



IB Diploma Options



LA CÔTE INTERNATIONAL SCHOOL
AUBONNE
A NORD ANGLIA EDUCATION SCHOOL

2020-2021

Table of Contents



The International Baccalaureate Diploma Programme	2
Choice of Subjects	3
Group 1 – Studies in Language and Literature	5
Group 2 – Language Acquisition	8
Group 3 – Individuals and Societies	11
Group 4 – Sciences	19
Group 5 – Mathematics	25
Group 6 – The Arts	28
Student Course selection	32
Year 11 Subject Choice Guidance Form	33
The Diploma Hexagon	34

The International Baccalaureate Diploma Programme

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end, the organisation works with schools, governments and international organisations to develop challenging programmes of international education and rigorous assessment. These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people may have different, yet very valid viewpoints.

The Full IB Diploma is an academically rigorous and challenging programme. Successful IB Diploma students demonstrate organisation, hard work and academic ability. It is a two-year pre-university course and leads to an internationally recognised

qualification which, depending on the level awarded, will allow students access to the most prestigious undergraduate courses in the world. Universities not only value the Diploma's academic rigour, but the course's development of critical thinkers who have sufficient depth of knowledge to move successfully onto higher education.

The programme aims to develop students who have excellent breadth and depth of knowledge – students who flourish physically, intellectually, emotionally and ethically.

The Diploma is a matriculation examination; each student takes six subjects, three at Higher Level and three at Standard Level, along with a course in critical thinking (Theory of Knowledge -ToK), an extended piece of research (the Extended Essay) and a personal involvement in their community through Creativity, Activity, Service (CAS).

The scores from each of the six subjects, along with marks gained from the ToK and the extended essay, add up to a total Diploma score out of 45. Students must gain a minimum of 24 points to gain the full IB diploma.

Choice of Subjects

The Diploma regulations require that students select three Higher Level subjects, three Standard Level subjects, undertake a Theory of Knowledge programme (including the IB graded ToK assessments), complete an Extended Essay and meet the CAS requirements in order to be eligible for the full Diploma. The subjects chosen must be from each of the subject groups, as outlined in the Diploma hexagon below. Students must also select a 6th subject from any of the groups. Available subject choices offered by LCIS are dependent on the number of students opting for that subject.

For further details please see the Group 1 to 6 options on page 34 of this booklet.

The choice of subjects is governed by the Diploma regulations and depends on the student's course selection for further education. Several university courses worldwide require specific subject choices. The staff at LCIS are very happy to offer guidance as to what are the most appropriate courses to select.

Swiss universities have particularly stringent admission criteria and require a minimum of 32 points. The Ecole Polytechnique Fédérale de Lausanne (EPFL) and the Eidgenössische Technische Hochschule Zürich (ETHZ) require a minimum of 38 points, not including points earned for ToK or Extended Essay. They also require a science choice (Biology, Physics or Chemistry) or Maths to be studied at higher level. Group 6 subjects do not count as eligible courses for Swiss universities. We are very happy to meet with any parents who may be considering a Swiss university for their son or daughter to explain this in more detail.

Each of the six chosen subjects is graded from 1 to 7 and students must score 24 points or above in their exams at the end of the second year, complete the Extended Essay, the ToK assessments and the CAS programme in order to be awarded the IB Diploma.

The following pages will outline what the different groups of the IB Diploma are and the courses that may be offered at LCIS.



*Studies in
Language
and Literature*



Group 1 – Studies in Language and Literature

Language A (Mother tongue)

English Language and Literature
(HL/SL)

French Language and Literature
(HL/SL)

School Supported Self-taught
Literature (SL) - Independent learner
course

Language A: English Language and Literature

The study of literary and non-literary texts is central to an active engagement with language and culture. A key aim of the Language and Literature course is to encourage students to question the meaning generated by language and texts, helping students to focus closely on the language of the texts they study and to become aware of the role of each text's wider context in shaping its meaning.

In the Diploma Programme, there is a strong emphasis on encouraging students to develop intercultural understanding, open-mindedness, and the attitudes necessary for them to respect and evaluate a range of points of view. The Language and Literature programme looks at a variety of texts from different nations, genres, and time periods, to help students to understand global issues and themes.

The course is divided into four parts: two units on the study of language

and two units on the study of literature.

Part 1:

Language in a cultural context

Part 2:

Language and mass communication

Part 3:

Literature – texts and contexts

Part 4:

Literature – critical study

Language

The language units provide students with a rich study of different text types to learn about different cultures and to explore how we see and understand the world we live in. These text types include articles, opinion columns, photographs, videos, adverts, electronic texts, cartoons, and many more. Students will carefully analyse these texts to find context, tone, audience, purpose, structural devices and stylistic features.

Typical language units may include:

- Language and the individual (language profile/identity)
- Language and power (linguistic imperialism, propaganda)
- Language and belief (religious discourse, mythology)
- Language and taboo (swearing, political correctness)
- Textual bias (news reporting, sports coverage)

- Stereotypes (gender, ethnicity)
- Popular culture (comics, soap operas)
- Language and the state (public information, legislation)
- Media institutions (television channels, internet search engines)
- Rhetoric (persuasive language, advertising, appeals)

Literature

The literature units provide students with an understanding of world literature through a selection of writers and genres to explore the connections between content, context, language, form and style. Students will study prose (fiction and non-fiction), poetry, drama, and at least one work in translation.

Group 1 – Studies in Language and Literature

Language A: French Language and Literature

The Language A: Language and Literature course comprises four parts—two relate to the study of language and two to the study of literature.

The study of the texts produced in a language is central to an active engagement with language and culture and, by extension, to how we see and understand the world in which we live. A key aim of the Language A: Language and Literature course is to encourage students to question the meaning generated by language and texts, which, it can be argued, is rarely straightforward and unambiguous. Helping students to focus closely on the language of the texts they study and to become aware of the role of each text's wider context in shaping its meaning is central to the course.

The language A: Language and Literature course aims to develop the skills of textual analysis and the understanding that texts, both literary and non-literary, can be seen as autonomous yet simultaneously related to culturally determined reading practices.

This Diploma course is offered at Standard and Higher levels.

