



**DHIRUBHAI AMBANI
INTERNATIONAL SCHOOL**

The International Baccalaureate Diploma Programme (IBDP)

COURSE SELECTION BOOKLET

2014 - 2016

Dhirubhai Ambani International School

The International Baccalaureate Diploma Programme (IBDP) is an academically and personally challenging two-year pre-university course. It is designed to provide students of different linguistic, cultural and educational backgrounds with the intellectual, social and critical perspectives necessary for the adult world that lies ahead. It is highly respected by schools and universities throughout the world. One of its greatest strengths is its independence from politically-motivated interference by any national government. In fact, it is a high-quality educational programme designed and monitored by educationalists with the aim of fostering international awareness.

The IBDP involves choosing three subjects to study in detail at Higher Level and three subjects at Standard Level. Diploma students must select their six subjects by following the steps indicated in the course selection sheet:

Group 1 - Studies in Language and Literature: English A Literature **or** English A Language and Literature **or** Literature and Performance (English)

Group 2 - Language Acquisition: (Language B SL and HL - Hindi, French) or Ab Initio (French, Spanish)

Group 3 - Individuals and Societies: Business and Management; Economics; Geography; History and Psychology.

Group 4 - Experimental Sciences: Biology; Chemistry; Physics; Computer Science; Sports Exercise and Health Science.

Group 5 - Mathematics;

Group 6 - The Arts - Visual Arts **or** Literature and Performance (English).

Three further requirements contribute to the unique nature of the IB Diploma:

The compulsory participation in CAS (Creativity, Action and Service);

The Extended Essay which aims to build independent research under appropriate guidance;

A course on the Theory of Knowledge which explores the relationship between disciplines, and ensures that students engage in critical reflection about knowledge and experience acquired both within and beyond the classroom.

The combination of subjects and requirements is a deliberate compromise between the preference for specialisation in some countries and the emphasis on breadth often preferred in others. The intent is that students should learn how to learn, how to analyse, how to reach considered conclusions about man, our languages and literature, our ways in society, and the scientific forces of our global environment.

All IB courses have work externally assessed by examination and internally assessed work that is externally moderated. The proportion of the final grade determined by internally assessed coursework and final examination varies amongst subjects.

Selection into Grade 11

Students are carefully selected for places in Grade 11. The IB Diploma Programme is an intellectual and personal challenge and we use the benefit of our considerable experience to ensure that the vast majority of students accepted onto this demanding programme will enjoy a successful outcome in the end.

For students to take Higher Level subjects there are certain prerequisites that must be met. Please see specific course requirements.

Selecting IB Subjects:

When planning a Diploma course, students should bear the following in mind:

- the same subject cannot be taken at both higher and standard level;
- the same language cannot be taken in both Group 1 and Group 2;
- the IB at its discretion, occasionally gives special permission for three sciences to be taken if the student concerned has no choice but to do this for university entrance;
- documentary evidence of such a requirement must be given to the IBDP Coordinator who will forward it to the IB Office and request permission. The IB will not allow three sciences to be taken without their prior permission based on the written evidence presented.

For the benefit of those who are unsure about the subject requirements for certain courses of a professional or vocational nature, the following general guidelines may be useful. Requirements for specific programmes can change and therefore it is essential that students conduct their own research to ensure their package meets their needs.

Architecture - usually no subjects are specified, but occasionally Maths and/or Physics at Higher Level is required. Art or design-based subjects are not always required but may be useful. Some universities will require a portfolio.

Art and Design - Arts-based subjects would generally require an Arts-based Higher Level subject and/or a portfolio of work.

Economics, Business - Mathematics Higher Level or Mathematics Standard Level may be required if you are applying to a highly competitive British University.

Engineering - Maths and Physics at Higher Level (for Chemical Engineering - Maths and Chemistry at Higher Level).

Law - No specific subjects are specified, but it is preferable to have English A1 and or History at HL preferably. Please note that law is only offered as a post-graduate program in Canada and the US, so no specific undergraduate major is required.

Medicine - Chemistry at Higher Level plus either Biology or Physics and Mathematics at Higher Level. Taking Biology is strongly recommended. Some universities accept non-science-based academic subjects at higher level. Please note that medicine is only offered as a post-graduate program in Canada and the US, so no specific undergraduate major is required.

Psychology - some courses in this area may require a Higher Level Science subject.

IB Diploma recognition by universities

Students with the IB Diploma have entered more than 700 universities in some 70 countries. Many universities give credit for IB courses taken and indeed admissions officers seek out applicants who have taken the IB. This is because IB students are well prepared for university study. Their ability to complete such a rigorous course speaks well of their academic interest, stamina, and research skills.

The international recognition of the IB Diploma Program is dealt with on the website, www.ibo.org/diploma/recognition.

Curriculum and university admissions information can be obtained from the College Counselling Centre.

Group 1 – Studies in Language and Literature

Students should select one of the following 3 courses from Group 1.

English A: Literature (HL or SL)

English A: Language and Literature (HL or SL)

Literature and Performance (SL only)

Why study a Group 1 Course?

Group 1 courses are designed to support future academic study by developing high levels of language competence and communication skills as well as social, aesthetic and cultural literacy. Literature plays a central role in these courses, which aim to support lifelong learning through engaging students as actively as possible with the texts they study.

Course Perspectives

Each course highlights a different perspective in the study of texts.

Language A: Literature is directed towards developing an understanding of the techniques involved in literary criticism and promoting the ability to form independent literary judgments. It is offered at Higher and Standard Level.

Language A: Language and Literature looks more openly at the method of inquiry embodied in critical literacy and is directed towards understanding the constructed nature of meanings generated by language and the web of relationships they share with the social world. It also allows the exploration of a wide variety of non-literary texts. It is offered at Higher and Standard Level.

Literature and Performance enables students to combine literary analysis with imaginative practical experience of the investigation of the role of performance in understanding literature and vice versa. This interdisciplinary (Group 1 or 6) subject is offered by the IB at SL only.

Group 1 Aims

The common aims of all three courses of Group 1 are to:

- introduce students to a range of texts from different periods, styles and genres
- develop in students the ability to engage in close, detailed analysis of individual texts and make relevant connections
- develop the students' powers of expression, both in oral and written communication
- encourage students to recognize the importance of the contexts in which texts are written and received
- encourage, through the study of texts, an appreciation of the different perspectives of people from other cultures, and how these perspectives construct meaning
- encourage students to appreciate the formal, stylistic and aesthetic qualities of texts
- promote in students an enjoyment of, and lifelong interest in, language and literature.

Similarities: The texts will clearly overlap somewhat. Expectations of language usage, of level of analysis and of critical reflection are the same across the three courses. There are no formal requirements to pursue these courses.

Differences: The main difference lies in the different areas of focus each course takes. These are summarized under "Course Perspectives". The nature of components, teaching methods and assessment criteria will also vary as per the course specifications. The SL course duration is 150 hours and the HL 240 hours.

The choice of the specific group 1 course should depend on the student's interest and future educational plans.

HL Entry requirement for Group 1 English A:

A minimum of Grade 'A' in **IGCSE English Literature** and Grade 'B' in **IGCSE First Language English; 85% in ICSE English; 90% in CBSE or SSC English.**

English A: Literature

Why study this course?

Literature is concerned with our conceptions, interpretations and experiences of the world. The study of literature is an exploration of the way it represents the complex pursuits, anxieties, joys and fears to which human beings are exposed in the daily business of living. It enables an exploration of one of the more enduring fields of human creativity, and provides opportunities for encouraging independent, original, critical and clear thinking. It also promotes respect for the imagination and a perceptive approach to the understanding and interpretation of literary works.

Aims

In addition to the common Group 1 aims mentioned earlier, this course aims to:

- develop in students an understanding of the techniques involved in literary criticism
- develop the students' ability to form independent literary judgments and to support those ideas.

Course content

The course is divided into four parts and five exam components:

➤ Part 1: Works in Translation

This part encourages to appreciate the different perspectives of people from other cultures and to consider the role that culture plays in making sense of literary works which are products of a time and place. Artistic, philosophical, sociological, historical and biographical considerations are possible areas of study to enhance understanding.

➤ Part 2: Detailed Study

The focus is on detailed analysis of works from different genres, both in terms of content and technique.

➤ Part 3: Literary Genres

A group of works selected from the same literary genre is studied in depth. The recognizable techniques, themes and writers' use of literary features provide a framework for the comparative study of the selected works through an exploration of the literary conventions and features associated with that genre.

➤ Part 4: Options

Teachers will teach a set of three works (selected freely). Alternatively, they may teach one (or a combination) of the following three options:

Option 1: The study of prose other than fiction leading to various forms of student writing

This option acquaints students with travel writing, autobiography, letters, essays, speeches, or more contemporary experiments in "creative non-fiction". Students will develop their own explorations of these forms through personal writing.

Option 2: New textualities

Students study the rapidly evolving text forms like graphic novels, hypertext narratives and fan fiction.

Option 3: Literature and film

The study will focus on adaptation, remediation, comparative narrative strategies, or the skills of reading and viewing. This option is not a media study unit. It merges their often uncritical experience of watching films and television with a deeper reflection that is learned when reading literature in school.

