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

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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.