

International Baccalaureate

Middle Years Programme Subject Brief

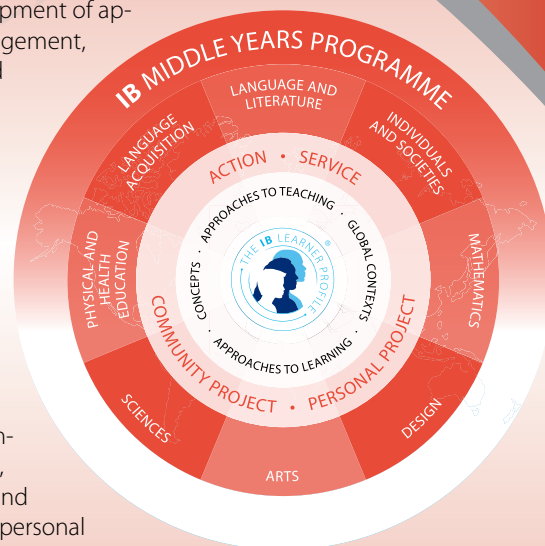
Personal project

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme’s Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Project aims and objectives

II. Project components

III. Assessment criteria

IV. External moderation

I. Project aims and objectives

The MYP personal project is a student-centred and age-appropriate practical exploration in which students consolidate their learning throughout the programme. This long-term project is designed as an independent learning experience of approximately 25 hours. The personal project formally assesses students’ ATL skills for self-management, research, communication, critical and creative thinking, and collaboration.

The personal project encourages students to practise and strengthen their ATL skills, to connect classroom learning engagements with personal experience, and to develop their own interests for lifelong learning.

Students who finish the MYP in year 3 or 4 must complete the MYP community project. MYP year 5 students must successfully complete the externally moderated personal project to be eligible for IB MYP course results and the IB MYP certificate. Students participating in MYP years 3, 4 and 5 may engage in both projects.

The aims of the MYP projects are to encourage and enable students to:

- participate in a sustained, self-directed inquiry within a global context
- generate creative new insights and develop deeper understandings through in-depth investigation
- demonstrate the skills, attitudes and knowledge required to complete a project over an extended period of time
- communicate effectively in a variety of situations
- demonstrate responsible action through, or as a result of, learning
- appreciate the process of learning and take pride in their accomplishments.

Students must identify a global context for their MYP projects to establish their relevance and significance. The following **global contexts** direct learning towards independent inquiry.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development.

MYP projects involve students in a wide range of student-planned learning activities that extend knowledge and understanding, and develop important academic and personal skills.

II. Project components

Students address personal project objectives through:

- the **process** they follow
- the **product or outcome** they create
- the **report or presentation** they make that explains what they have done and learned.

Students document their thinking, research process and development of their initial ideas by developing an outline of a challenging but manageable goal. Example goals include the development of original works of art, models, business plans, campaigns, blueprints, investigative studies, scientific experiments, performances, fieldwork, narrative essays, courses of study or learning engagements, films, computer programmes, and many other forms of work.

Students document their project work in the **process journal**. This learning strategy helps students record and learn from their work, and it promotes academic honesty. As a record of progress, journals can take many forms and can be recorded in a variety of media. They represent an evolving record of plans, ideas and accomplishments. The process journal provides a repository for essential reflections on learning and formative feedback on students' work.

Extracts from the journal, which demonstrate achievement in all criteria, are submitted as appendices of the report or presentation at the conclusion of the project.

The personal project report explains the project process in a concise and succinct form. The report contains a formal bibliography and a statement of academic honesty.

III. Assessment criteria

Each personal project objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Investigating

Students define a clear goal and global context for the project, based on personal interests. Students identify prior learning and subject-specific knowledge relevant to the project. Students demonstrate research skills.

Criterion B: Planning

Students develop criteria for the product/outcome. Students plan and record the development process of the project. Students demonstrate self-management skills.

Criterion C: Taking action

Students create a product/outcome in response to the goal, global context and criteria. Students demonstrate thinking skills.
Students demonstrate communication and social skills.

Criterion D: Reflecting

Students evaluate the quality of the product/outcome against their criteria. Students reflect on how completing the project has extended their knowledge and understanding of the topic and the global context. Students reflect on their development as IB learners through the project.

IV. External moderation

In response to national or local requirements, schools may add criteria and use additional models of assessment.

Each student has a personal project supervisor who provides guidance and formative feedback. Projects are assessed by their supervisors against these published criteria, and schools conduct internal standardization to ensure consistent understanding of the criteria and student performance.

The external validation of personal project grades is mandatory for all MYP schools ending in year 5. In each exam session, the IB moderates a sample of personal projects from each school, adjusting grades as necessary to ensure the application of rigorous and reliable international standards.

MYP projects are usually developed and presented in the school's language of instruction. Personal project reports must be developed and presented in one of the MYP moderating languages, although the IB offers a special request procedure to support language learning in a broad range of students' mother tongues.

The IB MYP certificate requires a satisfactory level of achievement in the personal project.

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

International Baccalaureate Middle Years Programme Subject Brief

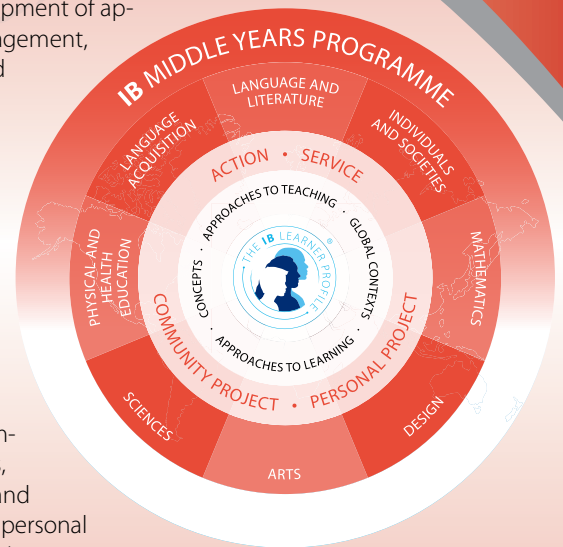
Arts

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme’s Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Course description and aims

II. Curriculum overview

III. Assessment criteria

IV. MYP eAssessment

I. Course description and aims

In MYP arts, students function as artists as well as learners of the arts. Artists have to be curious. By developing curiosity about themselves, others and the world, students become effective learners, inquirers and creative problem-solvers. Students create, perform and present arts in ways that engage and convey feelings, experiences and ideas. Through this practice, students acquire new skills and master those developed in prior learning.

Development in the arts is a dynamic process, and not necessarily linear. Students move freely through a creative process towards a deeper understanding of the arts. The process of creating artwork, as well as the product, demonstrates what students have experienced, learned and attempted to convey.

Arts in the MYP stimulate young imaginations, challenge perceptions, and develop creative and analytical skills. The course encourages students to understand the context and cultural histories of artworks, supporting the development of an inquiring and empathetic world view. Arts challenge and enrich personal identity and build awareness of the aesthetic in a real-world context.

MYP arts has four objectives of equal importance and value: knowing and understanding; developing skills; thinking creatively; responding. Although the objectives can be addressed separately to scaffold learning, collectively they enrich teaching and learning of the arts.