Distinction between SL and HL

The model for Language A: Language and Literature is the same at SL and HL, but there are significant quantitative and qualitative differences between the levels.

In the literature sections the number of texts prescribed is greater at HL than at SL. In the language sections students are generally expected to cover many more texts of all kinds at HL than at SL.

Two of the assessment tasks at SL are significantly easier than the comparable tasks at HL. The first is the Paper 1 textual analysis, where SL students address and analyse only one passage, while HL students make a comparative analysis of two passages. The second is the written tasks, where HL students must produce four tasks, rather than the three produced by SL students. Two of these tasks are submitted for external assessment at HL, while only one is submitted at SL. One of the assessed tasks submitted at HL must be a critical response that addresses one of six set questions and requires students to explore the values, attitudes and beliefs that are implied in the texts they select for this task.

Self-Taught Literature

If, for any reason, LCIS cannot offer a Language A course in a student's mother tongue, a self-taught language option will be offered to those students who have demonstrated sufficient academic ability in the target language, as well as focus and self-motivation.

This is only offered by the IB at SL. The school will endeavour, but cannot guarantee, to offer a tutor who will support the student. Tutors for the self-taught language options are not always literature teachers.

Self-taught courses follow the taught SL literature programmes, however assessments are all set and marked by the IB organization. Assessments for taught programmes, on the other hand, are set and graded by our teachers, although the IB moderates these grades.

Self-taught can be offered to suitable students in all of the major languages (for exact choices, please see the DP Coordinator).

Assessment

External assessment (Written papers and external marked written assignment)	65%
Internal assessment (marked by teacher but moderated by the IB)	35%

Language Acquisition



Group 2 – Language Acquisition

Language B

Group 2 consists of two modern language courses, language Ab Initio and Language B, that may be offered in French, English or Spanish.

Language Ab Initio and Language B are language acquisition courses designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken. This process encourages the learner to go beyond the confines of the classroom, expanding an awareness of the world and fostering respect for cultural diversity.

The aims of group 2 are to:

1. develop students' intercultural understanding
2. enable students to understand and use the language they have studied in a range of contexts and for a variety of purposes
3. encourage, through the study of texts and through social interaction, an awareness and appreciation of the different perspectives of people from other cultures
4. develop students' awareness of the role of language in relation to other areas of knowledge
5. develop students' awareness of the relationship between the languages and cultures with which they are familiar

6. provide students with a basis for further study, work and leisure through the use of an additional language
7. provide the opportunity for enjoyment, creativity and intellectual stimulation through knowledge of an additional language.

Ab Initio (SL only)

Ab Initio is designed as a primary language acquisition course and, as such, is for those who have little or no prior experience.

The overall objective of this course is for students to achieve competence in communication in a variety of everyday situations.

Syllabus Outline

The Language Ab Initio course is organized into three themes.

- Individual and society
- Leisure and work
- Urban and rural environment

Each theme has a list of topics that provide the students with opportunities to practise and explore the language as well as to develop intercultural understanding. Through the development of receptive, productive and interactive skills, students should be able to respond and interact appropriately in a defined range of everyday situations.

Assessment:

Internal: 25% External: 75%

Standard and Higher level (SL or HL)

Language B is an additional language-learning course designed for students with some previous learning of that language. It may be studied at either SL or HL. The main focus of the course is on language acquisition and development of language skills. These language skills will be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts, and will be related to the culture(s) concerned. The material will be chosen to enable students to develop mastery of language skills and intercultural understanding. It will not be intended solely for the study of specific subject matter or content wSL and HL are differentiated by the recommended number of teaching hours, the depth of syllabus coverage, the study of literature at HL, and the level of difficulty and demands of assessment and assessment criteria.

All Group 2 subjects share the same aims.

Syllabus Outline

The core—with topics common to both levels

- Communication and media
- Global issues
- Social relationships

Options – students select with the agreement of their teacher two from the following five options with topics common to both levels

- Cultural diversity
- Customs and traditions
- Health
- Leisure
- Science and technology

HL: students read two works of literature of everyday situations.

Assessment:

Internal: 30% External: 70%

Individuals & Societies



Group 3 – Individuals and Societies

Studying any one of the individuals and societies subjects ensures the development of a critical appreciation of human experience and behaviour; the varieties of physical, economic and social environments that people inhabit; and the history of social and cultural institutions. In addition, each subject is designed to foster in students the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments relating to the nature and activities of individuals and societies.

The aims of all subjects in Group 3 – Individuals and Societies are to:

1. encourage the systematic and critical study of: human experience and behaviour; physical, economic and social environments; the history and development of social and cultural institutions
2. develop in the student the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society
3. enable the student to collect, describe and analyse data used in studies of society, to test hypotheses and interpret complex data and source material

4. promote the appreciation of the way in which learning is relevant to both the culture in which the student lives, and the culture of other societies
5. develop an awareness in the student that human attitudes and opinions are widely diverse and that a study of society requires an appreciation of such diversity
6. enable the student to recognise that the content and methodologies of the subjects in group 3 are contestable and that their study requires the toleration of uncertainty.

Geography

Geography is a dynamic subject that is firmly grounded in the real world and focuses on the interactions between individuals, societies and the physical environment in both time and space. It seeks to identify trends and patterns in these interactions and examines the processes behind them. It also investigates the way that people adapt and respond to change and evaluates management strategies associated with such change.

Geography describes and helps to explain the similarities and differences between spaces and places.

The Geography programme integrates both physical and human geography, and ensures that students acquire elements of both scientific and socio-economic methodologies. It examines relevant concepts and ideas from a wide variety of disciplines, helping students to develop an appreciation of alternative approaches, viewpoints and ideas.

The aims of the Geography course at SL and HL are to:

1. develop an understanding of the interrelationships between people, places, spaces and the environment
2. develop a concern for human welfare and the quality of the environment, and an understanding of the need for planning and sustainable management
3. appreciate the relevance of geography in analysing contemporary issues and challenges, and develop a global perspective of diversity and change.

Subject Guide Outline

Assessment

Assessment of the geography programme is a combination of summative examinations and coursework.

