics

The IGCSE Economics curriculum introduces fundamental economic concepts, including **microeconomics, macroeconomics, international trade, and economic development**, forming the foundation for further study at A-Level. This curriculum is designed to spark students' interest in the global economy, equipping them with essential tools to analyze markets, government policies, and economic issues in real-world scenarios.

A-Level Economics

In A-Level Economics, students expand on these topics, exploring more advanced areas such as **market structures, labor markets, macroeconomic policies, globalization, and economic theory**. This deeper focus allows students to engage in **critical analysis, policy evaluation, and data interpretation**, preparing them for the complex challenges of economic decision-making in both academic and professional environments.

Economics Curriculum Mapping

Assessments:

IGCSE Economics:

Assessments focus on **foundational economic concepts** and are divided into two papers: **Paper 1 (multiple-choice questions)** and **Paper 2 (structured and data response questions)**. The emphasis is on applying basic economic principles to real-world scenarios, interpreting data, and explaining economic relationships.

A-Level Economics (Pearson Edexcel):

Assessments require **deeper analysis and critical evaluation** through **essays, data response questions, and case studies**. Students demonstrate advanced skills in **economic theory application, policy evaluation, data interpretation, and independent critical thinking** to assess real-world economic issues.

Economics Curriculum Mapping

Career Progression:

This qualification is a gateway to exciting careers in economic analysis, finance, policy-making, international trade, and research. It provides a strong foundation for university courses in Economics, Finance, Business, Public Policy, and International Relations, opening doors to dynamic sectors such as banking, government, consultancy, development organizations, and corporate strategy. The skills gained also pave the way for influential roles in economic research, policy advising, financial analysis, and global trade, equipping students to thrive in the complex world of economics and make a significant impact on decision-making and economic growth.

Computer Science Curriculum Mapping

Curriculum Content:

The **IGCSE Computer Science** curriculum covers fundamental concepts such as algorithms, programming, data representation, and hardware, providing a solid foundation for A-Level study.

At **A-Level**, key areas like computational thinking, problem-solving, and programming techniques are explored in greater depth, enabling a deeper understanding of software development, computer architecture, and data structures.

Computer Science Curriculum Mapping

Assessments:

IGCSE : Focuses on foundational knowledge and skills in programming, algorithms, data representation, and computer systems. It emphasizes problem-solving, logical thinking, and applying computational techniques to real-world scenarios.

A-Level : Develops higher-level skills, including advanced programming, computational theory, and system design. The transition requires a deeper understanding of abstract concepts, the ability to apply knowledge to complex problems, and a significant amount of independent learning.

Computer Science Curriculum Mapping

Career Progression:

A-Level Computer Science is highly valuable for university courses in fields like Software Engineering, Artificial Intelligence, Cybersecurity, and Data Science.

This qualification paves the way for careers in programming, IT consultancy, cybersecurity, and technology research, equipping students with essential problem-solving, logical reasoning, and computational thinking skills.

Accounting Curriculum Mapping

Curriculum Content:

The IGCSE Accounting curriculum covers recording transactions, financial statements, and performance analysis. Students develop budgeting, cash flow management, and ethical awareness, building a foundation for A-Level, financial literacy, and careers in finance or business.

IAL Accounting students cover advanced accounting principles, including financial reporting, management accounting, and analysis of financial information. It equips students with the skills to record, interpret, and evaluate financial data, providing a strong foundation for higher studies and real-world financial decision-making.

Accounting Curriculum Mapping

Assessments:

Accounting IGCSE: Assessments test core accounting principles and are divided into two papers: Paper 1 (short-answer and structured questions) and Paper 2 (longer, scenario-based questions). The focus is on applying accounting concepts to real-world financial situations.

A-Level Accounting (Pearson Edexcel): Assessments require in-depth analysis and evaluation through structured questions, data interpretation, and case studies. Students develop advanced skills in financial reporting, management accounting, and strategic decision-making.

Accounting Curriculum Mapping

Career Progression:

This qualification opens pathways to careers in accounting, finance, auditing, and financial management. It provides a strong foundation for university courses in Accounting, Finance, and Business, leading to opportunities in sectors such as banking, investment, corporate finance, and consultancy.

The skills gained also prepare students for leadership roles in financial strategy, risk management, and business operations, equipping them to excel in the evolving world of finance and make a significant impact.