The aims of MYP arts are to encourage and enable students to:

- create and present art
- develop skills specific to the discipline
- engage in a process of creative exploration and (self-) discovery
- make purposeful connections between investigation and practice
- understand the relationship between art and its contexts
- respond to and reflect on art
- deepen their understanding of the world.

II. Curriculum overview

The MYP promotes sustained **inquiry** in arts by developing **conceptual understanding** within **global contexts**.

Key concepts such as *aesthetics*, *change*, *communication* and *identity* broadly frame the MYP curriculum.

Related concepts promote deeper learning grounded in specific disciplines. Examples of related concepts in MYP arts include *interpretation*, *narrative*, *boundaries* and *innovation*.

Students explore key and related concepts through MYP **global contexts**.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development

The MYP curriculum framework offers schools flexibility to determine engaging, relevant, challenging and significant content that meets local and national curriculum requirements. This inquiry-based curriculum explores factual, conceptual and debatable questions in the study of arts.

The MYP requires at least 50 hours of teaching time for each subject area in each year of the programme. For students participating in MYP eAssessment, the IB recommends 70 hours of guided learning each year in MYP years 4 and 5.

III. Assessment criteria

Each arts objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Knowing and understanding

Students discover the aesthetics of art forms and are able to analyse and communicate using specialized language. Students inform their work and artistic perspective using explicit and tacit knowledge alongside an understanding of the role of the arts in a global context.

Criterion B: Developing skills

Students develop their artistic ideas to a point of realization by applying their skills. Students make final commitments to their artwork by presenting it to audiences.

Criterion C: Thinking creatively

Students develop curiosity, and purposefully explore and challenge boundaries. Students explore the unfamiliar and experiment in innovative ways to develop their artistic intentions, their processes and their work. They discover their personal signature and realize their artistic identity.

Criterion D: Responding

Students respond to their world, to their own art and to the art of others. Students must make connections and transfer learning to new settings. Through reflecting on their artistic intention and the impact of their work on an audience and on themselves, students become more aware of their own artistic development and the role that arts play in their lives and in the world. Students learn that the arts may initiate as well as respond to change.

IV. MYP eAssessment

Students seeking IB-validated grades must demonstrate their achievement of the subject group's objectives by submitting an ePortfolio that includes:

- an investigation into the work of master artists, theorists and practitioners
- the application of creative-thinking behaviours to generate artistic intentions
- acquiring, developing and applying skills and techniques while exploring artistic ideas
- applying the outcomes of their investigation in the development of their own work
- critical appreciation of the work of others
- critical evaluation of their own work and its impact on the wider world.

MYP arts courses are formally assessed as **visual arts** (*visual art, media or integrated visual arts*) or **performing arts** (*drama, music, dance or integrated performing arts*).

MYP ePortfolios are marked by students' classroom teachers against published criteria for MYP year 5. In each exam session, the IB moderates a sample of ePortfolios from each school, adjusting grades as necessary to ensure the application of rigorous and reliable international standards.

MYP arts ePortfolio tasks are aligned with understanding and skills that prepare students for high levels of achievement in IB Diploma Programme courses in **the arts**.

The IB MYP certificate requires a satisfactory level of achievement in at least one course from physical and health education, arts or design.

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

International Baccalaureate

Middle Years Programme Subject Brief

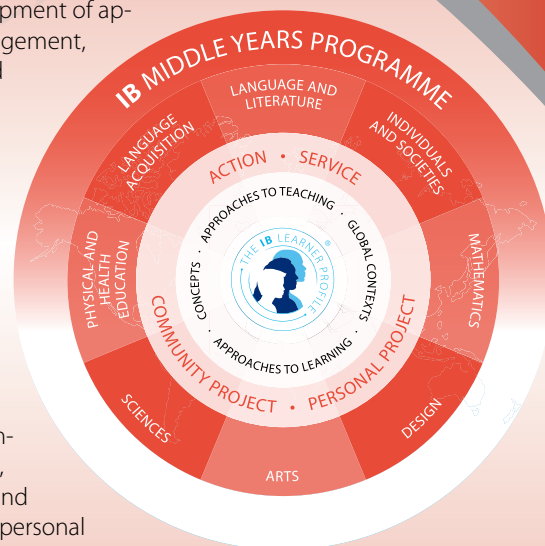
Design

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme’s Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Course description and aims

II. Curriculum overview

III. Assessment criteria

IV. MYP eAssessment

I. Course description and aims

Design, and the resultant development of new technologies, has given rise to profound changes in society, transforming how we access and process information, adapt our environment, communicate with others, solve problems, work and live. MYP design challenges students to apply practical and creative-thinking skills to solve design problems; encourages students to explore the role of design in historical and contemporary contexts; and raises students’ awareness of their responsibilities when making design decisions and taking action.

Inquiry and problem-solving are at the heart of design. MYP design requires the use of the design cycle as a tool, which provides: the methodology to structure the inquiry and analyse problems; the development of feasible solutions; the creation of solutions; and the testing and evaluation of the solution. In MYP design, a solution can be a model, prototype, product or system independently created and developed by students.

MYP design enables students to develop not only practical skills but also strategies for creative and critical thinking.

The aims of MYP design are to encourage and enable students to:

- enjoy the design process, and develop an appreciation of its elegance and power
- develop knowledge, understanding and skills from different disciplines to design and create solutions to problems using the design cycle
- use and apply technology effectively as a means to access, process and communicate information, model and create solutions, and to solve problems

- develop an appreciation of the impact of design innovations for life, global society and environments
- appreciate past, present and emerging design within cultural, political, social, historical and environmental contexts
- develop respect for others’ viewpoints and appreciate alternative solutions to problems
- act with integrity and honesty, and take responsibility for their own actions developing effective working practices.

II. Curriculum overview

The MYP promotes **inquiry** in design by developing **conceptual understanding** within **global contexts**.

Key concepts such as *communication, communities, development* and *systems* broadly frame the MYP curriculum.

Related concepts promote deeper learning grounded in specific disciplines. Examples of related concepts in MYP design include *adaptation, ergonomics, sustainability* and *innovation*.

Students explore key and related concepts through MYP **global contexts**.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development

The MYP curriculum framework offers schools flexibility to determine engaging, relevant, challenging and significant content that meets local and national curriculum requirements. This inquiry-based curriculum explores factual, conceptual and debatable questions in the study of design.

The MYP requires at least 50 hours of teaching time for each subject area in each year of the programme. For students participating in MYP eAssessment, the IB recommends 70 hours of guided learning each year in MYP years 4 and 5.

III. Assessment criteria

Each design objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Inquiring and analysing

Students are presented with a design situation, from which they identify a problem that needs to be solved. They analyse the need for a solution and conduct an inquiry into the nature of the problem.

Criterion B: Developing ideas

Students write a detailed specification, which drives the development of a solution. They present the solution.

Criterion C: Creating the solution

Students plan the creation of the chosen solution, then follow the plan to create a prototype sufficient for testing and evaluation.

Criterion D: Evaluating

Students design tests to evaluate the solution, carry out those tests and objectively evaluate its success. Students identify areas where the solution could be improved and explain how their solution will impact on the client or target audience.