Higher Level:

Internal: School-based assessment (written study)

External: Written examinations

Standard Level:

Internal: School-based assessment (written study)

External: Written examinations

Internal assessment

An integral aspect of this programme is the completion of fieldwork that is internally assessed. The internal assessment requirements are the same for both SL & HL students, however, the overall weighting of the work differs (25% for SL and 20% for HL.) The Internal Assessment offers students the opportunity to undertake primary research on a topic that gives opportunity for spatial analysis in relation to one or more aspects of the programme of study. This component involves students taking part in a fieldwork visit, the costs of which will be met by the student/parents.

Group 3 – Individuals and Societies

History

History is a dynamic, evidence-based discipline that involves an exciting engagement with the past. It is a rigorous intellectual discipline, focused around key historical concepts such as change, causation and significance.

History is an exploratory subject that fosters a sense of inquiry. It is also an interpretive discipline, allowing opportunity for engagement with multiple perspectives and a plurality of opinions. Studying history develops an understanding of the past, which leads to a deeper understanding of the nature of humans and of the world today.

The IB Diploma Programme (DP) History course is a world history course based on a comparative and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility. The course emphasises the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It

puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past.

Distinction between SL and HL
Students at Standard Level (SL) and Higher Level (HL) are presented with a syllabus that has a common core consisting of prescribed subjects and topics in world history.

In addition, students at HL are also required to undertake an in-depth study of three sections from one of the HL regional options. While many of the skills of studying history are common to both SL and HL, the teaching hours at SL and HL signals a clear distinction between the demands made on students, with the greater depth of study required for HL.

SL and HL Syllabus

- The study of one prescribed
- The study of two world history topics from a choice of twelve
- A historical investigation

Paper 1: (SL/HL)

The Move toward Global War

Prescribed subject consists of two case studies, each taken from a different region of the world. Both of the case studies specified for the chosen prescribed subject must be studied.

- Case study 1: Japanese expansion in East Asia (1931–1941)
I.e. domestic politics / Great depression
- Case Study 2: German and Italian expansion (1933–1940)

Paper 2 (SL/HL)

- Authoritarian states (20th century) European (Hitler, Franco, Mussolini) and Non-European (Mao, Castro)
- The Cold War: Superpower tensions and rivalries (20th century)

Paper 3 (HL only)

- Versailles to Berlin: Diplomacy in Europe (1919–1945)
- European states in the inter-war years (1918–1939)
- The Soviet Union and post-Soviet Russia (1924–2000) Begin from 1940s onward I.e. after Great Patriotic War

Business Management

Business Management is one of the many academic disciplines that are on offer in group three (Individuals and Societies) of the Diploma Programme. The course has been designed to enable students to examine the role of a business. The course also looks at the business decision-making processes, how these decisions impact on the businesses stakeholders and how they are affected by factors internal and external to an organisation.

The programme enables students to develop an understanding of business theory, as well as an ability to apply business principles, practices and skills. The course considers the diverse range of business organisations and activities; it examines the cultural and economic context in which businesses operate.

While following the DP Business Management course students will place an emphasis on both strategic decision making, and the day-to-day business functions of marketing, production, human resource management and finance. The importance of making links between these functions is also emphasised encouraging students to develop a holistic view of business activity. The ideals of international cooperation and responsible citizenship

are at the heart of the business management course. The course encourages the appreciation of ethical concerns, as well as issues of corporate social responsibility (CSR). It is designed to give the students an international perspective of business and to promote their appreciation of cultural diversity.

Contextualised learning is deeply embedded in the Business Management course and, through the use of case studies and real-life data, students learn to analyse, discuss and evaluate business activities at local, national and international levels. The course covers a range of organisations from all sectors and through the exploration of six concepts underpinning the subject (change, culture, ethics, globalisation, innovation and strategy,) the business management course allows the students to develop their understanding of these concepts from a business perspective.

The course also aims to develop transferable skills relevant to today's students. These include the ability to: think critically; make ethically sound and well-informed decision; appreciate the pace, nature and significance of change; and undertake long term planning, analysis and evaluation.

To study the Business Management course no subject specific prior learning is required. The MYP Individuals and Societies' Integrated Humanities course will have helped the students develop technical, analytical, decision-making and investigating skills required in the Business Management course.

By the end of the DP Business Management course students will be able to:

- have a holistic view of the world of business;
- think critically and strategically about individual and organisational behaviour;
- see the importance of exploring business issues from different cultural perspectives;
- appreciate the nature and significance of change in a local, regional and global context;
- have an awareness of the importance of environmental, social and ethical factors in the actions of individuals and organisations;
- develop an understanding of the importance of innovation in a business environment.

Group 3 – Individuals and Societies

Assessment

Assessment in the Business and Management course is a combination of summative examinations and coursework.

Higher Level:

Internal: School-based assessment (written study)	25%
External: Written examinations	75%

Standard Level:

Internal: School-based assessment (written study)	25%
External: Written examinations	75%

Internal assessment

The research project enables HL students to demonstrate the application of their skills and knowledge to real organisational issues or decision-making. Students must select a real organisation, not a fictional one, and the issue or decision under investigation must also be real. The expectation is that a student should gather primary research from the organisation.

The style and format of the report should be in the form of a useful working document for management.

The SL internal assessment is a written commentary. Students need to demonstrate the application of business and management tools, techniques and theories to a real business issue or problem.

Students must select a real issue or problem, not a fictional one, and must produce a commentary with a title presented as a question. The commentary must refer directly to a single business organisation, but may consider industry-wide issues that impact on that organization.

The commentary must be based on primary and/or secondary data, selected for its suitability.

IB Diploma Programme: Economics

Economics is a dynamic social science, forming part of group 3—individuals and societies. The study of economics is essentially about dealing with scarcity, resource allocation and the methods and processes by which choices are made in the satisfaction of human wants. As a social science, Economics uses scientific methodologies that include quantitative and qualitative elements.

The IB Diploma Programme economics course emphasises the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. These economic theories are not to be studied in a vacuum—rather, they are to be applied to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability.

The Economics course requires no specific prior learning. No particular background in terms of specific subjects studied for national or international qualifications is expected or required. The specific skills of the Economics course are developed within the context of the course itself. The ability to understand and explain abstract concepts and the ability to write in a logically structured manner are distinct advantages in economics.

