



International Baccalaureate®
Baccalauréat International
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Diploma Programme

The Diploma Programme: A basis for practice





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Published January 2009

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IB mission statement

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

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

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.

IB learners strive to be:

Inquirers	They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.
Knowledgeable	They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.
Thinkers	They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
Communicators	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.
Principled	They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.
Open-minded	They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
Caring	They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
Risk-takers	They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
Balanced	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
Reflective	They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

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The continuum of international education

The International Baccalaureate (IB) offers three programmes of international education:

- the Primary Years Programme (PYP)—introduced in 1997
- the Middle Years Programme (MYP)—introduced in 1994
- the Diploma Programme (DP)—introduced in 1969.

The three programmes have a common educational framework: a consistent philosophy about teaching and learning that focuses on the development of the whole child, and an overarching concept of how to develop international-mindedness. Each programme promotes the education of the whole person, emphasizing intellectual, emotional, social and physical growth, involving the traditions of learning in languages, humanities, sciences, mathematics and the arts.

Each programme is self-contained, since there is no requirement for schools to offer more than one programme, but these programmes also provide the opportunity for schools to offer a continuous international educational experience from early childhood through to school graduation.

The IB's mission statement and the IB learner profile connect the three programmes, articulating the learning outcomes for IB students of all ages. The commonalities and differences between the programmes are identified in the IB document *Programme standards and practices*. These standards and practices are a set of criteria against which both the IB World School and the IB can measure success in the implementation of the three programmes.

The aims of the Diploma Programme

The Diploma Programme is a challenging, broad and balanced two-year programme of international education for students aged 16 to 19. Students are required to study six subjects and a curriculum core concurrently. The programme is designed to equip students with the basic academic skills needed for university study, further education and their chosen profession, as well as developing the values and life skills needed to live a fulfilled and purposeful life. The driving force behind the Diploma Programme is a philosophy about the nature of education that is expressed in the IB's mission statement and in the IB learner profile.

Three forces shaped the Diploma Programme and continue to influence its development. They are:

- **pragmatic**—the need to provide a school leaving diploma that is widely recognized in different countries and universities around the world as providing an excellent foundation for further study, professional and personal life
- **idealistic**—creating a better and more peaceful world through intercultural understanding and respect
- **pedagogical**—the promotion of a broad-based education that develops critical and creative thinking skills and focuses on learning how to learn.

See Peterson (2003), Fox (1998) and Hill (2002) for historical perspectives on the development of the Diploma Programme.

Attempting to encapsulate the aims of the programme in a single sentence, Alec Peterson (the first director general of the IB) suggested that they were: "To develop to their fullest potential the powers of each individual to understand, to modify and to enjoy his or her environment, both inner and outer, in its physical, social, moral, aesthetic, and spiritual aspects" (Peterson 2003: 33). Peterson emphasized the importance of the concept of general education as process rather than content, believing that "the aim

of general education was not the acquisition of general knowledge, but the development of the general powers of the mind to operate in a variety of ways of thinking” (Peterson 2003: 41). This principle continues to have a profound effect on curriculum planning and assessment methods in the Diploma Programme.

The Diploma Programme curriculum

A distinguishing characteristic of the Diploma Programme is a concern with the whole educational experience of each student. The curriculum framework (see figure 1) and its supporting structures and principles are designed to ensure that each student is exposed to a broad and balanced curriculum.

