

I Liceum Ogólnokształcące z Oddziałami Dwujęzycznymi im. I. Paderewskiego w Wałbrzychu

IB MYP CURRICULUM GUIDE

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IB World School 04971

INTRODUCTION

Life in the 21st century, in an interconnected, globalized world, requires critical-thinking skills, creativity, a sense of international-mindedness and responsibility for our planet. We need to instill in our students courage and enthusiasm to make positive changes. Such is IB education – education for a better world!

We are the IB World School. In 2015, we obtained the authorization of the International Baccalaureate Organization in the Middle Years Programme (MYP), and two years later - in 2017 - in the International Baccalaureate Diploma Programme (DP). Our teaching staff in IB programmes have accomplished IB Professional Development approved by the IBO and we are constantly developing our professional skills by participating in workshops and conferences.

This guide is addressed to all candidates interested in the IB profile at the Paderewski High School No. 1 in Wałbrzych, as well as our students of the IB profile and their parents. In this publication, we explain what the Middle Years Programme is, how it helps first and second grade students to prepare for the International Baccalaureate Diploma Programme in the third and fourth grade, and what measurable benefits it brings.

We wish you a pleasant reading ...

MYP Coordinator - Beata Urbaniak

MYP Teachers at the Paderewski High School No. 1 in Wałbrzych

OUR PHILOSOPHY

For years our school mission and philosophy have emphasized values that go beyond academic education. We have always focused on the holistic development of our students, helping them to become socially responsible citizens and making them dedicated lifelong learners.

We offer bilingual education as we realize the importance of languages and communication in today's rapidly changing global world. Through participation in international projects and exchanges we develop our international awareness based on mutual understanding and respect. Our students collaborate with peers from other countries while working on global issues.

SCHOOL MISSION

The mission of our school is to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. We focus on the holistic development of students: academic, social, physical, cultural and emotional. We teach hard work, responsibility and critical thinking. We instill in our students the desire for lifelong learning and make them realize that the most important thing is the way which we follow to gain knowledge and seek truth, not the objectives in themselves.

" The world is simply the school of search, the point is not who is going to get first, but who runs the more beautiful way" Michael de Montaigne

INTERNATIONAL MINDEDNESS

IB programmes that we implement at I LO encourage students to explore different cultures and respect for cultural diversity. Recognizing diversity allows us to better understand the relationship between global and local problems, which in turn significantly influences further academic education and career development, with particular emphasis on careers focused on international cooperation.

IB LEARNER PROFILE



IB learner profile

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

As IB learners we strive to be:

INQUIRERS

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

KNOWLEDGEABLE

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

THINKERS

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

COMMUNICATORS

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

PRINCIPLED

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

OPEN-MINDED

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

CARING

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

RISK-TAKERS

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

BALANCED

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

REFLECTIVE

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

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



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MYP MODEL



The Middle Years Programme (MYP) was designed with young people entering the period of adolescence in mind. Depending on the educational systems in various countries around the world, it is implemented in the appropriate year: from MYP 1 to 5. In the Polish reality, in case of a four-year high school (lyceum), the last two years of the programme - MYP 4 and MYP 5, are carried out in the first and second grades.

The MYP programme meets the needs of modern education, does not impose any additional educational content and therefore it can be adapted to the core curricula in all countries. Common to all IB programmes is the philosophy of education, including the set of traits we want to develop in students (known as the IB learner profile) and key skills (ATL skills). Also common are key ideas and concepts that result from observing the world around us and which help young people understand the connections between what they learn at school and the real world.

Above all, by using the MYP framework, we strengthen students' sense of agency by placing it at the center of the learning process. We teach how to take responsibility for your own learning; how to search for truth and study processes and phenomena; how to take action, put knowledge into practice and finally reflect. In this programme we teach not what students are supposed to think, but how to think creatively and critically, analyzing all aspects, all points of view. We care about shaping appropriate attitudes towards the world and commitment to acting for the broadly understood idea of building a better, peaceful world (Service as Action).