The Economics curriculum

The curriculum model for the Diploma Programme economics is a core curriculum for HL and SL students consisting of four topics with common content. In addition to the core HL students are expected to complete extension areas of study in all four topics.

Topic	SL content
Section 1: Microeconomics	1.1 Competitive markets: demand and supply (some topics HL only) 1.2 Elasticity 1.3 Government intervention (some topics HL extension, plus one topic HL only) 1.4 Market failure (some topics HL only) 1.5 Theory of the firm and market structures (HL only)
Section 2: Macroeconomics	2.1 The level of overall economic activity (one topic HL extension) 2.2 Aggregate demand and aggregate supply (one topic HL only) 2.3 Macroeconomic objectives (some topics HL extension, plus one topic HL only) 2.4 Fiscal policy 2.5 Monetary policy 2.6 Supply-side policies
Section 3: International economics	3.1 International trade (one topic HL extension, plus one topic HL only) 3.2 Exchange rates (some topics HL extension) 3.3 The balance of payments (one topic HL extension, plus some topics HL only) 3.4 Economic integration (one topic HL extension) 3.5 Terms of trade (HL only)
Section 4: Development economics	4.1 Economic development 4.2 Measuring development 4.3 The role of domestic factors 4.4 The role of international trade (one topic HL extension) 4.5 The role of foreign direct investment (FDI) 4.6 The roles of foreign aid and multilateral development assistance 4.7 The role of international debt 4.8 The balance between markets and intervention
Internal assessment	Portfolio of three commentaries

Science



Group 4 – Sciences

The study of science is essential in our modern day for the development of a well-rounded individual. The group 4 subjects encourage students to develop their skills and knowledge base so that they can have some basis to understand the complexities of life. These skills along with the ToK course will allow students to better understand what exactly science can and cannot do. Students will find a whole range of everyday uses for the skills and knowledge they will gain in a group 4 course.

It is in this context that all the Diploma Programme experimental science courses should aim to:

1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
2. acquire a body of knowledge, methods and techniques that characterise science and technology
3. apply and use a body of knowledge, methods and techniques that characterise science and technology
4. develop an ability to analyse, evaluate and synthesise scientific information

5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities
6. develop experimental and investigative scientific skills including the use of current technologies
7. develop and apply 21st century communication skills in the study of science
8. become critically aware, as global citizens, of the ethical implications of using science and technology
9. develop an appreciation of the possibilities and limitations of science and technology
10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

In addition, at Standard Level a minimum of 40 hours of practical work should be carried out. This includes the Group 4 project and the internal assessment. At Higher Level, a total of 60 hours is required.

Biology

Biology is an excellent choice for students interested in studying science at a higher level or who only need a foundation Science. Students live in a world where there are many major advances daily in the biological sciences and this course allows students to develop scientific skills and a good base of knowledge to help them to understand modern day issues met in everyday life.

Content covered SL Topics

1. Cell biology
2. Molecular biology
3. Genetics
4. Ecology
5. Evolution and biodiversity
6. Human physiology

Higher Level has an additional 5 topics

7. Nucleic acids
8. Metabolism, cell respiration and photosynthesis
9. Plant biology
10. Genetics and evolution
11. Animal physiology

Plus an option from

- A. Neurobiology and behaviour
- B. Biotechnology and bioinformatics
- C. Ecology and conservation
- D. Human physiology

Chemistry

The IB Chemistry course will allow students to understand more deeply many aspects of everyday life. Chemistry is a laboratory science; its subject material and theories are based on experimental observations. However, its scope reaches beyond the laboratory

into every aspect of our lives to understanding of the nature of our planet, the environment that we live in, the resources available to us and the factors that affect our health.

Core Content

- Stoichiometric relationships
- Atomic structure
- Periodicity
- Chemical bonding and structure
- Energetics
- Kinetics
- Equilibrium
- Acids and bases
- Oxidation and reduction
- Organic chemistry
- Measurement and data processing

Additional Higher Level material

Most of the above modules have extension units added for Higher Level.

Options

Pupils are required to study an option module chosen from the following ones:

- Materials
- Biochemistry
- Energy
- Medicinal Chemistry

Physics

Physics is the most fundamental and all-encompassing of the experimental sciences. The IB DP Physics course enables pupils to deepen their understanding of how the universe works from the very smallest sub-atomic particles to the vastness of galaxies and space. At the human level, Physics underpins the science and technology of our modern world, for example the Global Positioning System (GPS). In addition, the study of Physics equips students with a broad and highly useful set of problem-solving, analytical and communication skills applicable to many professional activities. The course is an excellent foundation for students intending to pursue higher education courses in physics, astronomy and engineering.

Core content

- Measurements and uncertainties
- Mechanics
- Thermal physics
- Waves
- Electricity and magnetism
- Circular motion and gravitation
- Atomic, nuclear and particle physics
- Energy production

Additional Higher Level material

- Wave phenomena
- Fields
- Electromagnetic induction
- Quantum physics and nuclear physics

Options

Pupils are required to take one option module. Each module has a core syllabus for both SL and HL students and a number of extra topics for HL students only.

- Relativity
- Engineering physics
- Imaging
- Astrophysics

Assessment

Assessment is similar to Biology, but Physics and Chemistry do not have an extended response in Paper 2.

External exams (3 papers)	80%
Internal assessment of practical work (recorded in a portfolio)	20%

Group 4 – Sciences

The study of science is essential in our modern day for the development of a well-rounded individual. The group 4 subjects encourage students to develop their skills and knowledge base so that they can have some basis to understand the complexities of life. These skills along with the ToK course will allow students to better understand what exactly science can and cannot do. Students will find a whole range of everyday uses for the skills and knowledge they will gain in a group 4 course.

It is in this context that all the Diploma Programme experimental science courses should aim to:

1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
2. acquire a body of knowledge, methods and techniques that characterise science and technology
3. apply and use a body of knowledge, methods and techniques that characterise science and technology
4. develop an ability to analyse, evaluate and synthesise scientific information

5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities
6. develop experimental and investigative scientific skills including the use of current technologies
7. develop and apply 21st century communication skills in the study of science
8. become critically aware, as global citizens, of the ethical implications of using science and technology
9. develop an appreciation of the possibilities and limitations of science and technology
10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

In addition, at Standard Level a minimum of 40 hours of practical work should be carried out. This includes the Group 4 project and the internal assessment. At Higher Level, a total of 60 hours is required.

