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

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:

- 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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Assessment criteria</th>
<th>Points</th>
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<tbody>
<tr>
<td>Disciplinary grounding</td>
<td>Assesses relevant knowledge and skills from the perspective of MYP language and literature, individuals and societies, mathematics or sciences. (Criterion A)</td>
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<tr>
<td>Synthesis and communication of interdisciplinary understanding</td>
<td>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)</td>
<td>30 60 30</td>
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<tr>
<td>Reflecting</td>
<td>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)</td>
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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.