According to the assumptions of its creators, the MYP programme is the best preparation for the implementation of the two-year International Baccalaureate Programme (IB Diploma Programme).

SERVICE AS ACTION

One of the essential elements of the MYP programme is 'Service as Action', understood as volunteering. As a mandatory element it is supposed to be documented. In each MYP year, the learner should be involved in some kind of pro-social activity or activities. During their implementation, the student develops key competences and skills that are to help him function more effectively in the further stages of education.

As a result of the activities undertaken as part of 'Service as Action', the student:

- · learns about their strengths and weaknesses;
- learns new skills;
- · learns to plan their work;
- trains persistence in action;
- undertakes cooperation in a group;
- learns about other cultures, has the opportunity to communicate in foreign languages;
- · learns to see the long-term effects of their actions;
- learns to respond to changes, modifying their plan to implement it.

Students have three types of activities in which they can engage:

• initiated by the school (proposed in the 'Service as Action' handbook) or suggested by the subject teacher in connection with the topic of the lesson or the entire unit;

• proposed by the student, resulting from his/her interests and related to his talents;

• volunteering organized by an external institution, e.g. 'Clean the World', 'Szlachetna Paczka', 'Wielka Orkiestra Świątecznej Pomocy', etc.

The student carries out tasks under the guidance of a selected tutor, with whom he creates an action plan. After approval of the action plan by the coordinator, the student starts the implementation of the action and fills in a reflection that summarizes his work. At the end of the year, at least one week before the grades are issued, student activities are checked by the 'Service as Action' coordinator and sent to the MYP Coordinator.

'Service as Action' is the best preparation for the implementation of CAS in the International Baccalaureate Programme.

PERSONAL PROJECT

The culmination of learning at MYP is the implementation of the Personal Project in the last year of the programme - that is, MYP 5 (second grade of Polish Lyceum). The name of the project suggests that it is supposed to result from genuine interests and passions. By entering the process of working on a project, the student has a real chance to explore them. The project implementation process is divided into 4 phases:

- I. Research;
- II. Planning;
- III. Taking action;
- IV. Reflection.

Each student is familiarized with the requirements for the implementation of the Personal Project by the PP Coordinator, and then selects or receives a project supervisor who oversees the PP implementation process and meets the student at least 3 times during an individual interview. However, it is the student, not the tutor, who must choose a topic, explore it by looking for sources, plan and take action. It is the student's responsibility to complete the project from September to March. Project presentations are the culmination of these activities.

During the implementation of PP, you must meet the following formal requirements:

- write a PP (Process Journal) diary in the form you choose;
- write a report on the implementation of PP in English in the form of your choice: traditional-written or unconventional, e.g. in the form of a blog, vlog, website or film;
- prepare your product according to the success criteria you define;
- present your product, briefly presenting the stages of its creation.

What is sent for evaluation must be in English: i.e. report, samples / diary excerpts and presentation. Personal Project is assessed in accordance with the **MYP criteria for Personal Projects:**

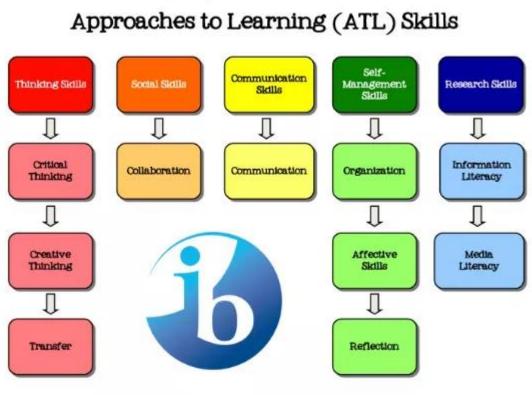
- A. Investigating;
- B. Planning;
- C. Taking action;
- D. Reflection.

Projects are sent for assessment by IB examiners and students receive MYP Program Completion Diplomas with a Personal Project grade.