Biology

Biology is an excellent choice for students interested in studying science at a higher level or who only need a foundation Science. Students live in a world where there are many major advances daily in the biological sciences and this course allows students to develop scientific skills and a good base of knowledge to help them to understand modern day issues met in everyday life.

Content covered SL Topics

1. Cell biology
2. Molecular biology
3. Genetics
4. Ecology
5. Evolution and biodiversity
6. Human physiology

Higher Level has an additional 5 topics

7. Nucleic acids
8. Metabolism, cell respiration and photosynthesis
9. Plant biology
10. Genetics and evolution
11. Animal physiology

Plus an option from

- A. Neurobiology and behaviour
- B. Biotechnology and bioinformatics
- C. Ecology and conservation
- D. Human physiology

Design

Through studying Design, students become aware of how designers work and communicate with each other. While Design methodology may take on a wide variety of forms, it is the emphasis on a practical approach through design work that characterises this subject (from the 2016 Syllabus Guide). The aims enable students, through the overarching theme of the nature of design, to develop:

1. a sense of curiosity as they acquire the skills necessary for independent and lifelong learning and action through inquiry into the designed and technological world around them
2. an ability to explore concepts, ideas and issues with personal, local and global significance acquiring in-depth knowledge and understanding of design technology
3. initiative in applying thinking skills critically and creatively to identify and resolve complex social and technological problems via reasoned ethical decision-making
4. an ability to understand and express ideas confidently and creatively using a variety of communication techniques through collaboration with others
5. a propensity to act with integrity and honesty, and take responsibility for their own actions in designing technological solutions to problems
6. an understanding and appreciation of cultures in terms of global technological development, seeking and evaluating a range of perspectives
7. a willingness to approach unfamiliar situations in an informed manner and explore new roles, ideas and strategies so they can articulate and defend their proposals with confidence
8. an understanding of the contribution of design and technology to the promotion of intellectual, physical and emotional balance and the achievement of personal and social well-being
9. empathy, compassion and respect for the needs and feelings of others in order to make a positive difference to the lives of others and to the environment
10. skills that enable them to reflect on the impacts of design and technology on society and the environment in order to develop their own learning and enhance solutions when solving problems.

A. Course Outline:

At both Standard and Higher Level, students study units based around the six core topics. These are:

- Topic 1: Human factors and ergonomics
- Topic 2: Resource management and sustainable production
- Topic 3: Modelling
- Topic 4: Raw material to final product
- Topic 5: Innovation and design
- Topic 6: Classic design Those studying at Higher Level are required to study the following four additional topics:
- Topic 7: User-centred design (UCD)
- Topic 8: Sustainability
- Topic 9: Innovation and markets
- Topic 10: Commercial production

Sports Exercise and Health Science.

This is a group 4 science which combines the study of biology, chemistry and physics from a human, sport exercise and health perspective. Moreover, the subject matter goes beyond the traditional science subjects to offer a deeper understanding of the issues related to sports, exercise and health in the 21st century. Apart from being worthy of study in its own right, SEHS is a good preparation for courses in higher or further education related to sports fitness and health, and serves as useful preparation for employment in sports and leisure industries.

The course incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology and nutrition, which are studied in the context of sports, exercise and health. Students will cover a range of core and option topics, and carry out practical (experimental) investigations in both laboratory and field settings. This will provide an opportunity to acquire the knowledge and understanding necessary to apply scientific principles and critically analyse human performance. Where relevant, the course will address issues of international dimension and ethics by considering sports, exercise and health relative to the individual and in a global context.

SL Core Topics

1. Anatomy
2. Exercise Physiology
3. Energy Systems
4. Movement Analysis
5. Skill in Sport
6. Measurement and Evaluation of Human Performance

HL Core Topics

1. Further Anatomy
2. The Endocrine System
3. Fatigue
4. Friction and Drag
5. Skill Acquisition
6. Genetics and Athletic Performance
7. Exercise and Immunity

Students will also have an opportunity to study two out of the four option units

- A. Optimizing Physiological Performance
- B. Psychology of Sport
- C. Physical Activity and Health
- D. Nutrition for Sports Exercise and Health

Group 4 – Sciences

Assessment

I. Internal assessment

- Individual design/workshop investigations as part of the Group 4 project, done in collaboration with the other Sciences. (10 hours)
- Individual Science investigation, which is student led. (10 hours)

II. External assessment (Examination)

• *Standard Level:*

Paper 1:

30 multiple choice questions on the core material

Paper 2:

Section A: One data-based question and several short-answer questions on the core
Section B: One extended-response question on the core (from a choice of two)

• *Higher Level:*

Paper 1:

40 multiple choice questions on the core and HL extension material

Paper 2:

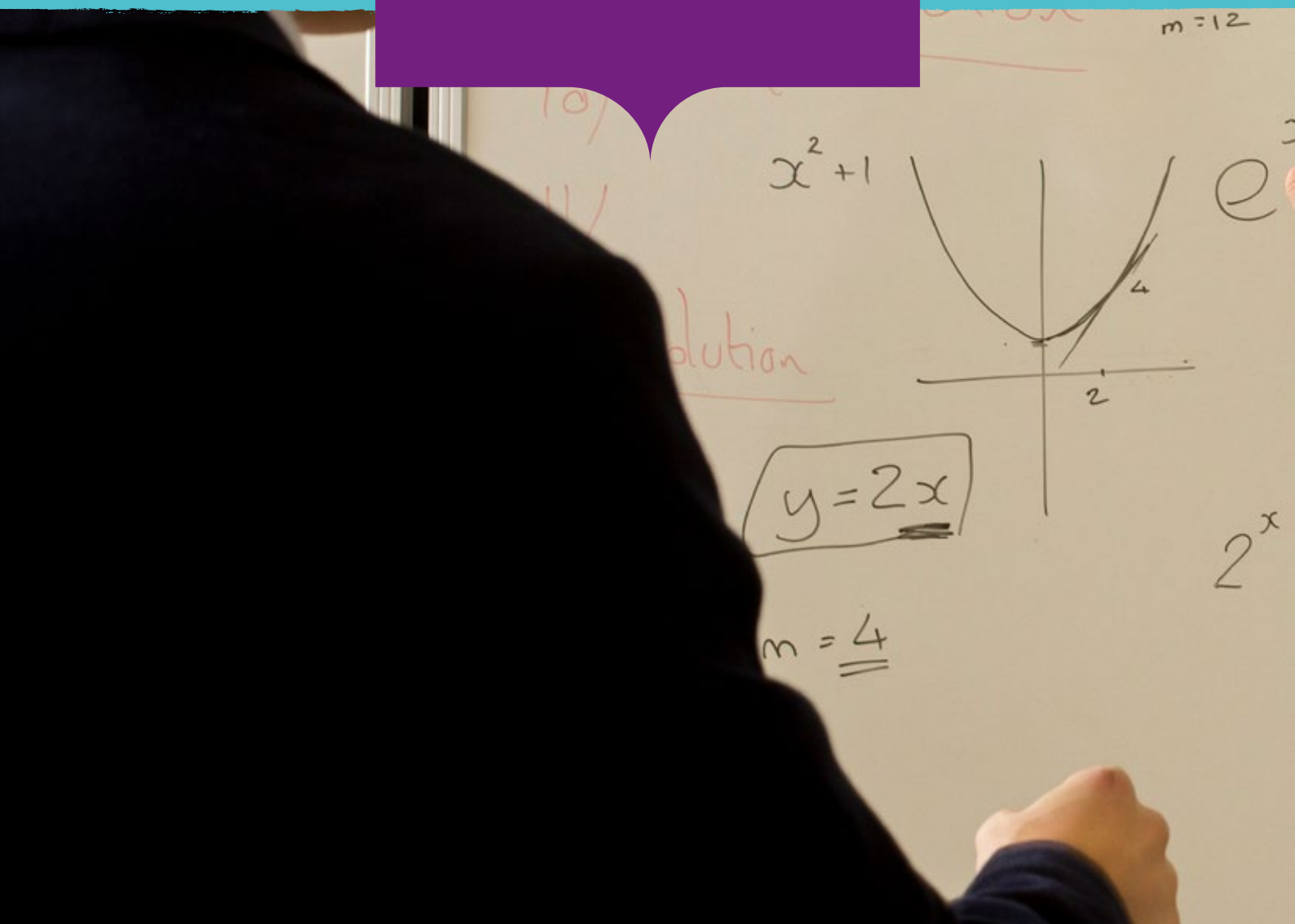
Section A: One data-based question and several short-answer questions on the core
Section B: One extended-response question on the core (from a choice of three)

Paper 3:

Section A: Two or three short answer questions based on experimental skills and techniques, analysis and evaluation, using unseen data linked to core and higher material.

Section B: Short answer and extended Response questions from one option.

Mathematics



Group 5 – Mathematics

Students are required to study one subject from this group.

Mathematics plays an important role in the lives of all human beings. It shapes how we make sense of our world, determines many decisions we make and how we relate to others and our environments. As such, it is vital that students gain an awareness of, an insight into and a familiarity with, the world of mathematics. This is recognised in the structure of the IB DP and the compulsory nature of this subject. Mathematics can be studied in different ways and for different purposes. It is our aim, with all Mathematics DP courses, to address some of the important aspects of our subject area:

- mathematics as a useful tool in making sense of our lives;
- mathematics to develop logical and analytical thinking;
- beauty and elegance in mathematics.

Group 5 aims

The aims of all Mathematics courses in group 5 are to enable students to:

1. enjoy mathematics, and develop an appreciation of the elegance and power of mathematics
2. develop an understanding of

the principles and nature of mathematics

3. communicate clearly and confidently in a variety of contexts
4. develop logical, critical and creative thinking, and patience and persistence in problem-solving
5. employ and refine their powers of abstraction and generalisation
6. apply and transfer skills to alternative situations, to other areas of knowledge and to future developments
7. appreciate how developments in technology and mathematics have influenced each other
8. appreciate the moral, social and ethical implications arising from the work of mathematicians and the applications of mathematics
9. appreciate the international dimension in mathematics through an awareness of the universality of mathematics and its multicultural and historical perspectives
10. appreciate the contribution of mathematics to other disciplines, and as a particular “area of knowledge” in the TOK course.

General

For all three courses students are required to become familiar with and able to use Graphical Display Calculators (GDC), and to be familiar with a range of mathematical notation. It is a requirement of all Diploma Programme Mathematics that a GDC is used by the students.

The school strongly recommends that students investigate possible university courses they may be interested in and pay attention to their entrance criteria. Some universities require students to have studied IB DP Mathematics at a particular level for entry on to certain courses. Indeed, some countries have minimum Mathematics requirements for any university course, regardless of the subject to be studied. Courses which may not appear to have a heavy mathematics content may, in fact, have entrance requirements which include Mathematics. It is important for students to keep their options as open as possible and to look at a range of possibilities for future studies.

Group 5 – Mathematics

The first teaching of the updated syllabus will take place in September 2019, with first assessment in 2021. There will be two new subjects in Mathematics replacing the four subjects of the legacy specification. The subjects will be called Mathematics: Analysis and Approaches and Mathematics: Applications and Interpretation. Both subjects are being designed to appeal to students with varying levels of ability and motivation in mathematics, developing their mathematics fluency, their ability to think mathematically, to recognise mathematics around them and will enable them to use their mathematics in either abstract or contextual settings.

Mathematics: Analysis and Approaches is intended for students who wish to pursue studies in mathematics at university or subjects that have a large mathematical content; it is for students who enjoy developing mathematical arguments, problem solving and exploring real and abstract applications, with and without technology. Mathematics: Analysis and Approaches will be a development from the former Mathematics HL and SL subjects.

Mathematics: Applications and Interpretation is being designed for students who enjoy describing the real world and solving practical problems using mathematics; those who are interested in harnessing the power of technology alongside exploring mathematical models and for those who enjoy the more practical side of mathematics. Mathematics: Applications and Interpretation SL will be developed from the former Mathematical Studies SL. The HL course will be new content including elements of the former HL Statistics and Discrete content.