IV. MYP eAssessment

Students seeking IB-validated design course results must demonstrate their achievement of the subject group's objectives by submitting an ePortfolio.

Students are presented with a **design situation** from which they identify a challenge or problem; research, develop and create a product or solution; and evaluate its success. The submitted ePortfolio is comprised of a **design project** presented as a complete **design folder** that contains a **design brief** and **specification**.

MYP design courses are formally assessed as **product design**, **digital design** or **combined digital and product design**.

MYP ePortfolios are marked by students' classroom teachers against published criteria for MYP year 5. In each exam session, the IB moderates a sample of ePortfolios from each school, adjusting grades as necessary to ensure the application of rigorous and reliable international standards.

MYP design ePortfolio tasks are aligned with understanding and skills that prepare students for high levels of achievement in the IB Diploma Programme's **design technology** course.

The IB MYP certificate requires a satisfactory level of achievement in at least one course from physical and health education, arts or design.

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

International Baccalaureate Middle Years Programme Subject Brief

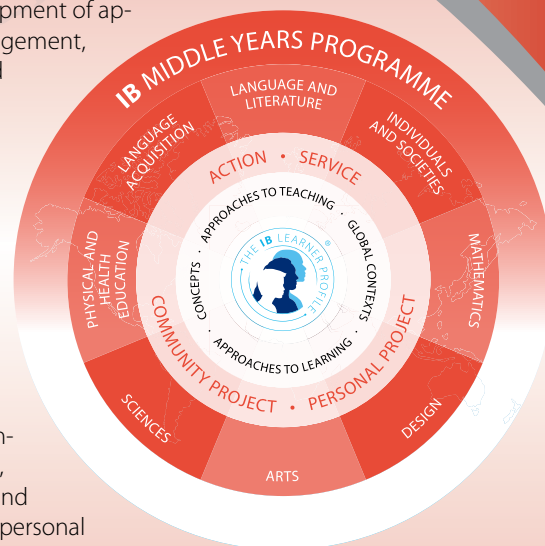
Individuals and societies

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme’s Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Course description and aims

II. Curriculum overview

III. Assessment criteria

IV. MYP eAssessment

I. Course description and aims

The MYP individuals and societies subject group incorporates disciplines traditionally studied under humanities and social sciences. This subject group encourages learners to respect and understand the world around them, and equips them with the necessary skills to inquire into historical, geographical, political, social, economic, and cultural factors that affect individuals, societies and environments.

The study of individuals and societies helps students to appreciate critically the diversity of human culture, attitudes and beliefs. Courses in this subject group are important for helping students to recognize that both content and methodology can be debatable and controversial, and for practising the tolerance of uncertainty.

The IB’s approach to this subject area includes a strong focus on inquiry and investigation. Students collect, describe and analyse data; test hypotheses; and learn how to interpret increasingly complex information, including original source material. This focus on real-world examples, research and analysis is an essential aspect of the subject group.

The aims of MYP individuals and societies are to encourage and enable students to:

- appreciate human and environmental commonalities and diversity
- understand the interactions and interdependence of individuals, societies and the environment
- understand how both environmental and human systems operate and evolve
- identify and develop concern for the well-being of human communities and the natural environment

- act as responsible citizens of local and global communities
- develop inquiry skills that lead towards conceptual understandings of the relationships between individuals, societies and the environments in which they live.

II. Curriculum overview

For MYP individuals and societies, schools develop courses in integrated humanities, history, economics, geography, philosophy, sociology/ anthropology, business management, psychology, and world religions.

The MYP promotes **inquiry** in these subjects by developing **conceptual understanding** within **global contexts**.

Key concepts such as *change, global interactions, time, place and space, and systems* broadly frame the MYP curriculum.

Related concepts promote deeper learning grounded in specific disciplines. Examples of related concepts in MYP individual and societies include *causality, globalization, culture and sustainability*.

Students explore key and related concepts through MYP **global contexts**.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development

The MYP curriculum framework offers schools flexibility to determine

engaging, relevant, challenging and significant content that meets local and national curriculum requirements. This inquiry-based curriculum explores factual, conceptual and debatable questions in the study of individuals and societies.

The MYP requires at least 50 hours of teaching time for each subject area in each year of the programme. For students participating in MYP eAssessment, the IB recommends 70 hours of guided learning each year in MYP years 4 and 5.

III. Assessment criteria

Each individuals and societies objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Knowing and understanding

Students develop factual and conceptual knowledge about individuals and societies.

Criterion B: Investigating

Students develop systematic research skills and processes associated with disciplines in the humanities and social sciences. Students develop successful strategies for investigating independently and in collaboration with others.

Criterion C: Communicating

Students develop skills to organize, document and communicate their learning using a variety of media and presentation formats.

Criterion D: Thinking critically

Students use critical-thinking skills to develop and apply their understanding of individuals and societies and the process of investigation.

IV. MYP eAssessment

Students seeking IB MYP course results or the IB MYP certificate must demonstrate their achievement of the subject group's objectives by completing an end-of-course on-screen examination. On-screen examinations are formal external examinations, and are available in **history**, **geography** and **integrated humanities**.

Topics explored in MYP individuals and societies on-screen examinations include:

- demographics and human movements
- settlement and urban morphology
- superpowers, empires, and supra-national alliances and organizations
- significant individuals
- warfare and peacekeeping
- rights and social protest
- trade, aid and exchange
- economic agents and their interests and role in the economy: consumers, producers, governments, banks
- measurements and trends
- ecological relationships
- industrialization and technological developments.

Examination blueprints define the structure of tasks that simulate, repli-

cate and sample formative internal assessments. In MYP individuals and societies courses, on-screen examinations comprise three tasks.

Task	Assessment criteria	Marks
Engagement with sources	Assesses students' ability to use sources to: identify key ideas/points; find contradictory evidence; find a counterclaim; and identify the origin, purpose, value and limitations to compare and contrast or evaluate values and limitations of sources. (Criteria A and D)	30
Investigation	Assesses students' ability to use a variety of sources to respond to structured questions. (Criteria B and C)	30
Extended response	Assesses students' ability to engage in the activity of producing a piece of extended writing or communicating creatively. (Criteria A, B, C and D)	60

MYP individuals and societies on-screen examinations are aligned with understanding and skills that prepare students for high levels of achievement in IB Diploma Programme courses in **individuals and societies**.

Sample question (from history eAssessment)

The following questions relate to a range of written and rich media stimulus material:

- paragraph from a scholarly study of war and human conflict
- excerpt from a speech by a political leader in World War II (1943)
- graphical analysis of the causes of civil war in Liberia published by an international NGO (1989–2003)
- photograph of a cemetery from World War I
- internet encyclopedia entry on the US Civil War (1861–1865)

- Using these sources, **identify** two causes and three consequences of conflict.
- **Outline** the purpose, values and limitations for sources (i) and (ii).
- "Individual people are the main cause of wars and conflicts." **To what extent** do you agree with this claim? Answer with reference to sources (i)–(v), as well as with reference to the conflicts you have studied in MYP history.