APPROACHES TO LEARNING (ATL)

The MYP programme assumes that the development of ATL skills and strategies is one of the key pillars of the student's development. Today, when information is expanding at an exponential rate, and thus knowledge is not a closed set, there is a need for welltrained minds that will be able to navigate the maze of information, discoveries and novelties.

ATL skills is the range of skills and strategies that a student learns, acquires and develops while studying in the IB MYP. Each teacher in their own subject is responsible for the development and introduction of these skills. The ATL Skills Assessment is a formative assessment given in the form of student feedback. Thanks to this information, the student can recognize strengths and weaknesses.



Learning Skills in the MYP_

GLOBAL CONTEXTS

The MYP programme emphasizes the importance of teaching in real-world contexts by constantly referring to the realities in which we live. The so-called global contexts integrate the curriculum in terms of international awareness and global engagement. Thanks to them, students understand the relationship between what they learn and real life, become more involved and remember the concepts taught better.

There are six global contexts and related issues:

Scientific and technical innovation

How do we understand the world in which we live?

You could explore the natural world and its laws; the interaction between people and the natural world; how humans use their understanding of scientific principles; the impact of scientific and technological advances on communities and environments; how humans adapt environments to their needs. Who am I? Who are we? You could explore identity; beliefs and values; personal, physical, mental, social and spiritual health; human relationships including families, friends, communities and cultures; what it means to be human.

Global

Contexts

Identities and relationships

Globalistaion and sustainability

How is everything connected? You could explore the interconnectedness of humanmade systems and communities; the relationship between local and global processes; how local experiences mediate the local; the impact of decision-making on humankind and the environment.

Orientation in space and time

What is the meaning of "where" and "when"?

You could explore personal histories; homes and journey; turning points in humankind; discoveries; explorations and migrations of humankind; the relationships between, and the interconnectedness of, individuals and civilisations, from personal, local and global perspectives.

Fairness and development What are the consequences of our common humanity? You could explore rights and responsibilities; the relationship between communities; sharing finite resources with other people and with other living things; access to equal opportunities; peace and conflict resolution

Personal and cultural expression

What is the nature and purpose of creative expression?

You could explore the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.

KEY CONCEPTS

Key concepts provide interdisciplinary links in each subject group. They have a timeless and intercultural dimension. Teachers use them to plan their teaching units: each has one concept that is deepened during lessons.

Key Concepts	Description		
Aesthetics	deals with the characteristics, creation, meaning and perception of beauty and taste. The study of aesthetics develops skills for the critical appreciation and analysis of art, culture and nature.		
Change	is a conversion, transformation or movement from one form, state or value to another. Inquiry into the concept of change involves understanding and evaluating causes, processes and consequences.		
Communication	is the exchange or transfer of signals, facts, ideas and symbols. It requires a sender, a message and an intended receiver. Communication involves the activity of conveying information or meaning. Effective communication requires a common "language" (which may be written, spoken or non-verbal).		
Communities	are groups that exist in proximity defined by space, time or relationship. Communities include, for example, groups of people sharing particular characteristics, beliefs or values as well as groups of interdependent organisms living together in a specific habitat.		
Connections	are links, bonds and relationships among people, objects, organisms or ideas.		
Creativity	is the process of generating novel ideas and considering existing ideas from new perspectives. Creativity includes the ability to recognize the value of ideas when developing innovative responses to problems; it may be evident in process as well as outcomes, products or solutions.		
Culture	encompasses a range of learned and shared beliefs, values, interests, attitudes, products, ways of knowing and patterns of behaviour created by human communities. The concept of culture is dynamic and organic.		
Development	is the act or process of growth, progress or evolution, sometimes through iterative improvements.		
Form	is the shape and underlying structure of an entity or piece of work, including its organization, essential nature and external appearance.		

