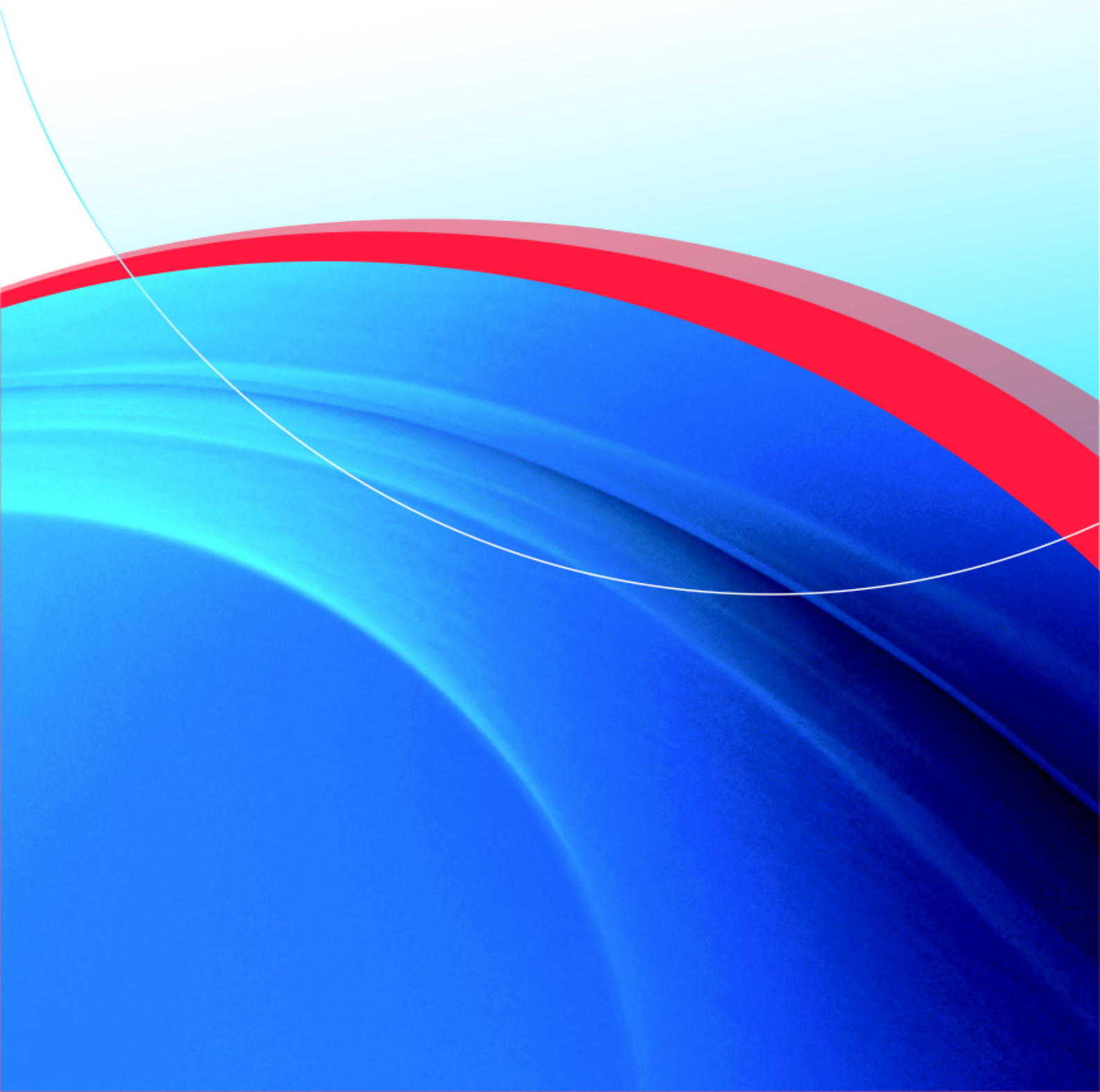




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Middle Years Programme

MYP: From principles into practice

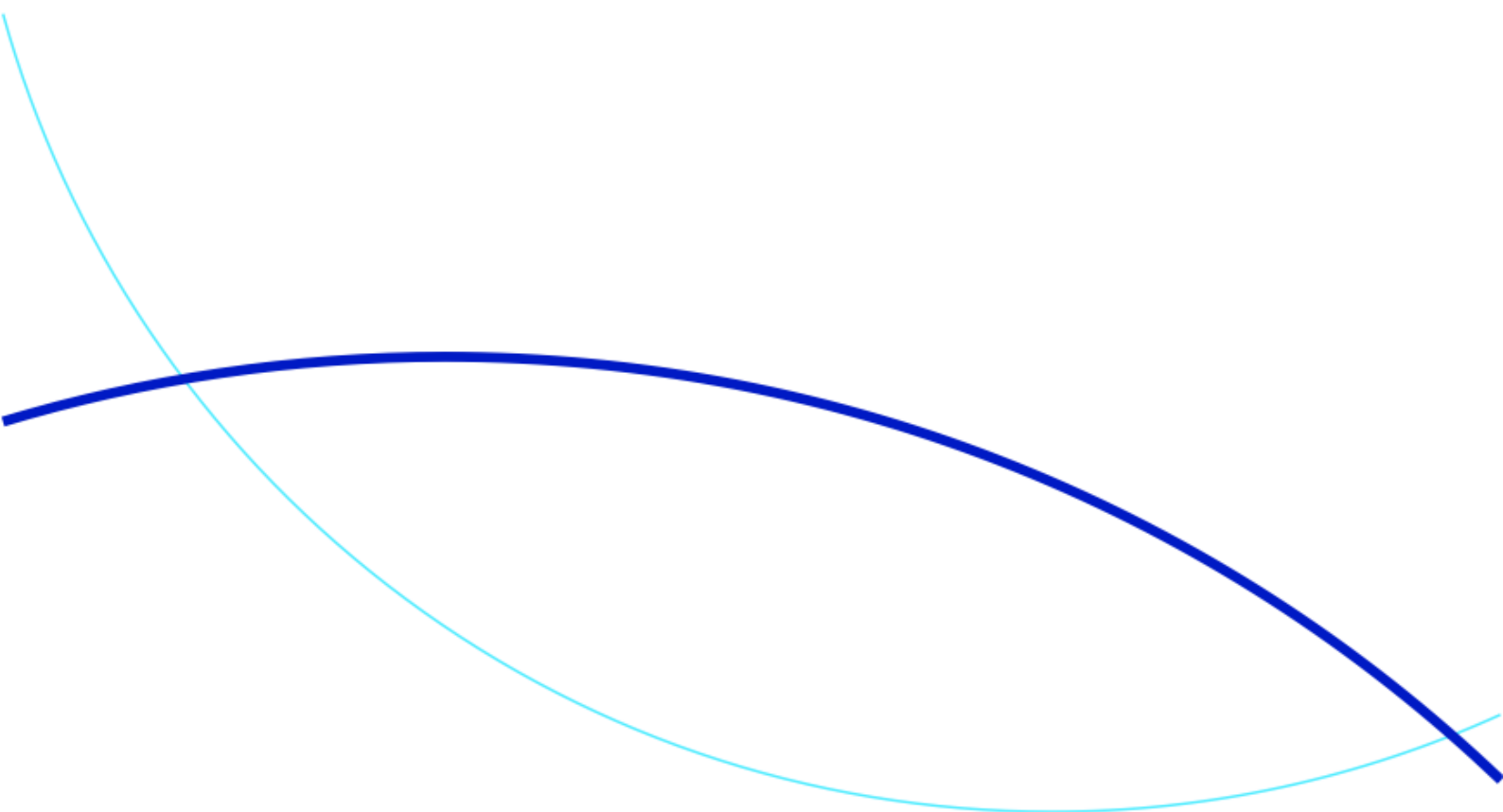




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Middle Years Programme

MYP: From principles into practice



Middle Years Programme
MYP: From principles into practice

Published August 2008

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Foreword

This Middle Years Programme (MYP) guide, published in August 2008, replaces *Implementation and Development of the Programme* (2000) and *Areas of Interaction* (2002). Although the basic philosophy of the MYP remains unchanged, this new guide contains important information and requirements. It clarifies the role of the areas of interaction; the importance of curriculum planning as a collaborative process; and provides tools to ensure schools understand MYP philosophy. All MYP teachers must be aware of these requirements. IB World Schools offering the MYP must start using this guide upon publication. It is designed as a resource that MYP teachers and coordinators will refer to frequently.

All staff involved in the programme **must** have access to this guide—ideally all will have their own copy, either an electronic version or a hard copy.

MYP coordinators and administrators must read this guide in conjunction with the:

- *MYP coordinator's handbook* (most current version)
- *IB learner profile booklet*
- *Rules for IB World Schools: Middle Years Programme*
- *General regulations: Middle Years Programme*
- *Application procedure for candidate schools*
- *MYP guide to school application*
- *Middle Years Programme: Guide to school authorization*
- *Guide to programme evaluation.*

Teachers must read this guide in conjunction with the appropriate subject-group guide(s).

Introduction

Historical background

The International Baccalaureate (IB) offers three programmes:

- the Primary Years Programme (PYP) for students aged 3–12, available since 1997
- the Middle Years Programme (MYP), designed as a five-year programme for students aged 11–16, available since 1994
- the Diploma Programme (DP), an internationally recognized pre-university course of study for students aged 16–19, available since the late 1960s.

The MYP began as an initiative formulated by groups of practising teachers and administrators in international education who wanted to develop a curriculum for the middle years of schooling. It was intended that this curriculum would share much of the same philosophy as the DP and would prepare students for success in the DP. The first draft of the MYP curriculum was produced in 1987 when a group of practitioners created a framework that allowed for a degree of diversity. In this framework, emphasis was placed on developing the skills and attitudes, the understanding of concepts and the knowledge needed to participate in an increasingly global society. The MYP grew out of the work and vision of practising teachers in schools.

The MYP is a coherent and comprehensive curriculum framework that provides academic challenge and develops the life skills appropriate to this age group. As part of the IB's continuum of international education, the MYP naturally follows the PYP and can serve as excellent preparation for the DP. It is not a requirement that schools adopt more than one programme. However, many choose to do so because of the similarity in philosophy and the coherence of their approaches.

The IB has not changed the original concept of the MYP framework in any way. However, the programme has developed significantly since its inception and will continue to do so in response to the needs of students and the perceived demands of the future.

About this guide

MYP: From principles into practice is an in-depth guide to all aspects of curriculum, assessment, teaching and student learning in the context of the IB Middle Years Programme. This guide sets out to describe and explain the practices that will lead to success in the implementation of MYP principles.

The former publications *Implementation and Development of the Programme* (2000) and *Areas of Interaction* (2002) have been incorporated into this one guide. It represents a combination of wide-ranging research, experience and excellent practice derived from a variety of schools, including IB World Schools, offering a coherent programme of international education. *MYP: From principles into practice* is an essential resource for all MYP teachers and administrators as we work together to improve the quality of learning in the international community.

Related publications

The principles and practices detailed in this guide apply to **all** teachers in **all** IB World Schools offering the MYP. Teachers must use this guide alongside the relevant subject-group guide(s). The subject-group guides provide subject-specific information, such as aims, objectives and assessment criteria. They also provide the subject view of the areas of interaction.

Teacher support materials published by the IB for each MYP subject group provide practical assistance for teachers in putting the MYP principles into practice in the classroom.

Practical issues

The guide *MYP: From principles into practice* is a response to practical questions raised by school leaders and practitioners, who are often obliged to respond to pressures from many, sometimes conflicting, sources. It aims to provide a concise, accessible overview of key issues and offers practical ideas for action.

MYP coordinators and school administrators must have access to, and regularly refer to, this guide. It provides guidance on whole-school policies and procedures that can lead to successful implementation of the programme. In the MYP, it is recognized that improvements, and therefore changes, in the classroom only happen in the context of overall school improvement. Given the vital role of the school's leadership in this process, it is clear that the implementation of the MYP curriculum framework will depend to a large extent on the support and, more importantly, the practical involvement of the school's leadership, particularly in setting up an organizational infrastructure. This guide should serve as a focus for whole-school planning of the MYP and for teachers' continuing professional development.

In translating the principles represented in this guide into practice, and for successful implementation of the programme, it is essential for administrators and teachers to use the documentation that is included to plan the teaching and learning, and to evaluate their work.

The **processes** involved in curriculum construction that are described and explained within this guide **are mandatory** for the successful implementation of the programme (see the section on "Planning for teaching and learning").

Articulation of the programme

In schools offering more than one IB programme, it is essential that each school **articulates** its MYP curriculum with the programme before it (the IB Primary Years Programme) and/or the programme after it (the Diploma Programme). In a practical sense, articulation involves the development of the programmes as a whole-school activity.

In many cases, the schools that offer the programmes may be on the same site and part of the same school organization; a coherent curriculum, articulated throughout the various programmes, must be seen as the ideal. In other school situations, where students come from and go to a variety of schools, links will need to be made with curriculum planners of those schools, whenever possible, so that a coherent educational experience can be developed for students during the transition from one programme to another.

The transition from the PYP

The majority of teaching in the PYP is concept-based, transdisciplinary and largely taught by a class teacher. MYP schools have a responsibility to ensure that:

- there is a smooth transition from the transdisciplinary model into a model where disciplinary concepts are taught
- interdisciplinary links are forged
- teaching is appropriate for students at different developmental levels.

As students move from a primary or elementary school setting into a secondary or middle school, schools have a responsibility to ease this transition at a variety of levels: one of these is at the curricular level. Clearly, the MYP is a discipline-based programme with each subject group having its own objectives. However, the holistic nature of the programme must also be emphasized through engagement in interdisciplinary opportunities.

The transition from MYP year 1 through to year 5

The MYP was not developed in order to lead to a “school-leaving certificate” but to provide students with a sound preparation for further studies (such as the IB Diploma Programme) and to develop lifelong learning skills and attitudes. The MYP certificate represents global achievement within a programme framework, and takes into account academic as well as non-academic aspects including, very importantly, the evidence of an understanding of the core dimensions of the programme through the personal project and community and service activities.

Partnership or multi-campus schools

Where the MYP is being offered jointly by a partnership of two or more schools, the articulation of learning through the subjects and the areas of interaction needs to be carefully considered in order to ensure an integrated transition as students move between schools. The teams of teachers in the different sites must meet and plan together. IB regulations set out when a school, or schools, may be considered to be in partnership and/or a multi-campus school.

In all cases, attention to disciplines remains crucial in order to ensure the effective implementation of the MYP within the subject groups in years 1–5. Grade or year level meetings are also essential for the development of links between disciplines and the implementation of the areas of interaction.

The transition to the DP

The MYP is quite different from the DP in a number of ways.

- The MYP caters for an age group where curriculum is controlled in varying degrees by national systems.
- The MYP is offered to a wide variety of schools as a framework within which schools can adapt their own curriculum.
- The MYP can be taught in many languages.

However, the MYP’s framework, very importantly, requires teachers to revisit their own curriculum and practices, and to work as teams of educators in order to develop a progression of learning, enriched with the principles of the programme. In many senses, the MYP **has** a written curriculum, but it is one that must be written by teachers themselves in accordance with the programme’s principles. The assessment model of the MYP is closely in line with the objectives of each subject group. Here again, teachers are required to work as teams to adapt their practices to the basic principles, keeping the student as the focus.

Schools preparing students for entry into the DP have a responsibility to ensure that the content of the curriculum, aligned under each subject group’s final objectives, provides for continuity and progression from year 5 of the MYP into year 1 of the two-year DP. In developing the curriculum content for each subject, MYP schools should consult the relevant DP subject guides. Diploma Programme guides have a section on prior learning, which MYP schools must consider when developing their curriculum content.

Experienced schools that have articulated their MYP subject content with the DP’s curricular requirements, and have developed approaches to learning skills, testify that students graduating with the MYP certificate are well prepared for independent study, and for the continuation of this rigour within the DP.

Compatibility with other systems

There are many curriculums, including national models, that schools may have to, or choose to, apply within the framework of the MYP. The MYP has been implemented very successfully in a variety of national schools with differing requirements and curricular demands. These successful schools have found solutions to issues such as the:

- choice of subjects available to students
- time allocation provided for subjects
- organization of teaching and learning
- school's structure
- adaptation of concepts, skills, attitudes and knowledge to the corresponding subject group in the MYP
- teaching approaches used to help students reach the aims and objectives of the MYP.

This guide provides details and guidance on the processes that lead to successful implementation and continued development of the MYP. For a school that teaches to a nationally required or externally examined curriculum within the framework of the MYP, the IB processes involved in the feasibility study, programme authorization and programme evaluation aim to ensure any combination of the two respects the integrity of the MYP at all times.

Suitability for all students

The MYP is intended to be an inclusive programme that can cater for all students. The central place of approaches to learning (ATL) helps teachers and students respond in a flexible way to varied learning needs, including the needs of those who are learning in a language other than their mother tongue, or special educational needs of all kinds.

Schools' participation in the development of the MYP

In taking on the MYP, schools are joining an international family of educators who are committed to the principles and practice of the programme and are willing to contribute to its further development. IB World Schools form a two-way relationship with the IB, through which the programme develops at the school and at the international level.

The IB:

- supports schools in implementing the programme
- provides schools with a framework for constructing and organizing their own curriculum
- validates schools' internal assessment through a process of external moderation.

All MYP curriculum documents produced by the IB, as well as external moderation, involve practising teachers who have implemented the programme around the world. Schools have found that encouraging staff to participate in IB regional workshops and conferences as presenters and participants, in MYP school authorization and programme evaluation visits, in MYP consultation visits to schools and in programme development, monitoring of assessment and moderation activities has significant benefits in terms of professional development and growth both for the individual and for the school.

Contributions that all MYP schools are expected to make include:

- sharing examples of good practice in professional development workshops, on the online curriculum centre (OCC), or for inclusion in teacher support materials published by the IB
- responding to questionnaires and other requests for information from MYP working groups.

Schools are also invited to take part in activities financed by the IB that contribute to the development of the programme. They are encouraged to:

- propose administrators and teachers as leaders at IB regional workshops and conferences
- facilitate administrators' and teachers' participation in guide writing, monitoring of assessment, moderation and other MYP committee meetings
- respond to invitations to be team members in authorization and programme evaluation visits to other schools.

IB standards and practices

The IB has developed implementation standards that are common across all its programmes, each of which is supported by a list of required practices. The complete list of standards and practices is available on the IB website, <http://www.ibo.org>.

The publication *Programme standards and practices* provides a set of criteria against which both the school and the IB can measure success in the implementation of the programme. The school must make a commitment to work towards meeting all the standards and practices. These form the basis of a self-study, which schools undertake as part of the programme evaluation process. The IB is aware that for each school, the implementation is a journey, and that the school will meet these standards and practices to varying degrees along the way. Nevertheless, there is a need for the IB to ensure quality in the implementation of the programme.

Chapter summary

This guide replaces the publications *Implementation and Development of the Programme* (2000) and *Areas of Interaction* (2002). It explains the principles of the MYP and gives practical assistance that will enable schools to implement them effectively, as determined by the *Programme standards and practices*.

Implementation of the MYP is considered to be a whole-school activity that takes due consideration of students' prior experiences and prepares them for further successful study. In taking on the programme, schools do so in an inclusive way: the IB believes that all students can benefit from the programme.

MYP requirements

Schools **must**:

- provide a copy of this guide for all teachers, administrators and others involved in the implementation and development the programme
- use the processes described and explained later within this guide for the purpose of curriculum construction
- ensure that they articulate the MYP curriculum with the IB programmes that precede and follow on from it
- strive to maintain the integrity of the MYP when the programme is implemented with other external requirements
- implement the programme in an inclusive manner
- continually reflect on the document *Programme standards and practices* when reviewing and evaluating their own implementation and development of the MYP.

MYP principles

International education

The principles of the MYP are deeply rooted in international education. They are shared by all the IB programmes, are stated within the IB's mission statement and provide a framework for constructing a school's own curriculum.

The driving force behind all IB programmes is a deeply held philosophy about the nature of international education. This philosophy is reflected firstly in the IB mission statement, which expresses the IB's overall purpose as an organization promoting and developing programmes of international education. Secondly, the IB has made a statement of its beliefs and values as defined by the outcomes of student learning in IB World Schools. The IB defines this learning through a learner profile that encompasses the aims of the curriculum.

The IB mission statement

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

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

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

In the very early stages of engaging with the MYP, a school will explore the feasibility of aligning its own mission statement with that of the IB.

International-mindedness

The attempts to define international-mindedness in increasingly clear terms and to move closer to that ideal in practice are central to the mission of IB World Schools. Given the variety and complexity of schools, and the elusive nature of the concept of international-mindedness itself, it would be naive to propose any simple definition and expect it to stand up to rigorous examination. Rather, the IB suggests that the definition reflects a range of interrelated factors, as explored in this guide.

However, in examining these factors during the years since the inception of the MYP, a profile has emerged of the kind of student who represents the essence of the programme, the kind of student who, in establishing a personal set of values, will be laying the foundation upon which international-mindedness will develop and flourish. The attributes of such a learner are listed in the IB learner profile. IB World Schools should be proud to send out into the world students who exemplify the attributes expressed in this profile.

The IB learner profile

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

The learner profile directs schools to focus on the development of the whole person. Developing an international perspective is a critical element of, and is central to, the programme; it must begin with encouraging each student to consider the point of view of someone else in the same class. By sharing experiences in the classroom setting and beyond, students can develop their awareness of, and sensitivity to, the experiences of others beyond the local or national community.

Developing the learner profile within a community of learners

In the context of the MYP specifically and IB World Schools in general, each school is considered to be a community of learners. The knowledge base that informs effective practice, particularly in the areas of brain research and cognition, is continually growing. Consequently, teachers need to be lifelong learners. A school's commitment to effective ongoing professional development will be the hallmark of a school energetic enough and courageous enough to embrace change for the betterment of student learning. Schools must also meet the challenge of informing parents and explaining the programme and its elements. In turn, the wider community will come to understand and experience the programme as students themselves exemplify aspects of the learner profile outside school. While recognizing that a school's primary responsibility is for student learning, the IB encourages schools to see themselves as communities where everyone is a learner, where teachers must continually review the needs and capabilities of each student, the content with which they are engaged, as well as their own practice and ongoing professional development.