➤ Unseen Commentary

Assessment

External Assessment – 70%

Paper 1 (Unseen Commentary) - (20%)

Paper 2 (Part 3 Essay) - (25%)

Written Assignment (Part 1) - (25%)

Internal Assessment – 30%

Individual Oral Presentation (Part 4) - (15%)

Individual Oral Commentary (Part 2) - (15%)

HL and SL:

Same model, but SL students study 10 works while HL study 13. Two of the assessment tasks for SL are less demanding than the comparable HL tasks. The requirements for depth of knowledge and understanding, and for demonstrating the skills of analysis, synthesis, evaluation and organization are less demanding at SL than at HL.

Careers

Creative Writing, Literary Studies, Advertisement, HR, Law, Anthropology, Education, Psychology.

English A: Language and Literature

Why study this course?

The course encourages students to question the often ambiguous meaning generated by language (through culture and media) and texts, and to become aware of the role of each text's wider context in shaping its meaning. Texts, both literary and non-literary, will be seen as autonomous yet simultaneously related to culturally determined reading practices. A wider aim of the course is the development of an understanding of "critical literacy" in students. Also, the study of literature in translation from other cultures contributes to a global perspective. It is closely linked to ToK.

Aims

In addition to the common Group 1 aims mentioned earlier, this course aims to:

- develop in students an understanding of how language, culture and context determine the ways in which meaning is constructed in texts
- encourage students to think critically about the different interactions between text, audience and purpose.

Course content

The Course is divided into four parts (two relate to the study of language and two to the study of literature) and five exam components:

➤ **Part 1: Language in Cultural Context**

In this part of the course students are given the opportunity to explore how language develops in specific cultural contexts, how it impacts on the world, and how language shapes both individual and group identity. Some of these topics will be explored: Gender; Sexuality; Translation; History and evolution of the language. Also, language in relation to communities; individual; power; knowledge; social relations; belief and taboo.

➤ **Part 2: Language and Mass Communication**

Students to consider the way language is used in the media how the production and reception of texts is influenced by the medium. Some of these topics will be explored: Textual bias; Stereotypes;

Popular culture; Language and presentation of speeches and campaigns; Language and the state and Media institutions.

➤ **Part 3: Literature – Texts and Contexts**

Texts will be studied with the understanding that meanings in a text are shaped by culture and by the contexts of the circumstances of its production like gender, power, identity, history, values and society.

➤ **Part 4: Literature – Critical Study**

With close reading, students to explore literary works in detail, analyse elements such as theme, the ethical stance and techniques of literary texts.

➤ **Unseen Commentary**

Assessment

External Assessment – 70%

Paper 1 (Unseen non-literary textual analysis. Additionally, literary text analysis at HL) - (25%)

Paper 2 (Part 3 Essay) - (25%)
Written Task (Imaginative tasks on both Language and Literature Parts. Additionally, analytical tasks at HL) - (20%)

Internal Assessment – 30%

Further Oral Activity (Part 1 and Part 2) - (15%)
Individual Oral Commentary (Part 4) - (15%)

HL and SL:

Same model, but there are significant qualitative and quantitative differences between the levels. SL students study 4 literary works while HL study 6.

In the language sections, the HL covers many more texts of all kinds from a variety of sources, genres and media than the SL. The number and nature of tasks are less demanding at SL than at HL.

Careers

Mass Media, Cultural Studies, Journalism, Creative Writing, Advertisement, Literary Studies, Film, Law and Anthropology.

Literature and Performance

Why study this course?

This course is an interdisciplinary synthesis of literature and theatre exploring the dynamic relationship between the two. At the heart of the course is this interaction between (i) a conventional literary emphasis on close reading, critical writing and discussion and (ii) the practical, aesthetic and symbolic elements of performance. Students perform a piece *transformed* from poetry or prose. The course as a whole examines literary and dramatic texts and seeks to develop intellect, imagination and creativity. It also functions as a great creative outlet.

Aims

In addition to the common Group 1 aims mentioned earlier, this course aims to:

- equip students with the skills to explore critically and imaginatively a range of literary texts and performance possibilities
- develop in students the ability to articulate their responses to literature and performance in a variety of styles and contexts
- introduce students to a range of performance skills
- broaden the perspectives of students through the exploration of texts from differing cultures, periods and genres
- foster a personal and passionate engagement with literature and performance, and by so doing guide students towards a better understanding of themselves and the world.

Course content

The Course is divided into three parts (two relate to the study of language and two to the study of literature) and four exam components:

➤ Part 1: Critical Study of Texts

Literary analysis and interpretation: Students are guided towards identifying literary features and probing the various layers of meaning, means of presentation and to their effects on the reader.

➤ Part 2: Exploration of the Chosen Approach to the Text

Students explore the possible ways in which the literary features identified in the textual study in part 1 of the course might be realized in performance and in various spaces. This includes consideration of all elements of drama: voice, movement, gesture, use of space, costume, props, lighting, set and sound.

➤ Part 3: Realisation of Texts in Performance

Students to be trained on four aspects.

- i) presentation to an audience of a rehearsed performance piece involving a range of ensemble activity (ensemble work, movement and voice work, improvisation, characterization, role play).
- ii) to develop play script presentation and work on interpretive techniques such as character and role; exploration of stage space; status, movement and gesture; experimentation with language and voice; non-verbal elements.
- iii) to adapt or reconstruct a non-dramatic text for live theatrical presentation.
- iv) critical analysis of performances, like the effect of direction, performance skills and acting techniques; the synthesis of elements in a performance; the clear intent and effect of the performance on the target audience.

Dance and music are acceptable as production elements. However, performances involving only dance or music are not appropriate for assessments.

Assessment

External Assessment – 60%

Paper 1 (Prose and Performance) - (20%)

Paper 2 (Comparative Essay on Poetry) - (20%)

Written Coursework (Major Playwrights in Performance) - (20%)

Internal Assessment – 40%

Performance (5 minutes per candidate) and Individual Oral Presentation (15 minutes) - (40%)

SL (IB offers this course only at SL)

Careers

Drama, Performing Arts, Literary Studies, Creative and Script Writing, Film Studies, Public Speaking and Communication Skills.

Group 2 - Language Acquisition

The Language B program is a second language-learning program designed to be studied over two years at SL and HL by students with previous experience of learning the language. The main focus of the program is on language acquisition and development.

The program meets the needs of IB students who have already studied the target language for between two and five years immediately prior to the beginning of their IB course.

Hindi & French – Language B SL and HL

Course content – The course comprises five topics: three from the Core and two chosen from the five Options. At least two aspects will be covered in the course from each of these five topics.

- There are three topics in the Core: **Social Relationships, Communication and Media and Global Issues** - these 3 topics are compulsory at both levels. At least two aspects are required from each Core topic.
- **Communication and Media** - *How people interact, transmit and gather data for the purposes of information and entertainment.*
- **Global Issues** - *Current matters and things to come that have an impact at a regional, national and/or international level, bearing in mind that they need to be addressed from the perspective of the target culture.*
- **Social relationships** - *How people interrelate and behave as members of a community, individually and in groups.*

There are five Options: **Cultural diversity, Customs and traditions, Health, Leisure, Science and technology**. Teachers will choose 2 Options. At least two aspects per option must be studied.

- **Cultural diversity** - *The ethnic, gender, racial, ideological and socioeconomic varieties within a community of the target language.*

- **Customs and traditions** - *The current and past practices, representations, expressions and knowledge that belong to a community of the target language.*
- **Health** - *Physical, mental and social well-being as well as matters related to illnesses.*
- **Leisure** - *The variety of activities performed for enjoyment.*
- **Science and technology** - *The relationship between science and technology and their impact on a community*

HL only –In addition to the above, students are required to read two works of literature originally written in the target language.

Why study Hindi /French- SL/HL?

To develop students' ability to communicate accurately and effectively in speech and writing within a range of contexts in this language area. It provides students with a sound linguistic base for further study, work and leisure and also offers insights into the culture of the countries where the language is spoken. Hindi and French B are the language options offered in group 2 of the IB Curriculum.

Assessment Component and Skills -2011-2013

70% External and 30% Internal Assessment

Assessment component		Language Skill	Content topic/s
External assessment			
Paper 1 (25%)		Receptive	Core: communication & media, global issues, social relationships
Paper 2 (25%)		Productive	Options: cultural diversity, customs & traditions, health, leisure, science & technology
Written assignment (20%)	SL	Receptive & productive	Core: communication & media, global issues, social relationships
	HL	Receptive & productive	Literary works
Internal assessment			
Interactive orals (10%)		Interactive	Core: communication & media, global issues, social relationships
Individual oral (20%)		Interactive	Options: cultural diversity, customs & traditions, health, leisure, science & technology

Ab Initio Languages – French, Spanish

The Ab Initio Languages are for beginners and cannot be studied by any student who has previously completed a 2-year, externally examined programme in the language.

Why Study Ab Initio Languages?

The study of ab initio language courses prepares the students to become familiar with aspects of the everyday life and culture of the countries in which the languages are spoken. The study of particular features of the culture is not an end in itself but a means by which the students learn about a different way of life. The overall objective of this course is for students to achieve communicative competence in a variety of everyday situations.

Course content - Topics covered:

Individual and Society	Leisure and Work	Urban and Rural environment
Personal details, appearance, character Daily routines Education Food and drink Physical health Town and services Relationships Shopping	Employment Entertainment Holidays Media Transport Technology Sport	Global Issues Environmental concerns Neighbourhood Physical geography Town and services Weather

Assessment

External Assessment – 75%

Paper 1 – Text-handling (Receptive skills) – 30%
Paper 2 – Composition (Productive skills) – 25%

Written assignment – 20%

Receptive & productive skills
Internal Assessment – 25%
Interactive skills
One individual oral – 25%

French / Spanish

Why study French or Spanish?