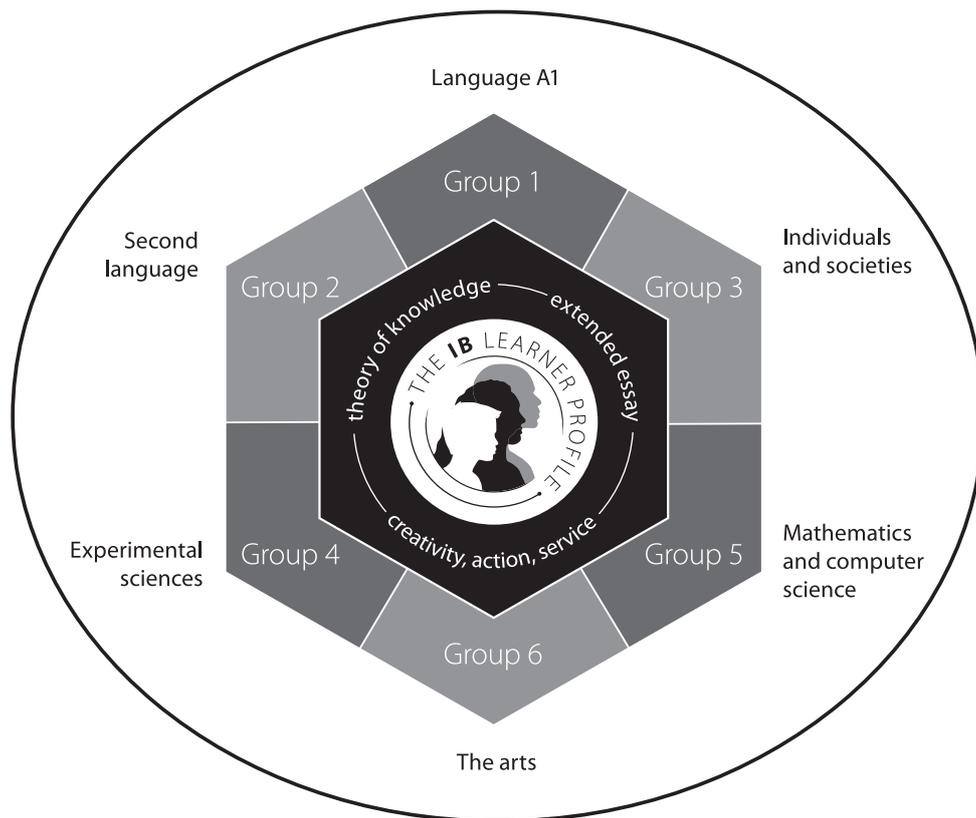


Figure 1
Diploma Programme model

The learner profile is the centre of the programme model and is surrounded by the core requirements of a course in theory of knowledge, the extended essay and creativity, action, service (CAS). This reflects the concern with developing competent, caring and active citizens as well as subject specialists.

The Diploma Programme is a discipline-based course of study. Each academic discipline provides its own methodological framework that students learn to understand and use. This understanding is essential in order to provide a deep appreciation of the nature of an academic discipline as well as a solid foundation for future university-level work.

Students are expected to make connections between different academic disciplines; they do not learn subjects in isolation. Teachers and schools help students make meaningful connections between different disciplines through providing instruction, teaching timetables/schedules and learning environments that support this process. Concurrency of learning in the Diploma Programme is expected as it provides one important mechanism to support interdisciplinary learning.

Students study six courses. These include two languages (groups 1 and 2), one course from individuals and societies (group 3), one experimental science (group 4), one mathematics course (group 5), and one course chosen from the arts (group 6) or another subject from groups 1 to 5 (see the *Handbook of procedures for the Diploma Programme* for a full description of this and other specific requirements). One transdisciplinary subject, environmental systems and societies, is also an option. This allows students to meet the requirements of two groups (3 and 4) by studying one subject. Students are then free to select another subject from any group to make up their total of six courses.

It is essential that a pre-university education provides students with the depth of discipline-specific knowledge and skills that they will need to follow their chosen university course and to use later in their professional lives. Specialization is encouraged in the Diploma Programme by expecting students to study three (with the possibility of studying four) subjects at a higher level (HL). Breadth of learning is encouraged with a requirement to study three more subjects (two if four are studied at HL) at standard level (SL). HL courses are normally taught over 240 teaching hours, and require a greater depth of study across a broader range of content in the subject. SL courses are normally taught over 150 teaching hours. Most subjects are available at both SL and HL and can be taught and examined in English, French or Spanish.

The core of the Diploma Programme consists of the theory of knowledge (TOK) course, the extended essay, and creativity, action, service (CAS). The TOK course provides a forum for discussion, reflection and instruction that considers the nature of human knowledge and supports the development of interdisciplinary understanding. The extended essay provides the opportunity to investigate an academic research question of individual interest and in the process to develop the independent research and writing skills expected for further education. Participation in the school's CAS programme broadens the educational experience by encouraging students to be involved in artistic pursuits, sports and community service work.