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

International Baccalaureate Middle Years Programme Subject Brief

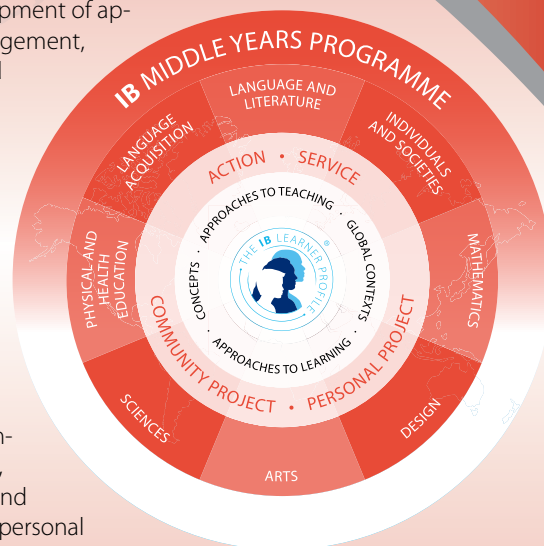
Language acquisition

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme’s Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Course description and aims

II. Curriculum overview

III. Assessment criteria

IV. MYP eAssessment

I. Course description and aims

The ability to communicate in more than one language is essential to the concept of an international education that promotes intercultural understanding, and is central to the IB’s mission. The study of additional languages in the MYP provides students with the opportunity to develop insights into the features, processes and craft of language and the concept of culture, and to realize that there are diverse ways of living, behaving and viewing the world.

Acquiring an additional language and exploring and reflecting on the cultural perspectives of our own and other communities:

- is central to developing critical thinking and international-mindedness
- provides an intellectual framework to support personal development, cultural identity and conceptual understanding
- greatly contributes to the holistic development of students and to the strengthening of lifelong learning skills
- equips students with the necessary multiliteracy skills and attitudes to communicate successfully in various global contexts.

The aims of MYP language acquisition are to encourage and enable students to:

- gain proficiency in an additional language while supporting maintenance of their mother tongue and cultural heritage
- develop a respect for, and understanding of, diverse linguistic and cultural heritages
- develop the communication skills necessary for further language learning, and for study, work and leisure in a range of contexts

- develop multiliteracy skills through the use of a range of learning tools
- develop an appreciation of a variety of literary and non-literary texts and to develop critical and creative techniques for comprehension and construction of meaning
- recognize and use language as a vehicle of thought, reflection, self-expression and learning in other subjects
- understand the nature of language and the process of language learning
- gain insight into the cultural characteristics of the communities where the language is spoken
- gain an awareness and understanding of the perspectives of people from own and other cultures
- develop curiosity, inquiry and a lifelong interest in, and enjoyment of, language learning.

II. Curriculum overview

The MYP promotes **inquiry** in language acquisition by developing **conceptual understanding** within **global contexts**.

Key concepts such as *communication, connections, creativity* and *culture* broadly frame the MYP curriculum.

Related concepts promote deeper learning grounded in specific disciplines. Examples of related concepts in MYP language acquisition include *word choice, conventions* and *idiom*.

Students explore key and related concepts through MYP **global contexts**.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development

The MYP curriculum framework offers schools flexibility to determine engaging, relevant, challenging and significant content that meets local and national curriculum requirements. This inquiry-based curriculum explores factual, conceptual and debatable questions in the study of language acquisition.

MYP language acquisition is a compulsory component in every year of the MYP, except for bilingual students who pursue courses of study in multiple languages in the MYP language and literature subject group.

The MYP requires at least 50 hours of teaching time for each subject area in each year of the programme. For students participating in MYP eAssessment, the IB recommends 70 hours of guided learning each year in MYP years 4 and 5.

III. Assessment criteria

Each language acquisition objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Comprehending spoken and visual text

Students interpret and construct meaning from spoken and visual texts to understand how images presented with oral text interplay to convey ideas, values and attitudes.

Criterion B: Comprehending written and visual text

Students construct meaning and interpret written and visual text to understand how images presented with written text interplay to convey ideas, values and attitudes.

Criterion C: Communicating in response to spoken and/or written and/or visual text

Students develop their communication skills by interacting on a range of topics of personal, local and global interest and significance, and responding to spoken, written and visual text in the target language.

Criterion D: Using language in spoken and/or written form

Students recognize and use language suitable to the audience and purpose (for example, home, classroom, formal and informal, social, academic contexts). Students apply their understanding of linguistic and literary concepts to develop a variety of structures, strategies and techniques.

IV. MYP eAssessment

Students seeking IB-validated language acquisition course results or the IB MYP Certificate must demonstrate their achievement of the subject group's objectives by submitting an ePortfolio comprising receptive, productive and interactive summative assessment tasks.

MYP ePortfolios are marked by students' classroom teachers against published criteria for MYP year 5. In each exam session, the IB moderates a sample of ePortfolios from each school, adjusting grades as necessary to ensure the application of rigorous and reliable international standards.

MYP language acquisition ePortfolios consist of:

- an aural comprehension task comprising spoken and visual text
- a written comprehension task comprising written and visual text
- an interactive oral task
- a writing task.

MYP language acquisition courses are formally assessed at one of three proficiency levels: **emergent**, **capable** or **proficient**.

MYP language acquisition ePortfolio tasks are aligned with understanding and skills that prepare students for high levels of achievement in IB Diploma Programme courses in **language acquisition** and **studies in language and literature**.

The IB MYP certificate requires a satisfactory level of achievement in language acquisition.

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

International Baccalaureate Middle Years Programme Subject Brief

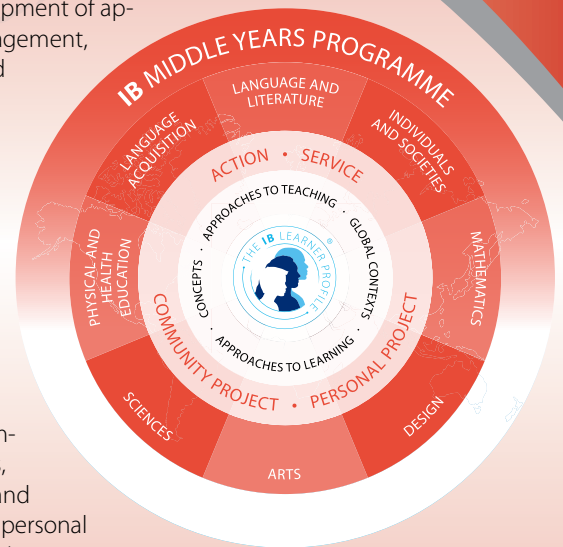
Language and literature

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme’s Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Course description and aims

II. Curriculum overview

III. Assessment criteria

IV. MYP eAssessment

I. Course description and aims

Language is fundamental to learning, thinking and communicating, as well as providing an intellectual framework to support conceptual development. It plays a central role in developing critical thinking, cultivating international-mindedness, exploring and sustaining personal development and cultural identity, and responsibly participating in local, national and global communities.

MYP language and literature courses equip students with linguistic, analytical and communicative skills that help to develop interdisciplinary understanding. Students develop skills in six domains—listening, speaking, reading, writing, viewing and presenting—both independently and with others.