Global Interactions	as a concept, focuses on the connections among individuals and communities, as well as their relationships with built and natural environments, from the perspective of the world as a whole.
Identity	is the state or fact of being the same. It refers to the particular features that define individuals, groups, things, eras, places, symbols and styles. Identity can be observed, or it can be constructed, asserted and shaped by external and internal influences
Logic	is a method of reasoning and a system of principles used to build arguments and reach conclusions.
Perspective	is the position from which we observe situations, objects, facts, ideas and opinions. Perspective may be associated with individuals, groups, cultures or disciplines. Different perspectives often lead to multiple representations and interpretations.
Relationships	are the connections and associations between properties, objects, people and ideas— including the human community's connections with the world in which we live. Any change in relationship brings consequences—some of which may occur on a small scale, while others may be far-reaching, affecting large networks and systems such as human societies and the planetary ecosystem.
Time, space and place	The intrinsically linked concept of time, space and place refers to the absolute or relative position of people, objects and ideas. Time, place and space focuses on how we construct and use our understanding of location ("where" and "when").
Systems	are sets of interacting or interdependent components. Systems provide structure and order in human, natural and built environments. Systems can be static or dynamic, simple or complex.

ACADEMIC HONESTY

The Paderewski High School No. 1 in Wałbrzych recognizes academic honesty as a set of values and skills that contribute to personal integrity and promote good practice in teaching, learning and assessment. As it may be affected by such external factors as peer pressure, cultural background or even parental expectations, the school acknowledges its role in ensuring the school community understands academic honesty and other relevant concepts, especially those of authenticity of work and intellectual property, very well. The IBO defines an authentic piece of work as "one that is based on the candidate's individual and original ideas, with the ideas and work of others fully acknowledged" (Academic Honesty, 2009. p.2). Therefore, all kinds of assignments, written or oral, completed by a student for assessment, must wholly and authentically use the student's own language and expression. Any sources used or referred to, whether in the form of direct quotation or paraphrase, must be fully and appropriately acknowledged. Equally important is the awareness of the concept of intellectual property as a form of intellectual and creative expression (e.g. works of literature, art or music) which is protected by a wide range of intellectual property rights such as patents, registered designs, trademarks, moral rights and copyright. When using someone else's intellectual property, students should develop the habit of acknowledging it by using the appropriate referencing.

It is made clear to students that malpractice is forbidden. Among the most frequent examples of malpractice there are:

- plagiarism: the representation of the ideas or work of another person as your own.
- collusion: supporting malpractice by another candidate, as in allowing one's work to be copied or submitted for assessment by another.
- duplication of work: the presentation of the same work for different assessment components and/or requirements.
- misconduct during an examination, including the possession of unauthorized material.
- disclosing information to another student, or receiving information from another student, about the content of an examination paper within 24 hours after the examination.

ASSESSMENT

MYP assessment uses a 'best fit' approach to make sure grades are fair and show how you are growing as a learner:

- All subjects have four assessment criteria (*table 1*)
- each criterion is assessed on levels 1-8
- the 'best fit' of each fit is added up to make a total from 32 for the course
- the table with descriptors show how the grades are determined (*table 2*)

Subject group	Subjects	Criterium A	Criterium B	Criterium C	Criterium D
Language and	Polish	Analysing Organizing		Producing text	Using language
Literature					
Language	English	Listening	Reading	Speaking	Writing
Acquisition					
Individuals and	History	Knowing and	Investigating	Communicating	Thinking
Societies J	Geography	understanding			critically
	Civics				
Sciences	Biology	Knowing and	Inquiring and	Processing and	Reflecting on the
	Chemistry	understanding	designing	evaluating	impacts of
	Physics				science
Mathematics	Mathematics	Knowing and	Investigating	Communicating	Applying maths
		understanding	patterns		in real-world
			-		contexts
Arts	Visual Arts	Knowing and	Developing skills	Thinking	Responding
	Music	understanding		creatively	i
Interdisciplinary	IDU	Disciplinary	Synthesizing	Communicating	Reflecting
		grounding			
Personal Project	MYP 5 project	Investigating	Planning	Taking action	Reflecting