Subject choices

- **Group 1—language A1:** the student's best language, including the study of selections of world literature (45 languages are regularly available; others are available on request)
- **Group 2—second language:** language A2, B, *ab initio* (second modern language courses for levels of proficiency from beginner to advanced); classical languages
- **Group 3—individuals and societies:** history; geography; economics; philosophy; psychology; social and cultural anthropology; business and management; information technology in a global society
- **Group 4—experimental sciences:** biology; chemistry; physics; design technology; sports, exercise and health science (pilot subject)*
- **Group 5—mathematics and computer science:** mathematics HL; mathematics SL; mathematical studies SL; further mathematics (SL only); computer science (elective)
- **Group 6—the arts:** visual arts; music, theatre; film; dance (pilot subject)*
- **Transdisciplinary subjects:** environmental systems and societies (an SL course that meets the requirement to study a group 3 and a group 4 course in one subject); text and performance (an SL course currently being piloted that meets the requirement to study a group 1 and a group 6 course in one subject)*

* **Pilot subjects:** These are courses in the process of development and limited to a fixed number of schools. Pilot subjects usually progress to become options for all schools.

Education for intercultural understanding and international-mindedness

The IB's mission statement, and the learner profile that is derived from it, stress the importance of education for intercultural understanding and the need to develop internationally minded students. International-mindedness is an attitude of openness to, and curiosity about, the world and different cultures. It is concerned with developing a deep understanding of the complexity, diversity and motives that underpin human actions and interactions. In the modern information age, geographical frontiers present less of an obstacle than in the 1960s, when the Diploma Programme was first developed, and the impacts of globalization can be seen in every area of life. Intercultural understanding and cooperation have never been more important.

The Diploma Programme subject aims, objectives, content and assessment criteria have been formulated in order to develop intercultural understanding and international-mindedness while at the same time ensuring that teachers have enough choice to make the course locally relevant and grounded.

Language learning, and learning about different cultures through language, plays a pivotal role in the programme. In group 1, while studying their best language, students are exposed to a wide range of literature in translation that requires cross-cultural comparison. The learning of a language in group 2 emphasizes the development of intercultural communicative competence, which focuses on developing the skills that enable learners to mediate between people from different societies and cultures.

All group 3 subjects (individuals and societies) focus on understanding human nature, decisions and events in a global as well as local context and emphasize critical thinking, the development of multiple perspectives and constructive comparisons. Group 4 recognizes science and technology as vital international endeavours based on open critical inquiry that transcends politics, religion and nationality. Group 5 stresses the universal language of mathematics and its origins in the world's great civilizations. Group 6 encourages an active exploration of the creative arts within the students' own and other cultural contexts with respect for, and understanding of, cultural and aesthetic differences that promote critical thinking and problem solving. The core components of theory of knowledge, the extended essay and creativity, action, service all encourage reflection on multicultural perspectives and experiential learning beyond the traditional classroom.

Focusing exclusively on the taught curriculum, however, is not sufficient. Standard A2 in *Programme standards and practices* (published in September 2005) states: "The school promotes international-mindedness on the part of the adults and the students in the school community." There is a list of practices that IB World Schools must foster, most of which go beyond the formal, taught curriculum to consider essential aspects of the school environment and supporting structures and policies.

The whole school community is expected to model the values and behaviours associated with education for intercultural understanding. International-mindedness and intercultural understanding can be achieved in rich national as well as international settings provided the school environment, considered in its broadest sense, is supportive. International-mindedness starts with the attitudes individuals have towards themselves and others in their immediate environment. Students need to learn to understand themselves, what it means to be human, and their place in their local community as well as in an increasingly interdependent, globalized world. International-mindedness starts with self-awareness and encompasses the individual and the local/national and cultural setting of the school as well as exploring the wider environment.

Education for intercultural understanding requires students to develop knowledge of different cultural perspectives but also, and critically, it requires reflection on why different perspectives exist. It is important that this consideration stems from students' understanding and appreciation of their own culture and nationality so that intercultural understanding and cooperation supplements local and national allegiances. Understanding is not the same as acceptance of all practices. While the mission of the IB stresses that "other people, with their differences, can also be right", the learner profile also emphasizes the importance of reflective, caring and principled action.

Learning to learn

From its origins in the 1960s the IB Diploma Programme stressed the importance of students developing independent learning strategies and skills that were transferable to new contexts, in short the need to “learn how to learn” (Peterson 2003: 41). In the modern information age, as the amount of information and knowledge increases exponentially, it is the process of learning, applying and evaluating knowledge that matters more than ever before, not just the acquisition of knowledge.