MYP language and literature courses include a balanced study of genres and literary texts, including a world literature component. Students’ interactions with texts generate moral, social, economic, political, cultural and environmental insights. Through their studies, students learn how to form opinions, make decisions, and engage in ethical reasoning.

The aims of MYP language and literature are to encourage and enable students to:

- use language as a vehicle for thought, creativity, reflection, learning, self-expression, analysis and social interaction
- develop the skills involved in listening, speaking, reading, writing, viewing and presenting in a variety of contexts
- develop critical, creative and personal approaches to studying and analysing literary and non-literary texts

- engage with text from different historical periods and a variety of cultures
- explore and analyse aspects of personal, host and other cultures through literary and non-literary texts
- explore language through a variety of media and modes
- develop a lifelong interest in reading
- apply linguistic and literary concepts and skills in a variety of authentic contexts.

II. Curriculum overview

The MYP promotes sustained **inquiry** in language and literature by developing **conceptual understanding** in **global contexts**.

Key concepts such as *communication, connections, creativity* and *perspective* broadly frame the MYP curriculum.

Related concepts promote deeper learning grounded in specific disciplines. Examples of related concepts in MYP language and literature include *genre, purpose, context* and *style*.

Students explore key and related concepts through MYP **global contexts**.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development

The MYP curriculum framework offers schools flexibility to determine engaging, relevant, challenging and significant content that meets local and national curriculum requirements. This inquiry-based curriculum explores factual, conceptual and debatable questions in the study of language and literature.

The MYP requires at least 50 hours of teaching time for each subject area in each year of the programme. For students participating in MYP eAssessment, the IB recommends 70 hours of guided learning each year in MYP years 4 and 5.

III. Assessment criteria

Each language and literature objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Analysing

Students demonstrate an understanding of the creator's choices, the relationship between the various components of a text and between texts, and make inferences about audience responses and creators' purposes. Students use the text to support their own responses and reflect on different perspectives and interpretations.

Criterion B: Organizing

Students understand and organize their ideas and opinions using a range of appropriate conventions for different forms and purposes of communication. Students recognize the importance of maintaining academic honesty, respecting intellectual property rights and referencing all sources accurately.

Criterion C: Producing text

Students produce written and spoken text, focusing on the creative process itself and on the understanding of the connection between the creator and his or her audience. Students make choices aimed at producing texts that affect both the creator and the audience.

Criterion D: Using language

Students develop, organize and express themselves and communicate thoughts, ideas and information. They use accurate and varied language that is appropriate to the context and intention.

IV. MYP eAssessment

Students seeking IB MYP course results or the IB MYP Certificate must demonstrate their achievement of the subject group's objectives by completing an end-of-course on-screen examination.

Ideas and issues explored in MYP language and literature include:

- identity, heritage, culture, diversity
- communities, globalization, migration, displacement
- social history, civilizations, journeys
- media and mass communication
- childhood, adolescence, youth, rebellion, innocence and experience, human sexuality
- families, friendships, relationships

- systems, power and protest, justice, peace and conflict, freedom and independence
- health and well-being, environment, lifestyle
- social roles, norms and expectations, gender, inclusion, minorities, class
- utopias, dystopias, survival
- religion, faith, values, ritual, spirituality, taboos
- allegiance, betrayal, revenge, atonement, forgiveness.

Examination blueprints define the structure of tasks that simulate, replicate and sample formative internal assessments. In MYP language and literature courses, on-screen examinations comprise two tasks.

Task	Assessment criteria	Marks
Analysis	Assesses students' ability to analyse, compare and contrast two text extracts giving opinions and justifications, organize their work in a coherent and logical manner, and produce language demonstrating a high degree of linguistic and grammatical accuracy (criteria A, B and D).	50
Creative writing	Assesses students' ability to organize their work in a coherent and logical manner (criterion B), produce text that demonstrates engagement with the creative process and an awareness of impact on audience, and produce language demonstrating a high degree of linguistic and grammatical accuracy (criteria C and D).	70

MYP language and literature on-screen examinations are aligned with understanding and skills that prepare students for high levels of achievement in IB Diploma Programme courses in **studies in language and literature**.

Sample question (creative writing)

Students are presented with a visual image and write a response of 400–600 words using one of the following three prompts.

- **Write down** an internal monologue expressing the thoughts and feelings of a narrator involved in this scene.
- **Narrate** the events that follow on from the moment shown in the image.
- Imagine you are the person in this image. **Describe** what you can see.

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

International Baccalaureate Middle Years Programme Subject Brief

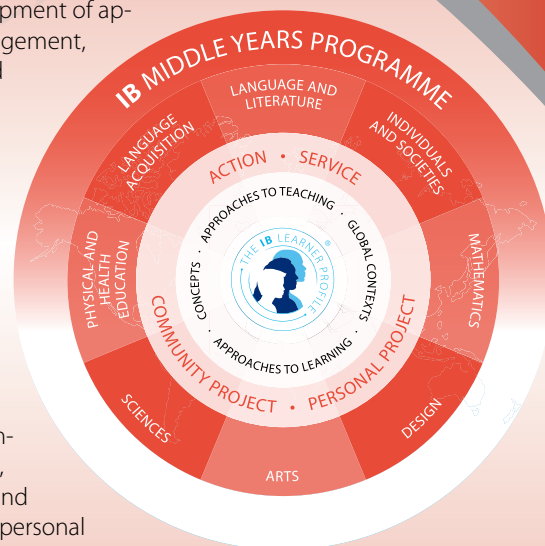
Mathematics

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme’s Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Course description and aims

II. Curriculum overview

III. Assessment criteria

IV. MYP eAssessment

I. Course description and aims

The framework for MYP mathematics outlines four branches of mathematical study.

1. Number
2. Algebra
3. Geometry and trigonometry
4. Statistics and probability

The study of mathematics is a fundamental part of a balanced education. It promotes a powerful universal language, analytical reasoning and problem-solving skills that contribute to the development of logical, abstract and critical thinking. The MYP mathematics and extended mathematics courses promote both inquiry and application, helping students to develop problem-solving techniques that transcend the discipline and are useful in the world outside school.

Mathematics in the MYP is tailored to the needs of students, seeking to intrigue and motivate them to want to learn its principles. Students should see authentic examples of how mathematics is useful and relevant to their lives and be encouraged to apply it to new situations.

The aims of MYP mathematics courses are to encourage and enable students to:

- enjoy mathematics, develop curiosity and begin to appreciate its elegance and power
- develop an understanding of the principles and nature of mathematics
- communicate clearly and confidently in a variety of contexts
- develop logical, critical and creative thinking

- develop confidence, perseverance and independence in mathematical thinking and problem-solving
- develop powers of generalization and abstraction
- apply and transfer skills to a wide range of real-life situations, other areas of knowledge and future developments
- appreciate how developments in technology and mathematics have influenced each other; the moral, social and ethical implications arising from the work of mathematicians and the applications of mathematics; the international dimension in mathematics; and the contribution of mathematics to other areas of knowledge
- develop the knowledge, skills and attitudes necessary to pursue further studies in mathematics
- develop the ability to reflect critically upon their own work and the work of others.