From its very first engagement with the MYP a school will need to ensure that its mission statement is aligned with that of the IB. Subsequently, it will also need to ensure that its mission, together with the IB learner profile, adds vitality to the life of the school community and has a particular impact on teaching and learning.

Administrators and teachers should regularly review the learner profile as it affects all students throughout the programme. When seeking evidence of international-mindedness in their school, teachers need to look at:

- what students are learning
- how students are demonstrating their learning
- how to nurture students within the school community.

Teachers need to consider whether students are making connections between life in school, life at home and life in the real world. By helping students make these connections and see that learning is connected to life, a strong foundation for future learning is established. In striving to make it happen and in looking for indicators of success, teachers and administrators need to look everywhere since all aspects of the school, from its mission and ethos through to policies and their ensuing practices, will reflect either the presence or the absence of sensitivity to the special nature of the programme.

More details and guidelines for developing the learner profile can be found in the *IB learner profile booklet*.

Values and ethical education

The MYP is designed to provide students with opportunities that will enable them to develop and challenge their own personal values; this is seen as a critical step in the lives of adolescents, which can help them acquire sound judgment. The subject groups are defined by aims and objectives that are derived, in whole or in part, from the learner profile. One objective of many subject groups is the promotion of subject-specific attitudes. Some attitudes contribute directly to the individual attributes of the learner profile, whereas some attitudes have a more pervasive influence on the development of many of the attributes of the profile.

It is difficult to claim that a focus on the development of attitudes is necessarily a precursor to the development of the attributes of the learner profile. It is more likely that students' awareness of the attitudes valued within the community, and an explicit demonstration of those attitudes on their part, will take place alongside their development in the context of the learner profile. It is also likely that in engaging with the curriculum content in real-world contexts, opportunities will arise for students to develop and question their own set of personal values.

MYP fundamental concepts

Adolescents are confronted with a vast and often bewildering array of choices. The MYP is designed to provide students with the values and opportunities that will enable them to develop sound judgment. From its beginning, the MYP has been guided by three **fundamental concepts** that are rooted in the IB mission statement. These three fundamental concepts are:

- **holistic learning**—representing the notion that all knowledge is interrelated and that the curriculum should cater to the development of the whole person, the attributes of which are described by the IB learner profile
- **intercultural awareness**—representing the notion that school communities should encourage and promote international-mindedness by engaging with and exploring other cultures, a key feature of international education as reflected in the attributes of the IB learner profile
- **communication**—representing the notion that schools should encourage open and effective communication, important skills that contribute to international understanding as exemplified by the attributes of the IB learner profile.

The IB learner profile and the MYP fundamental concepts provide schools with guidance on their school policies and practices as they implement and develop the programme.

Holistic learning

The MYP emphasizes the disciplined study of subjects which the programme has arranged in eight groups, but requires an approach to teaching and learning that embraces and extends these subjects. The MYP provides a framework for developing links between the subject groups and between the subjects and real-world issues so that students will learn to see knowledge as an interrelated whole. This is one aspect of holistic learning.

Through the contexts for learning provided by the MYP's **areas of interaction** (see the section "The areas of interaction" in this guide), students can come to realize that most real-world problems require insights gained from a variety of disciplines. Students develop skills of inquiry and come to understand the similarities and differences between different approaches to human knowledge. The framework allows students to apply disciplinary knowledge to different contexts. The areas of interaction serve to emphasize the relationships between the subject groups and provide a global view of situations and issues.

Whereas traditional curriculum frameworks have usually described the curriculum in terms of a body of knowledge only, the MYP views the curriculum as meeting the needs of the whole person. This other aspect of holistic learning is exemplified in the provision of objectives not just for knowledge alone. The MYP places great emphasis on:

- the understanding of concepts
- the mastery of skills
- the development of attitudes that can lead to considered and appropriate action.

Through acknowledging and attempting to meet the diverse needs of the student—physical, social, intellectual, aesthetic and cultural—schools ensure that learning in the MYP is significant, provocative, relevant, engaging and challenging.

Intercultural awareness

A principle central to the MYP is that students should develop international-mindedness. They should be encouraged to consider issues from multiple perspectives. IB World Schools are varied: some have many nationalities within the student population and the teaching staff, others represent a more homogeneous community. Whatever the school, opportunities will exist to develop students' attitudes, knowledge, concepts and skills as they learn about their own and others' social, national and ethnic cultures. In this way, intercultural awareness can build understanding and respect.

Developing intercultural awareness concerns the whole school community. This will involve examining the school's organizational structure, the climate within the school, the relationships developed with the community outside, the subject-specific content and the contexts within which teaching takes place. Schools constantly need to evaluate and improve upon policies and procedures in order to facilitate the involvement of students, teachers, administrators and parents in practical activities leading to intercultural awareness. Schools are expected to engage in critical self-reflection and to adapt school culture where necessary: staff must be encouraged to share the vision of intercultural awareness and to exemplify appropriate behaviour.

Communication

The MYP stresses the fundamental importance of communication, verbal and non-verbal, in realizing the aims of the programme. A good command of expression in all its forms is fundamental to learning. In most MYP subject groups, communication is both an objective and an assessment criterion, as it supports understanding and allows student reflection and expression.

The IB learner profile describes a “communicator” as someone who can understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. Students are required to learn at least two languages in the MYP and are encouraged to learn more in many circumstances. Mother tongue maintenance and development is considered essential, and must be supported through school language policy documents. Further details on the importance of this can be found in the IB publication *Learning in a language other than mother tongue in IB programmes*.

Language is integral to exploring and sustaining personal development, cultural identity and intercultural understanding. As well as being the major medium of social communication, it is tightly linked to cognitive growth as it is the means by which meaning and knowledge is negotiated and constructed. All MYP teachers are therefore seen as language teachers.

Chapter summary

The IB mission statement expresses the IB's overall purpose as an organization, promoting and developing programmes of international education. This mission, with which all IB World Schools must align their own mission statements, has over time given rise to the MYP fundamental concepts and the IB learner profile.

The IB learner profile is a statement of the IB beliefs and values. The learner profile describes the kind of student who exemplifies the spirit of the MYP, the kind of student who is engaged in establishing a personal set of values, and who will be developing international-mindedness. The IB believes that all members of the learning community should be striving towards these attributes.

The MYP fundamental concepts describe the learning environment in which the student is operating and provide schools with guidance on developing their school culture. These fundamental concepts of holistic learning, intercultural awareness and communication underscore the IB's commitment to:

- providing a broad and balanced educational experience
- educating the whole child
- understanding and respecting all cultures and valuing multiple forms of expression.

MYP requirements

Schools **must**:

- align their own mission statement with that of the IB
- reflect the learner profile in the implementation and development of the programme
- provide ongoing professional development opportunities for teachers to further their understanding of the principles of the programme
- develop aspects of the learning environment through the fundamental concepts, following the requirements of each, by:
 - supporting the development of the mother tongue for all students enrolled in the school
 - providing opportunities for all students to learn further languages including, if possible, the language of the host country
 - developing a language policy and procedures that provide language support and promote a stimulating learning environment for students who do not speak the language of instruction at a level adequate to participate fully in class and other school activities
 - embedding in the curriculum examples drawn from a variety of cultural, social, religious and national perspectives, as well as implementing activities and practices that celebrate a range of cultural identities
 - allowing students to consider different perspectives so that they develop an understanding of what is common as well as what is different
 - helping students develop their own cultural identity and an understanding of their present environment through the study of the traditional subjects and the areas of interaction
 - ensuring time for staff to identify and teach the skills and knowledge necessary for students to appreciate different points of view
 - using the areas of interaction within and across the academic disciplines, with the result that students come to see learning as an interrelated whole
 - using the areas of interaction to foster disciplinary and interdisciplinary links through considering the diverse needs (physical, social, intellectual, aesthetic, cultural) of the whole person and ensuring that teachers communicate and coordinate learning activities across and within academic disciplines when planning the curriculum.

The MYP framework

The programme model

The IB Middle Years Programme is a programme of study designed to meet the educational requirements of students aged between 11 and 16 years. The curriculum may be developed as an entity in itself, but the framework is flexible enough to allow the demands of national, regional or local legislation to be met. The MYP publication *Programme standards and practices* clearly states that the school must align its educational beliefs with those of the IB, while developing a curriculum that is based on the requirements of the MYP.

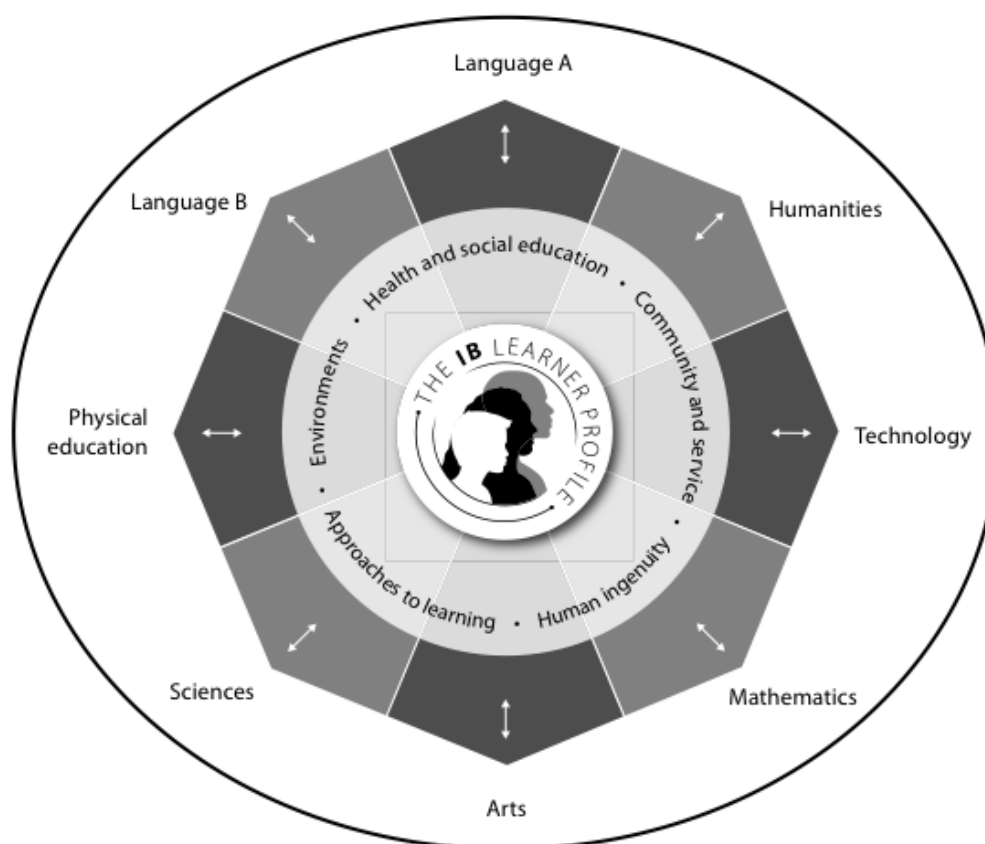


Figure 1
The programme model

The central place of the student

The programme model of the MYP places **the learner at its centre**. This underscores the IB's belief in educating the whole person, and placing importance on student inquiry. MYP students are making the transition from early puberty to mid-adolescence, which is a crucial period of personal, social and intellectual development, of uncertainty and questioning. The MYP is designed to guide students in their search for a sense of place in their natural and social environments.

The areas of interaction

The areas of interaction are, put simply, the contexts through which the curriculum content interacts with the real world.

In the programme model, the distinctive core of the five areas of interaction surrounds the learner. They are common interactive themes embedded in the subject groups, but they are not subject disciplines in their own right. They are common to all disciplines and require all teachers to teach their subject content in a way that encourages students to become increasingly aware of the connections between their learning and the real world. The areas of interaction can also be described as five broad areas of student inquiry.

The five areas of interaction are described briefly below.

- **Approaches to learning (ATL)** encourages students to take increasing responsibility for their learning, to question and evaluate information critically, and to seek out and explore the links between subjects. Learning how to learn and how to evaluate information critically is as important as the content of the subject disciplines themselves.
- **Community and service** encourages students to become aware of their roles and their responsibilities as members of communities. All MYP students are required to become involved with their communities—an involvement that benefits both parties.
- **Health and social education** encourages students to explore personal, physical and societal issues and to develop respect for body and mind.
- **Environments** encourages students to become aware of their interdependence with the world and to develop responsible and positive attitudes towards their environments.
- **Human ingenuity (formerly *homo faber*)** encourages students to examine and reflect on the ingenious ways in which humans think, create and initiate change.

Integrating content with context

Through the contexts provided by the areas of interaction, students should become more aware of the relevance of their learning to real-world issues, and should come to see knowledge, concepts, skills and attitudes as an interrelated whole. In this way, students will appreciate that the subject groups are not isolated but complement each other. Although this must not be done to the detriment of learning within each subject group—each of which retains its own aims, objectives and methodology—teachers should make every effort to encourage students to see connections.

As well as providing a context for student inquiry in each subject group, the areas of interaction also have an integrative function: they bring diverse subjects together under common contexts. In this way, the subject groups are linked to each area of interaction, demonstrating the **interdisciplinary potential** of the MYP. Schools are required to provide opportunities for students to inquire into a broad range of subject content using each of the five areas of interaction in every year of the programme.

The subject groups

In the programme model, the five areas of interaction surround the learner and connect to eight subject groups. Schools are required to teach a broad and balanced choice of subjects in every year of the programme, including at least one subject from each of the eight subject groups. The subject groups provide a broad and balanced foundation of knowledge in traditional subject disciplines.

The IB publishes guides to each of the subject groups. These guides state the aims and objectives of each subject group, which are prescribed for all schools offering the MYP.

Prescribed objectives

As well as presenting schools with a philosophical perspective on international education, the MYP prescribes a curriculum framework of **objectives**—usually framed as knowledge, conceptual understanding (some concepts may be provided or even prescribed in certain subjects), skills and attitudes—each of which is reflected in the learner profile, supported by the fundamental concepts. This framework acts as a reference point for the construction of the school's own curriculum. How these objectives help to frame and construct the school's curriculum is explored later in this guide, in the sections on "Assessment" and "Planning for teaching and learning".

Teaching time

The total teaching time for each subject group may vary from year to year and from school to school; groups of students within one school may also need different amounts of teaching time to develop the knowledge and skills necessary to reach the final objectives over the course of the programme. However, to ensure significant learning in each subject group and to support the concept of a balanced programme, the IB stipulates a minimum time allocation of 50 teaching hours (3,000 minutes) per subject group per year of the programme.

Despite this minimum requirement, most subject groups will receive a considerably longer time allocation in each year of the programme; schools must decide for themselves how much longer each subject group will need. By careful analysis of the objectives of each subject group, as well as the content that will be taught so that students can reach the objectives, teachers should be in a position to calculate the teaching hours that will be necessary.

International perspectives

In some schools, the subject content in each subject group may be influenced by national, state or local requirements. In other schools, curriculum content may not be subject to external requirements. Whatever the curriculum constraints may be, schools must present MYP course materials from a range of international and cultural perspectives, as guided by the fundamental concepts.

Assessment

The MYP **assessment model** is based on assessment criteria that are directly related to the objectives of each subject group. This criterion-related approach clarifies the assessment processes for students and enables teachers to discuss and clarify their own perspectives of assessment processes. The programme also encourages a balance between formative and summative assessment, using a range of activities within units to allow students to practise and demonstrate a full range of skills. Assessment strategies used by teachers should combine teacher-led assessment, group and/or peer evaluation and student self-assessment.

The personal project

The personal project is a significant body of work undertaken by all MYP students over an extended period of time in the fifth year of the programme. It is an important aspect of the MYP and is the product of the student's own initiative and creativity, reflecting a personal appreciation of the areas of interaction and the application of approaches to learning skills. The personal project should be seen as the culminating activity through which students present, in a truly personal way, their understanding of real-world themes, concepts and issues using the areas of interaction. Students' experience of approaches to learning should prepare them gradually for working independently and developing a project over an extended period of time.

Students have an opportunity to choose a project that allows them to explore a topic of interest to them, and to present it in a way that reflects their learning style. Schools should offer students flexibility and support to facilitate personal expression. Examples of such flexibility include the use of a student's mother tongue, and access to technology.

Schools must ensure that all staff, parents and students understand the central importance of the personal project, its aims, objectives and assessment criteria. Detailed guidance on the personal project aims, objectives, organization and assessment is provided in the *MYP Personal project guide*. Schools are expected to make suitable provision for all students to complete the personal project according to these guidelines.

A balanced programme

The programme model is based on the concept of **balance**. This is important to the programme in a number of ways.

- The programme provides learning in a broad base of disciplines to ensure that students acquire the knowledge and skills necessary to prepare for the future.
- The subject-group objectives include skills, attitudes and knowledge in addition to the understanding of **concepts**; the aim is to ensure that students are not only knowledgeable about a subject area, but also develop a genuine understanding of ideas and an ability to apply these in new contexts, in preparation for further learning.
- The programme promotes the principle of concurrency of learning, whereby students deal with a balanced curriculum each year in which different subjects are studied simultaneously. As students mature and develop higher-order thinking skills, they explore the disciplines in increasing depth and realize how they are linked to each other and to local and global issues.
- The programme encourages the use of a variety of teaching and learning methodologies to foster a climate in which students discover how they learn best in different situations.
- The programme emphasizes the development of the whole person—ffective, cognitive, creative and physical—and its effective implementation depends on the school's concern for the whole educational experience, including what students learn outside the classroom.

The curriculum model

The MYP definition of curriculum comprises the three interrelated components shown in figure 2.

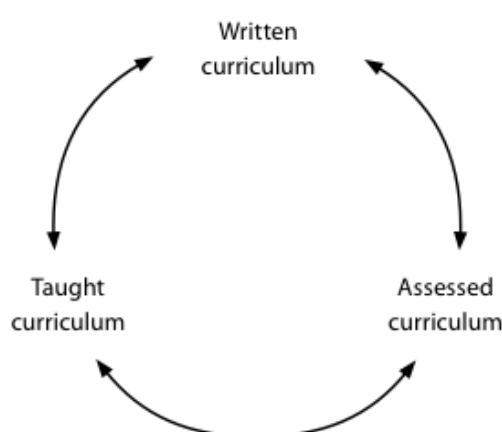


Figure 2
The curriculum model

A composite curriculum model

The MYP comprises a composite curriculum model where each component has equal value. In figure 2, the double-headed arrows indicate that developing, implementing and monitoring the school's written, assessed and taught curriculums is an integrated process whereby each component informs the other two.

It is of fundamental importance to the effective implementation of the MYP that the MYP curriculum model is not seen as a linear one that ends with the assessment component. Rather, consideration for all three components is woven together throughout the process of planning for learning. The assessment of learning must be carefully considered throughout the planning process.

The written curriculum

The **written curriculum** is a formal, comprehensive, school-wide document that describes what will be taught in each subject to each age group. The MYP presents schools with a framework that allows them to develop their own written curriculum. Curriculum development centres on two major elements: subject **content** and the **contexts** as described by the areas of interaction. From these elements, documents such as course outlines and unit planners will be developed through vertical and horizontal planning.

It is acknowledged that many schools will not have autonomy in deciding subject content or what should be "covered". However, schools must make important decisions when identifying content that is significant and relevant and should base these decisions on quality rather than quantity. In choosing their subject content, schools are guided by a framework of prescribed **objectives**, which are specific to each of the eight subject groups.

The MYP requires teachers to plan for student inquiries into subject content, as it is believed that students will become more enduringly skillful when subject content is authentic and in context. The **contexts** that give authenticity and relevance to subject content are provided by the **areas of interaction**. The MYP provides student learning expectations for each area of interaction, outlining the ways in which the areas can be used by students to explore subject content in greater depth and thus to enhance learning.

The assessed curriculum

MYP **assessment** is based on a criterion-related model that directly links the assessment criteria with the subject-group objectives. In this way, the assessment model gives both teacher and student reliable and valid information on the actual learning that takes place for each student. Integrated with the written and taught curriculums, the assessed curriculum is considered throughout the processes involved in planning for learning.

The MYP provides teachers with examples of the development of a range of authentic and targeted assessment strategies and tools that are focused on learning. Such strategies are communicated through subject-group guides, teacher support materials and workshop materials. These strategies and tools can be used to design assessment tasks that bring balance and integrity to the curriculum.

The taught curriculum

In the MYP equal emphasis is given to methodology and to planning **teaching and learning**. It is acknowledged that learners have beliefs about how the world works that are based on their experiences and prior knowledge and that those beliefs, models or constructs are revisited and revised in the light of new experiences and further learning. As students try to create meaning in their lives and the world around them, they will continually construct, test, confirm or revise their personal models of how the world works and their values.

Consequently, the taught curriculum in a school should emphasize the **active construction of meaning** so that students' learning will be purposeful. When planning to teach a subject as part of the MYP it is important to ascertain students' prior knowledge, and to provide experiences through the curriculum that give students opportunities to test and revise their models, to make connections between their previous and current perceptions, and that give them the opportunity to construct their own meaning. The MYP encourages teachers to provide opportunities for students to build meaning and refine understanding through structured **inquiry**. As the learning process involves communication and collaboration, this inquiry may take many forms, with students sometimes working on their own or collaboratively with partners or larger groups.

The structuring of new experiences by teachers, and the support teachers give to students' ideas about new experiences, are fundamental to students' **conceptual development**. The MYP allows for conceptual development that applies across and beyond the subject groups.

Integrating the components

To bring together the written, assessed and taught curriculums with the principles of the programme in mind, the MYP has designed a planning tool for teachers to use when designing **MYP units of work**. The MYP unit planner appears later in this guide as figure 12 in the section on "Planning for teaching and learning". It leads teachers to integrate their significant subject concepts with the contexts for learning and assessment. Following this initial integration of written and assessed curriculum components, teachers are then guided to consider the teaching strategies they will use and the learning experiences they will enable during the unit.

Chapter summary

The MYP is a course of study designed to meet the educational requirements of students aged between 11 and 16 years within a framework flexible enough to allow external demands to be met. In the programme model the learner occupies a central position, surrounded by the five areas of interaction. These are broad areas of human experience that seek to connect the student with the real world.

The programme model shows eight subject groups surrounding the learner and the areas of interaction. The subject groups are themselves connected by the areas of interaction, which the MYP considers as the real-world contexts for learning the content of the subject disciplines.