French is spoken in over forty countries in the world. Spanish is the second most spoken language in the world. Twenty-three countries have Spanish as a main language and in some cases as an only one.

This is a good course for students who are interested in learning how to communicate effectively in everyday situations and for students who have no previous experience of learning a foreign language.

Skills developed in both languages

- Can communicate information and some basic ideas clearly and effectively, in a limited range of situations
- Understands and uses accurately the essential spoken and written forms of the language in a limited range of situations
- Ability to understand and use a limited range of vocabulary in common usage
- Ability to use a register that is generally appropriate to the situation
- Shows an awareness of some elements of the culture(s) related to the language studied

Group 3 – Individuals and Societies

Why study Business and Management?

Business and management is a **rigorous and dynamic discipline** that examines business decision-making processes and how these decisions impact on and are affected by internal and external environments.

It is the study of both the way in which individuals and groups interact in an organization and of the transformation of resources.

Course content

- Business organization & Environment
- Human resources
- Accounts and Finance
- Marketing
- Operations Management
- Business Strategy (HL only)

Skills developed

- > Enhances the student's ability to make informed business decisions using critical and creative thinking skills.
- > Enables the student to develop their research and communication skills through research projects and presentations.
- > Develops their social skills through group project work and appreciation of social responsibilities associated with businesses operating in international markets.
- > Developing numerical and interpretation skills to transform quantitative information to qualitative judgments.

Assessment:

External Assessment 75%

Paper 1 - 35% (SL), 40% (HL)

Paper 2 - 40% (SL), 35% (HL)

Internal Assessment 25%

SL -Written commentary that integrates multiple perspectives and counter-arguments based on 3-5 supporting documents about a real issue or problem facing an organization. Word limit 1,500 words.

HL- Research project that addresses an issue facing an organization or analysis/ evaluation of a decision to be made by an organization. Word limit 2,000 words.

Prerequisites -

There are no prerequisites for choosing HL and SL Business and Management.

Difference between HL and SL -

- hours devoted to teaching (240 hours for HL, 150 hours for SL)
- extra depth and breadth for HL in particular HL focuses on integrating corporate strategy across modules.
- nature of the learning outcomes (more higher-order skills for HL) and internal assessment task requires intensive primary research along with secondary research.

Psychology: SL and HL

Why study Psychology?

Psychology is a multidisciplinary subject that combines knowledge from both natural as well as the social sciences. Our fast paced rapidly changing world calls for new insights into how individuals interpret meanings, relationships, and health. Psychology addresses these complex issues so that students can develop a greater understanding of themselves and others. It therefore offers the opportunity to focus on individuals and societies in the context of a social science, which is an integral part of the Diploma Programme.

Course content

CORE: Three Levels of Analysis, **Biological, Cognitive, Sociocultural** (HL & SL)

These will answer such questions as: *How does the brain work? How do we remember things? What makes some people so influential and powerful, while others are mindless followers and socially ineffective?*

OPTIONS: Abnormal psychology, Developmental psychology, Health psychology, Psychology of human relationships & Sport psychology
Students at **SL** must study **one** option. Students at **HL** must study **two** options.

These will also answer such questions as: *What motivates some people to starve themselves to the point of death while others eat themselves into obesity? How does stress affect our physical and psychological functioning? Why do we like some people and not others?*

Research Methodology: Qualitative research methods (HL only however SL studies methods as part of Paper 1 and the IA)

Skills developed

- An understanding of the biological, cognitive, and sociocultural influences on human behavior and an ability to interpret Psychological research for the benefit of human beings.
- Understand and/or use diverse methods of Psychological inquiry
- The capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about behavior.

Assessment:

External Assessment:

Paper 1 Core material: 4 compulsory short answer questions; one extended response question from a choice of four questions (HL & SL)

Paper 2 Option topics: students choose one essay each from three titles for both option topics studied (SL only one)

Paper 3 (HL only) Three compulsory questions about research methods based on stimulus material given

Internal Assessment

Replication of *one experimental study* of 1500 words (SL) or 2000 words (HL).

University Courses and Careers:

There are many different areas of Psychology that may be studied, including but not limited to, clinical, educational, industrial, health, sport, design and forensic or criminal Psychology. It serves as a valuable background to the study of **law, or medicine, journalism, business, political science and international relations, design and technology,**

Prerequisites for higher level:

No prior study of psychology is expected. No particular background in terms of specific subjects studied for national or international qualifications is expected or required of students. **Skills needed** are **Love of reading and consistent hard work, ability to be analytical, good essay writing skills.**

Economics

Why study 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.

The economics course emphasizes the theories of microeconomics, which deal with economic variables affecting individuals, firms and markets and the theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. These economic theories are not to be studied in a vacuum: instead, 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 ethical dimensions involved in the application of economic theories and policies permeate throughout the economics course as students are required to consider and reflect on human end-goals and values. The economics course encourages students to develop international perspectives, fosters a concern for global issues, and raises students' awareness of their own responsibilities at a local, national and international level. The course also seeks to develop values and

attitudes that will enable students to achieve a degree of personal commitment in trying to resolve these issues, appreciating our shared responsibility as citizens of an increasingly interdependent world.

Economics Aims

The aims of the economics syllabus at standard level and higher level are to enable students to develop:

- ❖ An understanding of microeconomic and macroeconomic theories and concepts and their real world application
- ❖ An appreciation of the impact on individuals and societies of economic interactions between nations
- ❖ An awareness of development issues facing nations as they undergo the process of change.

Section 1: Microeconomics

Section 2: Macroeconomics

Section 3: International economics

Section 4: Development economics

External assessment (3 hours) 80% (SL)

Paper 1 (1 hour and 30 minutes)

An extended response paper (50 marks)

Paper 2 (1 hour and 30 minutes)

A data response paper (40 marks)

External assessment (4 hours) 80% (HL)

Paper 1 (1 hour and 30 minutes)

An extended response paper (50 marks)

Paper 2 (1 hour and 30 minutes)

A data response paper (40 marks)

Paper 3 (1 hour)

HL extension paper on Quantitative skills (50 marks)

Internal assessment

Students produce a portfolio of three commentaries, based on different sections of the syllabus and on published extracts from the news media.

The word limit for each commentary is 750 words. Each commentary is marked out of 15. The whole portfolio of three commentaries will have a weightage of **20%**. This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

Geography

Why study Geography?

Geography tackles big issues like

- Environmental responsibility
- Our global interdependence
- Cultural understanding and tolerance
- Commerce trade and industry.

Geography higher level

The course comprises of a core area of population study, disparities in wealth and development, patterns in environmental quality and sustainability and patterns in resource consumption, and 3 options taken from Urbanisation, Leisure, Sport and Tourism and Ocean Study issues and conflicts. Along with these the higher level students have a very interesting unit particularly in the present concept and that is Global interactions covering aspects like the shrinking world, political outcomes, measuring global interactions and environmental change. 20% of the exam mark is based on fieldwork

Geography standard level

The course comprises of a core area of population study, disparities in wealth and development, patterns in environmental quality and sustainability and patterns in resource consumption, and 2 options taken from Urbanisation, and Leisure, Sport and Tourism. 25% of the exam mark is based on fieldwork

Fieldwork is a compulsory component for both Higher Level and Standard Level students, comprising of a report of 2500 words.

Assessment

External assessment - 80% + IA 20%

Geography HL

Paper 1: 1hrs 30 minutes

Paper 2: 2 hours

Paper 3: 1 hour

Geography SL

External assessment - 75% + IA 25%

Paper 1: 1hrs 30 minutes

Paper 2: 1 hour 20 minutes

University courses and degrees

We need to try to understand what is happening NOW in the world, so we can adapt and prepare for the FUTURE. IB Geography offers many University and Career paths such as: International Relations and Diplomacy, Economics and Business, Urban planning/ Architecture and Green designing, Mass media/ Journalism/Documentary/ Film making, Environmental Management, Financial Services, Travel and Tourism, Hazard management, Earth Science, Law

History

Why study History?

History is an exploratory subject that aims at reconstructing the past in the light of the present, and linking to the future, and through this enables understanding of oneself in a wider context of emerging new world order. As a discipline History attempts to provide ample opportunities for balanced education by encouraging students to reconstruct the past by understanding, interpreting and evaluating varied source materials. Further it is a subject which promotes among students a sense of appreciation of varied political, cultural and societal facets in a larger global context. As a method of learning, the history course nurtures necessary critical and analytical skills essential for drawing comparisons between, but not judgments of, different cultures, political systems and national traditions. In other words the IB History course develops among its students empathy for people living in other periods and contexts, and thereby nurtures elements of international understanding and sustainable living, a way towards global citizenship.

Skills developed -

The IB History course aims at developing and assessing the following skills:

- Knowledge and understanding;
- Application and interpretation;
- Synthesis and evaluation, and
- Use of historical skills;
- Research skills, organization and referencing;

Course Content:

Paper 1 is a document-based paper set on **20th century world history** prescribed subjects. Students do 1 of 3 prescribed topics.