II. Curriculum overview

For MYP mathematics, schools can develop courses at two level of challenge: **standard** and **extended**.

Standard mathematics aims to provide a sound knowledge of basic mathematical principles. **Extended mathematics** supplements the standard curriculum with additional topics and skills, providing greater breadth and depth of study.

The MYP promotes sustained **inquiry** in mathematics by developing **conceptual understanding** within **global contexts**.

Key concepts such as *form*, *logic* and *relationships* broadly frame the MYP curriculum.

Related concepts promote deeper learning grounded in specific disciplines. Examples of related concepts in MYP mathematics include equivalence, measurement, quantity and justification.

Students explore key and related concepts through MYP **global contexts**.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development

The MYP curriculum framework offers schools flexibility to determine engaging, relevant, challenging and significant content that meets local and national curriculum requirements. This inquiry-based curriculum explores factual, conceptual and debatable questions in the study of mathematics.

The MYP requires at least 50 hours of teaching time for each subject area in each year of the programme. For students participating in MYP eAssessment, the IB recommends 70 hours of guided learning each year in MYP years 4 and 5.

III. Assessment criteria

Each mathematics objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Knowing and understanding

Students select and apply mathematics to solve problems in both familiar and unfamiliar situations in a variety of contexts, demonstrating knowledge and understanding of the framework's branches (number, algebra, geometry and trigonometry, statistics and probability).

Criterion B: Investigating patterns

Students work through investigations to become risk-takers, inquirers and critical thinkers.

Criterion C: Communicating

Students use appropriate mathematical language and different forms of representation when communicating mathematical ideas, reasoning and findings, both orally and in writing.

Criterion D: Applying mathematics in real-life contexts

Students transfer theoretical mathematical knowledge into real-world situations and apply appropriate problem-solving strategies, draw valid conclusions and reflect upon their results.

IV. MYP eAssessment

Students seeking IB MYP course results or the IB MYP Certificate must demonstrate their achievement of the subject group's objectives by completing an end-of-course on-screen examination. On-screen examinations are formal external examinations, and are available in **mathematics** and **extended mathematics**.

On-screen examinations address all four branches of mathematical study and may include any topics or skills in the MYP mathematics framework.

Examination blueprints define the structure of tasks that simulate, replicate and sample formative internal assessments. In MYP mathematics courses, on-screen examinations comprise three tasks.

Task	Assessment criteria	Marks
Knowing and understanding	Assesses knowledge and understanding of mathematics and communication of the approaches/method used (criteria A and C).	40
Investigating patterns	Assesses investigative skills in mathematics and the interpretation of findings using appropriate communication techniques (criteria B and C).	40
Applying mathematics in real-life contexts	Assesses ability to apply mathematics in a real-life, likely global, context. Students may be required to produce pieces of extended writing to evaluate and justify the validity of mathematics models (criteria C and D).	40

MYP mathematics on-screen examinations are aligned with understanding and skills that prepare students for high levels of achievement in IB Diploma Programme courses in **mathematics**.

Sample question

From a video recording, a researcher notes how many cars pass through a junction in Mexico City over a period of minutes, creating a data table that is also visualized as a graph.

The data can be modelled using the equation

$$y = -0.05x^2 + x + 6$$

where y represents the number of cars and x represents the time period in minutes.

- **Use** the equation to **calculate** the number of cars passing through the junction during [an indicated period].
- **Comment** on the validity of the answer(s) to your calculations.
- Use the equation **solved** for x to find the time when there are no cars passing the junction [extended mathematics assessment only].

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

International Baccalaureate

Middle Years Programme Subject Brief

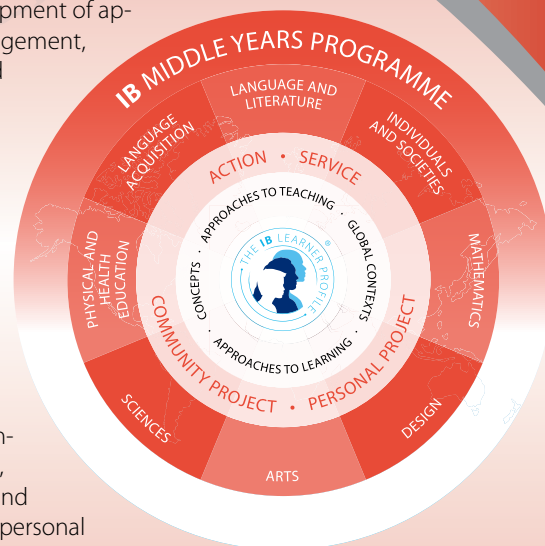
Physical and health education

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme’s Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Course description and aims

II. Curriculum overview

III. Assessment criteria

IV. MYP eAssessment

I. Course description and aims

MYP physical and health education aims to empower students to understand and appreciate the value of being physically active while developing the motivation for making healthy and informed life choices. To this end, physical and health education courses foster the development of knowledge, skills and attitudes contributing to a balanced and healthy lifestyle.

Students engaged in physical and health education will explore a variety of concepts that help foster an awareness of physical development and health perspectives, as well as positive social interaction. Physical activity and health are of central importance to human identity and global communities, creating meaningful connections among people, nations, cultures and the natural world.

Through physical and health education, students learn to appreciate and respect the ideas of others, and develop effective collaboration and communication skills. This subject area also offers many opportunities to build positive interpersonal relationships that can help students to develop a sense of social responsibility and intercultural understanding.

The aims of MYP physical and health education are to encourage and enable students to:

- use inquiry to explore physical and health education concepts
- participate effectively in a variety of contexts
- understand the value of physical activity
- achieve and maintain a healthy lifestyle
- collaborate and communicate effectively
- build positive relationships and demonstrate social responsibility
- reflect on their learning experiences.

II. Curriculum overview

The MYP promotes sustained **inquiry** in physical and health education by developing **conceptual understanding** within **global contexts**.

Key concepts such as *change*, *communication* and *relationships* broadly frame the MYP curriculum.

Related concepts promote deeper learning grounded in specific disciplines. Examples of related concepts in MYP physical and health education include *energy*, *balance* and *refinement*.

Students explore key and related concepts through MYP **global contexts**.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development

The MYP curriculum framework offers schools flexibility to determine engaging, relevant, challenging and significant content that meets local and national curriculum requirements. This inquiry-based curriculum explores factual, conceptual and debatable questions in the study of physical and health education.

The MYP requires at least 50 hours of teaching time for each subject area in each year of the programme. For students participating in MYP eAssessment, the IB recommends 70 hours of guided learning each year in MYP years 4 and 5.

III. Assessment criteria

Each physical and health education objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Knowing and understanding

Students develop knowledge and understanding about health and physical activity in order to identify and solve problems.

Criterion B: Planning for performance

Students through inquiry design, analyse, evaluate and perform a plan in order to improve performance in physical and health education.

Criterion C: Applying and performing

Students develop and apply practical skills, techniques, strategies and movement concepts through their participation in a variety of physical activities.

Criterion D: Reflecting and improving performance

Students enhance their personal and social development, set goals, take responsible action and reflect on their performance and the performance of others.