Figure 3 shows the relationships between the key principles and components of the programme and how they contribute to the MYP curriculum framework. The IB mission statement reflects the MYP fundamental concepts and the IB learner profile. These two elements, which describe the learning environment and the attributes of the lifelong learner, are reflected in the contexts for learning (provided by the areas of interaction) and have an influence on the content of the eight subject groups.

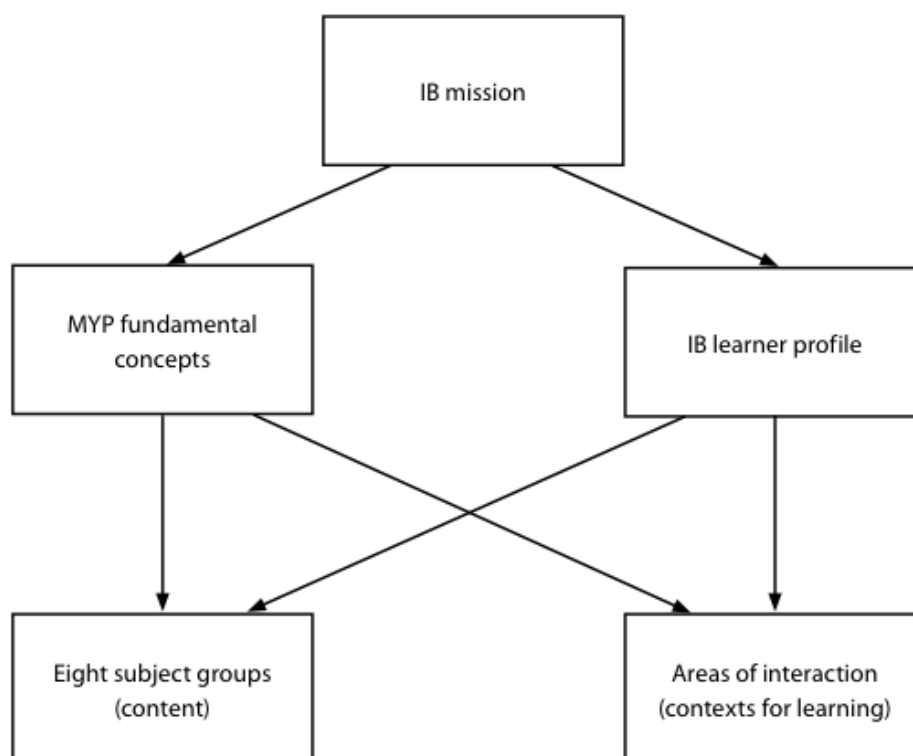


Figure 3

The relationships between the key principles and components of the MYP

The MYP curriculum model identifies three components—the written, the assessed and the taught curriculums. Each component of the model informs the other two and requires teachers to consider the curriculum as a whole.

MYP requirements

Schools *must*:

- construct a curriculum using the processes described in this guide
- provide planned opportunities for students to inquire into a broad range of subject content through each of the five areas of interaction in every year of the programme
- teach a broad and balanced choice of subjects in every year of the programme, including at least one subject from each of the eight subject groups
- provide a minimum teaching requirement of 50 teaching hours (3,000 minutes) per subject group per year
- consider the curriculum in terms of the written, assessed and taught components, and integrate them using the processes described in this guide
- ensure that all staff, students and parents understand the central importance of the personal project, its aims and objectives, and that all students in the final year of the programme complete a personal project
- make suitable provision for all students to complete the personal project according to the guidelines provided
- provide professional development opportunities for teachers to further their understanding of the principles of the programme.

The areas of interaction

Introduction to the areas of interaction

The areas of interaction provide the MYP with its unique core. Teaching subject areas through these contexts allows teaching and learning to focus on attitudes, values and skills.

Approaches to learning (ATL) represents general and subject-specific learning skills that the student will develop and apply during the programme and beyond. The focus of this area is on teaching students how to learn and on helping students find out about themselves as learners so that they can develop learning skills.

Community and service considers how a student engages with his or her immediate family, classmates and friends in the outside world as a member of these communities. Through effective planning and teaching, students can learn about their place within communities and be motivated to act in a new context.

Health and social education delves into the range of human issues that exists in human societies, such as social structures, relationships and health. The area can be used by students to find out how these issues affect societies, communities and individuals, including students themselves. Through the area of health and social education, students can identify and develop skills that will enable them to function as effective members of societies, as well as learning about how they are changing and how to make informed decisions that may relate to their welfare.

Environments considers how humans interact with the world at large and the parts we play in our environments. It extends into areas beyond human issues and asks students to examine the interrelationships of different environments. This area can lead students to consider both their immediate classroom environments and global environments.

Human ingenuity (formerly *homo faber*) deals with the way in which human minds have influenced the world, for example, the way we are, think, interact with each other, create, find solutions to and cause problems, transform ideas and rationalize thought. It also considers the consequences of human thought and action.

In the final year of the programme students are engaged in the personal project. This personal project will reflect the efficacy of the integration of the areas of interaction in the school. Through the project students should be able to demonstrate ATL skills learned through the programme while focusing research and project development around at least one other area of interaction.

Commonality of the areas of interaction

These contexts for learning, the five areas of interaction, are common to the programme in all schools offering the MYP and serve to bring together the varied subject content that will be found in the diversity of cultural and linguistic settings around the world. Even though all schools share this commonality, the use that teachers make of the areas of interaction can lead to very different learning expectations. Thus, the areas of interaction provide common organizing strategies and also allow for the diversity of student needs, interests and motivations. Using all of the areas of interaction as contexts for learning gives teachers a great opportunity to engage students with environmental, health and community issues of sustainability that affect students today, and how humans can solve the problems for the future.

The areas of interaction:

- give meaning to what is learned through the exploration of real-world issues
- provide the contexts for the MYP fundamental concepts and the IB learner profile, which underpin the philosophy of the programme
- encourage higher-order thinking skills to deepen understanding
- provide a framework for student inquiry
- can help students develop positive attitudes and a sense of personal and social responsibility
- engage students in reflection to better understand themselves as learners
- can lead students from academic knowledge to thoughtful action
- contribute to an interdisciplinary approach to learning
- provide a common language for constructing and organizing the curriculum.

Student learning expectations

MYP schools provide **student learning expectations** for each area of interaction. Student learning expectations for the areas of interaction are guidelines on what students are expected to learn through the areas of interaction at different stages of the programme. In the MYP this term is used to differentiate them from subject-based objectives. Whereas success in achieving the objectives is measured through applying assessment criteria, student learning expectations are not assessed, although they may be monitored. These learning expectations are differentiated from objectives because they are not rated on a scale.

All schools are recommended to use the student learning expectations in this guide as a starting point, although they may be developed further by schools to reflect student needs and school expectations. It is expected that schools will develop their own **interim** student learning expectations **at each grade level**, so that teams of teachers can use them to plan collaboratively. The interim student learning expectations developed by each school must provide for continuity and progression of learning from year 1 to year 5.

It must be noted that the interim student learning expectations for the areas of interaction mentioned above are not to be confused with the interim objectives for years 1 and 3.

Supporting student inquiry

The areas of interaction are at the heart of inquiry and active learning, and can encourage students to take responsible action in a variety of contexts encountered through the curriculum. For teachers and students, the areas of interaction provide a means to inquire into subject content by questioning, explaining, discovering and “doing”.

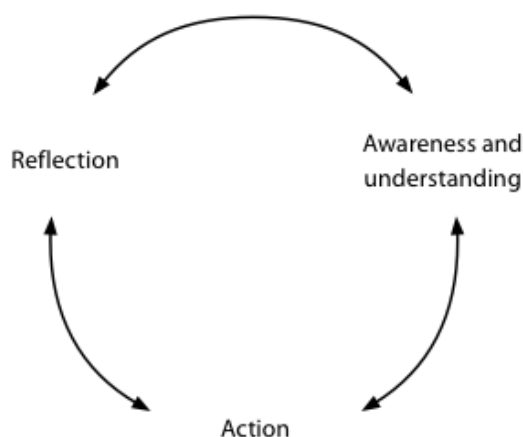


Figure 4
The inquiry cycle

When students engage with units of work, by placing content into context, they will become aware of the connections between subject disciplines and will start to develop an awareness of the dimensions of each of the areas of interaction as well as a deeper subject knowledge. This **awareness** will lead to a better **understanding** of the impact of various issues on students themselves and on those around them, and of the **responsibilities** they have to themselves, to each other and to society in general.

Using their developing skills of ongoing **reflection**, students can continually re-evaluate their involvement in and their understanding of the various issues under inquiry.

As students become more aware and acquire a better understanding of the context and of their responsibilities, this could lead to thoughtful and positive **action**. This action will be different from student to student and from context to context. The action may involve students in:

- feeling empathy towards others
- making small-scale changes to their behaviour
- undertaking large and significant projects
- acting on their own
- acting collaboratively
- taking physical action
- suggesting modifications to an existing system to the benefit of all involved
- lobbying people in more influential positions to act.

Whatever the action, it is expected that students will themselves be changed by the process, and that significant learning will result.

Please note that any reference to “I” in the areas of interaction questions could also be interpreted as “we” where this is more appropriate to the social ethos of the school or location.

Approaches to learning

How do I learn best?

How do I know?

How do I communicate my understanding?

About this area

Teaching students how to learn effectively should be the ultimate goal of all schools. All teachers in a school have a responsibility to ensure that students acquire the skills and the confidence to take ownership of their own learning. Teachers cannot assume that students have the necessary skills and knowledge to be successful learners and must explicitly teach a range of learning skills and strategies. This needs to be done in an agreed way that takes into account the context of the school and the specific needs of the students. It is important that teachers make explicit to students that the generic tools for learning are applicable to all areas of study, in addition to those that are subject-specific skills.

Through approaches to learning (ATL), schools can provide students with the tools to enable them to take responsibility for their own learning. This involves planning, organizing and teaching the skills and practices that students require to become successful learners, while building on prior learning. When engaging with **all MYP units of work**, students will be developing and using their ATL skills. The purpose of ATL is to support student achievement measured against the subject-group objectives. A well-developed ATL framework will help develop the attitudes needed to make learning effective.

In requiring students to complete research projects, for example, it is the responsibility of teachers to know the research skills that have already been taught and practised, and to ensure that any new skills required to carry out research effectively are taught explicitly. The process of research becomes as important as the content of the project. Similarly, in setting assessment tasks, teachers should analyse the process of completing the task from the student's point of view to ensure that the strategies and skills needed to succeed have been taught and are understood.

It is the shared responsibility of a school's administrators and teachers, through appropriate structures and collaborative planning, to ensure that ATL is at the core of all curriculum development and of all teaching.

Student learning expectations

The goal of ATL is to enable students to apply a range of ATL skills in different learning situations.

As students engage with the MYP, they will become **aware** of the special nature of ATL and will come to understand it as common to all subjects. Their **understanding** of its purpose in teaching and learning and their engagement with a school-wide ATL framework will give students the tools to recognize their responsibilities for their own learning and the community's responsibilities for maintaining productive, cooperative and safe learning environments. Students' ongoing **reflections** on their learning and on the learning processes will lead to deeper awareness and understanding of themselves as learners and of their preferred learning styles. As teachers plan to integrate this area with their subject content, they should consider approaches to learning in terms of the learning expectations. The following table gives suggestions that a school could use to develop student learning expectations for ATL.

ATL skill area	Student learning expectations could include:	Key questions for use with MYP units of work
Organization	time management—including using time effectively in class, keeping to deadlines self-management—including personal goal setting, organization of learning materials	What organizational tools do I have? What aspects of my organization do I need to develop? How can I best organize myself?
Collaboration	working in groups—including delegating and taking responsibility, adapting to roles, resolving group conflicts, demonstrating teamwork accepting others—including analysing others' ideas, respecting others' points of view, using ideas critically personal challenges—including respecting cultural differences, negotiating goals and limitations with peers and with teachers	How do I work with others? What successes have I had when I have worked with others? How can I work with others; how can they work with me?
Communication	literacy—including reading strategies, using and interpreting a range of content-specific terminology being informed—including the use of a variety of media informing others—including presentation skills using a variety of media	What communication tools do I use? Which ways of communicating do I need to improve on? How can I better communicate my understanding?

ATL skill area	Student learning expectations could include:	Key questions for use with MYP units of work
Information literacy	<p>accessing information—including researching from a variety of sources using a range of technologies, identifying primary and secondary sources</p> <p>selecting and organizing information—including identifying points of view, bias and weaknesses, using primary and secondary sources, making connections between a variety of resources</p> <p>referencing—including the use of citing, footnotes and referencing of sources, respecting the concept of intellectual property rights</p>	<p>How can I access information?</p> <p>How do I know if the information is reliable?</p> <p>What will I do with this information?</p>
Reflection	<p>self-awareness—including seeking out positive criticism, reflecting on areas of perceived limitation</p> <p>self-evaluation—including the keeping of learning journals and portfolios, reflecting at different stages in the learning process</p>	<p>How do I reflect?</p> <p>How have my reflections helped me learn?</p> <p>What other reflection tools and resources can help me?</p>
Thinking	<p>generating ideas—including the use of brainstorming</p> <p>planning—including storyboarding and outlining a plan</p> <p>inquiring—including questioning and challenging information and arguments, developing questions, using the inquiry cycle</p> <p>applying knowledge and concepts—including logical progression of arguments</p> <p>identifying problems—including deductive reasoning, evaluating solutions to problems</p> <p>creating novel solutions—including the combination of critical and creative strategies, considering a problem from multiple perspectives</p>	<p>How do I think?</p> <p>What tools can help me think in different ways?</p> <p>What planning tools do I have?</p>

ATL skill area	Student learning expectations could include:	Key questions for use with MYP units of work
Transfer	<p>making connections—including using knowledge, understanding and skills across subjects to create products or solutions, applying skills and knowledge in unfamiliar situations</p> <p>inquiring in different contexts—including changing the context of an inquiry to gain various perspectives.</p>	<p>What are the “big ideas” of each of the different subjects?</p> <p>Do the big ideas of the subjects overlap?</p> <p>How can I use my knowledge, understanding and skills across subjects?</p>

Community and service

How do we live in relation to each other?

How can I contribute to the community?

How can I help others?

About this area

The programme model places the learner at its centre; the next level represents the areas of interaction, including the place and role of the student in communities, from the immediate family and school environment to the world at large. The IB mission statement stresses that its concern extends beyond intellectual achievement: students should develop a personal value system that guides their own lives as thoughtful and active members of local and global communities.

Giving importance to the sense of community throughout the MYP encourages responsible citizenship as it seeks to deepen students' knowledge and understanding of the world around them. Students should be encouraged to make connections between their intellectual and social development and the benefits that they can bring to the community, as well as the benefits the community can bring to them. In using this area of interaction through and across the disciplines students can discover the social reality of self, others and community. In so doing, this area of interaction fosters the affective, creative, ethical and cognitive development of the adolescent. This area starts with learning in the classroom based on the written curriculum, and leads to raising awareness that may lead to action being taken.

This area of interaction also supports the fundamental concept of intercultural awareness, which aims to encourage empathy and respect that can lead to deeper understanding. Engaging students in positive action and contact with other social and cultural environments can enrich them emotionally, socially, morally and culturally. In the MYP, the qualities and motives of an act of community and service are considered more important than the act itself or the number of hours devoted to it. For this reason, schools should establish appropriate ways of giving importance to community involvement in the minds of the students without awarding grades for community and service; the MYP does not allow the awarding of grades for any area of interaction.

The idea of community should be developed as an integral part of the programme, present in the curriculum as well as in whole-school activities. This philosophy can be further supported by schools' extra-curricular activities. Students should become aware of specific issues, recognize their responsibilities and become empowered to act in response to needs identified in class within the curriculum.

The MYP encourages schools to structure the area of community and service within the curriculum in a way that leads students through the various stages of growth of awareness towards responsible, autonomous action. Teachers can do a great deal to raise awareness and encourage the development of positive attitudes and values, thereby promoting service activities. In order to gain the MYP certificate, students will have met the expectations of community and service to the satisfaction of the school.

To develop this area of interaction successfully within and across the subjects, community and service must be seen as an integral part of the programme and must be used by all subject teachers to inquire into subject content. Schools are reminded that all activities must be organized and monitored in ways that ensure student safety at all times.

Student learning expectations

The IB allows schools to develop this area of interaction in ways that are appropriate for their students and that reflect local realities; the idea of community and service can be interpreted in different ways by different cultural groups and must be respected. In all cases, schools must consider how to integrate the concept of community with subject content. As teachers plan to integrate this area with their subject content, they should consider community and service student learning expectations in terms of:

- community awareness and understanding
- reflection
- involvement through service.

Community awareness and understanding

Before any useful involvement in the community can take place students must develop an awareness of what a community is. As students engage further with this area of interaction, they will become more aware of and understand further the complexities of a community and its different forms.

Reflection

Meaningful reflection is an essential part of students' experience of community and service; it encourages better awareness of needs as well as the quality of response. It helps students develop positive attitudes and become aware of their own strengths and limitations. It also allows the teachers and the school to monitor the quality of community and service at the individual and at the school level.

Through their growing understanding of the concept of community, students will come to appreciate that they are all, individually, the members of various communities, and that with this membership come responsibilities. Students will also come to understand that communities themselves have various responsibilities towards their members.

Involvement through service

By considering the impact of responsibility on the choices of action, or inaction, that community membership provides, students can consider how they can become positively involved in their communities. In addition, students should consider how being an involved member of various communities will benefit them. All involvement in community and service should be seen as benefiting the service provider as well as the recipient.

Many schools have developed tools that guide the ongoing process of reflection and allow for **formative assessment** of student action. These tools could include:

- journals
- summary documents describing the activities and reflecting on their impact
- group discussions
- presentations of projects
- student-led conferences.

Schools could use these formative assessment tools to arrive at a decision on whether a student has met the requirements of service at the end of the programme.

As part of the reflection process that accompanies community involvement, some schools may welcome input from responsible adults in addition to the subject teacher. In some cases older students can help organize, supervise and reflect on community and service for younger students.

It is a requirement of the MYP that students complete an element of **service** to qualify for certification.

The following table provides some examples of student learning expectations for community and service. Also, the table provides examples of questions that students could ask when engaging with MYP units of work set in a community and service context.

Student learning expectations could include:		Key questions for use with MYP units of work
community awareness and understanding of:	<p>the concept of community—including what “community” means, how communities are different and how they are similar, what makes a community</p> <p>individuals in communities—including the role of the individual, the needs of the individual, the responsibilities of communities to their members</p> <p>different communities—including the various forms of community, the needs of different communities, the issues within the communities, organizations within communities</p>	<ul style="list-style-type: none"> • How does this unit apply to my communities? • What impact does my community have on the content of this unit? • Which communities does this unit affect?
reflection on:	<p>attitudes—including reflection upon different social patterns and ways of life, showing initiative</p> <p>responsibilities—including the ethical implications of activity or inactivity within the community, using personal strengths to enhance communities, identifying personal strengths and limitations</p>	<ul style="list-style-type: none"> • How can my learning help my communities? • How can my communities help me learn? • What should I do?
involvement through service in terms of:	<p>community involvement—including types of involvement, effects on communities at various levels, personal involvement</p> <p>being an active contributor—including showing willingness and the skills to respond to the needs of others, coming up with solutions to actively resolve issues within communities.</p>	<ul style="list-style-type: none"> • What needs to be done? • What can I do? • How is my involvement helping me develop?

Health and social education

How do I think and act?

How am I changing?

How can I look after myself and others?

About this area

Health and social education encompasses a range of issues and how they affect individuals, human development and interactions. It includes an appreciation of these effects in different cultural settings and at different times. It also provides students with opportunities to inquire into physical, social and emotional health and intelligence, key aspects of human development that can lead to a complete and balanced lifestyle.

The extent to which young people consider and act on social and health-related issues is influenced by political, social and economic decisions at the community and national level, as well as by the actions and support of schools, families and friends. As schools work to encourage students to make informed and responsible choices, they could involve the whole community, particularly students, in the planning and development of this area of interaction.

This area is wide in scope and teachers and students may prefer to consider it at four different levels:

- ourselves in the wider society
- ourselves and others
- understanding ourselves
- looking after ourselves.

It is a school's responsibility to ensure that all teachers are comfortable dealing with the wide range of issues that this area of interaction might identify. Professional development, information, common planning time, opportunities for reflection and discussion on the part of teachers are all important in developing a school culture that supports health and social education. In addition to the curricular content, schools should consider:

- policies linked to health, safety and the school community
- the physical and psychosocial environment
- health and support services.

Student learning expectations

Students are increasingly in a position where they have to make choices that require critical thinking. As teachers plan to integrate this area with their subject content, they should consider health and social education student learning expectations in terms of:

- an awareness of and understanding of contemporary and historical social issues
- reflection on and having opinions on a range of social issues
- making considered and responsible choices on a range of social and health issues.

The precise choice of content, and therefore the issues, is left to schools. However, as teams of teachers identify the issues from their subject content, they will also need to consider how they will develop in students a range of skills to better prepare them for making responsible and considered choices.

The following table provides some examples of student learning expectations for each aspect of health and social education. Also, the table provides examples of questions that students could ask when engaging with MYP units of work set in a health and social education context.

Student learning expectations could include:		Key questions for use with MYP units of work
awareness and understanding of:	ourselves in the wider society—including issues such as freedom, government health policies and globalization	<ul style="list-style-type: none"> Which health and social issues affect my age group? Which health and social issues will I have to consider as I get older?
reflection on:	ourselves and others—including issues such as relationships, sex and death understanding ourselves—including issues such as personal management, self-esteem and growing up looking after ourselves—including issues such as personal hygiene, diseases and substance abuse	<ul style="list-style-type: none"> What alternative courses of action are open to me? What social choices have I already made? How am I changing?
making choices in terms of:	ourselves in the wider society—including behaviour and ethics ourselves and others—including personal values and taking responsibility understanding ourselves—including self-control or needs and wants looking after ourselves—including diet and exercise.	<ul style="list-style-type: none"> What do I need to consider so I can make the right choice? What skills do I need to make the right choice? How can I look after myself and others? What are the consequences of making poor choices?

Environments

What are our environments?

What resources do we have or need?

What are my responsibilities?