Both Mathematics: Analysis and Approaches and Mathematics: Applications and Interpretation will be offered at HL and SL subject to demand, and within each subject the SL course will be a complete subset of the HL course.

Assessment

SL students will complete two externally assessed written papers and the internal assessment; HL students will complete three externally assessed written papers and the internal assessment.

The Arts



Group 6 – The Arts

The aims of all subjects in group six, the Arts, are to enable students to:

- enjoy lifelong engagement with the arts;
- become informed, reflective and critical practitioners in the arts;
- understand the dynamic and changing nature of the arts;
- explore and value the diversity of the arts across time, place and cultures;
- express ideas with confidence and competence;
- develop perceptual and analytical skills.

Visual Art (HL/SL)

The course involves the learning and production of visual arts.

Students will develop skills to be creative, competent and well-balanced. Through the visual arts, our students will explore both local and international topics, opening their minds to their own environment and global issues.

Aims:

1. to produce artwork that is influenced by personal and cultural contexts
2. to become informed and critical observers and producers of visual culture and media
3. to develop skills, techniques and processes in order to communicate concepts and ideas.

The core syllabus is composed of 3 parts.

Visual Art in Context (Theoretical)

The cycle of inquiry involves considering and comparing work from a variety of cultures and historical and social contexts. It involves analysing, interpreting, comparing, evaluating, using art vocabulary, reflection and understanding.

Visual Arts Processes (Art-Making)

This includes experimenting with techniques, different media and processes, developing a body of resolved and unresolved work, self-review and critique and documentation of this in a visual arts journal/process portfolio. Produce a body of work that synthesises skills, media and concept.

Presenting and Communicating Visual Arts (Curatorial)

This third part has to do with understanding curatorial processes; what makes an effective exhibition and selecting and presenting the student's own work.

Assessment:

Part 1 The Comparative Study (20% Externally Assessed)

A visual and written investigation that analyses and compares at least three artworks by at least two different artists from different cultural contexts (HL students will also include a reflection of how this relates to their own work).

SL 10-15 screens

HL 10-15 screens & 3-5 screens comparing own work

Part 2 Process Portfolio (Externally Assessed)

The students' journey of art making: their engagement and sustained experimentation with different media and techniques, documentation of process, reflections on artists and artworks and the development of ideas. Students must show the ability to select and use materials appropriate to their intentions.

SL: 9-18 pages/screens submitted.

HL: 13-25 pages/screens submitted.

Part 3 The Exhibition (40%) Internally Assessed by Teacher

Students present a cohesive body of work in the form of an exhibition in which they articulate their purpose and intention in written form.

Students reflect on this chosen body of work and provide a rationale for the decisions regarding the selection of certain pieces for exhibition.

SL: 4-7 artworks, exhibition text and a curatorial rationale of max 400 words.

HL: 8-11 artworks, exhibition text & curatorial rationale max 700 words.

Group 6 – The Arts

Film

The IB film course emphasises the importance of working individually and as a member of a group. Students are encouraged to develop the professional and technical skills (including organisational skills) needed to express themselves creatively in film. A challenge for students completing this course is to become aware of their own perspectives and biases and to learn to respect those of others. This requires willingness to attempt to understand alternative views, to respect and appreciate cultural diversity, and to have an open and critical mind. Thus, the IB Film course can become a way for the student to celebrate the international and intercultural dynamic that inspires and sustains a type of contemporary film, while appreciating specifically local origins that have given rise to cinematic production in many parts of the world.

CORE SYLLABUS OUTLINE

The new film syllabus consists of the following core areas.

Reading film

SL and HL students will examine film as an art form, studying a broad range of film texts from a variety of cultural contexts and will analyse how film elements combine to create meaning.

Contextualizing film

SL and HL students will explore the evolution of film across time, space and culture. Students will examine various areas of film focus in order to recognise the similarities and differences that exist between films from contrasting cultural contexts.

Exploring film production roles

SL and HL students will explore various film production roles through engagement with all phases of the filmmaking process in order to fulfil their own filmmaker intentions. Students will acquire, develop and apply skills through filmmaking exercises, experiments and completed films.

Collaboratively producing film (HL only)

HL students will focus on the collaborative aspects of filmmaking and experience working in core production teams in order to fulfil shared artistic intentions. They will work in chosen film production roles and contribute to all phases of the filmmaking process in order to collaboratively create original completed films.

Assessment

1. Textual analysis (External SL 30% HL 20%)

Students at SL and HL demonstrate their knowledge and understanding of how meaning is constructed in film. They do this through a written analysis of a prescribed film text based on a chosen extract (lasting no more than five minutes) from that film. Students consider the cultural context of the film and a variety of film elements.

Students submit a textual analysis (1,750 words maximum) and a list of all sources used.

2. Comparative study (External SL 30% HL 20%)

Students at SL and HL carry out research into a chosen area of film focus, identifying and comparing two films from within that area and presenting their discoveries as a recorded multimedia comparative study.

Students submit the following:

1. a recorded multimedia comparative study (10 minutes maximum).
2. a list of all sources used.

3. Film portfolio (Internal SL 40% HL 25%)

Students at SL and HL undertake a variety of film-making exercises in three film production roles, led by clearly defined filmmaker intentions. They acquire and develop practical skills and techniques through participation in film exercises, experiments and the creation of at least one completed film.

Students submit the following:

1. portfolio pages (9 pages maximum: 3 pages maximum per film production role) and a list of all sources used
2. a film reel (9 minutes maximum: 3 minutes maximum per film production role, including one completed film).

4. Collaborative film project (Internal HL only 35%)

Bringing together all they have encountered during the film course, students at HL work collaboratively in a core production team to plan and create an original completed film.

Students submit the following:

1. a completed film (7 minutes maximum)
2. a project report (2,000 words maximum) and a list of all sources used.

Music

Music functions as a means of personal and communal identity and expression, and embodies the social and cultural values of individuals and communities. This scenario invites exciting exploration and sensitive study. The Diploma Programme music course provides an appropriate foundation for further study in music at university level or in music career pathways. It also provides an enriching and valuable course of study for students who may pursue other careers. This course also provides all students with the opportunity to engage in the world of music as lifelong participants.