Learning how to learn is not taught as a separate course in the Diploma Programme; it needs to be infused naturally into the curriculum as part of the teaching and learning process that supports the development of learner profile attributes. A number of aims and objectives identified in the subject groups, supported by the theory of knowledge course, require students to reflect on and to evaluate the knowledge claims they encounter and the methodologies they are learning. This “metacognitive” approach to learning helps students develop the higher-order thinking strategies needed to become lifelong independent learners.

Each academic discipline presents students with different challenges and it cannot be assumed that understanding gained in one discipline or context will be easily transferred to another. The structure of the Diploma Programme, with the expectation of concurrency of learning and the theory of knowledge experience, is designed to help students (with the support of teachers) make meaningful connections between the experiences of the core and the different academic disciplines. In the process, it is expected that students will develop a better appreciation of themselves as learners and the nature of human knowledge.

The extended essay requires students to demonstrate an ability to learn independently and is intended to promote high-level research and writing skills, intellectual discovery and creativity. Students select a research question, normally relating to one of the six subjects they are studying, and complete a focused essay. They have to identify an appropriate methodology, conduct their own research and arrive at their own conclusions.

The pivotal role of the hexagon core

Theory of knowledge

The theory of knowledge (TOK) requirement is central to the educational philosophy of the Diploma Programme. It offers students and their teachers the opportunity to reflect critically on different ways of knowing and areas of knowledge, and to consider the role and nature of knowledge in their own culture, in the cultures of others and in the wider world. As a reflective inquiry into different ways of knowing, and into different kinds of knowledge, TOK is focused on a number of questions, the most central of these being: “How do we know [a particular knowledge claim] to be true?”

The critical reflection encouraged in students is used as a foundation for developing intercultural awareness and understanding. All Diploma Programme subjects aim to develop in students an appreciation and understanding of cultures and attitudes other than their own but, in this particular respect, TOK has a special role to play. Throughout the TOK experience students are required to demonstrate an awareness of the values and the limitations of their individual outlooks, and of the views common to the communities and cultures to which they belong, and so engage with another fundamental question: “What does it mean to be human?”

TOK also has an important role to play in providing coherence for each student’s Diploma Programme. Exploration of the nature of knowledge in TOK transcends and links academic subject areas, demonstrating for students the ways in which they can apply their own knowledge with greater awareness and credibility.

The extended essay

This core requirement provides an opportunity for students to engage in an in-depth study of a question of interest within a chosen subject. The extended essay is an independent, self-directed piece of research, culminating in a 4,000-word paper. It provides practical preparation for the kinds of undergraduate and postgraduate research required at tertiary level. From the choice of a suitable research question to the final completion of the extended essay, students must produce their essay within the defined constraints of time, essay length and available resources. Emphasis is placed on the research process, on the appropriate formulation of a research question, on selection and development of an appropriate methodology, on personal engagement in the exploration of the topic, and on communication of ideas and development of argument. It develops the capacity to analyse, synthesize and evaluate knowledge. Students are supported and encouraged throughout the research and writing with advice and guidance from a supervisor.

Creativity, action, service

While helping students acquire international perspectives and understanding is essential, it is also considered important to develop a “will to act” and the skills and values needed to make a positive contribution to society.

Education does not begin or end in the classroom. Creativity, action, service (CAS) provides a framework for experiential learning and reflection about that learning. This process of application and reflection provides an opportunity to extend what is learned in the classroom and, in turn, for the CAS experience to have an impact on classroom learning.

All CAS activities are intended to develop self-confidence, commitment, determination, and to broaden horizons and enrich experience. The service component of CAS is particularly important to the IB philosophy as it is hoped that experiential learning through service, and reflection on that experience, will develop lifelong compassion and a willingness to help others. Students may directly or indirectly engage in work on global problems, or work with other people at a local level, developing their capacity to function collaboratively.

Educating the whole person includes exposure to artistic, recreational and sporting activities and the enjoyment of purposeful leisure. Students can include a wide range of activities in their CAS programme, provided they achieve an overall balance, incorporating all three elements either as separate activities or as parts of larger challenges.

Breadth and depth of study in subject groups 1–6

Group 1: Language A1

Students are required to study at least one language from group 1. Group 1 courses are designed for students who have experience of using (or the ability to use) the language in an academic context. Whenever possible, students are encouraged to study their mother tongue. Developing an understanding of the nature and value of one’s own culture is a fundamental starting point for any educational programme claiming to be international. Forty-five different languages are regularly available for selection in group 1. Provided there is sufficient written literature in a language, and provided the request is received well in advance of the examination and an examiner can be found, language A1 examinations are provided in any language, no matter how rarely or widely spoken it may be. The IB therefore offers a wider range of languages beyond the 45 regularly available. Students can study a second group 1 language instead of a language chosen from group 2. For students who have become proficient in the language of instruction of the school this is often a suitable choice.