1. Peacemaking, peacekeeping- international relations 1918–36
2. The Arab–Israeli conflict 1945–79
3. Communism in crisis 1976

Skills: Comprehension, Interpretation and evaluation of Source Materials

History Students at DAIS will do Prescribed Subject 2 i.e., The Arab–Israeli conflict 1945–79

Paper 2 is an essay paper based on **five thematic topics** of 20th Century world history, Students do 2 of 5 prescribed topics

1. Causes, practices and effects of wars
2. Democratic states - challenges and responses
3. Origins and development of authoritarian and single-party states
4. Nationalist and independence movements in Africa and Asia and post-1945 Central and Eastern European states
5. The Cold War

Paper 3 (HL only) is an essay paper based on in-depth regional study offered for the IB History course, and are related to Africa, the Americas, Asia and Oceania, Europe and the Middle East.

Students at DAIS take Asia and Oceania as an option, with an emphasis on the history of South Asia from mid 19th Century to 2000 (India, Pakistan and China).

Depending on the availability of department expertise, if possible, students may get an opportunity to take Europe and the Middle East Option for Paper III.

Skills: Communication skills through writing structured essays using evidence to support relevant balanced and focused historical arguments.

Assessment:

External Assessment (Examination) aims at assessing the ability to structure an essay answer or short- answer questions.

HL (80%)
Paper 1 20%
Paper 2 25 %

SL (75%)
Paper 1 30%
Paper 2 45%

Paper 3 35%

Internal Assessment (Coursework)

Internal Assessment is one-2000 word essay on a topic of the students' choice. In addition to the skills listed above, the IA demonstrates evidence of research skills, organization and referencing, central to independent research. **HL 20%** **SL 25%**

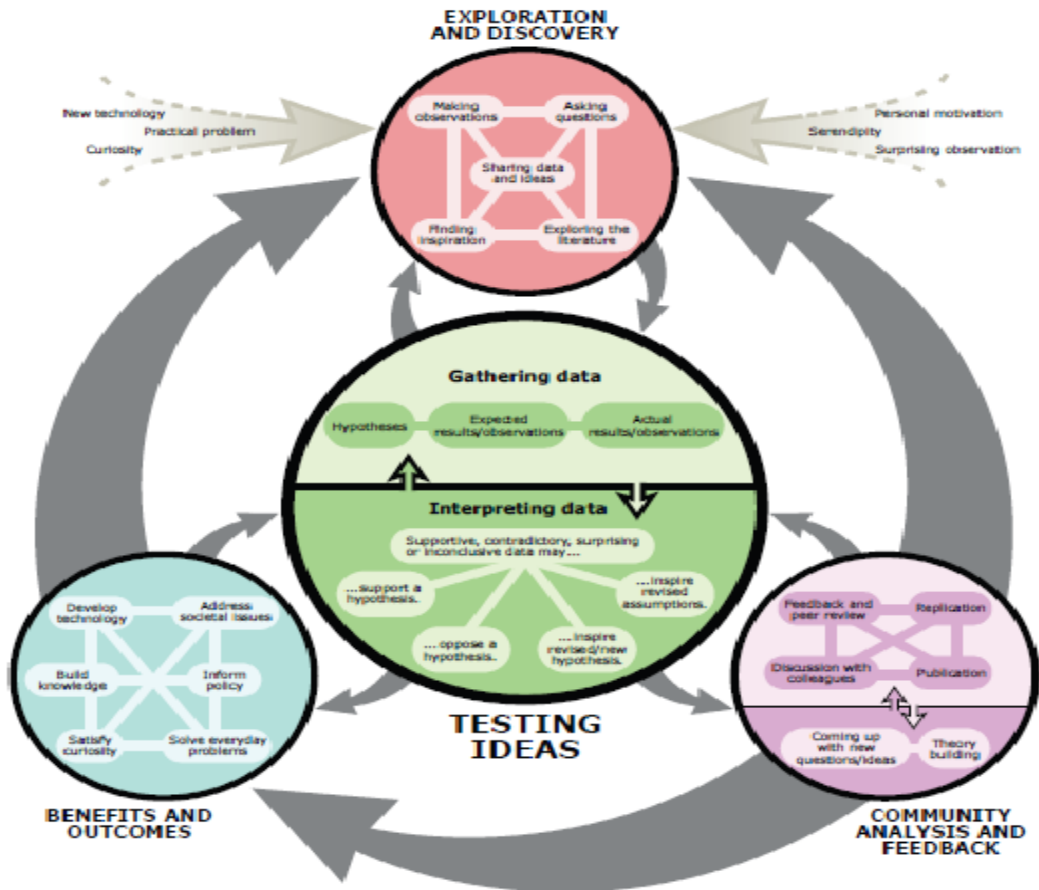
graduates have got wide- ranging career choices such as law journalism, government, business, economics, as well as politics

University Courses and Careers: History

GROUP 4 : EXPERIMENTAL SCIENCES

Whatever the field of science—whether it is in pure research, applied research or in engineering new technology—there is boundless scope for creative and imaginative thinking. Science has achieved a great deal but there are many, many unanswered questions to challenge future scientists.

How science works



IB CHEMISTRY-HIGHER AND STANDARD LEVEL.

There are a variety of approaches to the teaching of chemistry. By its very nature, chemistry lends itself to an experimental approach, and it is expected that this will be reflected throughout the course.

ENTRY/SUBJECT OFFER REQUIREMENTS:

For higher level Chemistry internal candidates need, in addition to teacher inputs, at least an A grade in coordinated science IGCSE or a B grade in Chemistry IGCSE. For internal ICSE students the marks from Mock examination will be used. External candidates will be offered the subject at higher level on the basis of admission test scores. Due to the demands made on reading, writing and mathematics it is recommended that students taking Chemistry have a good command over English and Mathematics.

DISTINCTION BETWEEN HL AND SL

Group 4 students at standard level (SL) and higher level (HL) undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied. They are presented with a syllabus that encourages the development of certain skills, attributes and attitudes, as described in the "Assessment objectives" section of this guide.

While the skills and activities of group 4 science subjects are common to students at both SL and HL, students at HL are required to study some topics in greater depth, in the additional higher level (AHL) material and in the common options. The distinction between SL and HL is one of breadth and depth.

SKILLS DEVELOPED

- Analytical and problem-solving - examining and interpreting results and making evaluations
 - based on limited information
- Time management and organization ~ planning and executing experiments
- processing ideas and communication ~ assimilating scientific theories and arguments for discussion and debate
- Monitoring - systematically recording chemical properties, events and changes
- processing and presenting numerical data, using IT where appropriate
- Plus other skills

CAREER OPTIONS

Here are just a few of the careers open to Chemistry students:

Biotechnology, Pharmacology (medicines research), Analytical Chemist, Forensic Scientist, Environmental Scientist, Chemical engineer – inventing and making new materials and processes for industry and consumers e.g. textiles, oil industry, agriculture and food industry
Any career that uses your analytical, pattern finding, data processing and presenting skills for example: banking + 100's more jobs

COURSE CONTENT: To be covered over two years

Core (SL +HL)-95 hours 1. Stoichiometric relationships 2. Atomic structure 3. Periodicity 4. Chemical bonding and structure 5. Energetics/thermochemistry 6. Chemical kinetics 7. Equilibrium 8. Acids and bases 9. Redox processes 10. Organic chemistry 11. Measurement and data processing	Additional higher level (AHL)-60 hours 12. Atomic structure 13. The periodic table—the transition metals 14. Chemical bonding and structure 15. Energetics/thermochemistry 16. Chemical kinetics 17. Equilibrium 18. Acids and bases 19. Redox processes 20. Organic chemistry 21. Measurement and analysis
Option-15 hours (Only one) a. Materials b. Biochemistry c. Energy d. Medicinal chemistry	Option (with additional higher level) (Only one)-25 hours a. Materials b. Biochemistry c. Energy d. Medicinal chemistry
<p>It is important that students are involved in an inquiry-based practical programme that allows for the development of scientific inquiry. It is not enough for students just to be able to follow directions and to simply replicate a given experimental procedure; they must be provided with the opportunities for genuine inquiry. Developing scientific inquiry skills will give students the ability to construct an explanation based on reliable evidence and logical reasoning. Once developed, these higher order thinking skills will enable students to be lifelong learners and scientifically literate.</p>	
Practical scheme of work –SL (40 hours over two years) -Practical activities- 20 hrs. -Individual investigation (internal assessment—IA)-10 hrs. -Group 4 project-10 hrs.	Practical scheme of work-HL (60 hours over two years) -Practical activities- 40 hrs. -Individual investigation (internal assessment—IA)-10 hrs. -Group 4 project-10 hrs.

IB BIOLOGY-HIGHER AND STANDARD LEVEL

Biology is the study of life. Biologists attempt to understand the living world at all levels using many different approaches and techniques. At one end of the scale is the cell, its molecular construction and complex metabolic reactions. At the other end of the scale biologists investigate the interactions that make whole ecosystems function. By its very nature, biology lends itself to an experimental approach, and it is expected that this will be reflected throughout the course.

ENTRY/SUBJECT OFFER REQUIREMENTS:

For higher level Chemistry internal candidates need, in addition to teacher inputs, at least an A grade in coordinated science IGCSE or a B grade in Biology IGCSE. For internal ICSE students the marks from Mock examination will be used. External candidates will be offered the subject at higher level on the basis of admission test scores. Due to the demands made on reading, writing and mathematics it is recommended that students taking Chemistry have a good command over English and Mathematics.

DISTINCTION BETWEEN HL AND SL

Group 4 students at standard level (SL) and higher level (HL) undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied. They are presented with a syllabus that encourages the development of certain skills, attributes and attitudes, as described in the "Assessment objectives" section of this guide.