Syllabus component	SL	HL
Musical perception This component is compulsory for SL and HL students	Listening paper 2 hours and 15 minutes + Musical link investigation	Listening paper 3 hours + Musical link investigation
Creating This component is compulsory for HL and SLC* students only	Two pieces of coursework, with recordings and written work	Three pieces of coursework, with recordings and written work
Solo performing This component is compulsory for HL and SLS* students only	A recording selected from pieces presented during one or more public performance(s), 15 minutes.	A recording selected from pieces presented during one or more public performance(s), 20 minutes.
Group performing This component is compulsory for SLG* students only	A recording selected from pieces presented during two or more public performance(s), 20-30 minutes.	N/A

* SL students must choose one of three options:

- Creating
- Solo performing
- Group performing

Student Course Selection

Please note that running of any course is subject to student uptake and we cannot guarantee that any course will run and students may need to make alternative choices.

Name: _____

Before selecting courses, you will need to ask your subject teachers for a recommendation for the subject and level you are hoping to study.

Group	Course	Level	Teacher recommendation
1			
2			
3			
4			
5			

3HL + 3SL " Group 1 5 plus 1 "

DP Coordinator _____

I acknowledge and agree to my son's/daughter's course selection

Signed _____ Date _____

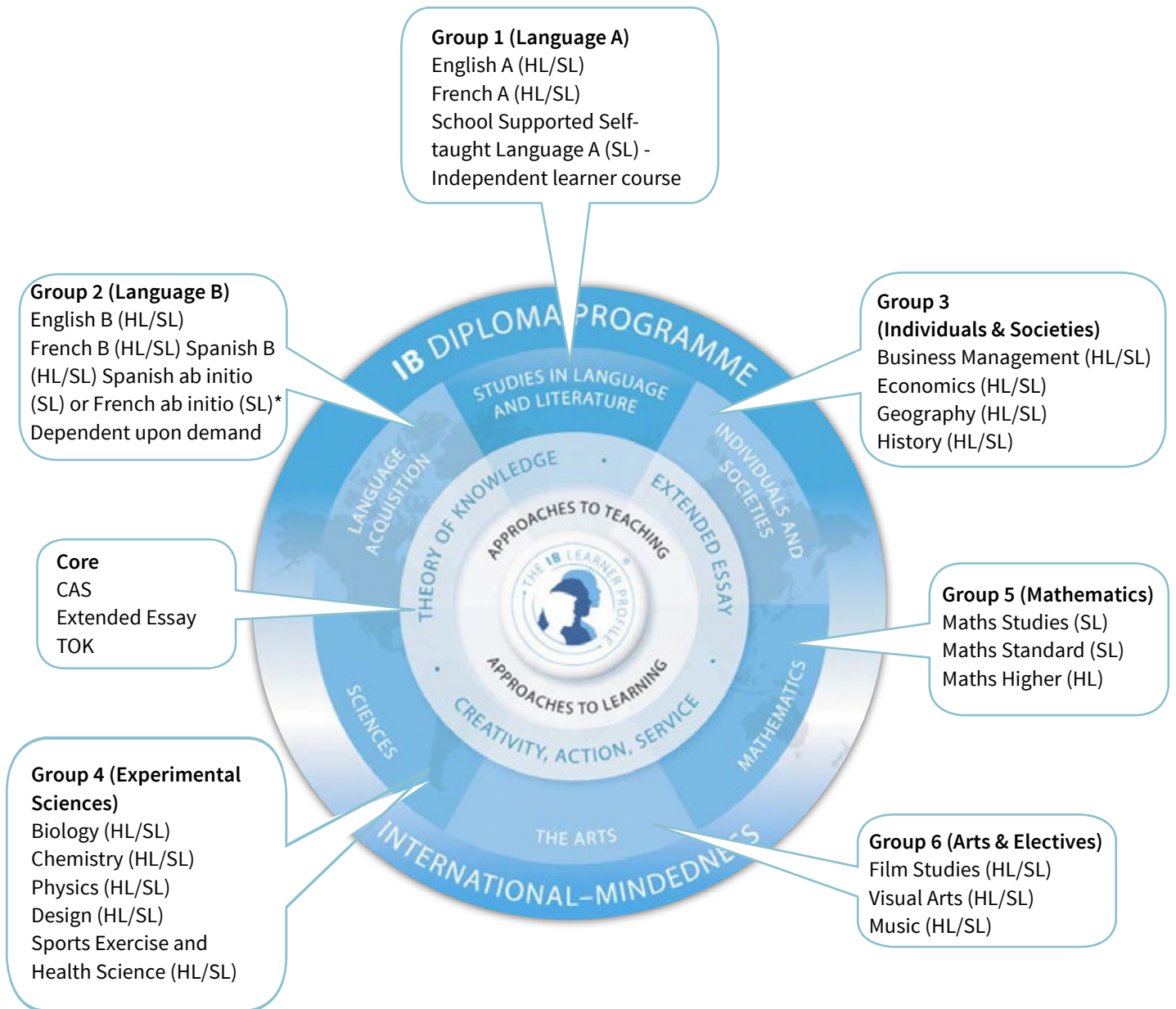
Year 11 Subject Choice Guidance Form

November/December 2019

To enable us to help you to make the most appropriate subject package choices for your university and career path please fill in the following form in as much detail as possible and return to your homeroom teacher.

Name:	
When you leave school do you intend to enter college or university?	Yes Unsure No Please circle your response
In which countries would you like to study? (list all possibilities)	
Is it likely that you will remain in Switzerland to study? Are you aware of the options available here?	
In which subjects/ fields do you wish to study after school? E.g. Art, Engineering, Dentistry?	
What are your career plans after college or university?	
Do you know the requirements to enter university or college in the countries you have chosen?	Yes Unsure No Please circle your response
If you do not want to go on to further study what do you hope to do after leaving school?	

The Diploma Hexagon



Contact us

La Côte International School
Chemin de Clamogne 8
1170 Aubonne
Switzerland

Email

admissions@international-school.org

School Website

www.international-school.org

General Enquiries

+41 22 823 2626