IV. MYP eAssessment

Students seeking IB-validated physical and health education course results must demonstrate their achievement of the subject group's objectives by submitting an ePortfolio in which they:

- identify a target that incorporates physical and psychological dimensions of performance in physical and health education
- create, implement and document progress towards their goal through multiple interim cycles of analysis
- record and evaluate their final performance
- reflect on their personal growth and interpersonal skills.

MYP ePortfolios are marked by students' classroom teachers against published criteria for MYP year 5. In each exam session, the IB moderates a sample of ePortfolios from each school, adjusting grades as necessary to ensure the application of rigorous and reliable international standards.

MYP physical and health education ePortfolio tasks are aligned with understanding and skills that prepare students for high levels of achievement in the IB Diploma Programme course in **sports, exercise and health science**.

The IB MYP certificate requires a satisfactory level of achievement in at least one course from physical and health education, arts or design.

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

International Baccalaureate

Middle Years Programme Subject Brief

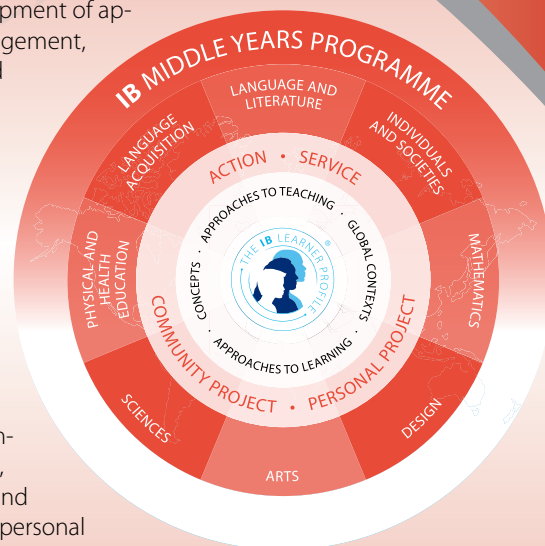
Sciences

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme's Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Course description and aims

II. Curriculum overview

III. Assessment criteria

IV. MYP eAssessment

I. Course description and aims

With inquiry at the core, the MYP sciences framework aims to guide students to independently and collaboratively investigate issues through research, observation and experimentation. The MYP sciences curriculum explores the connections between science and everyday life. As they investigate real examples of science applications, students discover the tensions and dependencies between science and morality, ethics, culture, economics, politics, and the environment.

Scientific inquiry fosters critical and creative thinking about research and design, as well as the identification of assumptions and alternative explanations. Students learn to appreciate and respect the ideas of others, gain good ethical-reasoning skills and further develop their sense of responsibility as members of local and global communities.

The MYP sciences group aims to encourage and enable students to:

- understand and appreciate science and its implications
- consider science as a human endeavour with benefits and limitations
- cultivate analytical, inquiring and flexible minds that pose questions, solve problems, construct explanations and judge arguments
- develop skills to design and perform investigations, evaluate evidence and reach conclusions
- build an awareness of the need to effectively collaborate and communicate
- apply language skills and knowledge in a variety of real-life contexts
- develop sensitivity towards the living and non-living environments
- reflect on learning experiences and make informed choices.

II. Curriculum overview

Although schools may vary the structure of the curriculum throughout the five years of the programme, they generally develop discrete, modular or integrated science courses. Discrete sciences courses typically encompass biology, chemistry and physics, but may include other science disciplines, such as environmental sciences, life sciences or physical sciences. Modular sciences courses include two or more discrete sciences taught in rotation.

The MYP promotes **inquiry** in sciences by developing **conceptual understanding** within **global contexts**.

Key concepts such as *change*, *relationships* and *systems* broadly frame the MYP curriculum.

Related concepts promote deeper learning grounded in specific disciplines. Examples of related concepts in MYP sciences include *energy*, *movement*, *transformation* and *models*. Additional concepts may also be identified and developed to meet local circumstances and curriculum requirements.

Students explore key and related concepts through MYP **global contexts**.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development

These same global contexts are discussed across the curriculum, supporting transfer and interdisciplinary learning.

The MYP curriculum framework offers schools flexibility to determine engaging, relevant, challenging and significant content that meets local and national curriculum requirements. This inquiry-based curriculum explores factual, conceptual and debatable questions in the study of sciences.

The MYP requires at least 50 hours of teaching time for each subject area in each year of the programme. For students participating in MYP eAssessment, the IB recommends 70 hours of guided learning each year in MYP years 4 and 5.

III. Assessment criteria

Each sciences objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Knowing and understanding

Students develop scientific knowledge (facts, ideas, concepts, processes, laws, principles, models and theories) and apply it to solve problems and express scientifically supported judgments.

Criterion B: Inquiring and designing

Students develop intellectual and practical skills through designing, analysing and performing scientific investigations.

Criterion C: Processing and evaluating

Students collect, process and interpret qualitative and/or quantitative data, and explain conclusions that have been appropriately reached.

Criterion D: Reflecting on the impacts of science

Students evaluate the implications of scientific developments and their applications to a specific problem or issue. Varied scientific language is applied to demonstrate understanding. Students should become aware of the importance of documenting the work of others when communicating in science.

IV. MYP eAssessment

Students seeking IB MYP course results or the IB MYP certificate must demonstrate their achievement of the subject group's objectives by completing an end-of-course on-screen examination. On-screen examinations are formal external examinations, and are available in *biology*, *chemistry*, *physics* and *integrated sciences*.

Topics explored in MYP sciences on-screen examinations include:

- atomic structure and bonding
- cells
- cycles
- electromagnetism
- evolution
- interactions between organisms
- forces

- states and properties of matter
- metabolism
- organisms
- waves.

Examination blueprints define the structure of tasks that simulate, replicate and sample formative internal assessments. In MYP science courses, on-screen examinations comprise three tasks.

Task	Assessment criteria	Marks
Knowing and understanding	Assesses knowledge and understanding of science (criterion A).	30
Investigation	Assesses the skills involved in inquiring, designing, processing and evaluating. May involve a single investigation or a number of discrete scenarios. Students must formulate hypotheses, plan investigations and collect, present, interpret and evaluate data (criteria B and C).	60
Applying science	Requires students to reflect on the impact of science, and explain how science addresses real-life issues (criterion D).	30

MYP sciences on-screen examinations are aligned with understanding and skills that prepare students for high levels of achievement in IB Diploma Programme courses in **sciences**.

Sample questions (from biology eAssessment)

- **Outline** one advantage and one disadvantage of using a model to understand interaction between organisms.
- The designers of a water filter claim that particles up to $0.2\text{ }\mu\text{m}$ (micrometres) in size will be removed. From your measurements in parts (a) and (b) **deduce** whether the filter will remove both viruses and bacteria.
- **Evaluate** two methods for preparing drinking water. In an extended piece of writing:
 - explain what makes these methods effective
 - explain the strengths and limitations of each method

Use scientific knowledge and understanding to support your answer.