Table 1. Assessment Criteria

ASSESSMENT

At the end of the semester, teachers evaluate the student by determining the final semester (or annual) level of achievement for each criterion. The final grade is not an arithmetic mean and takes into account the teacher's professional judgment on student achievement throughout the semester (first semester) or year (second semester). The sum of the levels from all criteria (i.e. 4) is converted into a semester or annual grade in accordance with the conversion rate adopted at the school:

МҮР	Polish	Suma	Opis
grade	grade	poziomów	
1 (1 - 5)	1	0-10	Produces work of very limited quality. Conveys many significant misunderstandings or lacks understanding of most concepts and contexts. Very rarely demonstrates critical or creative thinking. Very inflexible, rarely using knowledge or skills.
2 (6 - 9)	1		Produces work of limited quality. Expresses misunderstandings or significant gaps in understanding for many concepts and contexts. Infrequently demonstrates critical or creative thinking. Generally inflexible in the use of knowledge and skills, infrequently applying knowledge and skills.
3 (10 - 14)	2	11 - 15	Produces work of an acceptable quality. Communicates basic understanding of many concepts and contexts, with occasionally significant misunderstandings or gaps. Begins to demonstrate some basic critical and creative thinking. Is often inflexible in the use of knowledge and skills, requiring support even in familiar classroom situations
4 (15 - 18)	3	16 - 20	Produces good-quality work. Communicates basic understanding of most concepts and contexts with few misunderstandings and minor gaps. Often demonstrates basic critical and creative thinking. Uses knowledge and skills with some flexibility in familiar classroom situations, but requires support in unfamiliar situations.
5 (19 - 23)	4	21 - 25	Produces good-quality work. Communicates basic understanding of most concepts and contexts with few misunderstandings and minor gaps. Often demonstrates basic critical and creative thinking. Uses knowledge and skills with some flexibility in familiar classroom situations, but requires support in unfamiliar situations.
6 (24 - 27)	5	26 - 30	Produces generally high-quality work. Communicates secure understanding of concepts and contexts. Demonstrates critical and creative thinking, sometimes with sophistication. Uses knowledge and skills in familiar classroom and real-world situations and, with support, some unfamiliar real-world situations.
7 (28 - 32)	6	31 - 32	Produces high-quality, frequently innovative work. Communicates comprehensive, nuanced understanding of concepts and contexts. Consistently demonstrates sophisticated critical and creative thinking. Frequently transfers knowledge and skills with independence and expertise in a variety of complex classroom and real-world situations.

Table 2		Delleh	مام مسم	
Table 2.	INITP and	Polish	grade	boundaries

In addition to summative assessment (we also use formative assessment to a large extent for assessment - giving feedback, indicating what has already been mastered and what is still a challenge).

Language and Literature - Polish

In this subject group, MYP students all over the world learn their mother tongue and learn to see the value of literature. MYP language and literature course equips 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 course includes 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 nonliterary 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.

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**.

Assessment criteria:

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 speke

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.

Langauge Acquisition - English

The ability to communicate in more than one language is essential to the concept of an international education that promotes intercultural understanding, and it is central to the IB's mission. In High School No. 1 - as befits a school with bilingual departments - we teach many foreign languages: English, German, French, Spanish and Italian. However, the leading language is English, hence it is taught under the MYP Program, while the other languages, due to the formation of inter-class groups, are not covered by MYP. The overriding goal of teaching and learning languages is to develop communication skills and shape an attitude of openness to the world of other cultures.

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 their own and other cultures
- develop curiosity, inquiry and a lifelong interest in, and enjoyment of, language learning.

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**.

Assessment criteria:

Criterion A: Listening

Students interpret and construct meaning from spoken multimodal text to understand how images and other spatial aspects presented with oral text interplay to convey ideas, values and attitudes. **Criterion**

B: Reading

Students construct meaning and interpret written, spatial and visual aspects of texts to understand how these aspects presented with written text interplay to convey ideas, values and attitudes.

Criterion C: Speaking

Students develop their communication skills by interacting on a range of topics of personal, local and global interest and significance, with the support of spoken, written and visual texts in the target language. Students apply their understanding of linguistic and literary concepts to develop a variety of structures, strategies and techniques with increasing skill and effectiveness.