About this area

The context provided by this area of interaction considers environments to mean the totality of conditions surrounding us. This area of interaction focuses on the place of human beings within a wide range of environments including natural, built and virtual. In their interactions, students will come to an appreciation and understanding of their effects on their environments.

- The **natural** environment includes all living and non-living things that occur naturally on Earth along with its systems, landscapes and resources.

- The **built** environment includes the settings for human activity, ranging from the large-scale civic surroundings to personal places, such as homes.
- The **virtual** environment includes electronic environments, Internet environments and the concept of personal space.

The word “environment” can refer to a vast array of complex and often controversial “green” issues. These issues, and the finding of solutions to them, are clearly important in the lives of all people. As students will be increasingly confronted with complex and controversial global environmental issues, this area of interaction provides opportunities for students to see these global issues in the light of local concerns, and vice versa. However, these issues alone do not define this area.

Student learning expectations

Through this area of interaction students should develop an awareness and understanding of a range of environments and their qualities. Students should also explore the nature of our environments and the interactions between and interdependencies of various environments.

The entire school community will over time develop **awareness** through investigation, discussion and debate and should use these activities to develop deeper **understanding** of the contexts provided by various environments. Students will then come to understand better their **responsibilities** towards their environments, and will be better placed to take positive and appropriate **action**. Teachers can help students gain an understanding of these concepts and issues at the personal, local and global levels.

Reflecting on their actions, students can make clear links with human ingenuity (*homo faber*) to help them question the effectiveness of their actions and encourage them to take responsibility to effect positive change. This area can also complement the reflective practices and sense of involvement developed in community and service.

As teachers plan to integrate this area with their subject content, they should consider environments in terms of the learning expectations. The following table provides some examples of student learning expectations for each aspect of environments. Also, the table provides examples of questions that students could ask when engaging with MYP units of work set in the context of environments.

Student learning expectations could include:		Key questions for use with MYP units of work
awareness and understanding of:	<ul style="list-style-type: none"> • the roles our environments play in the lives and well-being of humankind • the effects of one environment on another • the effects of our actions, attitudes and constructs, such as sustainable development and conservation • physical, social, political, economic and cultural dimensions • the nature and role of local and international organizations responsible for protecting our natural environments • how organizational policies in one environmental dimension can affect other environments 	<ul style="list-style-type: none"> • How do I affect my environments? • How do my environments affect me?

Student learning expectations could include:		Key questions for use with MYP units of work
reflection on:	<ul style="list-style-type: none"> our responsibilities to our environments the role of virtual environments in modelling our other environments 	<ul style="list-style-type: none"> How can we make informed and responsible choices? What are the lifestyle implications of making environmental choices?
taking action on:	<ul style="list-style-type: none"> a range of issues related to environments. 	<ul style="list-style-type: none"> How can I affect my environments in a positive way? What difference can I make as an individual?

Human ingenuity (formerly *homo faber*)

Why and how do we create?

What are the consequences?

About this area

Human ingenuity is the way in which human minds have influenced how we think, work, play, construct and conduct friendships and other relationships, interact with each other, find solutions to problems, cause problems, transform things and rationalize thought. It also considers the consequences of human thought and action.

Human history is full of examples of humans as thinkers, inventors and creators from all subject areas. Human ingenuity goes beyond looking solely at individuals, and looks at human contributions both in context and as part of an ongoing process, seeing them as logical, clever and reasoning, as well as illogical, fallible and devious.

The area of interaction, human ingenuity, is much more than the presentation of a product or concept as an example of human achievement; it can lead to a reasoned judgment of scientific, ethical, aesthetic and technological transformations and an appreciation of their consequences. This may result in the celebration of this achievement or the recognition of negative consequences—in many cases, it will lead to both.

It should prompt the creative and innovative involvement of the whole school community in presenting a holistic view of human activity, both in the past and in the present. In all subjects, students will encounter examples of the constructive and destructive activities of human beings. This does not necessitate additional subject content, but it does require a process of thorough reflection.

This area of interaction is open-ended and provides opportunities for discussion and further inquiry beyond individual subject borders. It may raise ethical issues such as progress, how development in one culture may be inappropriate to another and the responsibility we need to take for our own progress.

Human ingenuity encourages students to see the relationships between diverse subjects, as it can be used to inquire into a broad range of human activities. These include:

- systems—laws, methods of government, transport, education, healthcare
- communication—statistics, language, mathematical formulae, codes
- technology—buildings, machinery, tools
- thought—principles, concepts, ideas, opinions, attitudes
- art—painting, sculpture, embroidery, theatre, music
- culture—fashion, rituals and customs, food.

This area of interaction, above all others, provides students with opportunities to explore the very nature of the subject disciplines themselves. It can prepare students for the demands made by courses such as the **theory of knowledge** as part of the IB Diploma Programme.

Student learning expectations

With human ingenuity students can inquire into subject content and reflect on the ingenuity of humans from various perspectives. Teachers should accept that students will want to explore negative as well as positive traits. A balanced approach to inquiry within this area of interaction can be achieved by considering subject content from various perspectives: process, origin, development, impact, context and product.

Research, reflection and analysis are required to make the inquiry cycle a useful tool and a relevant learning experience. Students need to become conscious of the processes in which they are engaged or that they have experienced. They also need to consider other people's processes in similar tasks and how these processes may contribute to the student's own work. This is an important step towards recognizing the evolution of thought and of the creative process. Students need to recognize the impact of a range of creations from different times in history on themselves and on others; this should include predictions on future developments and their effects.

As teachers plan to integrate this area with their subject content, they should consider human ingenuity in terms of the learning expectations. The following table provides some examples of student learning expectations for each aspect of human ingenuity. Also, the table provides examples of questions that students could ask when engaging with MYP units of work set in a context of human ingenuity.

Student learning expectations could include:		Key questions for use with MYP units of work
awareness and understanding of:	<ul style="list-style-type: none"> the meaning of "ingenious" a range of systems, solutions and products the processes involved in innovation, creation, development and change the individual desire to create, develop or change things how systems or products develop and change over time 	<ul style="list-style-type: none"> Why do humans create, develop or change products or solutions? How and why do products or solutions change over time? How do we celebrate human endeavour and achievement?
reflection on:	<ul style="list-style-type: none"> the impact of innovation and creation on individuals, communities, societies and the world the products of innovation, creation and development in context how subjects have "ways of thinking" a range of systems, solutions and products 	<ul style="list-style-type: none"> What are the consequences of creating? How can I make responsible choices based on my understanding? What impact have creations had on individuals, society and the world? What future developments can I foresee?

Student learning expectations could include:		Key questions for use with MYP units of work
taking action to:	<ul style="list-style-type: none"> create solutions and products to solve own and others' problems think creatively. 	<ul style="list-style-type: none"> What are my challenges and what solutions can I come up with? How can I have a personal involvement as an innovator, creator and developer? How can I use my thinking in one subject to help me in another?

Chapter summary

The areas of interaction provide the contexts for learning—teachers use them to frame subject content so that students can connect their learning with the real world and also connect the learning in one subject with that in another.

These contexts for learning, the five areas of interaction, are common to all schools offering the MYP. They serve to bring together the varied subject content that will be found in the different cultural and linguistic settings around the world. The areas of interaction give meaning to what is learned through the exploration of real-world issues and provide the MYP with its unique core of skills, values and attitudes.

The personal project in the final year of the programme will reflect the efficacy of the integration of the areas of interaction in the school. Through the project students should be able to demonstrate ATL skills in addition to building research and project development around at least one other area of interaction.

The IB provides schools with student learning expectations for each of the areas of interaction in this guide. These expectations are recommended as a starting point for schools to determine how the areas of interaction will be used by students during the programme—they provide a framework for student inquiry.

MYP requirements

Schools **must** use the student learning expectations provided for each area of interaction to:

- plan the development of students' ATL skills and thinking processes to ensure a logical progression of skills taught and reinforced over time
- develop their own interim student learning expectations at each grade level to create a framework that ensures continuity and progression of learning in each area of interaction
- provide ongoing professional development opportunities for teachers to further their understanding of the areas of interaction.

Schools **must** ensure that:

- the areas of interaction are central to unit planning; the student learning expectations and key questions will assist in refining the focus
- they define "satisfactory" community and service, for the purposes of MYP certification
- the areas of interaction are included appropriately at the beginning of planning for the personal project and continue to influence throughout
- the areas of interaction are used to develop interdisciplinary units.

The subject groups

Framework

The MYP offers a curricular framework that allows school-specific (national, state, provincial or other) subject-specific curricular requirements to be met while maintaining the IB mission and philosophy. To ensure this, the IB prescribes **aims and objectives** for all subject groups and the personal project. Every IB World School offering the MYP must ensure that its stated curricular requirements for each subject are **aligned** with the corresponding MYP curriculum requirements. The process of **alignment** is described and explained in more detail in this section. It must be noted that in all cases, the areas of interaction will provide the context and focus. This section makes that assumption while giving guidance regarding the selection and organization of course content.

Aims and objectives

The MYP subject-group guides include aims and objectives for each subject group. The **aims** of each subject group set out the general nature of the subject over the course of the programme. These aims describe how students might be changed by their experience of a long-term engagement with the subject.

The **objectives** of each subject group are more specific and represent the knowledge, understanding, skills and attitudes that must be taught so that students can achieve the aims of the subject group. These objectives link with attributes of the IB learner profile and aspects of the MYP fundamental concepts.

Interim objectives

To enable students to reach the final objectives of each subject group, the MYP has published example **interim objectives** for year 1 and year 3 of the programme in each subject group. These are available on the MYP subject-group pages on the online curriculum centre (OCC). The IB strongly recommends that schools use these interim objectives, as they provide guidance on ensuring the continuity and progression of learning from year to year.

Interim objectives allow teachers to plan for learning over the five years of the programme so that students are provided with opportunities to reach the final objectives.

Flexible framework

The aims and objectives for each subject group are prescribed for all schools offering the MYP and represent what is expected of students at the end of the programme. By adopting the published examples of objectives for years 1 and 3, and using school-developed objectives for years 2 and 4, schools are provided with a five-year framework that addresses all aspects of learning. The framework is flexible enough to allow a variety of teaching and learning approaches and to allow schools to select their own subject-specific **content**. The term “content” is used to describe the subject matter, the specific choice of topics or units of work that students will learn in order to reach the objectives.

Some schools may be directed by external requirements; others may have a free choice of content. In all cases, schools **must** use the prescribed final-year objectives to decide on their subject-specific content.

Aligning content to the objectives

All schools are expected to analyse the framework of objectives for each subject group in order to determine the content they will teach. The process of analysis requires teachers to have a thorough understanding of each of the objectives and their implications before deciding on subject-specific content.

Understanding the requirements of objectives

Figure 5 suggests types of questions asked by groups of teachers that may be useful when undertaking a thorough study of an objective. This figure is based on objective C from the technology subject group, which is composed of three **strands**: using appropriate techniques and equipment; following a plan; creating the product/solution.

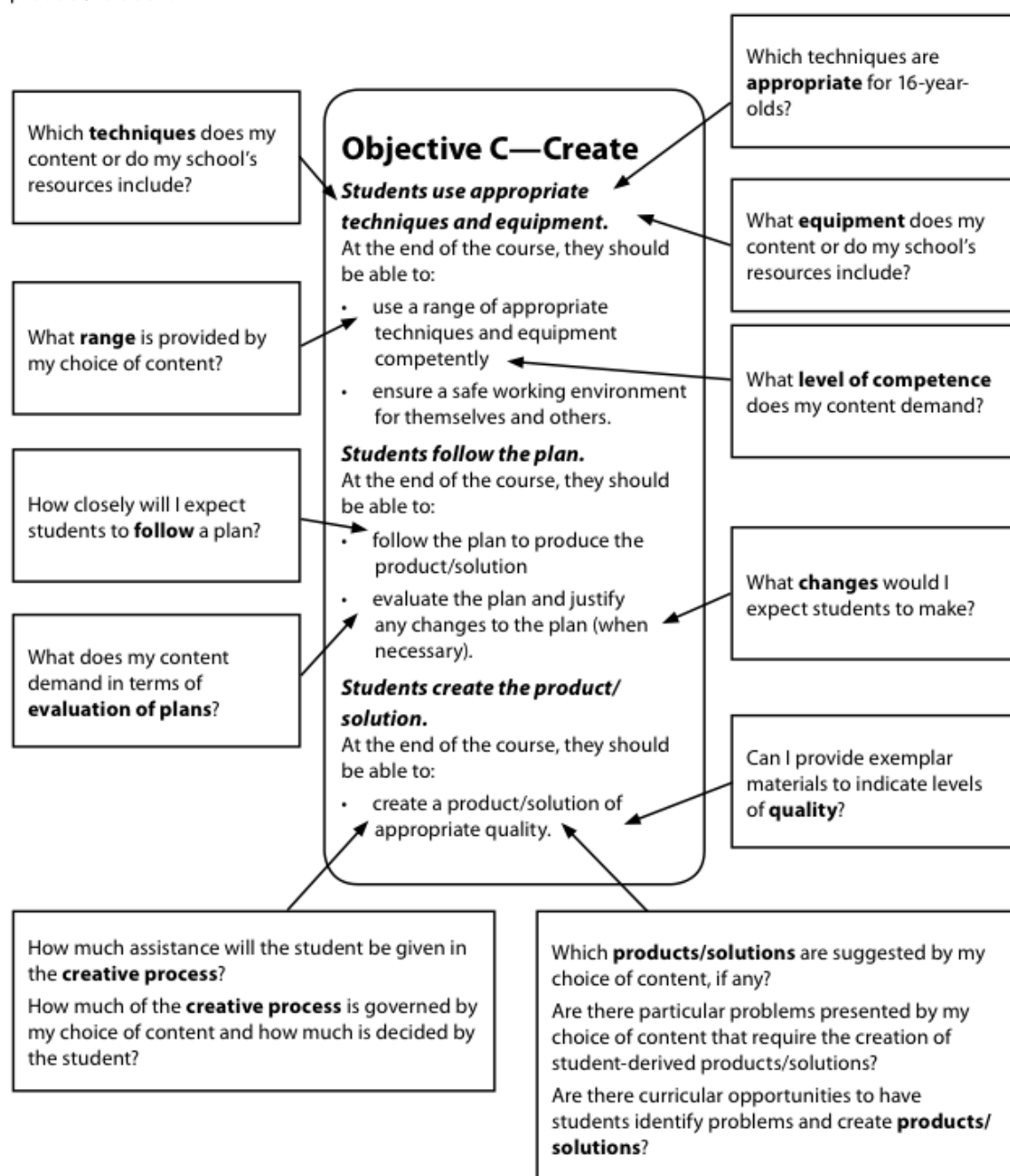


Figure 5

Types of questions that may be used to gain a thorough understanding of an objective

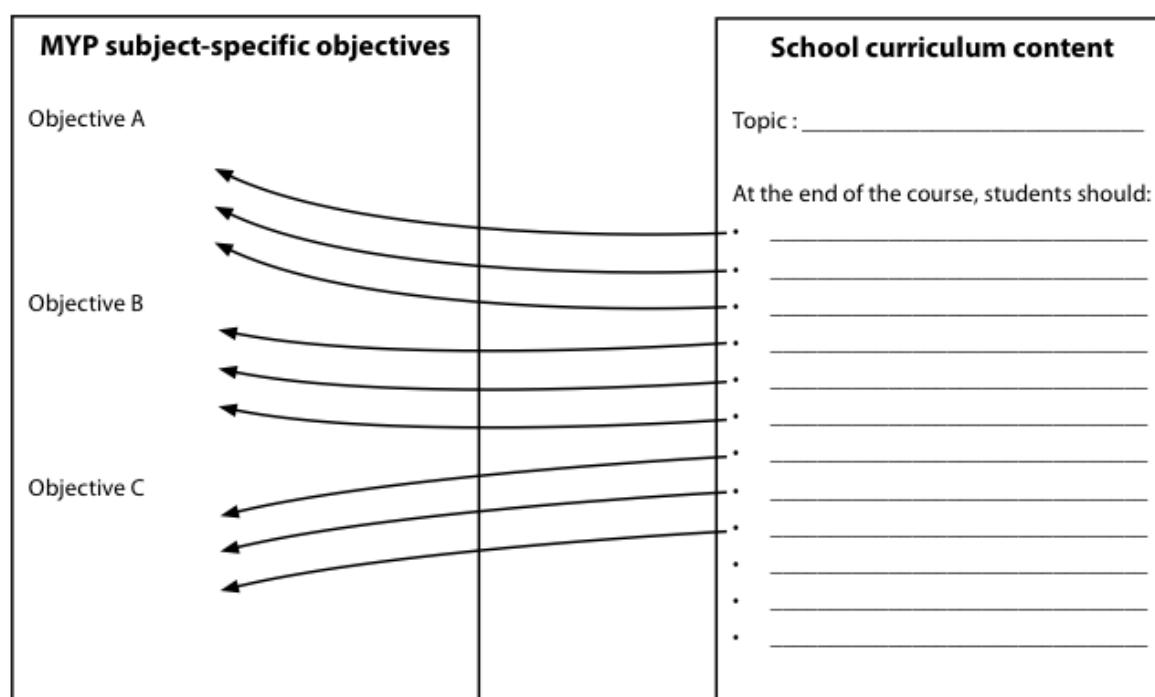
To decide on subject-specific content for each of the five years of the MYP, it will be necessary for teachers to have a thorough understanding of the framework of objectives, and to plan subject-specific content so that it provides for continuity and progression in each strand of each objective. Teachers will realize that all MYP objectives can be deconstructed into their constituent strands. This is best achieved through collaborative discussion and planning.

Whether schools choose to create and use their own interim objectives, or use those published, the MYP requires that **all** strands of **each** objective **must** be represented in the corresponding interim objective for **every year** of the programme.

Deciding on subject-specific content

As teachers come to an understanding of the requirements of each of the objectives over the five years of the programme, they will be in a position to decide on their subject-specific content. Sometimes all or part of the content is mandated by external bodies (state or national systems for example), though sometimes schools will have the freedom to select their own content. Starting with the MYP objectives, teachers must choose appropriate content that will enable students to reach the objectives for that particular grade level.

As teachers choose and then decide on the most appropriate content, they will need to go beyond the consideration of content in terms of topics or units. This process must take place while developing course outlines and before unit planning. Teachers will need to consider carefully the requirements of the objectives and decide whether and how the content will be able to provide students with the opportunities to reach the objectives. The following figure represents a teacher's decisions on aligning content to the objectives.



The arrows depict a teacher's decisions when aligning school curriculum content with objectives.

Figure 6

Simplified diagram of the process of aligning subject content with the MYP objectives in a subject

As they align their subject-specific content with the objectives for each year of the programme, teachers can document this on an alignment chart similar to the one below. Clearly, column 3 in figure 7 would be a detailed list of subject-specific content.

Objective	Objective title	Subject-specific content that enables students to reach the objective
A	Knowledge and understanding	<ul style="list-style-type: none"> • _____ • _____ • _____
B	Application and reasoning	<ul style="list-style-type: none"> • _____ • _____ • _____
C	Personal engagement	<ul style="list-style-type: none"> • _____ • _____ • _____
D	<i>As appropriate</i>	<ul style="list-style-type: none"> • _____ • _____ • _____

Figure 7

Alignment chart showing subject content aligned with objectives

On completion of this process in each subject group for each year of the programme, the objectives of each subject group will then be matched more exactly by the school's own subject-specific content.

Schools will need to ensure that each subject's content will enable students to reach **all** the objectives for that subject group—the IB would then consider the school's content as **aligned** with the objectives. If the school's subject-specific content does not allow students to reach all the objectives for that subject group, additional content will need to be included so that the goal is reached.

Coherent content

Since the published MYP interim objectives have been developed from the prescribed MYP objectives for each subject group, the framework itself can be described as **coherent**. The coherence of the objectives over the five years of the programme ensures continuity and progression of learning from one year to the next.

When a team of subject teachers **aligns** their subject-specific content with the framework of objectives, it naturally follows that their subject-specific content will be coherent. Content will have been established for each grade level to ensure continuity and progression of learning from one year to the next. Figure 8 shows the alignment of subject-specific content with a coherent framework of objectives, and the resulting coherence of the content.

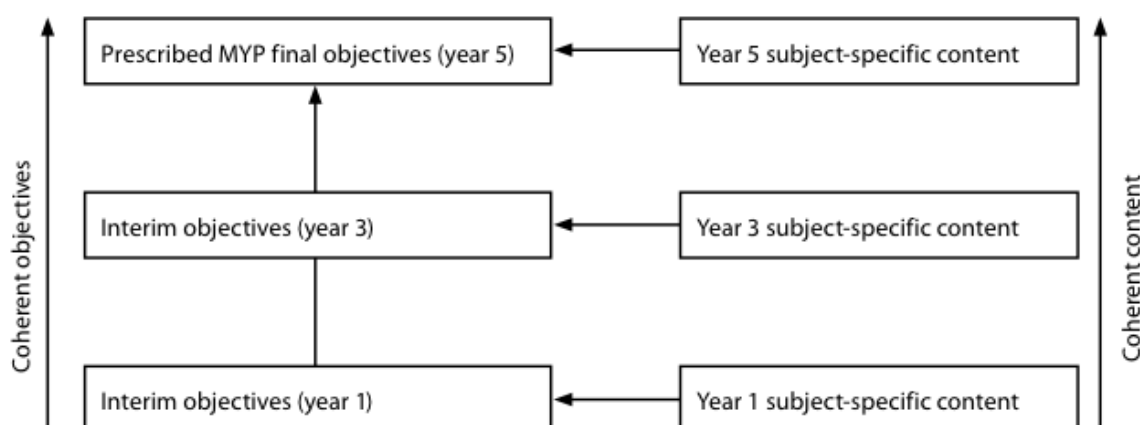


Figure 8
The coherence and alignment of content with objectives

Other considerations

- As outlined above, the precise choice of content is left to schools. However, teachers must refer to the MYP subject-group guides, as some subjects have a framework of concepts or topics prescribed for all students to address over the five years. Such prescription is kept to a minimum and is meant to define the parameters of the subject. Schools should expand their scope of topics and depth of treatment according to their individual needs and preferences.
- In many schools it is possible to have a clear idea of students' prior learning whether through the Primary Years Programme or other programmes. Content can reflect this knowledge. Indeed, if MYP students are to move into the Diploma Programme, subject knowledge is known and understood, so content can be aligned to ensure a smooth progression from one programme to another.
- The areas of interaction must be used to guide teachers' choice of subject matter. They can be used to link related subject content together in meaningful ways. By providing the contexts for learning through the areas of interaction, students and teachers will encounter opportunities to approach varied subject-specific content from different cultural perspectives. For example, teachers may decide to present new or unfamiliar material to students from a particular cultural standpoint, and have students react to it.
- Schools undertaking curriculum reviews **must** ensure any changes to content maintain the established alignment and coherence. Similarly, when the IB publishes revised MYP subject-group guides, schools will need to review their subject-specific content in the light of any changes to the objectives. It is recommended that schools align their curriculum review cycles with those of the MYP subject review cycles.