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

International Baccalaureate Middle Years Programme Subject Brief

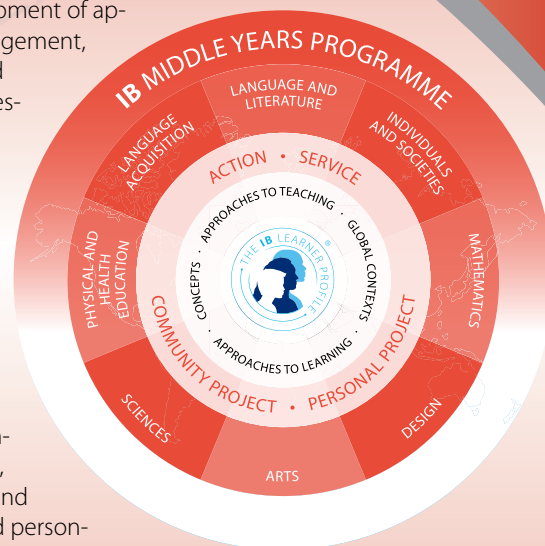
Interdisciplinary learning

From 2014

The IB Middle Years Programme (MYP) is designed for students aged 11 to 16. It provides a framework of learning that emphasizes intellectual challenge and encourages connections between studies in traditional subjects and the real world. The MYP focuses on “learning how to learn” through the systematic development of approaches to learning (ATL) skills for communication, collaboration, organization, self-management, reflection, research, informational literacy, media literacy, creative and critical thinking, and transfer of learning. It also fosters intercultural understanding and global engagement—essential qualities for young people today.

Interdisciplinary teaching and learning builds a connected curriculum that addresses the developmental needs of students and prepares them for further academic study and life in an increasingly interconnected world. The MYP uses concepts and contexts as starting points for meaningful integration and transfer of knowledge across eight subject groups.

For students seeking a formal qualification at the end of the programme’s Year 5, the IB offers eAssessments that lead to the IB MYP certificate or course results for individual subject areas. To earn the MYP certificate, students must complete 2 hour on-screen examinations in each of the following: language and literature, individuals and society, sciences, mathematics and interdisciplinary learning; submit an ePortfolio in language acquisition and one of the following: design, arts or physical and health education; complete a moderated personal project; and complete school-based expectations for service as action (community service).



I. Course description and aims

II. Curriculum overview

III. Assessment criteria

IV. MYP eAssessment

I. Course description and aims

Interdisciplinary learning can take place between different subject groups and between different disciplines within a subject group to encourage broader perspectives on complex issues and deeper levels of analysis and synthesis. Interdisciplinary connections must be meaningful.

In the MYP, interdisciplinary learning is the process by which students come to understand bodies of knowledge and modes of thinking from two or more disciplines and then integrate them to create a new understanding. Students demonstrate this by bringing together concepts, methods or forms of communication to explain a phenomenon, solve a problem, create a product or raise a new question in ways that would have been unlikely through a single discipline.

MYP schools must engage students in at least one collaboratively planned interdisciplinary unit in each year of the MYP in order to integrate knowledge and skills from two or more subject groups in an interdisciplinary manner.

The aims of interdisciplinary learning in the MYP are to:

- develop a deeper understanding of learning skills and apply them in meaningful contexts
- integrate conceptual learning, ways of knowing and methods of inquiring from multiple disciplines
- inquire into compelling issues, ideas and challenges by creating products or explaining phenomena
- reflect on and communicate understanding of the interdisciplinary learning process

- experience the excitement of intellectual discovery—including insights into how disciplines complement and challenge one another.

II. Curriculum overview

The MYP interdisciplinary curriculum is developed across a continuum in which disciplines borrow from each other, share common threads, combine in formal units of study or are organized into discrete courses.

The MYP promotes interdisciplinary **inquiry** by integrating discipline-based **conceptual understanding** within the following **global contexts**.

- Identities and relationships
- Orientation in space and time
- Personal and cultural expression
- Scientific and technical innovation
- Globalization and sustainability
- Fairness and development

There is no set number of interdisciplinary learning hours in each year of the MYP, but MYP subject-group teachers are responsible for developing meaningful and ongoing interdisciplinary teaching and learning opportunities throughout the programme.

III. Assessment criteria

Each interdisciplinary learning objective corresponds to one of four equally weighted assessment criteria. Each criterion has eight possible achievement levels (1–8), divided into four bands with unique descriptors that teachers use to make judgments about students' work.

Criterion A: Disciplinary grounding

Students must understand disciplinary concepts and skills—as framed by MYP subject-group objectives. This disciplinary grounding provides the foundation for interdisciplinary understanding.

Criterion B: Synthesizing

Students integrate knowledge from more than one discipline in ways that inform inquiry into relevant ideas, issues and challenges in order to explain phenomena or create products.

Criterion C: Communicating

Students select, integrate or innovate communication forms and strategies to explain the results of their inquiries. They develop the capacity to communicate effectively and responsibly with a range of audiences.

Criterion D: Reflecting

Students evaluate the role of disciplines, weighing their relative contributions and assessing their strengths and limitations in specific interdisciplinary applications. Students also explore various areas of knowledge and ways of knowing, and reflect on their ability to construct understanding across disciplinary boundaries.

IV. MYP eAssessment

Students seeking IB MYP course results or the IB MYP certificate must demonstrate their achievement of the above objectives by completing an end-of-programme on-screen examination. On-screen examinations are formal external assessments.

Prior to the examination, the IB announces one global context and two disciplines from language and literature, individuals and societies, sciences or mathematics to provide the foundation for the on-screen examination. While grounding in the selected disciplines is assessed, examinations emphasize interdisciplinary thinking.

Examination blueprints define the structure of tasks that simulate, replicate and sample formative internal assessments. MYP interdisciplinary learning on-screen examinations comprise three tasks.

Task	Assessment criteria	Points	
Disciplinary grounding	Assesses relevant knowledge and skills from the perspective of MYP language and literature, individuals and societies, mathematics or sciences. (Criterion A)	30	
Synthesis and communication of interdisciplinary understanding	Assesses students' ability to synthesize disciplinary knowledge in order to address a real-world challenge (Criterion B), using effective strategies to communicate interdisciplinary understanding. (Criterion C)	30	60
		30	
Reflecting	Assesses students' ability to evaluate the benefits and limitations of disciplinary and interdisciplinary knowledge, as well as their own strengths and weaknesses as interdisciplinary learners. (Criterion D)	30	

On-screen examinations for interdisciplinary learning help students prepare for the Diploma Programme interdisciplinary courses and **theory of knowledge**.

Sample task

The following questions relate to ten written and rich-media stimulus material including infographics, graphical data, a video of a personal story, articles from *The Economist* and *The Guardian* online, and two literary extracts.

- Source 3 and Source 8 both describe the positive effects access to education had on girls. State which source conveys this idea more effectively. Justify your opinion with evidence from both sources.
- Evaluate how effectively these social media posts synthesize disciplinary understanding to inform people about universal primary education.
- Using Source 10, identify five features of the report in which the author demonstrates scientific or mathematical thinking and explain the purpose of each.
- Explore how another discipline, excluding language and literature and individuals and societies, could help people understand the benefits of universal primary education. In your answer, reflect on the development of your own interdisciplinary understanding.

About the IB: For over 45 years, the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and are able to contribute to creating a better, more peaceful world.

For further information on the IB Middle Years Programme, and a complete list of MYP subject briefs, visit: www.ibo.org/myp/.

Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.