While the skills and activities of group 4 science subjects are common to students

at both SL and HL, students at HL are required to study some topics in greater depth, in the additional higher level (AHL) material and in the common options. The distinction between SL and HL is one of breadth and depth.

SKILLS DEVELOPED

- Analytical and problem-solving - examining and interpreting results and making evaluations based on limited information
- Time management and organization ~ planning and executing experiments
- processing ideas and communication ~ assimilating scientific theories and arguments for discussion and debate
- Monitoring - systematically recording chemical properties, events and changes
- processing and presenting numerical data, using IT where appropriate
- Plus other skills

CAREER OPTIONS

Here are just a few of the careers open to Biology students:

Biotechnology: There are currently abundant opportunities in academic institutions, medical schools, the government, and pharmaceutical industry.

Forensic Science:

Biomedical Research: Cancer Research:

Cell/Molecular Biology: Genetics:

Developmental Biology

Neuroscience: Areas related to - Mind and Brain, Introductory Psychology, Cognitive Processes, Biological Psychology, Sensation and Perception.

Evolutionary Biology: Environmental Management: Forestry

Food Technology; Microbiology:

Opportunities in Pharmaceutical, Food, Research and development laboratories in hospital, Beverage and chemical industries,

Clinical Medicine: Dentistry: Optometry: Veterinary Medicine etc

Genetic Counseling: Genetic Counselors provide counseling on matters relating to

genetics and health to individuals in a clinical setting.

COURSE CONTENT: To be covered over two years

<p>Core (SL +HL)-95 hours</p> <ol style="list-style-type: none"> 1. Cell biology 2. Molecular biology 3. Genetics 4. Ecology 5. Evolution and biodiversity 6. Human physiology 	<p>Additional higher level (AHL)-60 hours</p> <ol style="list-style-type: none"> 7. Nucleic acids 8. Metabolism, cell respiration and photosynthesis 9. Plant biology 10. Genetics and evolution 11. Animal physiology
<p>Option-15 hours (Only one)</p> <ol style="list-style-type: none"> A. Neurobiology and behaviour B. Biotechnology and bioinformatics C. Ecology and conservation D. Human physiology 	<p>Option (with additional higher level) (Only one)-25 hours</p> <ol style="list-style-type: none"> A. Neurobiology and behaviour B. Biotechnology and bioinformatics C. Ecology and conservation D. Human physiology
<p>It is important that students are involved in an inquiry-based practical programme that allows for the development of scientific inquiry. It is not enough for students just to be able to follow directions and to simply replicate a given experimental procedure; they must be provided with the opportunities for genuine inquiry. Developing scientific inquiry skills will give students the ability to construct an explanation based on reliable evidence and logical reasoning. Once developed, these higher order thinking skills will enable students to be lifelong learners and scientifically literate.</p>	
<p>Practical scheme of work –SL (40 hours over two years) Practical activities- 20 hrs. -Individual investigation (internal assessment—IA)-10 hrs. -Group 4 project-10 hrs.</p>	<p>Practical scheme of work-HL (60 hours over two years) -Practical activities- 40 hrs. -Individual investigation (internal assessment—IA)-10 hrs. -Group 4 project-10 hrs.</p>

IB PHYSICS-HIGHER AND STANDARD LEVEL

ENTRY/SUBJECT OFFER REQUIREMENTS:

For higher level Physics internal candidates need, in addition to teacher inputs, at least an A grade in coordinated science IGCSE or a B grade in Physics IGCSE. For internal ICSE students the marks from Mock examination will be used. External candidates will be offered the subject at higher level on the basis of admission test scores. Due to the demands made on reading, writing and mathematics it is recommended that students taking Chemistry have a good command over English and Mathematics.

DISTINCTION BETWEEN HL AND SL

Group 4 students at standard level (SL) and higher level (HL) undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied. They are presented with a syllabus that encourages the development of certain skills, attributes and attitudes, as described in the "Assessment objectives" section of this guide.

While the skills and activities of group 4 science subjects are common to students at both SL and HL, students at HL are required to study some topics in greater depth, in the additional higher level (AHL) material and in the common options. The distinction between SL and HL is one of breadth and depth.

SKILLS DEVELOPED

- Analytical and problem-solving - examining and interpreting results and making evaluations

based on limited information

- Time management and organization ~ planning and executing experiments
- processing ideas and communication ~ assimilating scientific theories and arguments for discussion and debate
- Monitoring - systematically recording chemical properties, events and changes
- processing and presenting numerical data, using IT where appropriate
- Plus other skills

CAREER OPTIONS

Here are just a few of the careers open to Physics students:

All the Disciplines of Engineering necessarily require Physics as a foundation, on which they will subsequently build. Skills require the Designing aptitude, and thinking up Problem Solving Strategies. We focus deliberately on building these.

Some common and popular Engineering choices are:

1. Mechanical
2. Chemical
3. Electrical and Telecommunications
4. Electrical and Computer Science
5. Industrial
6. Civil
7. Architecture
8. Computer Science
9. Energy – A specialized branch focused at the Alternative sources of Energy
10. Automobile
11. Pure Physics leading to research in Astrophysics, Quantum, Nano-technology and the likes
12. Hybrid Courses – Biophysics, Physical Chemistry

COURSE CONTENT: To be covered over two years

<p>Core (SL +HL)-95 hours</p> <ol style="list-style-type: none"> 1. Measurements and uncertainties 2. Mechanics 3. Thermal physics 4. Waves 5. Electricity and magnetism 6. Circular motion and gravitation 7. Atomic, nuclear and particle physics 8. Energy production 	<p>Additional higher level (AHL)-60 hours</p> <ol style="list-style-type: none"> 9. Wave phenomena 10. Fields 11. Electromagnetic induction 12. Quantum and nuclear physics
<p>Option-15 hours (Only one)</p> <ol style="list-style-type: none"> A. Relativity B. Engineering physics C. Imaging D. Astrophysics 	<p>Option (with additional higher level) (Only one)-25 hours</p> <ol style="list-style-type: none"> A. Relativity B. Engineering physics C. Imaging D. Astrophysics
<p>It is important that students are involved in an inquiry-based practical programme that allows for the development of scientific inquiry. It is not enough for students just to be able to follow directions and to simply replicate a given experimental procedure; they must be provided with the opportunities for genuine inquiry. Developing scientific inquiry skills will give students the ability to construct an explanation based on reliable evidence and logical reasoning. Once developed, these higher order thinking skills will enable students to be lifelong learners and scientifically literate.</p>	
<p>Practical scheme of work –SL (40 hours over two years) Practical activities- 20 hrs. -Individual investigation (internal assessment—IA)-10 hrs. -Group 4 project-10 hrs.</p>	<p>Practical scheme of work-HL (60 hours over two years) -Practical activities- 40 hrs. -Individual investigation (internal assessment—IA)-10 hrs. -Group 4 project-10 hrs.</p>

Computer Science

Why study Computer Science?

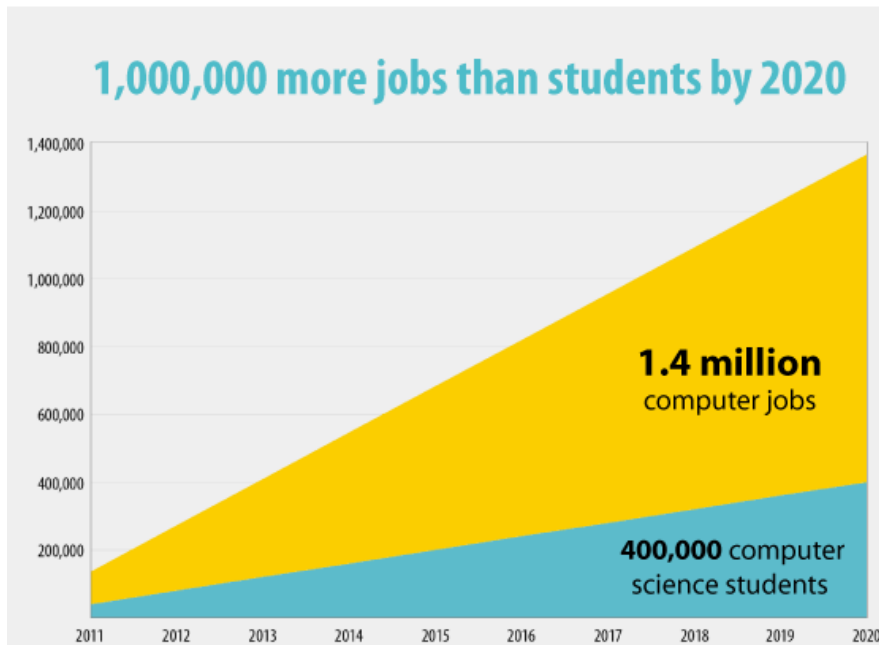
***"I think everybody should learn how to program a computer — because it teaches you how to think."*— STEVE JOBS**

Computer Science is an exciting, growing, challenging field that has impact in most aspects of everyday life. The aim of this technical subject is to give an insight into the computing world and its application. Also it prepares students to develop logical, critical and creative thinking skill for problem solving. It trains students to develop successful computer systems after analyzing a critical situation with a systematic approach. Students with strong problem-solving skills can consider this subject to make other lives more comfortable. Since computers support so many parts of contemporary society (e.g., in transportation, medicine, engineering, economics, entertainment, technical theater, record keeping, insurance—the list seems endless), work in the computing field provides the opportunity to contribute to many aspects of society. Computing applications have great potential to help address human needs and improve the quality of life.