The aims of languages in group 1 include:

- to encourage a personal appreciation of literature and develop an understanding of the techniques involved in literary criticism
- to develop the students' powers of expression, both in oral and written communication, and provide the opportunity for practising and developing the skills involved in writing and speaking in a variety of styles and situations
- to broaden the students' perspective through the study of works from other cultures and languages.

Group 2: Second language

The underlying principle of requiring students to take a second language is to promote an understanding of other cultures through the study of languages and to develop communicative competence. Group 2 consists of a broad spectrum of modern languages and two classical languages (Latin and Classical Greek). The main emphasis of the modern language courses is on language acquisition and usage, from the comparatively elementary, practical usage at *ab initio* level, to the sophisticated usage of the near-native (or bilingual) speaker studying a language A2. In between are the language B courses, designed to provide access to students who have different levels of experience with the language.

Language *ab initio*

The language *ab initio* courses are language-learning courses for beginners, designed to be followed over two years by students who have no previous experience of learning that language. The main focus of the courses is on the acquisition of language required for purposes and situations usual in everyday social interaction. Language *ab initio* courses are available only at SL.

Language B

Mostly available at both SL and HL, the language B courses occupy the middle ground of the group 2 modern languages continuum. They are intended for students who have had some previous experience of learning the language. The main focus of these courses is on language acquisition and the development of skills considerably beyond those expected of an *ab initio* student, to a fairly sophisticated degree at HL.

Language A2

The language A2 courses are designed for students with an already high level of competence in the target language. The main focus of these courses is on the reinforcement and refinement of language skills, as distinct from basic language acquisition. The language A2 courses are available at both SL and HL.

Classical languages

The classical language courses introduce students to the languages, literatures and cultures of ancient Greece and Rome. These ancient civilizations have played a crucial part in shaping many modern societies and cultures. The languages themselves are versatile and finely structured, and their influence on the development of most modern European languages has been significant. They provide important insights into the cultures that produced them, and offer a bridge between the contemporary world and the often alien, but always fascinating, civilizations of antiquity.

The aims of subjects in group 2 include:

- to encourage, through the study of texts and through social interaction, an awareness and appreciation of the different perspectives of people from other cultures
- to develop students' awareness of the relationships between the languages and cultures with which they are familiar.

Group 3: Individuals and societies

Eight subjects are offered in this group (history, geography, economics, philosophy, psychology, social and cultural anthropology, business and management, and information technology in a global society).

While each develops subject-specific skills and knowledge, they all encourage the systematic and critical study of human behaviour within the context of the subject discipline. While improving factual knowledge is important, the emphasis is on developing the skills and strategies to effectively evaluate, synthesize and critically analyse theories, concepts and arguments relating to the nature and activities of individuals and societies.

The aims of subjects in group 3 include:

- to develop an appreciation of the way in which learning is relevant to both the culture in which a student lives and the culture of other societies
- to enable students to recognize that human attitudes and actions share common features as well as being diverse, and to understand that a study of society requires an appreciation of both these similarities and differences.

Group 4: Experimental sciences

The experimental sciences offered in this group are biology, chemistry, physics, design technology, and sports, exercise and health science (as a pilot subject).

Each subject contains a body of knowledge, methods and techniques that students are required to learn and apply. In their application of scientific method, students develop an ability to analyse, evaluate and synthesize scientific information. A compulsory group 4 project encourages students to appreciate the environmental, social and ethical implications of science. The exercise is a collaborative experience where the emphasis is on the processes involved in scientific investigation rather than the products of such investigation. Furthermore, the collaboration is interdisciplinary: students analyse a topic or problem that can be investigated in each of the science disciplines offered by the school, and they practise their experimental and investigative skills. An understanding of the relationships between scientific disciplines and the overarching nature of the scientific method is encouraged, and an opportunity to explore scientific solutions to global questions is provided.