Chapter summary

The **aims** and **objectives** for each subject group describe what is expected of students at the end of the programme. These aims and objectives are **prescribed** for all IB World Schools offering the MYP.

Schools are recommended to adopt the published objectives for years 1 and 3 to move towards creating a five-year framework of objectives that addresses all aspects of learning. The framework will be flexible enough to allow a variety of teaching and learning approaches and to allow schools to decide on their subject-specific **content**.

Deciding on subject content takes place after teachers have acquired a thorough understanding of the requirements of each of the objectives in the framework. Teachers must **align** their content with the framework, so that students have opportunities to reach the objectives at each grade level. Content that is aligned with the interim objectives of each grade level will also provide **coherence**—that is, it will provide for continuity and progression of learning.

MYP requirements

Schools **must** use the prescribed MYP subject-group objectives to:

- develop and document their own interim objectives **at each grade level**, thereby ensuring continuity and progression of learning in each subject group, using the recommended interim objectives for years 1 and 3
- come to a thorough understanding of the requirements of each objective
- choose content that allows students to reach the appropriate objectives of each subject group for the grade level
- ensure that their choice of content is at once aligned and coherent
- help to further deepen understanding of the scope of the areas of interaction.

Assessment in the MYP

Internal assessment

Assessment in the MYP is best described as **internal**, as opposed to external, because the assessment tasks, strategies and tools are designed, developed and applied by teachers working with students in their schools. The IB believes that teachers are best placed to assess the work of their MYP students; the assessment model supports the professional judgment of the teacher in deciding the levels of achievements of individual students.

The MYP does not provide externally set examinations, tests or other assessments. Some schools may have national or other requirements that include the use of externally set examinations. Schools are advised to consider carefully the effects of running examination-based courses concurrently with the MYP.

Criterion-related assessment

The MYP assessment model is also described as **criterion-related**, as it is based upon pre-determined criteria that all students should have access to. The MYP identifies a set of objectives for each subject group, which are directly related to the assessment criteria of that particular subject group. The level of student success in reaching the objectives of each subject group is measured in terms of **levels of achievement** described in each assessment criterion.

The kind of generic application of broadly constructed criteria that is used in MYP assessment practices is called **“criterion-related”** assessment. This differs from the term criterion-referenced assessment in that it does not require a mastery of each descriptor and better describes the MYP “best-fit” approach.

Aligning the MYP assessment model with external requirements

Schools may be required by some national or other systems to use a norm-referenced model, or a variant of it, to satisfy certain requirements. Where possible, schools in this situation are encouraged to align the assessment requirements of the national or other system with the MYP assessment model. If there are enough similarities (and flexibility in the national or other system requirements) schools can use the MYP assessment criteria, possibly adding some further elements if required. In this way, the MYP assessment model can be used to determine final grades within the requirements of the national or other system.

From an IB perspective, it is fully acceptable to determine MYP grades and then convert these to grades for other systems. It is **not** acceptable to determine grades for other systems and then convert these to MYP grades.

Where the two systems are diverse, separate grades will need to be determined.

The purposes of assessment

The IB believes that assessment is integral to all teaching and learning and should support the principles of the MYP through the encouragement of best practice.

Assessment in the MYP aims to:

- support and encourage student learning by providing feedback on the learning process
- inform, enhance and improve the teaching process
- promote positive student attitudes towards learning
- promote a deep understanding of subject content by supporting students in their inquiries set in real-world contexts using the areas of interaction
- promote the development of higher-order cognitive skills by providing rigorous final objectives that value these skills
- reflect the international-mindedness of the programme by allowing for assessments to be set in a variety of cultural and linguistic contexts
- support the holistic nature of the programme by including in its model principles that take account of the development of the whole student.

Support for student learning

The single most important aim of MYP assessment is to support and encourage student learning. The MYP places an emphasis on assessment processes that involve the gathering and analysis of information about student performance and that provide timely feedback to students on their performance. MYP assessment aims to identify what students know, understand, can do and feel at different stages in the learning process and to provide a basis for practice. Students and teachers will be actively engaged in assessing student progress as part of the development of their wider critical-thinking and self-assessment skills.

Additionally, MYP assessment will play a significant role in the development of approaches to learning (ATL) skills—the processes of metacognition should enable students to arrive at an enhanced understanding of their strengths and limitations in cognitive and in affective domains. To support ATL skills, the programme stresses the importance of both student and teacher self-assessment and reflection.

The MYP approach to assessment recognizes the importance of assessing the processes of learning as well as the products of learning, and aims to integrate and support both. When designing MYP units of work, teachers need to be mindful of the unit's learning outcomes, largely determined by the subject-group objectives, prior to selecting or designing the criteria to be applied and the assessment tasks to be used. They need to employ techniques for assessing student work that take into account the diverse ways in which individual students understand and communicate their experiences.

Even though the MYP prescribes objectives and assessment criteria that are described as **final** (to be used to determine student grades at the end of the programme), the MYP assessment model insists on students being monitored and assessed throughout the programme using criteria that are related to the objectives. This **formative assessment** is a feature of all teaching and learning in the MYP and is viewed as a necessary and important part of the learning process.

By assessing students as they engage with subject content, teachers identify student learning needs in order to better inform the learning process. Essentially, the teacher prepares learning experiences for the learner with the purpose of extending their knowledge and understanding, and developing their skills and attitudes. For assessment to be effective, direct interaction between teacher and student is essential. In so doing, teachers will gain a better understanding of their students' needs and development, including their misinterpretations, and can provide further experiences to extend learning. All assessments must allow for timely feedback to students on their learning and their processes of learning.

Assessment in the MYP should not be confined to the final part of a learning period, such as a unit of work. It should be planned in the first stage of creating an MYP unit of work and used throughout it. Assessments will take place frequently and will be designed to extend student learning. These can be planned from the start of a unit, although they will be liable to change as the teacher engages with students to determine the next stages of learning.

In summary, when creating MYP units of work, teachers must ensure that assessments:

- support the learning process by being integral to it
- are aligned with the subject's objectives and placed in context, as provided by the areas of interaction
- gather information from a variety of perspectives, using a range of tasks according to the needs of the subject and the nature of what is being assessed
- are appropriate to the age group and reflect the development of the students within the subject.

Summative assessment

The purposes of **summative assessment** are to support learning and also to contribute to the determination of an achievement level; this usually happens at the end of a learning period such as the end of an MYP unit of work, a semester or a school year. As students are assessed continually in the MYP, teachers will be in a position to determine a level of achievement that is also supported by evidence from assessments undertaken during a learning period.

A whole-school agreement on assessment

Everyone concerned with assessment, including students, teachers, parents and administrators, should have a clear understanding of the purposes of assessment. Schools must develop and implement a whole-school assessment policy supported by clear, written procedures that detail:

- what is being assessed
- the criteria for success
- the method by which the assessment will be made.

All assessment procedures must be manageable for the teacher, in terms of both classroom operation and time involved in implementation, record keeping and reporting. Schools are encouraged to consider a range of solutions, including the use of information and communication technologies, to manage these procedures.

Using assessment data

School teachers and administrators may wish to collect, collate and analyse assessment data over various periods of time. These assessment strategies may be used in conjunction with other forms of assessment to evaluate both student performance and the efficacy of the programme.

The influences of the areas of interaction

In all IB World Schools offering the MYP, the areas of interaction form an integral part of the written, assessed and taught curriculums. As such, the areas of interaction will be an integral part of the assessment of student work.

Teachers **are not expected to allocate grades** for the areas of interaction. However, as teachers assess student work, the areas of interaction influence the assessment in various ways.

In assessment criteria

The subject-group guides give aims and objectives reflecting the influence of the areas of interaction and provide examples of their integration. The areas of interaction should therefore impact on formative and summative assessment conducted according to each subject group's assessment criteria.

The objectives and assessment criteria in some subject groups focus specifically and explicitly on aspects of the areas of interaction, as described in the following examples.

- MYP sciences objectives place learning in the context of "one world", requiring students to reflect on the ways in which science impacts on the environment and society.
- MYP humanities assessment criteria place special emphasis on ATL skills.

Other subject groups link the objectives and assessment criteria to the areas of interaction more implicitly.

In MYP units of work

When designing MYP units of work, the areas of interaction play an important part in the choice of topics and tasks in assessment as in learning. Assessment will allow students to provide evidence of conceptual understanding and insights gained through the learning activities. As teachers develop MYP unit questions framed by the areas of interaction, assessment tasks will be placed in the appropriate context. In this way, the areas of interaction encourage and facilitate varied forms of authentic assessment.

The ATL skills learned during a unit of work will be integrated in assessment through a variety of tasks and projects involving problem-solving, hands-on approaches (individually and in groups), as well as traditional testing. Assessments involving ATL will also require students to use information from different sources critically and to make appropriate use of technology.

In the personal project

The personal project is a very important part of the MYP for all students. It involves planning, research and a high degree of personal reflection. The personal project is a significant piece of work produced over an extended period, and is a direct application of skills acquired over the course of the programme through ATL. The process of completing the personal project is led by the student, with supervision by a teacher. The student is required to demonstrate the appropriate commitment, as well as the ability and initiative to work independently.

The assessment of the personal project is a form of summative assessment of students' ability to conduct independent work using the areas of interaction as contexts for their inquiries. The assessment criteria include explicit reference to the treatment of the areas of interaction.

Aligning the written and assessed curriculums

In aligning subject content with each of the objectives, teachers ensure that the subject-specific content will enable students to reach the required objectives in each subject group.

Understanding assessment criteria

The MYP provides assessment criteria and accompanying descriptors that have been devised to reflect the different objectives for each subject group and the relative importance of these objectives. In this sense, the MYP objectives and the MYP assessment criteria are already aligned for year 5 of the programme.

Aligned criteria

In figure 9, a graphic representation of a particular subject group, the MYP objectives are described in terms of what students should know, understand and be able to do and feel at the end of the programme. Each objective is aligned with its corresponding assessment criterion: objective A is aligned with criterion A, objective B with criterion B, and so on.

The general description of objective A is reflected in the general information provided about criterion A. The general information gives teachers guidance on how the criterion should be used to design appropriate tasks and how it should be applied to measure student performance. This alignment is shown by arrow 1.

Arrow 2 shows how the various strands of the objective A, shown in bullet form, are aligned with the descriptors of the different achievement levels. Student performance in tasks designed to enable students to meet objective A will be described by one of the written descriptors, thus allowing a level of achievement to be determined. The level of achievement is a measure of how successful that student has been in reaching this particular objective.

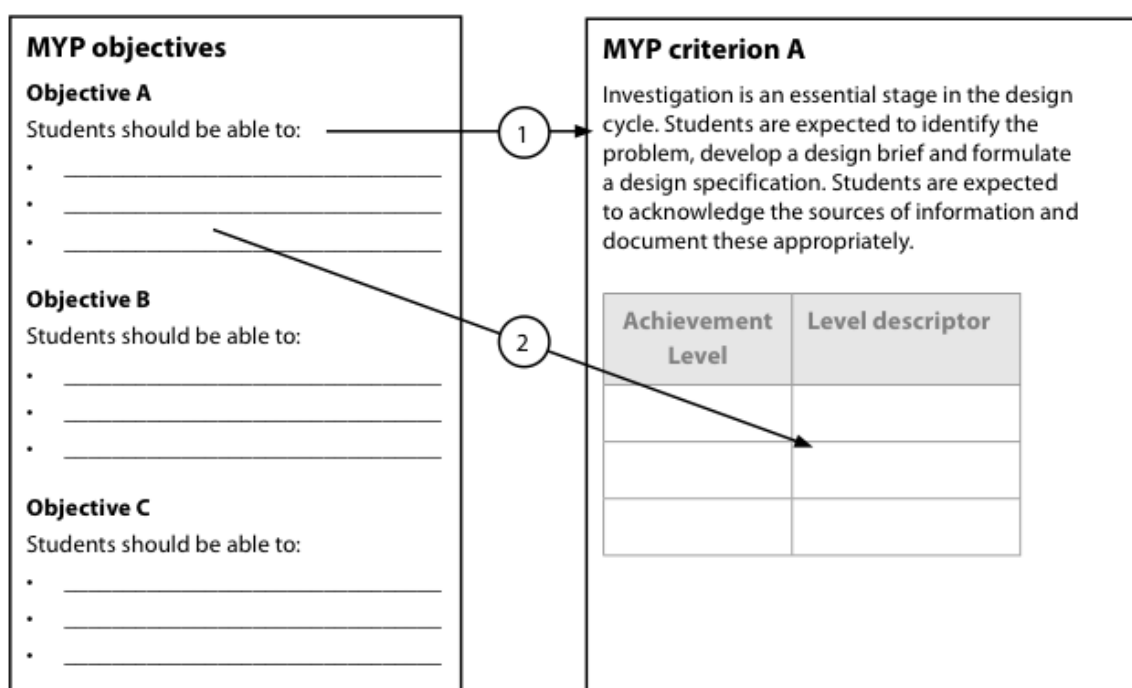


Figure 9

The relationship of a subject group's objective A to the same subject group's assessment criterion A and its descriptors of the various achievement levels

Weighting

The relative emphasis of the objectives is reflected in the **weighting** applied to each assessment criterion. The number of objectives (and therefore the number of assessment criteria) varies from one subject group to another. The reason for the different number of objectives for the various subject groups lies in the differing nature of the subjects and, to some extent, the methodologies found within the subjects. Whatever the number of criteria, the relative emphasis of the objectives can be determined by the maximum level achievable.

For example, in some subject groups, all the criteria have equal maximum levels—they all have an equal weighting—so the objectives are of equal importance. Other subject groups may have, for example, an assessment criterion A maximum of 12 and an assessment criterion B maximum of 8. In this example, the maximum levels are not equal, and so the criteria are not equally weighted. In relative terms, objective A in this example would carry more emphasis than objective B.

Levels of achievement

Each criterion is divided into various levels of achievement (numerical values) usually appearing in bands, and each of the bands is described in terms of general, qualitative value statements called **level descriptors**. The levels 1 and 2 appear as the first band, levels 3 and 4 the second band, and so on. Level 0 is available for work that is not described by the band descriptor for levels 1 and 2.

The band descriptors describe a range of student performance in the various strands of each objective. At the lowest levels, student achievement in each of the strands will be minimal. As the numerical levels increase, the band descriptors describe greater achievement levels in each of the strands.

Coherence of assessment and learning

All IB World Schools offering the MYP must develop documents that clearly show how the subject content **aligns** with the objectives. Schools will need to use **interim objectives** to develop **coherence** in their curriculum and to ensure continuity and progression of learning from year 1 of the programme to year 5. Examples of interim objectives for year 1 and year 3 are available on the MYP subject-group pages of the online curriculum centre (OCC).

All schools are then required to organize assessment in a way that is consistent with the interim objectives by modifying the existing assessment criteria. These **modified criteria** should be developed for each particular stage of learning. This means that schools will need to come up with modified assessment criteria that clearly align with the interim objectives.

Developing modified criteria

Once interim objectives are established for use in a particular subject group, the corresponding assessment criteria must be modified to align with these interim objectives.

Teachers must come to a common and shared understanding of the general, qualitative value statements that reside within the descriptors of the published assessment criteria. This process is an essential precursor to the development of modified criteria. It leads teachers to clarify and identify more effectively for themselves and their students the learning objectives at each stage of learning. Without this common and shared clear understanding, teachers will not be able to develop **valid** assessments. (When used in this context, a valid assessment is one that actually measures what it is designed to measure.)

Modified criteria, like their counterparts the interim objectives, can be considered as “waymarks” or “checkpoints” as teachers guide their students through the five years of the programme towards final assessment. As such, these modified criteria must be based on the MYP principles of assessment and must provide for a coherent approach to assessment practices over the entire programme.

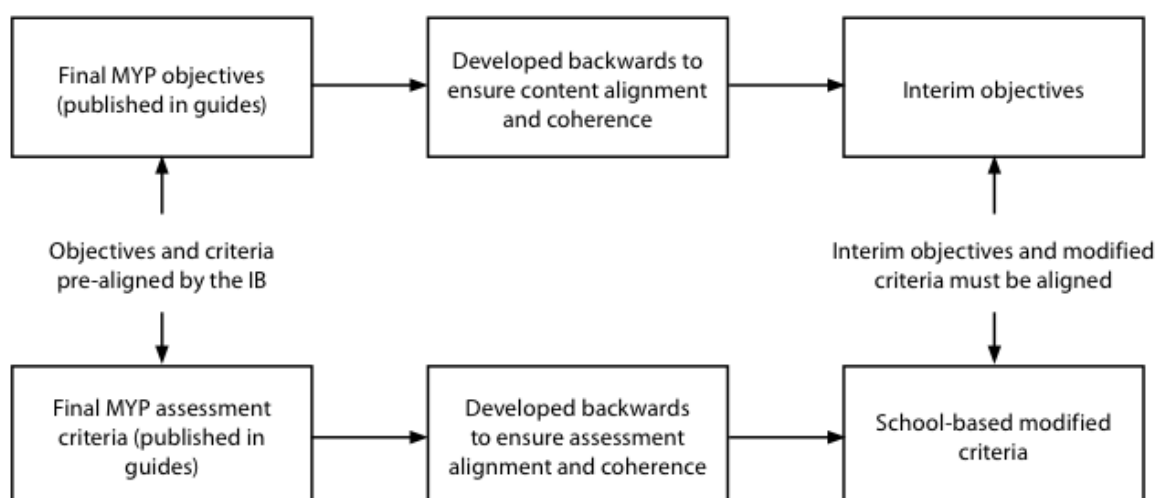


Figure 10

The relationships between MYP and school-based objectives and criteria

Understanding MYP criteria at the subject level

With reference to the published assessment criteria, the descriptors of the various levels of achievement and the qualitative value statements within each descriptor, it is suggested that teachers meet in subject teams to:

- identify individual similarities and differences in understanding of the statements, using student work to provoke and promote discussion
- consult reference materials, such as IB-published teacher support materials and workshop materials
- come up with working definitions of the various statements as they apply to their situations
- agree on meanings.

For example, teachers of an MYP subject would need to agree on the meaning of the following value statements found within a strand of a particular criterion by coming to an agreement on what students would need to do at each level.

Achievement level	Descriptor
1–2	Attempts to justify the method ...
3–4	Justifies the method ...
5–6	Provides a reasoned justification for the method ...
7–8	Provides a concise, reasoned justification for the method ...

Following agreement, teachers would use the definitions to develop modified criteria that align with the interim objectives. In so doing, teachers **must** ensure that:

- every strand of each interim objective is represented in the modified criteria
- the gradations in the value statements in each criterion reflect clearly differentiated levels of achievement
- bands of equal width are used to differentiate the levels of achievement (such as 1–2, 3–4 and 5–6, and not 1, 2–3, 4, 5–6)
- they have kept the relative weighting of each criterion the same
- they have not, purposefully or inadvertently, attempted to match the descriptors on a 1–7 scale with the final grading 1–7 scale—this practice is not supported by the IB
- they have considered the age group or groups that the modified criteria will apply to (whether there are modified criteria for every year of the programme or at other points, pre-defined and agreed by the school)
- the levels of achievement represented in each modified criterion reflect realistic expectations of student learning for the various age groups.

Planning assessment

In the initial stage of planning an MYP unit of work, teachers design an MYP unit question that will drive the unit. Choosing from a range of **assessment strategies** teachers can devise **assessment tasks** that give students adequate opportunities to show clearly what they can achieve in relation to the MYP unit question, and hence the subject-specific objectives for that unit. Teachers will then ensure that they assess their students' performances fairly, fully and appropriately by selecting and using various **assessment tools**.

Teachers should consider the distinction between activities or tasks, and understanding performances. Planning for performances of understanding are more effective in building deep understanding.

Assessment strategies

The MYP values the use of a variety of assessment strategies during the programme, from the more subjective and intuitive to the more objective and scientific. The following provides a brief description of various strategies that exist. The list is not exhaustive and the strategies are not mutually exclusive; indeed, they should be used in conjunction with one another to provide a more balanced view of the student.

Observation

Teachers may choose to observe all students regularly and often, taking a wide-angle view (for example, focusing on the whole class) or a close-up view (for example, focusing on one student or one activity). Teachers can observe from the point of view of a non-participant (observing outside the task) or of a participant (observing when engaging in the task with the student). Observation will be particularly useful when assessing some attitudes or skills.

Selected response

Tests and quizzes are the most familiar examples of this form of assessment. Selected responses allow the teacher to ask general or specific questions to elicit responses from students that will indicate understanding and, possibly, misunderstanding. This strategy is particularly useful during the course of a unit, in formative assessment, as it is usually quick and straightforward to administer and can provide instant feedback for students and teachers.

Open-ended tasks

This strategy allows teachers to present students with a stimulus and ask them to communicate an original response. The response could take many forms, such as a presentation, an essay, a diagram or a solution to a problem. Open-ended tasks may be combined with other strategies, such as performance assessments.

Performance

The MYP assessment model provides opportunities for teachers to devise assessment tasks that enable students to demonstrate the range of knowledge, skills, understandings and attitudes that they have developed in the classroom. Performance assessments can allow students to perform the learned skills and show their understanding in real-world contexts.

Performances of understanding allow students both to build **and** demonstrate their understanding in and across subjects. They are based on the theory that understanding is not something we **have**—like a set of facts we possess—but rather is something we **can do**. In MYP interdisciplinary designs, performances of understanding take different forms depending on where in the unit they are placed (beginning, middle or end) and whether they target disciplinary or integrative understandings.