Recent articles/surveys showing that Software Engineering, Programming and other Comp Science careers are good choices because:

- the number of jobs is growing and will continue to grow in the next decade
- there are relatively few qualified applicants for jobs, hence unemployment is basically zero
- they are highly paid professions - better than many others
- working conditions are excellent
- lots of opportunities

OPPORTUNITY



1. Core Syllabus content(HL/SL) –

Topic I – System Fundamentals:

The need for change, Planning a new system, techniques of gathering information, describing prototypes to demonstrate the new system, system design, Implementation of system using client's hardware with hosting remotely, software deployment, data migration, system backup, human interaction with the system

Topic II- Computer organization –

Computer architecture, complete study of architecture of CPU along with functioning of internal components, machine-instruction cycle, operating systems and application software, computer mathematics, computer logic, construction of logic circuits using logic gates

Topic III - Networks: Architecture of LAN,VLAN,SAN,WLAN,VPN,PAN & P2P, standards enable compatibility, OSI model, data transmission technologies, wireless networking

Topic IV – Computational thinking, problem-solving

A) General principles

Thinking procedurally – putting steps in correct order

Thinking logically – decision making technique using logical rules

Thinking ahead – outline pre – and post conditions to a problem

Thinking concurrently –concurrent processing to solve a problem

Thinking abstractly – requirement of abstraction for computational solution

B) Computational thinking and program design

Characteristics of standard algorithms, construction of pseudocode to represent an algorithm, efficiency of algorithm, nature of programming language, use of programming

languages, Implementation of pseudocode using computer program

HL EXTENSION (Only for HL students)

Topic V- Abstract data structures

Arrays, Link list, Stack, Queue, Binary tree, Recursive thinking

Topic VI – Resource management

System resources, limitations of range of resources, technique of suggesting the best possible system from limited resources, advanced role of OS

Topic VII – Control

Range of control systems, microprocessor and sensor embedded system, relationship between a sensor and an output transducer, role of feedback

2. OPTIONS (SL/HL) – Students must take one option. HL students will study additional modules in their chosen option.

A)Database – Construction and use, DBMS, Relationship, normalization, Development of query system, Database administration and administrator, Integrated system, Applications of database, Models, Data warehousing

B) Modeling and simulation – Computer modeling, mathematical models, test case, Concept of simulation, Construction of examples of simulation, using simulation for prediction, 2D & 3D visualization, Neural network, Natural language processing

c)Web science- A detail study and application of the following.

- Creation of web
- Searching the web

- Distributed approaches to the web
- The evolving technologies of web
- Analysis of web
- Creation of intelligent web

d) Object oriented programming –

Concept of OOP, data types, encapsulation, inheritance, polymorphism, program development, construction of code using programming language, abstract data type, Identifying the features of ADT in a program

3. Case study – only for HL student

A pre seen case study will be provided 12 months before the May examination. The information obtained will prepare students and form the basis of the requirements for answering the questions in HL paper 3.

Assessment –

SL

External Assessment – 70%

Two written papers.

Paper 1(1 hr 30min): 45%
 Paper 2(1 hr) : 25%

Internal Assessment – 30%

i) Students must develop a computer solution which address a single real life problem and has an identified user. This solution includes supporting documents up to a maximum of 2,000 words. Initially it is internally assessed by the teacher and externally moderated by the IBO.

ii) Group 4 project- a collaborative activity with different group 4 subjects.

HL

External Assessment – 80%

Three written papers.

Paper 1(2 hrs 10min): 40%
 Paper 2(1 hr 20min) : 20%
 Paper 3(1 hr) : 20%

Internal Assessment – 20%

The criteria for HL internal assessment is the same as SL.

University courses and careers : This course is suitable for those students who want to pursue a career in the computing industry and wish to study computer science. Some of the demanding career choices of Computer sc:

Software developer, Software test engineer, Software architect, Program analyst, Web developer, Application support analyst, Database administrator, Hardware engineer, Network administrator etc.

Over the coming years, the collaboration between computers and machine is only going to grow. Computers will do what they are good at, large scale data processing, computation, and analysis. Humans will do what they are good at, finding patterns, intuiting promising paths forward despite noise and missing data, and collaborative problem solving. Those who can fully use computers, and especially those who can program computers, will be more productive. Computers are a powerful tool for those who can wield it.

Sports, Exercise and Health Science

What is Sport, Exercise and Health Science?

The course incorporates the traditional disciplines of Anatomy, Physiology, Biomechanics, Psychology and Nutrition and will be studied in the context of Sport, Exercise and Health. Students will study a range of core and option topics. They will undertake 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 analyze human performance. Where relevant, the course will address issues of internationalism and ethics by

What does the course consist of?

- | Core Topics | 80 hrs |
|-------------------------------------------------------|---------------|
| • Anatomy | |
| - The skeletal system | |
| - The muscular system | |
| • Exercise Physiology | |
| - Structure and function of the ventilatory system | |
| - Structure and function of the cardiovascular system | |
| • Energy Systems | |
| - Nutrition | |
| - Carbohydrate and fat metabolism | |
| - Nutrition and energy systems | |
| • Movement Analysis | |
| - Neuromuscular function | |
| - Joint and movement type | |
| - Fundamentals of biomechanics | |
| • Skill in Sport | |
| - The characteristic and classification of skill | |
| - Information processing | |
| - Principles of skill learning | |
| • Measurement and Evaluation of Human Performance | |
| - Statistical analysis | |

considering Sport, Exercise and Health relative to the individual and in a global context.

Why should I study Sports, Exercise and Health Science?

- You enjoy science
- You enjoy sport and exercise
- You want to learn more about sport, exercise and health
- You wish to complete some of your work in a practical setting
- You want to work towards a world wide recognized qualification in a number of health related fields.

- Study design
- Components of fitness
- Principles of training programme design

Option Topics 30 hrs

- Optimizing Physiological Performance
 - Training
 - Environmental factors and physical performance
 - Non-nutritional ergogenic aids
-
- Psychology of Sport
 - Individual differences
 - Motivation
 - Mental preparation for sport
 - Psychological skill training

Internal Assessment

Practical Investigations 30 hrs

Group 4 Project 10 hrs

The internal assessment (IA) in IB Diploma sports exercise and health science (SEHS) includes 40 hours of hands-on work in the laboratory or in the field. As a standard level (SL) sport and exercise scientist the practical work is a chance for you to gain and develop new skills and techniques beyond your theory lessons. You should find this stimulating and challenging. The time also includes 10 hours for the group 4 project.

How is the course assessed?

External Exam 76%

- Paper 1 - 45 mins multiple choice on core topics **20%**
- Paper 2 - 1 Hr 15mins **32%**

Section A- One data based question and several short answer questions.

Section B – One extended response question. Both on core topics

- Paper 3 – 1 Hr short answer questions on two options.
24%

Internal assessment **24%**

Through a practical scheme of work (PSOW)

Criteria aspects:

Design
Data collection & processing
Conclusion & evaluation
Manipulative skills
Personal skills

What is my career path if I take this course?

- Doctor
- Dentist
- Podiatrist (study, diagnose and treat disorders of the [foot](#), [ankle](#) and lower [leg](#))
- Physiotherapist
- Diet and Nutritionist
- Sports Psychologist
- Sports Physiologist (managing private football/cricket teams)
- Teacher
- Infact.... anything relating to the body and many things that are not!

India is the world capital of diabetes and heart disease. Studying this course will go a long way in living a healthy life-style and helping others to do so.

Maths: HL, SL, Studies

There are three different courses in Mathematics offered. These courses are designed based on individual students' needs, interests and abilities as explained under each respective category. In making this selection, students are advised to take into account their own abilities in mathematics and the type of mathematics in which they can be successful and their choice of career. Great care should be taken to select the course that is most appropriate for an individual student.

Skills developed:

All mathematics courses seek to develop the following skills at the appropriate level for that course:

- manipulative algebraic skills
- facility with mathematical software and technology via the graph drawing calculator
- discrimination between methods of solution to a given problem in order to determine the most efficient
- applicability of the subject to other disciplines

Mathematics HL

Who should study Mathematics (HL)?

This course is for students who have already demonstrated a high degree of mathematical insight and competence. Although modern in approach and content, a sound "traditional" background is a necessary basis. Rather, it gives the student a greater breadth in the subject that may be advantageous in future study. It is highly rigorous, intellectually stimulating and requires a great deal of commitment on the part of the student; a main proviso is that the student has genuine interest and ability in the subject and is capable of meeting the demands of an extremely large workload.

Core Course content:

- sequences and series
- Mathematical induction
- Algebraic techniques – logarithms, binomial expansions, functions and equations
- Calculus of polynomial functions – fundamental theorem of calculus
- Techniques of differentiation – chain, product and quotient rules
- Exponential and logarithmic functions
- Circular functions and trigonometry
- Techniques of integration
- Vector geometry
- Complex numbers
- Probability and statistics
- Differential Equation

Assessment:

External assessment - 80%

Core Paper 1 (2 hours) - no calculator permitted

Core Paper 2 (2 hours) - graphical calculator is required

Option Paper 3 (1 hour) - graphical calculator is required

Those requiring this level of mathematics include scientific and technical disciplines. The course is suitable for those wishing to study engineering in the USA. Some countries require Standard Level mathematics for commerce and business courses.