The aims of subjects in group 4 include:

- to provide opportunities for scientific study within global contexts that will stimulate and challenge students
- to enable students to apply and use a body of knowledge including methods and techniques that characterize science and technology
- to engender an awareness of the need for, and the value of, effective collaboration and communication during scientific activities
- to raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology
- to develop an appreciation of the possibilities and limitations associated with science and scientists.

Group 5: Mathematics and computer science

Mathematics is a compulsory area of study for every Diploma Programme student. Because each student has different needs, interests and abilities, and will use mathematics to serve different purposes, a variety of courses are offered.

The mathematics subjects aim to enable students to develop mathematical knowledge, concepts and principles, to develop logical, critical and creative thinking, and to employ and refine their powers of

abstraction and generalization. Students are encouraged to appreciate the international dimensions of mathematics and the multiplicity of its cultural and historical perspectives; they are also encouraged to engage in mathematical pursuits, and to develop an appreciation of the beauty, power and practicality of the discipline.

Four of the five subjects in this group (mathematics HL, mathematics SL, mathematical studies SL and further mathematics SL) are designed to cater for a range of mathematical ability, and to provide the mathematical support for the students' other subjects (such as economics, business and management, and the experimental sciences) as well as for their university and career aspirations. Further mathematics SL is unique as an SL course as it is an option for students who are passionate about mathematics to extend their exploration to mathematical areas beyond the HL course.

The fifth subject offered in the group is computer science, but this must be studied in addition to a mathematics subject if selected. This subject is focused on problem solving using computer technology and developing a mastery of a computer language (currently Java).

The aims of subjects in group 5 include:

- to appreciate the international dimensions of mathematics and the multiplicity of its cultural and historical perspectives
- to employ and refine the powers of abstraction and generalization
- to gain an enhanced awareness of, and utilize the potential of, technological developments in a variety of mathematical contexts.

Group 6: The arts

The subjects in group 6 are visual arts, music, theatre, film and dance (as a pilot subject). All are interpretative in approach and allow for significant choice of content. This feature, which is appreciated by teachers, allows a high degree of adaptability to different cultural contexts, and to the strengths and interests of teachers and their students. The emphasis in all the subjects is on creativity: the making of art, music, theatre and film in the context of disciplined, practical research into the relevant genres.

The arts are a vital and integral part of human life, existing in many forms and styles, practised in all cultures, and taking place in a range of contexts and for a variety of purposes. Students of group 6 subjects explore a range of materials and technologies and analyse artistic knowledge from multiple perspectives. They study the many and various artistic ways through which knowledge, skills and attitudes from different cultural traditions are developed and transmitted.

The aims of subjects in group 6 include:

- to develop an understanding of the technical, creative, expressive and communicative aspects of the arts
- to acquire artistic knowledge through experiential means as well as more traditional academic methods.

School-based syllabuses

A school-based syllabus (SBS) represents an opportunity for a school to propose and, if approved, develop and offer an SL course of specific interest as part of their programme. A proposal will not be approved by the IB unless the syllabus is seen as fulfilling the parameters for a particular Diploma Programme subject group and is capable of being assessed appropriately. In addition, the school-based syllabus must reflect the IB's mission in terms of delivering an international perspective. Schools will be advised, if their proposal is similar to an existing SBS, to contact and collaborate with the host school of that syllabus.

Examples of school-based syllabuses currently being taught in IB World Schools include:

- human rights
- peace and conflict studies
- Turkish social studies
- world politics and international relations
- world cultures.

Assessment and the award of the qualification

It is important to stress that the main aim of Diploma Programme assessment is that it should support curricular goals and encourage appropriate student learning. A wide variety of approaches to assessment are used to provide students with suitable contexts in which to demonstrate their capabilities. Schools can choose to complete all assessments in English, French or Spanish.

Formal assessment is defined as assessment directly contributing to the final qualification. Most formal assessment is external, and includes examinations at the end of the two years or work completed during the course and then sent to an external examiner. Some formal assessment is internal, requiring the teacher to mark the work before it is moderated by an external moderator. The kind of work that is internally assessed includes oral exercises in the language subjects, projects, student portfolios, class presentations and practical laboratory work in the sciences, mathematical investigations and artistic performances. The principal aim of conducting internal assessment is to evaluate student achievement against those objectives that do not lend themselves to external written examinations or tests. Internal assessment also gives teachers, who know their students' work very well, a significant input into the overall assessment process.