In the MYP, teachers are encouraged to employ a variety of assessment strategies, tasks, and tools to monitor and further support student learning. Teacher-designed **performances of understanding** may take the form of a composition, a research report, a presentation, or a proposed solution. Such performances serve two functions: they **build** student understandings, and they **make such understandings visible** and amenable for assessment. Teachers can use the information to find out how to support students further (formative assessment) and whether the unit has achieved its goals (summative assessment).

The MYP uses the term “performance” in its widest sense to describe all forms of assessment where students are assessed on their ability to demonstrate predetermined learning objectives.

Process journals

Reflection is an essential element of effective learning. The MYP objectives for all subject groups require students to develop higher-order thinking skills and conceptual understanding. Student reflection and metacognition are essential stages in that process.

Through approaches to learning (ATL), all teachers are responsible for actively involving students in all stages of the learning process. The use of process journals (required in some subject groups, like the arts or technology, but recommended in all) can allow the teacher and student to communicate about the processes of learning, and can be used for meaningful and purposeful reflection. Regular written personal statements by the students about key issues or important activities can lead to enhanced understanding of the concepts. For example, process journals can allow students to detail their community and service responsibilities and actions, and to reflect on their impact.

Portfolio assessment

Portfolios can be used by students and teachers to record their learning achievements. Students and teachers will choose pieces of work, or include observations or evidence from other assessment strategies that show their levels of knowledge and understanding, and that demonstrate their skills and attitudes. Portfolios are useful ways to involve students in their own learning and the assessment of that learning.

Teachers and administrators may wish to explore different models of portfolios for use in their own particular schools, and take into consideration the format of the portfolio, such as whether it should be a physical folder or a virtual folder on the school website. Storage issues, among others, will arise with either format.

A note on standardized tests

Commercially available or state-mandated **standardized tests** are strategies that are usually designed to measure student aptitude according to very narrowly defined curricular goals. While there may be certain advantages with these types of tests, they are not included in MYP assessment as they can have detrimental effects on the learning process. The “backwash” effect, whereby teachers adapt their teaching to the limited range of knowledge and skills measured by such tests, can negatively affect the efficacy of the programme to a considerable extent.

While the IB does not administer or encourage the use of standardized achievement tests, it recognizes that there may be a local, state or national requirement concerning the use of such tests for many IB World Schools. Some other IB World Schools, not subject to these requirements, do choose to use commercially available tests in order to measure their students’ performance over time, in areas defined by the test but not directly linked to the learning defined in the academic programme.

The IB position on standardized achievement tests

When standardized achievement tests are an option, the IB advises school boards, directors, administrators, teachers and parents to consider carefully:

- the relevance of the test to the cohort of students within the school
- the relationship between what is being tested and the school’s curriculum
- the impact of testing on teaching and learning
- the usability of the data produced.

Assessment tasks

The above assessment strategies, and others, can all be used to develop suitable and appropriate assessment tasks. Tasks will be specific to the MYP unit of work, although various categories of task exist that are broadly represented by the following list.

- Compositions—musical, physical, artistic
- Creations of solutions or products in response to problems
- Essays

- Examinations
- Questionnaires
- Investigations
- Research
- Performances
- Presentations—verbal (oral or written), graphic—through various media

The MYP subject-group guides provide more information on assessment tasks and their applicability to certain criteria. The guides also identify the minimum requirements for the moderation process.

Appropriateness of tasks

The assessment task developed for each MYP unit of work should address at least one MYP objective. Student work that stems from the task can then be assessed using the appropriate criteria. It is essential that tasks be developed to address the objectives appropriately; it is **not** valid to assess formally pieces of work that do not address at least one of the objectives.

Teachers should be aware that some types of task might be inappropriate for assessing certain skills. For example, simple multiple-choice tests are only suitable for making judgments about knowledge, basic understanding and some simple application skills. They are generally inappropriate for assessing skills in humanities, experimental skills in science, or comprehension skills in language B, for example.

Without compromising standards, assessment tasks should take into account the requirements of students with special educational needs. Consideration of the appropriateness of the task should also be made for those who are learning in a language other than their mother tongue.

Achievement levels

Teachers will need to ensure that assessment tasks not only address an objective, but allow **students** access to **all the levels of achievement** in the corresponding criterion. Without careful planning, some tasks, for example, might not permit access to the highest levels of achievement for a variety of reasons. Similarly, some tasks may only allow very competent students access to any of the achievement levels; other students may not be able to achieve even the lowest levels simply because the task did not permit this.

Teachers will need to understand fully the implications of each criterion and the levels of achievement before designing assessment tasks. Many of the highest level descriptors require teachers to design open-ended tasks so that students can choose, for example, which techniques or skills to apply.

Recording assessment data

Teachers have a responsibility to document assessment data on all their students. During the course of MYP units of work, teachers will need to record assessment data using appropriate technology to support the determination of a level of achievement.

Teachers will need to take **all** the data into account when determining a level of achievement for a student in each criterion. Summative assessment data must be recorded as an achievement level as described within a criterion.

Assessment tools

The assessment strategies described earlier in this guide may be used to devise and develop assessment tasks. The following tools can be used to collect evidence of student achievement in each MYP unit of work. They can be used to document learning so that an overall summative assessment can be determined.

Anecdotal records

Anecdotal records are brief written notes based on observations of students. Records on the whole class, on smaller groups or on individual students can help the teacher identify areas of understanding or misunderstanding.

Anecdotal records need to be systematically compiled, documented and organized, and teachers should consider various ways, including the use of information and communication technologies, to do so.

Teachers can use anecdotal records for reflection on student learning and for formative assessment. They will be invaluable in planning the next phases of learning. Anecdotal records can be very useful for teachers to identify learning skills, values and attitudes.

Continuums

Continuums provide visual representations of developmental stages of learning, and can be very useful for teachers and students when applied to skills development. They show a progression of achievement and can identify where a student has reached in relation to that learning process.

When used in a similar way to anecdotal records, continuums identify the next stages of learning that can lead to mastery of skills. Continuums are particularly useful when used for approaches to learning (ATL) skills, as they can be developed by teams of teachers from a range of grade levels and can then be used across all subjects in all years of the programme.

Rubrics

Sometimes known as assessment tables, rubrics describe different attributes of student achievement in a variety of levels.

The published criteria and their levels of achievement describe in general terms various levels of student achievement. They can be considered as **holistic rubrics** and they apply to final assessment. They can be adapted by schools to provide student achievement levels against interim objectives for each subject group in years 1–4 of the programme.

Task-specific clarifications are developed from the holistic rubrics, are task specific and give very specific information on the expected outcomes at each level of achievement. The descriptors tell the assessor what characteristics or signs to look for in student work and then how to rate that work on a predetermined scale.

Rubrics can be developed by students as well as by teachers. They are an important part of the MYP teachers' assessment toolkit and can be used formatively and summatively. Rubrics support the ATL skill of student reflection, if they are developed by students and teachers and then used by students during self-assessment.

Examples

Samples of students' work can serve as concrete standards against which other samples are judged. Generally there should be at least one example for each achievement level in a scoring rubric. These can then serve as benchmarks for the particular task.

Schools are encouraged to select examples that are appropriate and usable within their particular context. Following standardization by subject teachers, student work from one unit may serve as example material for the same unit the next year, if suitably anonymized and appropriate, and could be used by students in self-assessment.

Checklists

These are lists of attributes or elements that should be present in a particular response to a task. A markscheme for an examination is a type of checklist.

Checklists are particularly useful when used formatively, as they could be applied by either teacher or student. Checklists have the potential to be used in self-assessment and can support the development of ATL skills.

Developing rubrics

As schools align their written and assessed curriculums, they will develop modified assessment criteria for years 1–4 of the programme. In year 5 of the programme, schools must use the MYP assessment criteria as published in the subject-group guides. MYP published assessment criteria and the school-based modified criteria are described as **holistic**, in that they offer general, qualitative value statements about student achievement.

Rubrics with **task-specific clarifications** are assessment tools that bring a level of specificity to the assessment criteria. Each **task-specific clarification** will be based on a published MYP assessment criterion. The relationship is shown in figure 11.

Developing **task-specific clarifications**, as with many school-based operations in the MYP, is a time-consuming and complex process. It requires teachers to study the assessment criteria (whether the school-based modified criteria or the published MYP criteria) and to redraft the value statements within the levels of achievement in terms of the specific assessment tasks in the MYP unit of work.

The value of the time invested in the process of rubric design is that those produced:

- are an integral part of the learning process
- support learning by guiding instruction
- can be used with example materials to deepen understanding
- bring transparency to the processes of assessment for teachers, students and parents
- provide clear and measurable evidence of learning
- can be used again in subsequent years
- can be modified themselves as the units change over time
- contribute to teacher reflections on the MYP unit of work
- can be useful in curriculum review or monitoring when used collectively, as they can help to identify the specific content actually taught during a learning period.

Clarifying published criteria in year 5

During the final year of the programme, the final assessment criteria as published in each subject-group guide must be used when awarding levels. However, specific expectations of students for a given task must still be defined.

Teachers will need to clarify the expectations of any given task with direct reference to the published assessment criteria. For example, in humanities, teachers would need to clarify exactly what a “wide range of terminology” means in the context of a given assessment task. This might be in the form of:

- a task-specific clarification of the criteria, using the published criteria but with some wording changed to match the task
- an oral discussion of the expectations
- a task sheet that explains the expectations.

The important thing is that specifying what the expectations of students are for each individual task must take place at the beginning of the task so that students are completely aware of what is required.

When clarifying expectations, teachers must ensure that they do not alter the standard expected in the published criteria nor introduce new elements, and when awarding levels in year 5 teachers themselves should always use the published criteria.

In terms of moderation, see the appropriate section of the subject-group guide.

Some issues to consider

When developing rubrics, teachers should consider the following.

- **The tone, register and complexity of the language used.** The MYP objectives, assessment criteria and level descriptors are written in a formal language for educators; when sharing them with students, teachers must explain them clearly. For this purpose, teachers must redraft the assessment criteria and descriptors in student-friendly language for students. Rubrics must be written so that students can understand them.
- **The number of levels of achievement.** Teachers should develop the range of achievements (that is, the level descriptors) expected **first**. It may be that the resulting rubric matches exactly with the number of achievement levels of the criterion with which it is aligned. There are particular dangers in setting a number of levels first, or trying to align the number of achievement levels in a rubric with the final grades on a 1–7 scale. Setting a number of levels first will result in descriptors being written to suit numbers rather than to suit the assessment task and the objective(s). Setting a 1–7 scale first is particularly inappropriate, as it can imply affiliations with a final grade that are not there. Also, this can lead to students and parents focusing on the final grade and not on the learning process. Setting a number scale first is not good practice.
- **The validity of the assessment task.** A task that does not allow students to reach all the levels of achievement within a criterion would be invalid, no matter how well designed a rubric might be. Teachers must ensure that the task allows all students access to all the levels of achievement. Students must not be penalized by teachers if a task is inappropriately designed.
- **How a level will be chosen.** If the descriptors include many strands of an objective, the task was fair and the student performance was at a high level on most of the strands but not all them, teachers will need to adopt a “best-fit” model. If most of the performance was, for example, at the 5–6 level, and yet student work on a particular strand was missing, teachers might consider reducing the overall performance to a lower band. Rubrics can identify to students the strands that proved challenging. Teachers and students together could then set targets for the unit and could focus on improvement in those particular strands.
- **The reliability of the rubric.** Teachers may wish to share rubrics with other teachers and should share them with students. All users should standardize their understanding and application of the rubric to make it more reliable.

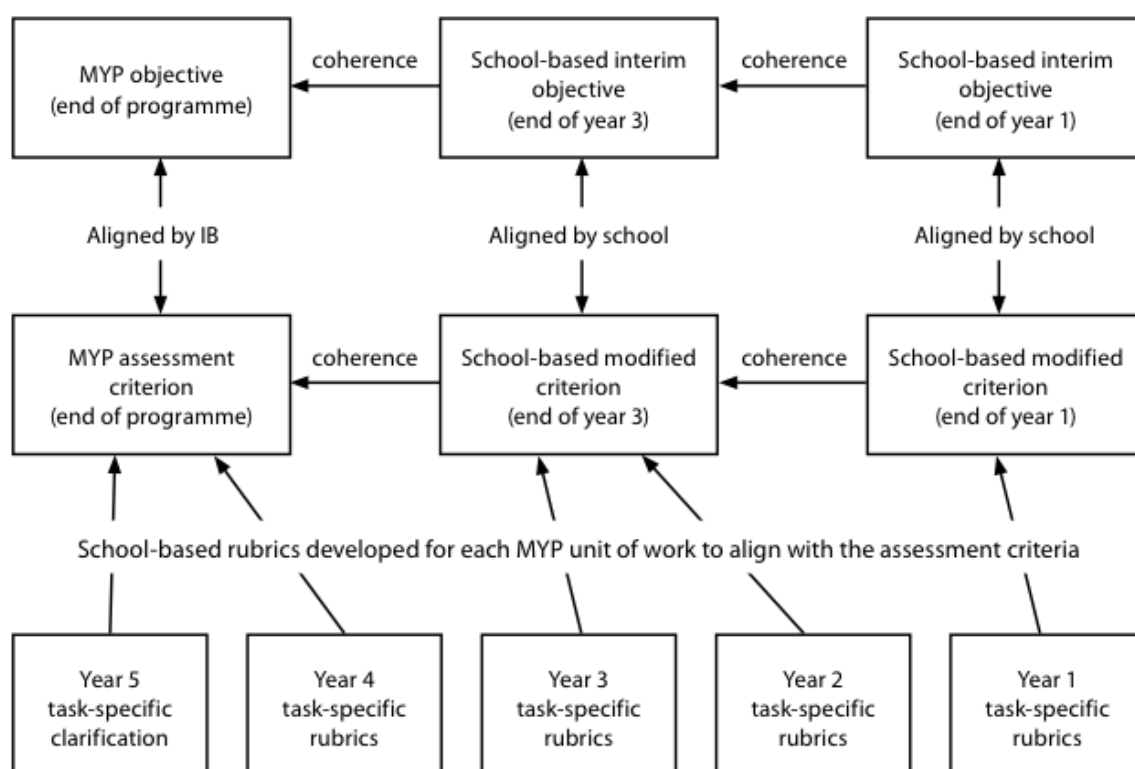


Figure 11

The relationships between objectives, assessment criteria and rubrics

Determining levels of achievement

At the end of a period of learning, teachers must make judgments on their students' levels of achievement in each of the criteria. To determine these levels of achievement, teachers must gather sufficient evidence of achievement from a range of learning experiences and assessments. Teachers need to ensure that this evidence comes from the performance of the student over the duration of the MYP units of work.

A carefully constructed assessment task on an individual MYP unit of work may provide evidence of achievement in all strands of a criterion or criteria. Other assessment tasks may not provide evidence in all strands. In the former situation, the teacher may decide that enough evidence exists to apply the criterion to that particular assessment task; in the latter, the teacher must include evidence from other assessment tasks so that all strands of the criterion are included and a decision on a level of achievement can be made.

When applying the assessment criteria to student performance, the teacher should determine whether the first descriptor describes the performance. If the student work exceeds the expectations of the first descriptor, the teacher should determine whether it is described by the second descriptor. This should continue until the teacher arrives at a descriptor that does not describe the student work; the work will then be described by the previous descriptor.

The descriptors, when taken together, describe a broad range of student achievement from the lowest to the highest levels. Each descriptor represents a narrower range of student achievement. Teachers must use their professional judgment to determine whether the student work is at the lower or the higher end of the descriptor, and award the higher or lower numerical level accordingly. Some other factors may also influence the teacher's decision on a level of achievement, including the following.

- Student support—students will experience varying levels of support in their units of work, since peer-conferencing, formative assessment with feedback from the teacher, editing and correcting are all essential learning tools. Teachers should be mindful of the level of support afforded to each student when determining levels of achievement.

- Group work—teachers need to document carefully the input of individuals working in a group situation so that the levels of achievement for individual students can be determined.

In these ways, at the end of a period of learning, evidence of student learning gathered from a range of learning experiences in each of the objectives can be matched to the appropriate assessment criteria to determine the student's level of achievement.

Final assessment

As described above, the MYP provides assessment criteria and accompanying descriptors for each level of performance for use **in the final year** of the programme. These criteria have been devised to reflect the different objectives for each subject group and the relative weighting of these objectives. Each criterion is divided into achievement levels (numerical values) that are described in a general way by the level descriptors.

Whether or not they request IB-validated grades for their students, **all schools** are required to organize learning and assessment in a way that is consistent with these prescribed objectives and criteria. This also means that the final assessment criteria, and their published levels of achievement, **must be used by all schools** to derive a final grade for all MYP students in the final year of the programme.

Determining final levels of achievement

The absence of any external, formal examination structure in the MYP provides teachers with opportunities to carry out assessments using tasks developed with a range of strategies and tools. In designing these tasks, it is essential that students be given adequate opportunities to show clearly what they can achieve in relation to the objectives of each subject group. Teachers must ensure that they assess their students' performance fairly, fully and appropriately.

Using professional judgment

To determine the final level of achievement in each of the criteria for each student, teachers must gather sufficient evidence from a range of assessment tasks to enable them to make a professional and informed judgment. The judgments will reflect the teacher's professional opinion on the achievement level of each student in each of the criteria at the **end of the programme**. In gathering the evidence for the judgment to be made, teachers will analyse the achievement levels of students over the course of the final school year, which represents their summative performance in the programme, paying particular attention to:

- patterns in the data, such as an increasing level of performance
- anomalous or unexpected achievement levels
- other influencing factors.

For example, a student working consistently at, say, level 4 will, in all probability, be awarded level 4 in the final assessment. If the student worked at level 4 and returned one performance of level 5, the teacher would need to decide whether level 5 truly reflected the level at which the student was performing at the end of the programme. If the teacher did not believe that level 5 was a true reflection of the student's performance at the end of the programme, level 4 would be awarded.

In another example, a student might have demonstrated an erratic performance over the assessment period, achieving a range of different levels for different tasks, for example, achieving 1, 8, 3, 4, 7 and 2 within a series of six assessment tasks. In this case, the teacher would look carefully at the individual student's situation with regard to each assessment task. Were there any mitigating circumstances at the time of any of the tasks that would render the level(s) invalid? Does the student have special needs that were not catered for in particular tasks? Did the student have an inappropriate level of support (too much or too little) for any

of the tasks? What knowledge/concepts/skills has the student consistently demonstrated? After answering these types of questions, the teacher would revert to the school-based holistic rubric (for years 1–4), or the published assessment criteria (for year 5) to make a best-fit judgment for that student.

It is the teacher who, in the opinion of the IB, is best placed to judge which final level should be awarded. Ultimately, teachers will use the evidence provided in the student work to use a best-fit approach to make a final decision. They will then use a whole number to best describe the level achieved by the student.

During the formulation of school-wide agreements on assessment, which will in turn lead to an assessment policy supported by assessment procedures, teachers must come to a common agreement on how they will decide student levels. This is particularly important when student performance has been erratic.

Internal standardization

Where more than one teacher is teaching the same subject or subject group, the process of internal standardization must take place before final levels of achievement are awarded. The process involves teachers meeting to come to a common understanding on the criteria and levels of achievement and how they are applied. In so doing, teachers are increasing the **reliability** of their judgments. (The term “reliability” used here refers to the likelihood of two different assessors producing the same judgment. Clearly, internal standardization, if correctly carried out, can significantly increase the reliability of assessment.)

It is recommended that teachers internally standardize right from the beginning of the school year, and at intervals thereafter, to ensure ongoing consistency.

Inappropriate practices

The final level of achievement will **not** be an arithmetical average of the summative performance scores over the year. To take the average score over the course of the year will not be a reliable measure of the student’s level at the end of the programme.

Other inappropriate methods include the practice of awarding final levels, or even grades, determined by a proportion of classwork, homework and test scores.

Achievement levels are described by whole numbers—fractions must not be used. Criterion-related assessment is based on descriptors of achievement and fractions of whole numbers are meaningless in this context.

Reporting assessment data

Student achievement

During the five years of the programme, all schools offering the MYP are required to communicate student achievement in each of the subjects to parents at regular intervals. Usually, this will be during and at the end of each school year, although it may vary considerably depending on local regulations and the school’s organization of studies for each year of the MYP.

Whenever student achievement is reported to parents, the performance level in each of the criteria should be communicated. This requirement provides students and their parents with information about the student’s engagement with the objectives of each subject group and should be supported with advice for improvement, where applicable.

Determining a grade during the programme

In addition to communicating levels of achievement in each of the criteria, schools may decide to award and communicate grades. Some schools may need to award grades in order to meet national or other requirements.

If a school does award and communicate grades:

- the school must continue to communicate student achievement levels in each of the criteria
- subject grades must be based on the levels achieved in all of the criteria in that particular subject.

When determining a grade, schools must adopt the processes as described in the “Moderation” section in the appendices at the end of this guide. These processes must be open, transparent and understood by all parties.

To support the development and use of open and transparent grading systems, the IB recommends that:

- teachers increase the **reliability** of the grading process by standardizing their understanding and application of the criteria before deciding on achievement levels
- grades should be calculated by using **grade boundary tables**, such as those published in the *MYP coordinator’s handbook*, adapted in years 1–4 to allow for conversions from the modified criteria into grades*
- the IB 1–7 grading scale is used in conjunction with modified **general grade descriptors** that provide written descriptions of each grade.

*Final IB-validated grades will be calculated using the grade boundary tables as published in the *MYP coordinator’s handbook*. If schools are giving students estimated grades in year 5, they must also use these published tables.

Inappropriate grading practices

The following grading practices are inappropriate and are counter to MYP principles.

- Determining grades using a proportion of scores for classwork, homework and tests
- Determining grades by averaging the summative performance scores over the year
- Using single pieces of work to determine grades
- Disregarding evidence of achievement when the assessment task was valid
- Devising modified criteria or rubrics on a 1–7 scale to grade student performance on each assessment task

Reporting format

Schools have a responsibility to inform parents of student achievement. This must be done at frequent intervals by providing assessment data based on the assessment criteria.

There is no specific report format mandated for the MYP. Schools are at liberty to communicate assessment data to parents in a variety of ways, but they must do so formally, using a clear process, and at frequent intervals. The following ways of reporting to parents have been used by schools offering the MYP and have proved effective. However, in practice, a school’s reporting system may make use of all three ways, and possibly others, and will depend on the needs of the school.

- **Report cards**—in which all teachers contribute assessment data from their subject, and which may or may not include grades.