Criterion D: Writing

Students recognize and use language suitable to the audience and purpose, for example, the language used at home, the language of the classroom, formal and informal exchanges, and social and academic language. Students apply their understanding of language, form, mode, medium and literary concepts to express ideas, values and opinions in creative and meaningful way.

Mathematics

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. Mathematics can help make sense of the world and allows phenomena to be described in precise terms. It also promotes careful analysis and the search for patterns and relationships, skills necessary for success both inside and outside the classroom.

Studying mathematics in the MYP is more than simply learning formulae or rules. Students see authentic examples of how mathematics is useful and relevant to their lives and be encouraged to apply it to new situations. Mathematics provides the foundation for the study of sciences, engineering and technology. It is also evident in the arts and is increasingly important in economics, the social sciences and the structure of language. Students in the MYP are encouraged to use information and communication technology (ICT) tools to represent information, to explore and model situations, and to find solutions to various problems.

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

- **Numerical and abstract reasoning:** Key concepts from other MYP subjects that could be used within the numerical and abstract reasoning branch include **change** (ratios, number bases), **communication** (number lines, units of measurement), **connections** (number bases, number sequences, Venn diagrams), **development** (number sequences, prime numbers), **identity** (sets, factors) and **systems** (sets, number systems). Related concepts from MYP mathematics that could be used within the **numerical and abstract reasoning** branch include **approximation**, **equivalence**, **generalization**, **quantity**, **simplification**, **systems** and **validity**.
- **Thinking with models:** Key concepts from other MYP subjects that could be used within the **thinking with models** branch include **aesthetics** (patterns and sequences, graphs), **change** (algebraic expressions, transformations), **connections** (patterns and sequences, functions and graphs), **systems** (functions, series), and **time**, **place**, **and space** (functions, equations). Related concepts from MYP mathematics that could be used within the **thinking with models** branch include **change**, **equivalence**, **patterns**, **quantity**, **representation**, **simplification**, and **systems**.
- **Spatial reasoning:** Key concepts from other MYP subjects that could be used within the **spatial reasoning** branch include **aesthetics** (geometric shapes, transformations), **change** (identities, transformations), **communities** (angle properties, triangle properties), **creativity** (transformations, similarity and congruency), **identity** (unit circle, identities), **perspective** (coordinate geometry, similarity and congruency), and **time**, **place and space** (three-dimensional coordinate geometry, transformations). Related concepts from MYP mathematics that could be used within the **spatial reasoning** branch include **change**, **equivalence**, **model**, **patterns**, **quantity**, **representation**, **space** and **systems**.
- Reasoning with data: Key concepts from other MYP subjects that could be used within reasoning with data branch include communication (representation, probability of events), communities (samples, populations), connections (probability of successive trials, measures of central tendency), development (probability of successive trials, population sampling), global interaction (population sampling, representations) and systems (probability of events, conditional probability). Related concepts from MYP mathematics that could be used within the reasoning with data branch include approximation, change, equivalence, generalization, model, patterns, quantity, representation, simplification, systems and validity.

Assessment criteria:

Criterion A: Knowing and understanding Criterion B: Investigating patterns Criterion C: Communicating Criterion D: Applying mathematics in real-life contexts

Individuals and Societies

Within this subject group, students explore knowledge in subjects such as **history**, **civics** and **geography**. These subjects encourage 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.

Students can engage in a variety of exciting and stimulating topics. Many sensitive topics require careful consideration in the context of a safe and responsible learning environment characterized by respect and an open mind.

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.

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 individuals and societies include **causality**, **globalization**, **culture** and **sustainability**.

Assessment criteria:

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.

Sciences

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.

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**. Assessment criteria:

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.

Arts

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. Development in the arts - **visual arts** and **music** - is a dynamic process. Students move freely through a creative process towards a deeper understanding of the arts. 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.

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

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**.

Assessment criteria:

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.

BIBLIOGRAPHY

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