External examinations, however, form the greatest component of the overall assessment structure for each subject. This is because of the greater degree of reliability provided by the standard examination environment and external marking. Examinations are normally taken at the end of the two-year course of study. All examination papers are taken by students under strict conditions prescribed by the IB, with a fixed time limit, in the absence of any external resource or communication with other students, and with no prior knowledge of the questions. The nature of the examination questions varies considerably from paper to paper and from subject to subject. Objective tests comprising a set of multiple-choice questions are occasionally used in a few subjects. Short-answer questions, structured questions, extended-response questions, essay questions, data-analysis questions, text-analysis questions and case-study questions are all used where appropriate.

Examination sessions are held in May and November each year, with results published in early July and early January respectively. Between the sitting of examinations and the release of results, all the external marking is completed, culminating in grade award meetings for each subject, to determine the final subject grades. During the marking, each examiner submits a sample of work to a senior examiner who checks it for accuracy and consistency. Where examiners are found to be overly generous or harsh in their marking, adjustments are made to their marks. Where examiners are found to be inconsistent or unacceptably inaccurate, their total allocation is re-marked by senior examiners.

At grade award meetings, the senior examining team for each subject reviews the effectiveness of each examination paper and the overall student performance on each paper. Assessment in the Diploma Programme is criterion related, which means that each student's final subject result is determined by the level of their performance as measured against a published set of criteria. These criteria describe the achievement level expected for the award of each grade.

Each subject is graded on a scale from one point (the lowest) to seven points (the highest). Each student takes six subjects, most taking three at SL and three at HL across at least groups 1 to 5 of the Diploma Programme model. In addition, there is a maximum of three points available for combined performance in theory of knowledge and the extended essay. Thus, the maximum possible score is 45 points. The minimum score needed to gain the diploma is 24 points, provided that certain conditions are met. These conditions, which relate to the distribution of points across the different subjects, are published in the Diploma Programme regulations.

In addition to formal assessment, teachers have responsibility to design and provide formative assessment structures and practices that help students improve their understanding of what constitutes excellence and where their own work stands in relation to this. The emphasis here, a key component of learning how to learn, is on improving students' judgment of their own strengths and weaknesses and then helping them develop strategies to improve.

The principles, practices and challenges involved in formal assessment are considered in detail in *Diploma Programme assessment: Principles and practice* (published in September 2004).

Creative teacher professionalism

Teachers have the critical role of interpreting, developing and delivering the curriculum. Teachers have to create their own course of study, ensuring that the curriculum experienced by students is aligned with the prescribed course aims, objectives and content and is adapted to the local context. Effective delivery of the curriculum requires teachers to be reflective practitioners who are critically self-aware of their own teaching and who model the thinking and approaches they expect of their students. Creative teacher professionalism refers to the central responsibility that teachers have in the design and delivery of the programme, which needs to be supported by ongoing professional development.

In creating a course of study, a starting point is provided by subject guides and other teacher support material produced by the IB. Beyond these, teachers are expected to consider and use a wide range of resources as well as develop their own. Teachers are uniquely placed to do this, as they know their students and the local context. Some course companions, resource materials designed to support learning in specific subjects, are approved by the IB but teaching to a textbook is inconsistent with the philosophy of the programme.

Another aspect of creative teacher professionalism is the responsibility that teachers have to support the IB in curriculum development and assessment. The IB believes that the partnership between the organization, teachers and school administrators is fundamental to the continued success of its programmes. All subjects and core components in the Diploma Programme are regularly reviewed and developed with the help of experienced teachers, and most examiners are also experienced teachers in IB World Schools. One essential part of the curriculum evaluation and review process involves teachers responding to questionnaires so that, on one level, all teachers can be involved in curriculum review and development. Experienced teachers are encouraged to become involved in IB work beyond their school, through activities including examining, workshop leadership, curriculum development committee membership and participation in regional association work.

University recognition

The Diploma Programme has become a leading, internationally recognized pre-university qualification. A student who satisfies the requirements for the diploma has demonstrated independent study skills, developed a broad range of academic skills, studied at least three disciplines in depth, engaged with interdisciplinary ideas, reflected on the nature of human knowledge in an international context and taken part in social, physical and creative pursuits beyond the classroom. The concept of educating the whole person distinguishes the Diploma Programme from many other upper secondary programmes and provides an excellent preparation for university study.

Details concerning the recognition of the diploma qualification in national systems, and by particular universities, can be found on the IB's website (<http://www.ibo.org>).

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