- **Parent conferences**—in which teachers communicate assessment data to parents openly and transparently, possibly supported by examples of each student's work.
- **Student-led conferences**—in which students share assessment data about their learning with their parents, possibly supported with a portfolio of achievement.

In addition to providing data on student achievement as measured by the criteria, schools may consider reporting on other elements of the MYP.

The learner profile

The practice of including comments or descriptions based on the learner profile in a report may be appropriate but is not a requirement (numerical grades are not encouraged). The *IB learner profile booklet* has further information regarding monitoring the learner profile.

The areas of interaction

Schools may wish to include assessment data on student involvement in the areas of interaction, bearing in mind the following guidance.

- Approaches to learning skills can be detailed explicitly, but not graded, on report cards in terms of cross-curricular and subject-specific skills.
- Community and service should result in regular communication among teachers, students and parents.
- MYP units of work, when developed coherently, will place assessment tasks in the context of the areas of interaction.
- If comments are provided by the homeroom teacher, grade-level leader, section principal or other administrator, they can highlight student achievement in activities and projects in the contexts provided by the areas of interaction.
- Portfolio assessment can be a useful tool to help students reflect on the context provided by the areas of interaction within a range of tasks.
- Schools should include student engagement with the personal project in year 5 of the programme.

Determining a final grade

All schools offering the MYP **must** use the published subject-specific criteria and achievement level descriptors to determine final grades; this includes those schools that do not require IB-validated grades.

Schools that require IB-validated grades should consult the section on **“Moderation” in the appendices** at the end of this guide.

Schools that do not require IB-validated grades

The IB recognizes that these schools may have other curricular requirements that include the need for further objectives and assessment criteria. In these cases, it is acceptable to develop and apply **additional criteria** and to use them in the determination of a final grade. However, as the personal project is a recognized MYP activity, the final grade awarded to a student must be based on the published MYP personal project criteria and achievement level descriptors **only**.

To arrive at a **criterion levels total** for each student, teachers will need to total the final levels of achievement in each of the criteria, including additional criteria if appropriate.

If schools have not added criteria, then they should use the **grade boundary tables** found in the *MYP coordinator's handbook* to determine final grades. The tables vary from subject to subject, but all of them provide a means of converting a criterion levels total into a grade based on a scale of 1–7. However, it is recognized that if additional criteria are included, the grade boundary tables as published will not apply. In this case, schools should follow the principle of setting grade boundaries based on the effects of having additional criteria.

Chapter summary

Assessment is integral to all teaching and learning and exists primarily to support and encourage student learning by providing feedback on the learning process.

Assessment in the MYP is:

- **internal**—the assessment processes are carried out in schools by teachers
- **criterion-related**—levels of student success in reaching the objectives of each subject group are measured by relating student work to predetermined criteria
- **continuous**—it is a necessary and important part of the learning process. By assessing students as they engage with subject content, teachers identify student learning needs in order to better inform the learning process.

There are prescribed MYP assessment criteria that include descriptors for each level of achievement for use in the final year of the programme. **All schools offering the MYP** are required to organize learning and assessment in a way that is consistent with their own developed framework of interim objectives by modifying the existing assessment criteria. These **modified criteria** must be developed for each particular stage of learning, and may be in the form of analytical rubrics in years 1–4 or task-specific clarifications in year 5.

In aligning subject content with each of the objectives, teachers ensure that the subject-specific content will enable students to reach the required objectives in each subject group. Choosing from a range of **assessment strategies**, teachers can devise **assessment tasks** that give students adequate opportunities to show clearly what they can achieve in relation to the MYP unit question, and hence the objectives of the subject group. Teachers will then ensure that they document and record their students' performance fairly, fully and appropriately by selecting and using various **assessment tools**.

The MYP views the purposes of **summative assessment** as support for learning and also as the determination of an achievement level; this usually happens at the end of a learning period. Student success with meeting the criteria, and hence achieving the objectives, is communicated in terms of **levels of achievement**.

The following table shows how the MYP may require a change of emphasis by teachers.

Assessment in the MYP has	
increased emphasis on:	decreased emphasis on:
viewing planning, teaching and assessing as integrated processes	viewing planning, teaching and assessing as isolated processes
using a range and balance of assessment strategies	over-reliance on one assessment strategy or tool
involving students in self- and peer-assessment	viewing assessment as the sole prerogative of the teacher
using a range and balance of recording tools and reporting strategies	over-reliance on one strategy of recording and reporting
seeking student responses in order to evaluate their current understanding	seeking student responses solely to identify the right answer
giving students regular and ongoing feedback throughout MYP units of work	concluding an MYP unit of work with testing

Assessment in the MYP has	
increased emphasis on:	decreased emphasis on:
enabling students to see assessment as a means of describing learning and improving learning	assessing for the sole purpose of assigning grades
assessing the levels of students' current knowledge and experience before embarking on new learning.	embarking on new learning before assessing the levels of students' current knowledge and experience.

MYP requirements

Schools **must** use the prescribed assessment criteria:

- in final assessment (year 5 of the programme), according to the requirements of each subject group
- to develop a coherent framework of modified assessment criteria that is aligned with the framework of interim objectives for years 1–4 of the programme.

Schools **must** develop an assessment policy that is supported by clear, written procedures detailing how:

- assessment can support student learning
- a range of **assessment strategies** can be used to present assessment from a variety of perspectives
- a range of **tasks** can be developed according to the needs of the subject and the nature of what is being assessed, reflecting the development of the students within the subject and appropriate to the age group
- students can be provided with adequate opportunities to show clearly what they can achieve
- assessment data will be recorded, and when
- subject teachers can come to a common understanding of the assessment criteria
- grades will be determined for summative assessment, and when
- assessment data will be communicated to parents, and when.

Teachers must not allocate grades for the areas of interaction.

Teaching and learning

In the MYP, the search for meaning and understanding, the acquisition of knowledge and the development of attitudes and skills are best supported when set in the context of the exploration of relevant content. To do this, schools should provide students with learning experiences where:

- teachers encourage students to value their learning and to take responsibility for it by becoming independent, autonomous learners
- teachers make learning goals explicit and the learning process transparent to students
- teachers differentiate learning experiences to accommodate the range of abilities and learning styles in the group
- teachers are committed to the principles of the programme and collaborate with each other
- students are seen as competent and are listened to
- students are encouraged to inquire into subject content
- students interact with their environments in a variety of ways, including physically, socially and intellectually.

Learning is a process that is facilitated, enabled, mediated and modelled by the teacher. MYP students need to fully understand the process of learning in order to learn as effectively as possible. All MYP teachers need to be teachers of learning. They must help students understand how they learn best and how their learning is judged; they must help them understand the learning environments they may encounter and how to respond to them; they must help them become learners who are able to reflect purposefully on their progress; they must encourage them to value learning as an essential, integral and wonderful part of their everyday lives.

Students learn best when:

- their prior knowledge is considered to be important
- learning is in context
- context is relevant
- they can learn collaboratively
- the learning environment is provocative
- they get appropriate, formative feedback that supports their learning
- diverse learning styles are understood and accommodated
- they feel secure and their ideas are valued and respected
- values and expectations are explicit
- there is a culture of curiosity at the school
- they understand how learning is judged, and how to provide evidence of their learning
- they become aware of and understand how they learn
- structured inquiry, critical thinking, learning through experience and conceptual development are central to teaching in the school
- learning is engaging, challenging, rigorous, relevant and significant
- they are encouraged in everything they do in school to become autonomous, lifelong learners.

Creating learning environments

Schools must strive to provide secure learning environments in which the individual student is valued and respected. Schools need to ensure that the relationships students establish with each other and with teachers, which are of central importance to development and learning, will flourish. Student learning is best supported through strong, communicative relationships between teacher, student and parent. In all schools offering the MYP, parents are informed, involved and welcomed as partners with a clear role to play in supporting the school and their own children.

The role of the teacher

Teachers, collectively and individually, play a key role in the creation of educational environments that encourage students to take responsibility, to the greatest possible extent, for their own learning. To create these environments, teachers must provide resources and support for each student to become involved in inquiry, using the tools and strategies that best fit the student's development and ways of learning.

The teacher must be familiar with and responsive to the needs and interests of individual students, and aware of the cultural and social contexts in which they live and learn. In the learning environment, the role of the teacher is to facilitate connections between the student's prior knowledge and the knowledge available through new experiences. The range of development and learning demonstrated by each member of a group of students will inform which practices the teacher will need to implement to meet the needs of both the group and the individual.

In the MYP classroom, the teacher facilitates student learning by creating opportunities for and supporting student inquiries; by asking carefully thought-out, open-ended questions; and by encouraging students to ask questions of each other as well as of the teacher.

Using best classroom practice

An MYP classroom can only be fully effective in the context of a whole-school commitment to the programme. All schools offering the MYP have a commitment to learning and to developing international-mindedness. It is a school where all constituents are encouraged to identify problems and seek solutions in the pursuit of continuous improvement towards common goals. Within this setting, each classroom operates as a microcosm of the larger institution.

An MYP classroom is itself a model of a community—it is a lively place, characterized by collaborative and purposeful activity. Within this community, students are empowered to do their best, for themselves, and to contribute to the learning and well-being of others. They are supportive of each other and will come to establish their personal set of beliefs and values. The community encourages reflection, and thoughtful consideration of issues, problems and successes is valued highly.

An MYP classroom is also a balanced classroom, in the sense that teachers will balance the pursuit of understanding and the construction of meaning with the acquisition of knowledge, skills and attitudes. To do this, teachers will use a range of teaching and assessment strategies and resources to meet the needs of each student. In this setting, students are actively engaged in planning and assessing their own learning.

MYP classrooms are dynamic learning environments, with students moving from group work to individual work in response to their needs and the needs of their inquiries.

In summary, an MYP classroom is a place for thinking and where the expectations are high. It is an environment that is focused on learning.

Supporting student inquiry

As outlined in the programme model, the curriculum framework recognizes and values students' efforts to construct meaning when exploring the world around them. To support this, the MYP requires teachers to provide learning experiences that draw on students' prior knowledge and provide the time and opportunity for reflection and consolidation. This **constructivist** approach respects students' ongoing development of ideas and their understanding of the wider world. It implies a pedagogy that includes student inquiry into significant content in real-world contexts. This pedagogy leads to the most substantial and enduring learning.

The construction of meaning and the development of conceptual understanding are supported in the MYP by the acquisition of knowledge and the development of skills and attitudes that have a context. This is the way in which students learn best—they should be invited to investigate significant issues by formulating their own questions, designing their own inquiries, assessing the various means available to support their inquiries, and proceeding with research, experimentation, observation and analysis that will help them find their own responses to the issues. The starting point is students' current understanding, and the goal is the active construction of meaning by building connections between that understanding and new information and experience, derived from the inquiry into new content.

It is further recognized that not all learning in the MYP will take place in an inquiry setting.

Forms of inquiry

Inquiry can take many forms, yet the most successful form is when students' questions and inquiries are genuine and take them from existing knowledge to new levels of understanding. An explicit expectation of the MYP is that successful inquiry will lead to meaningful reflection and to responsible action initiated by the students as a result of the learning process. This action may extend the students' learning, or it may have a wider social impact. Both inquiry and action can look very different from age 11 to 16.

When engaging with an MYP unit of work students can use the inquiry cycle (see figure 4 in the section on "The areas of interaction") to:

- make connections between previous learning and current learning
- experiment and play with various possibilities
- make predictions and take action to see what happens
- collect data and report findings
- clarify existing ideas and reappraise perceptions of events
- deepen their understanding through the application of a concept
- make and test theories
- research and seek information
- take and defend a position
- solve problems in a variety of ways.

Role of the personal project

The personal project is a reflection of a student's ability to manage and direct their own inquiry, and a reflection of the skills learned through the MYP experience. It is a significant body of work produced over an extended period, is a product of the students' own initiative and should reflect their experience of the MYP. The personal project holds a very important place in the programme in that it provides an excellent opportunity for students to produce a truly personal piece of work of their choice and to demonstrate the skills they have developed.

As shown in the programme model, and exemplified in the subject-group guides and other MYP documents, the five areas of interaction form the core of the programme: they are addressed through the subjects; they bind various disciplines together; they are the focus of varied learning experiences through project work, interdisciplinary activities and real-life community involvement. Although the areas of interaction are not awarded individual grades, they are central to the experience of the personal project, which is intended to be the culmination of the student's involvement with the five areas of interaction; the project is therefore completed during the **fifth year** of the MYP.

The MYP publication *Personal project guide* gives guidance on planning for the personal project.

Chapter summary

Learning is best supported when set in the context of the exploration of relevant content. MYP students should be invited to investigate significant issues by formulating their own questions, designing their own inquiries, assessing the various means available to support their inquiries and proceeding with research, experimentation, observation and analysis that will help them find their own responses to the issues.

An MYP classroom is a lively and balanced classroom, in the sense that teachers will balance the pursuit of understanding and the construction of meaning with the acquisition of knowledge, skills and attitudes.

To create productive and effective learning environments, teachers need to ask carefully thought-out, open-ended questions and encourage students to ask their own questions. This will require teachers to provide resources and support for each student to become involved in inquiry, using the tools and strategies that best fit the student's development and ways of learning. By striving to provide secure learning environments in which the individual student is valued and respected, teachers can provide students with varied cultural and other perspectives on a range of contemporary and historical issues. An explicit expectation of the MYP is that successful inquiry will lead to meaningful reflection and to responsible action initiated by the students as a result of the learning process.

The following table shows how the teaching in the MYP may require a change of emphasis by teachers.

Teaching in the MYP has	
increased emphasis on:	decreased emphasis on:
using a range and balance of teaching strategies	over-reliance on a limited set of teaching strategies
working collaboratively, grouping and regrouping students for a variety of learning situations	over-reliance on one grouping strategy
viewing students as thinkers with their developing ideas of the world	viewing the teacher as the sole authority
building on what students know (constructivism)	focusing on what students do not know
using multiple resources representing multiple perspectives	over-reliance on one teaching resource from one culture
empowering students to feel responsible and to take action	teaching about responsibility and the need for action by others
involving students actively in their own learning	viewing students as passive recipients

Teaching in the MYP has	
increased emphasis on:	decreased emphasis on:
pursuing open-ended inquiry and real-life investigations	a teacher-directed focus on rigid objectives
awareness of the language needs of those learning in a language other than a mother tongue	teaching strategies suitable only for those learning in their mother tongue
addressing the needs of students with different levels and types of ability.	employing teaching strategies suitable for one level and type of ability.

MYP requirements**Schools must:**

- provide secure learning environments in which the individual student is valued and respected
- strive to develop strong, communicative relationships between teachers, students and parents
- develop classroom environments that are focused on learning
- provide resources and support for student inquiry
- provide professional development opportunities for staff around the creation of stimulating and effective learning environments
- use the MYP *Personal project guide* when planning for the personal project.

Planning for teaching and learning

In schools offering the MYP, it is essential that all teachers see themselves as MYP teachers, and are fully committed to and engaged with the philosophy and practices of the programme. Within each school community, the approach to the **implementation** of the programme needs to be holistic and not fragmented by subject-based differences. This will ensure the coherence of the learning from the students' point of view.

Most curriculum guides provide a basis for planning, usually in the form of a list of learning objectives. Such guides provide a document **from** which to plan. The MYP supports teachers who are implementing the programme by strengthening the link between the written, the taught and the assessed curriculums. Consequently, the MYP provides a document **with** which to plan, the MYP unit planner (figure 12).

Schools are encouraged to use information and communication technologies to find software solutions to curriculum planning, such as database programs.

Whole-school curricular planning

Schools need to demonstrate that all teaching and learning for which they are responsible is seen as an interpretation of the MYP in action. The influence of the MYP should be pervasive within a school and should have an explicit impact on all aspects of the functioning of the school community. The school community needs to accept that the effect of the MYP will be systemic and all encompassing, so that change takes place within the school for the betterment of all students. Schools must ensure that its MYP students experience coherence in their learning, regardless of which teacher has responsibility for them at any particular point in time.

For these reasons, the MYP requires schools to plan the curriculum in a whole-school setting. This approach to curricular planning will require:

- supportive leadership
- time to meet, share ideas, plan and reflect collaboratively
- commitment to planning in subject teams and in flexible teams of grade-level teachers
- opportunities for professional development that furthers each teacher's understanding of their subject needs and of the areas of interaction.

For the successful implementation of the programme, planning the curriculum is considered as having **vertical** and **horizontal** components. As a result of vertical and horizontal planning teachers will be in a position to develop subject-based MYP units of work within a whole-school curriculum framework. The framework will also enable teachers to monitor the integration of the areas of interaction with subject content. The process should start with vertical planning meetings. This will then develop into a continuous process of curriculum development that will involve both vertical and horizontal planning. Such continuous collaborative planning is an example of one way of translating the fundamental concept of communication into practice.

Vertical planning

The goal of vertical planning is to sequence learning to ensure continuity and progression from year 1 to year 5 of the programme and beyond. The requirements in terms of the outcomes of vertical planning are shown in the table below.

Element of the written curriculum	Team members	Required outcomes
Subject content	Subject leaders and subject teachers representing a range of age groups	A subject-specific vertical planner that identifies the specific content of each subject that will be taught in each year of the programme to provide students with the opportunities to reach the subject group's prescribed MYP objectives by the end of year 5 (see "Assessment in the MYP" in the section on "Assessment"). This planning document will inform the development of unit plans.
Areas of interaction	Area of interaction leaders (if used in the school) with teachers representing a range of subjects and age groups	A comprehensive written document that identifies the planned learning expectations for each of the areas of interaction for each year of the programme (see "Student learning expectations" in the section on "Areas of interaction")

Horizontal planning

To explore subject content fully using the areas of interaction, a collaborative approach to planning and teaching is essential. This allows teachers to communicate regularly on matters concerning content and pedagogy. Planning horizontally will involve teachers of the **same grade level** working together between and within subject areas to plan for learning.

Planning	Group focus	Required outcomes
The use of approaches to learning (ATL) skill areas in the subjects	Exploring the ATL skill areas across each year level	A document that provides teachers of all subject groups with clear guidance on the use of ATL skills (see "Approaches to learning" in the section on "The areas of interaction")
The use of other areas of interaction in the subjects	Identifying at each grade level how the areas of interaction can be used as tools to inquire into content in all subjects	MYP units of work developed in all subject groups in all years of the programme using all the areas of interaction as the contexts for learning (see the section on "Organizing for learning")
	Identifying any real-world issues or shared concepts that could be approached in an interdisciplinary unit	Interdisciplinary connections that can be used to plan interdisciplinary units of work

The teams of teachers involved in horizontal planning could be led by area of interaction leaders, if a school has these for example, although the choice is left to individual schools.

Interdisciplinary learning

In the MYP, interdisciplinary learning can be generally defined as the process by which students come to understand bodies of knowledge and modes of thinking from two or more disciplines or subject groups and integrate them to create a new understanding.

In the MYP, interdisciplinary learning seeks to yield interdisciplinary understanding. Students demonstrate interdisciplinary understanding of a particular topic when they can bring together concepts, methods, or forms of communication from two or more disciplines or established areas of expertise to explain a phenomenon, solve a problem, create a product, or raise a new question in ways that would have been unlikely through single disciplinary means.

Three key qualities of interdisciplinary understanding follow from this definition. Interdisciplinary learning is:

- purposeful
- disciplined
- integrative.

These qualities guide the design of interdisciplinary instruction and assessment of student work in the MYP.

Interdisciplinary planning

As teachers plan collaboratively to integrate the areas of interaction with their subject content, many occasions will occur when two or more subjects come together and reinforce each other. As teachers of these subjects identify complementary skills and concepts, they can plan MYP units of work that build on this complementarity. These interdisciplinary units of work can provide clearer insight for students as they focus their inquiry on these concepts and skills.

This kind of learning can encourage a deeper level of understanding compared with learning the concepts and skills through one subject perspective alone. However, schools must be aware that contrived links between subjects do not necessarily serve student understanding: interdisciplinary work must be meaningful.

For further guidance on interdisciplinary teaching, schools should consult the IB publication *Interdisciplinary teaching: A guide for schools* (2008).

A note on discrete courses, modules and schemes

The areas of interaction are meant to be integrated with the subjects. The IB does not encourage schools to develop separate area of interaction courses, modules or schemes, or to add further content to existing subjects. This applies to all areas of interaction, including ATL.

MYP units of work

In order for subject content (including conceptual understanding and skills) to be understood in context, and to influence the taught curriculum, content and context must be brought together in a meaningful synthesis through planning, assessing and teaching.

In the MYP, all teaching and learning is planned through MYP units of work. Each of these units should:

- stand alone as a significant, engaging, relevant and challenging learning experience
- contribute to a coherent, school-wide commitment to inquiry that is framed by contexts of local and global significance
- be driven by a unit question that is conceptually based
- involve students in a range of learning experiences planned in response to the MYP unit question
- build on the prior knowledge of the students
- be constructed and conducted in such a way as to promote positive attitudes
- require students to reflect on their learning and encourage them to engage in responsible action.

MYP units of work can be **subject-based** or **interdisciplinary** in nature. Developing interdisciplinary units of work can draw together elements of different subject areas to support a deeper exploration of subject content. These units will be planned by teams of teachers working in collaboration, guided by the common planning document (see figure 12, the MYP unit planner).