Internal assessment - 20%

The old IA model of assessment in the form of two portfolios has been removed. The internally assessed component in this course now is called a 'mathematical exploration'. It is in line with the aims and objectives of the subject and matches with the IB learner profile to help students become life-long learners. The exploration is a true novelty in this course. It has become more open-ended assessment model. The exploration provides the student with the opportunity to apply the skills and knowledge acquired through the

course in an individual and independent way. It will also help to discourage issues of plagiarism and therefore increase the integrity of the course.

The purpose of the exploration is to provide a venue and opportunity for students to develop areas of mathematical expertise that are not readily assessed in an examination format. It gives confidence to students to produce actual valuable math, take good risks, stick to a job until it is done, and prepare for presenting to others. It is a short report written by the student based on a topic chosen by them and the final report is maximum of 12 pages. The emphasis is on mathematical communication (including formulae, diagrams, graphs etc) with accompanying commentary, good mathematical writing and thoughtful reflection. A student should develop his/her own focus with the teacher providing feedback via for example, discussion and interview. Students can choose from a wide variety of activities, for example modelling, investigations and from applied topic areas such as biological or ecological topics or the statistics of elections etc that are ways to model the world with math or to investigate a phenomenon with math.

Teachers will help students develop the necessary skills, guide them in their choice of topic, advise them on the breadth of their study and keep them on task, set a series of deadlines and dates for topic choice, draft etc. Teachers will give advice to students on a first draft of their exploration in terms of the way the work could be improved. The role of the teacher is similar to that of "coach" or "guide on the side."

University courses and careers -

Those courses requiring this level of mathematics include mathematics for pure sciences, and engineering.

Prerequisites for Mathematics (HL)

It is suitable for those who have performed well in an additional mathematics course or extremely well at IGCSE, or have an equivalent

background. Past experience indicates that **a grade A* at IGCSE or a 90% and above at ICSE/CBSE/SSC** would be the **minimum required** to gain reasonable success in this course.

Mathematics (SL)

Who should study Mathematics (SL)?

This course is designed to provide mathematical techniques and methods for those needing substantial mathematical skills in other subject areas.

Course content

The syllabus is a subset of the higher level course and comprises:

- arithmetic and geometric sequences and series
- binomial expansions
- theory of exponentials and logarithms
- the linear function
- the quadratic function
- calculus of polynomials
- techniques of differentiation
- trigonometry, circular functions and the calculus of these
- calculus of exponential and logarithmic functions
- applications of the integral calculus – areas, volumes, kinematics
- statistics and probability
- vector geometry

Assessment -

External Assessment - 80%

Paper 1 (1¹/₂ hours) - no calculator permitted

Paper 2 (1¹/₂ hours) - graphical calculator is required

Internal Assessment - 20%

The old IA model of assessment in the form of two portfolios has been removed. The internally assessed component in this course now is called a 'mathematical exploration'. It is in line with the aims and objectives of the subject and matches with the IB learner profile to help students become life-long learners. The exploration is a true novelty in this course. It has become more open-ended assessment model. The exploration provides the student with the opportunity to apply the skills and knowledge acquired through the course in an individual and independent way. It will also help to discourage issues of plagiarism and therefore increase the integrity of the course.

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work could be improved. The role of the teacher is similar to that of "coach" or "guide on the side."

University courses and careers

Those requiring this level of mathematics include scientific and technical disciplines. The course is suitable for those wishing to study engineering in the USA. Some countries require Standard Level mathematics for commerce and business courses.

Prerequisites for Maths SL

In order to gain success in this course a high level of mathematical ability is required as well as sustained effort and commitment. It is not an easy option. It is departmental policy that students will be accepted on this course only if they **achieve at least a Grade A at IGCSE and 85% in ICSE/CBSE/ SSC.**

Mathematical Studies (SL)

Who study Mathematical Studies (SL)?

This course is available at standard level (SL) only. It is designed for students whose proposed university course does not lie in a field where mathematical skills and techniques are primarily needed. More specifically, it is designed to build confidence and encourage an appreciation of mathematics in students who do not anticipate a need for mathematics in future studies. Students taking this course get equipped with fundamental skills and basic processes in mathematics that can be successfully used in areas of social sciences, humanities, languages and arts. It is, however, quite a demanding course in its own right and requires commitment and a reasonable level of mathematical facility from the student.

Course Content

- Arithmetic and geometric sequences and series
- Financial mathematics
- Functions notation and manipulation
- The linear function
- Exponential functions
- Trigonometry and circular functions

- Statistics – regression, correlation, chi-squared test of independence.
- Set theory
- Logic
- Probability
- Introductory calculus

Assessment –

External assessment - 80%

- Paper 1 (1¹/₂ hours) - graphical calculator is required
- Paper 2 (1¹/₂ hours) - graphical calculator is required

Internal assessment - 20%

Mathematics project; begun in Grade 11 and updated throughout Yr 12.

University courses and careers

Those not involving mathematics, however the course is suitable for those considering business studies, humanities and arts in most countries. Germany does not recognize this course as part of the IB diploma for entry to its universities.

Prerequisites for Mathematical Studies (SL)

Students doing the **Core Mathematics option at IGCSE** and **students who did not pursue the study of Mathematics in year 10 at ICSE** and students who have **obtained 50-60% in ICSE/ CBSE/ SSC Mathematics** will most certainly have to opt for Math Studies and others, who do not have a strong Maths base, should choose Math Studies dependant on their future study plans.

Group 6- The ARTS

Literature and Performance:

Details mentioned under Group 1 (refer to pages.....)

Visual Arts:

Why study Visual Arts?

Supporting the principles of the IBO mission statement (that is, to foster students' appreciation of diverse world cultures and traditions), the course encourages an active exploration of visual arts within the students' own and other cultural contexts. The process involved in the study and production of visual arts is central to developing capable, inquiring and knowledgeable young people, and encourages students to locate their ideas within international contexts. Theory and practice in visual arts are dynamic, ever changing and connect many areas of study and human experience through individual and collaborative production and interpretation.

New ways of expressing ideas help to make visual arts one of the most interesting and challenging areas of learning and experience. The processes of designing and making art require a high level of cognitive activity that is both intellectual and affective. Engagement in the arts promotes a sense of identity and makes a unique contribution to the lifelong learning of each student. Study of visual arts provides students with the opportunity to develop a critical and intensely personal view of them in relation to the world.

Distinction between SL and HL

The visual arts syllabus demonstrates a clear distinction between the course at SL and at HL, with additional assessment requirements at HL that allow for breadth and greater depth in the teaching and learning. The assessment tasks require HL students to reflect on how their own work has been influenced by exposure to other artists

and for them to experiment in greater depth with additional art-making media, techniques and forms. HL students are encouraged to produce a larger body of resolved works and to demonstrate a deeper consideration of how their resolved works communicate with a potential viewer.



Karan Kedia
Ceramic

Course content

Grade 11 and 12 course content

The course encompasses a wide range of activities designed to encourage students to explore and discover new possibilities in visual perception, art processes and concepts, and the use of media, and to learn research techniques. Divergent and convergent strategies are employed.

Students develop ideas and themes for their studio work and refine their skills in the investigation workbook. Gallery visits, drawings, experiments with materials and approaches, and historical and critical analysis are included. In the studio, students develop a body of work which emerges from their research in preparation for their exam/show.

Standard Level/ Higher level:

Part 1: Comparative study (20%)

Students at SL analyze and compare different artworks by different artists. This independent critical and contextual investigation explores artworks, objects and artifacts from differing cultural contexts.

Part 2: Process portfolio (40%)

Students at SL submit carefully selected materials which evidence their experimentation, exploration, manipulation and refinement of a variety of art-making activities. During the 2 years.

Part 3: Internal assessment Exhibition (40%)

Students at SL submit for assessment a selection of resolved artworks from their exhibition. The selected pieces should show evidence of their technical accomplishment during the visual arts course and an understanding of the use of materials, ideas and practices appropriate to visual communication.

Course structure

The course of study devised by teachers enables students in studio work and investigation workbooks to develop their knowledge about visual arts, and should allow for individual exploration.



Rhea Adhvani
Mixed media

Teachers provide opportunities for students to develop different approaches to the practices of visual arts. They encourage students to develop their own perspectives and approaches and not impose their own: students' interests and aesthetic preferences play a prominent role in determining individual courses of study. Contextual and critical study of past, present-day and emerging practice are integrated into studio work.

Learning outcomes

Throughout the course, teachers help students to:

- develop the skills and techniques of investigation—both visual and written
- relate art to its cultural and historical contexts
- explore art concepts
- explore art elements
- develop and use the processes of art criticism and analysis
- develop confidence and expertise in the use of various media
- extend their knowledge of design
- share their work with an audience through displays and exhibitions or presentations
- extend individual investigation to inform practical work
- make connections between ideas and practice—both their own and others'.



Rhea Jindal
Etching

Studio work is assessed on the following:

- imaginative expression
- purposeful exploration
- meaning and function
- formal qualities
- technical and media skills

General criterion: growth and commitment - the external exam consists of an interview about the work produced by the student. While they must be able to articulately discuss their artwork, most of the grade depends on the quality of the work itself

- Fine art as in sculpture, painting etc
- Graphic design as in web designing , advertising etc
- Architecture/ interior design
- Industrial designing
- Textile
- Fashion designing
- Jewellery design
- Art history/Critics
- Arts administration

Entry Requirements



**Group work by yr 11
Scrap metal welding**



Extended Essay

The extended essay (EE), with a maximum limit of 4,000 words, offers the opportunity to investigate a topic of individual interest in a subject of their choice. The EE acquaints students with independent research and writing skills expected at University.

All Diploma Programme students are required to write this research paper preferably from one of the six chosen subjects for the IB diploma. It is expected that students spend approximately 40-50 hours of work on it. Students have between 4 and 5 hours contact time with an academic supervisor, who is a teacher within the school, and are expected to work independently for the remainder of the time. Besides submitting their written piece, students are required to attend a short concluding interview with the supervisor called the *viva voce*.

Skills developed: Extended Essay aims at providing students with the opportunity to:

- Pursue independent research on a focused topic
- Develop research and communication skills
- Develop the skills of creative and critical thinking
- Engage in a systematic process of research appropriate to the subject
- Experience the excitement of intellectual discovery.

In the words of Professor John Munro, Melbourne University:

"...the extended essay is an exercise in knowledge enhancement, where a student

uses information to make original contributions, rather than knowledge management. In other words, it provides students with the opportunity to select information and generate a response to it. The additional challenge is that the extended essay requires not only the generation of ideas (researching, selecting, writing the essay) but is also about aligning knowledge outcomes (the assessment criteria) - an exceptionally complex cognitive process...."

It is important to note that following school Extended Essay deadlines enables student to complete a piece of research work well in advance and this can be used by students as a sample to further their university applications and enrich their responses in their interviews.

Assessment:

Extended Essays are externally assessed by examiners appointed by the IB and are marked from 0 to 36 made up of 11 criteria.

The total score obtained on the scale 0 to 36 is used to determine a grade from A (Excellent) to E (Poor).

Up to three Diploma points are awarded according to a student's Theory of Knowledge (TOK) and Extended Essay Grades. These points are awarded in conjunction with the grade for the TOK essay. Students will also write 4000 words on their **interim (draft) report and final reflections** about the process, the essay and the insights they have gained that can be applied to future learning situations. The final reflections will be done in conjunction with the concluding interview.

Theory of Knowledge

Why do all IB Diploma candidates have to study Theory of Knowledge?

The Theory of Knowledge (TOK) course along with the Extended Essay and the Creativity Activity and Service programme forms the core of the IB Diploma. Performance in the areas of TOK and EE leads to achieving the combined three points essential in improving the overall Diploma total. It invites students to reflect on their learning experience by reflecting on the ways of knowing and how we use them in the different areas of knowledge so that they can address fundamental questions about themselves as knowers. They are expected to reflect on their academic, social, cultural, philosophical and personal experiences to discuss ways of knowledge acquisition and dissemination in different areas of knowledge which will enhance their critical thinking skills.

The course, which runs over a period of two years, is composed of weekly 2 hour contact time.

Course content

The TOK course closely looks at the ways in which we acquire knowledge, the problems related to knowledge acquisition and in several areas of knowledge, thereby developing inter-disciplinary skills. The course is divided into two essential parts - that is, learning about the **Ways of Knowing** (Reason, Emotion, Language, Sense Perception, Memory, Imagination, Faith and Intuition) and **understanding their role in acquiring knowledge** in different **Areas of Knowledge** (History, Natural Sciences, Human Sciences, Mathematics, Arts, Ethics, Indigenous Knowledge Systems and Religious Knowledge Systems).

Skills developed

In TOK, students read about and discuss a wide variety of topics. This not only develops their presentation and debating skills, but also enhances an appreciation of diverse points of view and a better understanding of complex problems of personal and shared knowledge acquisition and claims. It aims to teach students how to acknowledge and analyse these knowledge questions and understand perspectives rather than aim to solve them with limited understanding.

Assessment

External Assessment

TOK essay of 1,200 – 1,600 words (20 marks) on one of the 6 titles prescribed by the IBO.

The essay is evaluated on the basis of global impression assessment criteria.

Internal Assessment

Oral Presentation (10 marks)

Students do more than one presentations individually or in groups on a topic of their choice and the best one is selected. The presentation is evaluated on the basis of global impression assessment criteria.

Creativity Action Service

Creativity, action, service (CAS) is at the heart of the Diploma Programme. It is one of the three essential elements in every student's Diploma Programme experience. It involves students in a range of activities alongside their academic studies throughout the Diploma Programme. The three strands of CAS, which are often interwoven with particular activities, are characterized as follows.

Creativity: arts, and other experiences that involve creative thinking.

Action: physical exertion contributing to a healthy lifestyle, complementing academic work elsewhere in the Diploma Programme.

Service: an unpaid and voluntary exchange that has a learning benefit for the student. The rights, dignity and autonomy of all those involved are respected.



CAS Aims: The CAS programme aims to develop students who are:

- reflective thinkers—they understand their own strengths and limitations, identify goals and devise strategies for personal growth
- willing to accept new challenges and new roles
- aware of themselves as members of communities with responsibilities towards each other and the environment
- active participants in sustained, collaborative projects
- balanced—they enjoy and find significance in a range of activities involving intellectual, physical, creative and emotional experiences



All proposed CAS activities need to meet the following four criteria. It is also essential that they do not replicate other parts of the student's Diploma Programme work.

- real, purposeful activities, with significant outcomes
- personal challenge—tasks must extend the student and be achievable in scope
- thoughtful consideration, such as planning, reviewing progress, reporting
- reflection on outcomes and personal learning

CAS Assessment: CAS activities should continue on a regular basis for as long as possible throughout the programme, and certainly for at least 18 months.

Successful completion of CAS is a requirement for the award of the IB diploma. CAS is not formally assessed but students need to document their activities and provide evidence that they have achieved **eight key learning outcomes**.

1. increased their awareness of their own strengths and areas for growth
2. undertaken new challenges
3. planned and initiated activities
4. worked collaboratively with others
5. shown perseverance and commitment in their activities
6. engaged with issues of global importance
7. considered the ethical implications of their actions
8. developed new skills



Students Responsibilities: Students are required to:

- self-review at the beginning of their CAS experience and set personal goals for what they hope to achieve through their CAS programme
- plan, do and reflect (plan activities, carry them out and reflect on what they have learned)
- undertake at least one interim review and a final review with their CAS adviser
- take part in a range of activities, including at least one project, some of which they have initiated themselves
- keep records of their activities and achievements, including a list of the principal activities undertaken
- show evidence of achievement of the eight CAS learning outcomes

DAIS CAS activities range: All students should be involved in CAS activities that they have initiated themselves, and /or CAS activities initiated by the school. The activities available to students are listed here under the headings Creativity, Action and Service. Each activity is accompanied by its general objective

DAIS students do their CAS creativity on Tuesday from 3.00 to 4.00 pm, and they get an opportunity to change their choice in each term .Service on Friday's from 1.30 to 4.00 PM. is an year long commitment to their chosen service NGO or School project. Students fulfill their Action component of the CAS either as an in school activity or outside school based on approved proposals, and this can either be long term or short term project.

Activities should vary in length and in the amount of commitment required from the student, but none should be trivial. DAIS students involve in number of service activities such as NGOs and School's service projects which will provide opportunities that incorporate elements of creativity and/or action. Our students are encouraged to show their CAS commitment by involving in CAS component during weekends and also during summer vacation.

Students should be involved in at least one project involving teamwork that integrates two or more of creativity, action and service, and is of significant duration aiming at engaging "with issues of global importance, and undertake activities in a local and international context as appropriate "Think internationally; act locally. "



The IB website

The screenshot shows the IB website homepage in a browser window. The address bar displays <http://www.ibo.org/>. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The address bar also shows several open tabs, including 'The International Baccalaur...', 'adventnet servicedesk', 'Adventnet', 'Alumni', and 'Business & Management ...'. A cookie notice is visible below the browser tabs, stating: 'Our website uses cookies so that you can place orders and we can provide a better service. Continue as normal if you consent to cookies being used, or for more information visit our [Privacy and Cookie Policy](#).' The website header features the 'ibo.org' logo and navigation links for 'Online curriculum centre', 'Blogs', 'Global engage', 'IB store', 'IB virtual community', and 'IB Answers'. Language options for 'English | Français | Español' are provided. A search bar with 'Google Custom Search' is present. A main navigation menu includes 'Home', 'News and events', 'About the IB', 'What we offer', 'Become an IB World School', 'Information for...', 'Contact us', and 'Careers'. The main content area features a large banner for the 'IB Africa Symposium and Education Forum 2014', held from 11-12 April at the Indaba Hotel and Conference Centre, Johannesburg, South Africa. To the right of the banner are three smaller promotional tiles: 'IB Africa Symposium and Education Forum 2014', 'Register for the 2014 Conference of the Americas', and 'Engage Globally'. A 'QUICK LINKS' section is located below the main content. The Windows taskbar at the bottom shows icons for Internet Explorer, Firefox, Chrome, and other applications, with the system clock indicating 4:36 PM on 2/12/2014.



IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

As IB learners we strive to be:

INQUIRERS

We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.

KNOWLEDGEABLE

We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.

THINKERS

We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.

COMMUNICATORS

We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.

PRINCIPLED

We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.

OPEN-MINDED

We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.

CARING

We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.

RISK-TAKERS

We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.

BALANCED

We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.

REFLECTIVE

We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

The IB learner profile represents 10 attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities.



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