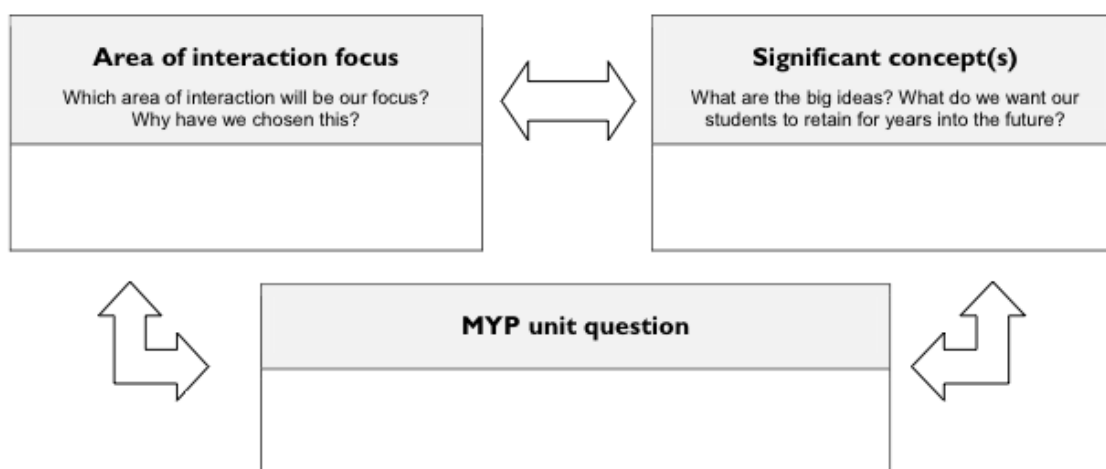
Through the MYP units of work, the subject content and its real-world contexts are synthesized into a meaningful whole, a coherent approach to teaching and learning. In each unit, teachers and students will generate questions and inquiries that have a conceptual base and that are relevant to the MYP unit question. Classroom experiences will be planned as a direct response to these questions and inquiries. The classroom will become a centre of structured inquiry through which students acquire and practise skills and build new knowledge. They do so in a climate that fosters positive attitudes, and offers opportunities for responsible action. Assessment of student learning focuses on the quality of students' understanding of the main concepts and the breadth and depth of their responses to the lines of inquiry.

The time period for each unit will vary from year to year and from subject to subject, and will usually depend on the subject-specific content. Subjects that have fewer periods of curriculum time per week may have fewer units of work per year. Conversely, subjects that have a greater proportion of curriculum time may have more units per year.

MYP unit planner

Unit title	
Teacher(s)	
Subject and grade level	
Time frame and duration	

Stage I: Integrate significant concept, area of interaction and unit question



Assessment What task(s) will allow students the opportunity to respond to the unit question? What will constitute acceptable evidence of understanding? How will students show what they have understood?
Which specific MYP objectives will be addressed during this unit?
Which MYP assessment criteria will be used?

Stage 2: Backward planning: from the assessment to the learning activities through inquiry

<p>Content</p> <p>What knowledge and/or skills (from the course overview) are going to be used to enable the student to respond to the unit question?</p> <p>What (if any) state, provincial, district, or local standards/skills are to be addressed? How can they be unpacked to develop the significant concept(s) for stage 1?</p>	
<p>Approaches to learning</p> <p>How will this unit contribute to the overall development of subject-specific and general approaches to learning skills?</p>	
<p>Learning experiences</p> <p>How will students know what is expected of them? Will they see examples, rubrics, templates?</p> <p>How will students acquire the knowledge and practise the skills required? How will they practise applying these?</p> <p>Do the students have enough prior knowledge? How will we know?</p>	<p>Teaching strategies</p> <p>How will we use formative assessment to give students feedback during the unit?</p> <p>What different teaching methodologies will we employ?</p> <p>How are we differentiating teaching and learning for all? How have we made provision for those learning in a language other than their mother tongue? How have we considered those with special educational needs?</p>
<p>Resources</p> <p>What resources are available to us?</p> <p>How will our classroom environment, local environment and/or the community be used to facilitate students' experiences during the unit?</p>	

Ongoing reflections and evaluation

In keeping an ongoing record, consider the following questions. There are further stimulus questions at the end of the “Planning for teaching and learning” section of *MYP: From principles into practice*.

Students and teachers

What did we find compelling? Were our disciplinary knowledge/skills challenged in any way?

What inquiries arose during the learning? What, if any, extension activities arose?

How did we reflect—both on the unit and on our own learning?

Which attributes of the learner profile were encouraged through this unit? What opportunities were there for student-initiated action?

Possible connections

How successful was the collaboration with other teachers within my subject group and from other subject groups?

What interdisciplinary understandings were or could be forged through collaboration with other subjects?

Assessment

Were students able to demonstrate their learning?

How did the assessment tasks allow students to demonstrate the learning objectives identified for this unit? How did I make sure students were invited to achieve at all levels of the criteria descriptors?

Are we prepared for the next stage?

Data collection

How did we decide on the data to collect? Was it useful?

Figure 12
MYP unit planner

Using the MYP unit planner

Schools must follow this planning process, while use of the MYP unit planner template provided here is recommended. If the format is adapted by schools it must still adhere to the processes described. MYP units of work may be planned by individual teachers, groups of subject teachers, or by a team of grade-level teachers, either wholly or in part. It is essential that schools decide where the responsibility for developing units lies. Also, schools must ensure that units are planned in the context of whole-school curriculum planning.

There are two stages of planning when developing a unit of work, plus an overarching stage of reflection. The stages are present to give an emphasis to stage 1 over stage 2. Stage 1 ensures that units are in line with MYP philosophy and requirements, and stage 2 provides supporting detail to stage 1. The stages are developed by placing elements of “backwards planning” in an MYP context. Units should be planned with reference to vertical and horizontal planning documents for subjects and areas of interaction.

It is recognized that teachers will move between and among the various elements within each stage. Teachers may even move backwards and forwards among the stages as they identify issues, difficulties or opportunities as the unit unfolds. This movement is necessary to the development of units of work that link together all the elements of the programme. Curriculum design is recursive, not linear.

Within the unit planner and later in this chapter there are questions to guide teachers in their planning and to stimulate reflection. Teachers may wish to add their own stimulus questions in addition to these. Please note that some questions are purposefully in the singular or plural—this is to indicate that while some questions will always be answered from the teacher’s perspective, some questions will need to be answered from the perspective of the teacher, student, and/or the school as a whole.

Stage 1

This stage can be summed up as the integration of key elements of units of work:

- the significant concept(s) for the unit
- the area of interaction focus
- the MYP unit question
- the summative assessment.

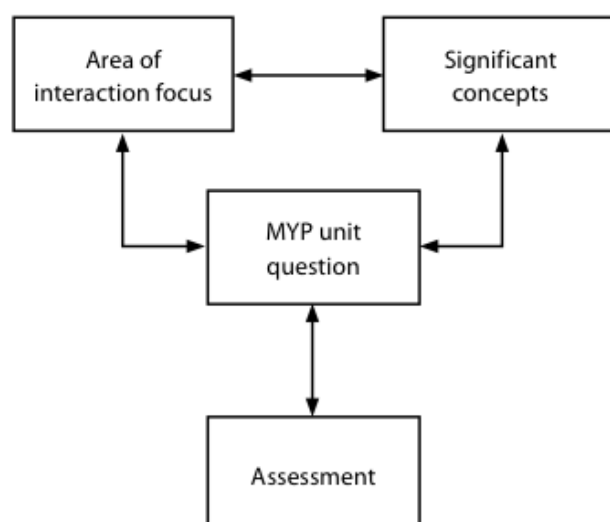


Figure 13

Integration of the significant concept(s), area of interaction focus, MYP unit question and summative assessment

Significant concept(s)

When considering the subject-specific content (dealt with in stage 2) to be taught over the time period of a unit, teachers will need to identify that which is most significant. Teachers need to identify the underlying **concepts** in the content to be taught, and should tease out the most significant of these concepts. These are the big ideas of the unit that the students need to retain for the long-term future. It is recommended that teachers draft a statement setting down the goal of the unit in terms of these concepts. This statement can be listed as the significant concept.

An example of such a statement from biology is, "Students will develop an understanding of how animals and plants are adapted to their habitats." This statement was derived from an analysis of the subject content in which students were expected to know a range of animals and plants, where they lived and their particular features. By further analysis, the teacher realized that the underlying concept that applied was "adaptation" and, to some extent, "form and function".

The following are some questions that may arise from this statement.

- Has this concept been taught to my students in the past?
- Will this concept be taught again this year?
 - If so, is it preferable to combine it into one unit?
- Will this concept be taught again in the future, and why?
- Are any other subject teachers teaching the same or a similar, related concept in one of their units?
 - If so, can we collaborate to design an interdisciplinary unit?

Teachers will, as the planning progresses, identify subject-specific knowledge, skills and attitudes that will be learned during the teaching of the unit, and noted under "Content" in stage 2. Some of the skills learned will be subject-specific and others will be general learning skills that come under the heading of approaches to learning (ATL). The purpose of learning the identified knowledge, skills and attitudes will be to support and enhance students' understanding of the concepts.

Area of interaction

The areas of interaction provide the contexts for learning the identified concepts, knowledge, skills and attitudes. Every MYP unit of work will have an **ATL component**; a shared and agreed set of skills that all teachers will develop in their students during the entire programme.

The context that frames an MYP unit of work is generally derived from **one** of the other four areas of interaction, although ATL might be the specific context on some occasions. Some subject content will be very clearly aligned with one or more areas; other subject content may not, initially, show any connection. Teachers and students should be aware that all content can be set in a variety of contexts; the choice of contexts will be left to teachers to refine as they come to use the planner more frequently.

It is possible that some subject teachers may approach the creation of an MYP unit of work from the areas of interaction first. It is recognized that some subjects may lend themselves more readily to this approach and that it presupposes a degree of familiarity with the areas themselves. If the context is chosen first, the most appropriate content may be chosen with which to explore that context fully. Additionally, there may be an opportunity to collaborate on planning an interdisciplinary unit if other subject teachers are planning units and inquiring with the same chosen area of interaction, or related concepts or issues, with the same class of students.

In any event, once the MYP unit question is drafted, further questions will be elicited. The areas of interaction **key questions** (see example questions in the "Areas of interaction" section) can be used to develop further the MYP unit question(s) and also provide rich scope for the development of subsidiary questions as the unit unfolds.

MYP unit question: integration of concept(s) with context

The MYP unit will be guided and driven by an **MYP unit question** that integrates the significant concept(s) of the subject matter with the context provided by one of the areas of interaction. It is recommended that teachers design the MYP unit question from only one area of interaction initially. At a later stage it is possible to change the context to focus the concepts through another area (which would also change the unit question); this strategy could be used to provide extended work when differentiating instruction for gifted and talented students, or to meet a changing need when repeating a unit in later years, for example.

Figure 14 shows the sequence of thinking when designing an MYP unit question. Whether the content or context is decided first, the end result is an MYP unit question that has two components, with the context either implicitly or explicitly stated. If the context seems implied in the question, the teacher must make the area of interaction **explicit** to students.

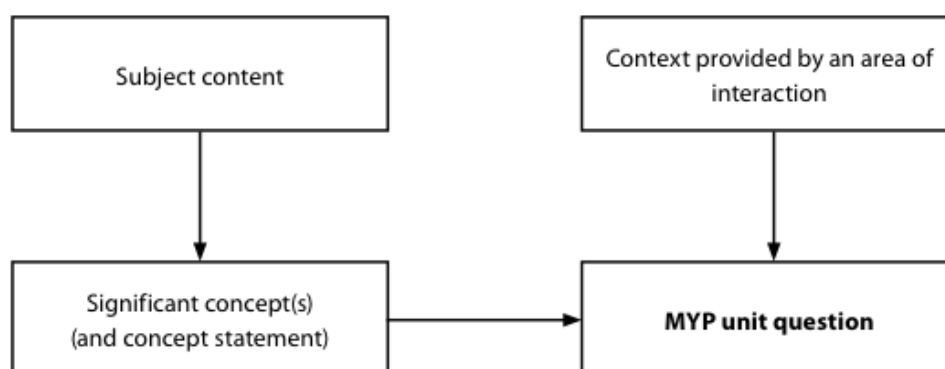


Figure 14
The sequence of thinking involved in designing MYP unit questions

In developing an MYP unit question, the following are proposed as useful criteria. Each question should be:

- **open-ended**—which means the unit should also be open-ended and provide for student inquiry
- **relevant and engaging**—linked to students' prior knowledge and experience as well as current circumstances; of interest to the students, and involving them actively in their own learning
- **challenging and provocative**—extending the prior knowledge and experience of students to increase their competencies and understanding
- **significant**—contributing to an understanding of cross-curricular concepts, through the areas of interaction.

The following are examples of unit questions.

- How are we affected by noise pollution?
- How accurate is "accurate"?
- Is sitting comfortably "healthy"?
- What is "cool"?
- How do different people celebrate?
- How has art been influenced by the environment of the artist?
- What does being "on time" mean?
- How does the environment affect our learning?

Integrating assessment

In the first stage of unit planning, good assessment and curriculum construction practice requires that teachers design assessment tasks that are directly linked to the MYP unit question(s). The assessment tasks should provide varied opportunities for the students to show their knowledge, understanding, skills and attitudes. With the assessment tasks in mind, the appropriate assessment criteria can then be selected and aligned with the objectives that the unit will be addressing.

When planning for assessment, teachers should think like assessors rather than activity designers, clearly setting out what will distinguish students' engagement with the MYP unit question and learning objectives. Students should be involved whenever possible in the planning of an assessment task.

In planning for assessment, teachers should ask themselves the following questions.

- What is the function of this assessment?
- Which MYP objectives are being assessed?
- What evidence of learning will there be?
- How can the evidence be collected?
- Will the assessment task demonstrate understanding?
- Will the assessment be reliable enough to allow sound conclusions to be drawn?
- How will the assessment data be recorded and analysed?
- How and when will feedback be given?

Stage 2

Teachers should move on to stage 2 after addressing stage 1. The purpose of stage 2 is to gather together the available background information on students' prior learning, possible learning experiences and the availability and applicability of various teaching strategies, tools and resources.

Stage 2 is not a linear process, as the information gathered about one part may affect the planning in another part. For example, a review of available resources might mean a teacher needs to reconsider the assessment tasks outlined in stage 1. Similarly, a review of students' prior learning may mean that more time needs to be allocated for the teaching of skills and knowledge that were presumed.

Stage 2 involves the supporting details and can be summed up as:

- information on prior learning
- content
- teaching strategies
- learning experiences
- approaches to learning.

Content

There is space in this section of the planner to list the subject-specific content that was used to generate the significant concept(s). This content may be that which is mandated by state or national systems, it may have come from school-based requirements, or state standards. In such systems this step is the point at which standards may be "unpacked" in order to develop the big ideas or significant concepts for stage 1.

Learning experiences and teaching strategies

Teachers will need to consider how they will monitor and support learning as students engage with the unit. The learning experiences and teaching strategies devised by teachers will depend to an extent on the resources available, the content to be taught and on the subjects themselves.

Teachers should ensure that the range of learning experiences and teaching strategies:

- are embedded in the curriculum
- build upon prior learning
- are placed in context and based on real, essential issues (as provided by the area of interaction chosen)
- are age-appropriate, thought-provoking and engaging
- are based on the differing needs of all students, including those who are learning in a language other than their mother tongue, and students with special educational needs
- are open-ended and involve teaching problem-solving skills
- provide for learning through disciplined inquiry and research
- involve communication of ideas and personal reflection
- give students the opportunity to practise and apply their new understandings and skills.

Ongoing **formative assessment**, carried out during the course of the unit, will provide both teacher and student with insights into the development of understanding, knowledge, skills and attitudes. It is also a means of exploring the learning styles and individual student differences so that instruction can be differentiated.

Teachers should consider providing students with **example materials** that have been collected from previous engagements with the unit. These materials could reflect a range of achievement levels and be supported with assessment tables (rubrics) to show how the level has been measured.

Teachers need to develop ways of ascertaining students' **prior learning** so that they can plan further the most appropriate activities in the unit.

The following are questions that teachers might ask themselves.

- Are we assuming or presuming any prior knowledge or skills; will we need to teach these first?
- What student misconceptions might we encounter?
- What plans do we have if we find that the knowledge or skill level is above or below the standard required?

It is important that teachers should reflect individually and collectively on the various **teaching strategies** that suit a variety of learning styles. Schools should allow their teachers to discuss and decide on the range of strategies and models of development that they will use.

The following are questions that teachers might ask themselves.

- How will we differentiate the teaching and learning experiences for varied abilities and students with special learning needs?
- What classroom management issues do we need to consider?
- Will we have opportunities for integrating information and communication technologies into the classroom?
- What strategies will we use for learners who are working in a language other than their mother tongue?

Approaches to learning

There is space in this section to record the specific approaches to learning (ATL) skills that students will develop through engagement with this unit of work. Teachers will cross-check with their vertical and horizontal planning documents to ensure that the approaches to learning agreed upon are relevant and meaningful in this unit. Teachers will also need to confirm which ATL skills have been (or are concurrently being) developed in other units so that they can build upon these.

Resources

Teachers will need to brainstorm ideas for resources that could be used in the unit. The following are questions that teachers might ask themselves.

- What resources do we have?
- What resources do we have access to and might use?
- What resources would we use if we had access to them—what could we order for next year's unit?
- In coming up with these resources, are we considering:
 - the use of teaching aids and manipulatives, and/or
 - the inclusion of experts and other primary sources, and/or
 - how we will use the media centre?

Concluding stage 2

In summing up stage 2, teachers should review their planner and reflect on it. They may be guided by the question, "How best will I teach this unit?" A related question could be, "How will my students learn best?"

Once the information has been gathered, and following a reflection on the compatibility of stage 1 and stage 2, the teacher can move on to planning individual lessons. Please note that space for this is not included on the planner, though schools may create their own space on it if they wish. Conversely, individual lesson plans may be filed as separate documents. The MYP does not mandate the level of planning below the MYP unit planner.

Ongoing reflections and evaluation

Reflection on the planner and the unit should be an ongoing process; teachers should reflect on how effective their planning was. The following questions may be used as a starting point for evaluating the quality of the planning and the quality of the unit documented on the planner.

General reflections

- When will we reflect on the unit? How will we make time?
- With whom will we share our reflections? Will we reflect actively with another person?
- How will reflections assist with the development of this unit over time?
- How will our reflections improve our teaching?
- How will our reflections assist student learning?
- How will our reflections and evaluation of the unit contribute to the subject and grade-level curriculum development processes?

Purpose of the unit

- Was the MYP unit question clearly stated?
- Were appropriate connections made in the MYP unit question between the main concepts and an area of interaction?
- Were the opportunities for inquiry appropriate for the development level and interests of the students?
- Was there a direct link between the concepts to be understood and the learning activities?

Significant concepts in context

- Did the unit of work provide opportunities for:
 - exploring significant knowledge
 - understanding the main concepts and related concepts
 - acquiring and applying relevant skills
 - developing responsible attitudes and taking action
 - engaging in ongoing and meaningful reflection?
- Were the lines of inquiry and learning experiences drawn from a variety of cultural perspectives?
- What were the attributes of the IB learner profile that emerged from this unit?
- Which learning activities really did allow students to engage with the unit question? Which learning activities used are now redundant?
- What inquiries arose from the learning?

Assessment

- Did the summative assessment link to the MYP unit question?
- Did the assessment strategies and tools allow for differences in the way students learn?
- Were the criteria for success in this unit of work clearly identified for both students and teachers?
- Did the assessment allow the teacher to give feedback to students and parents?

Learning experiences

- Did the learning experiences stem from a variety of appropriate teaching strategies and learning needs?
- Did the availability and range of resources support inquiry for all students?
- Were students actively engaged, provoked and challenged?
- Was there space for student inquiry?

Chapter summary

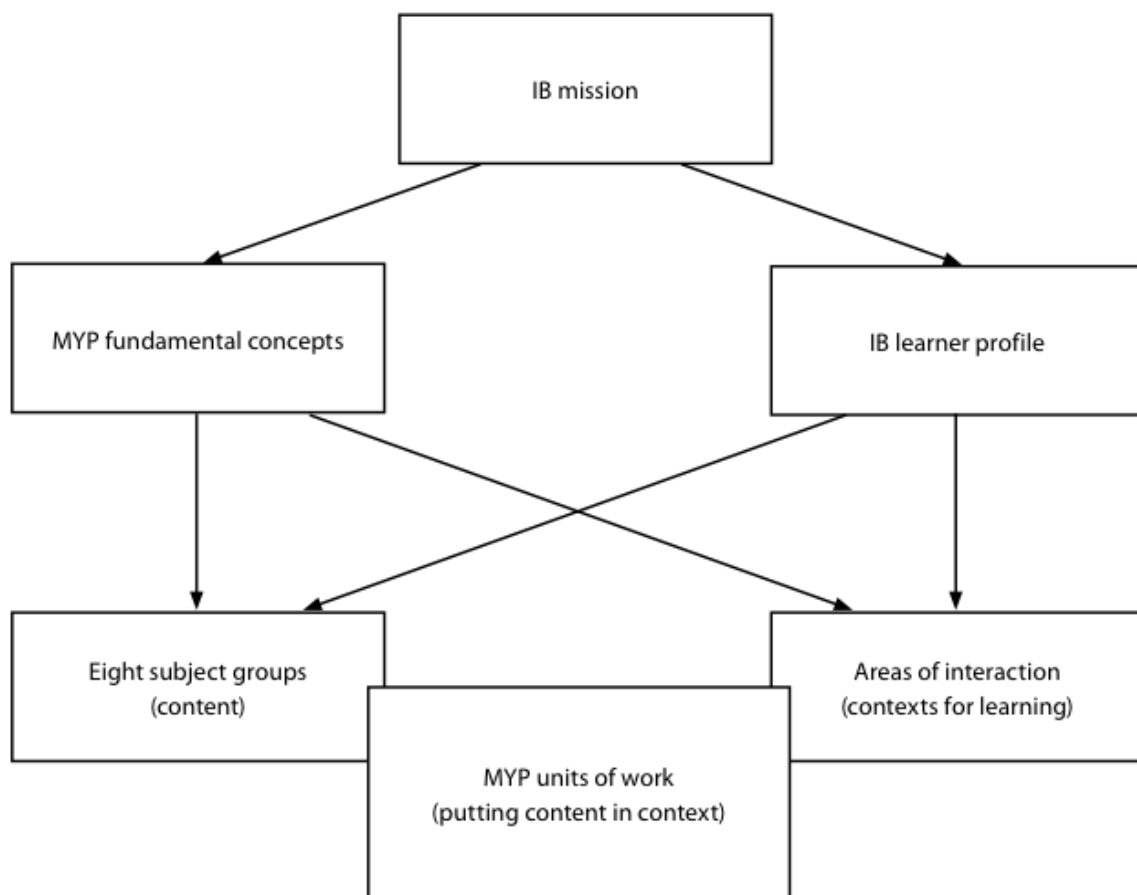


Figure 15

How the key principles and concepts of the MYP are integrated into units of work

The following table shows how planning in the MYP may require a change of emphasis by teachers.

Planning in the MYP has	
increased emphasis on:	decreased emphasis on:
planning collaboratively using an agreed system and the MYP unit planner where appropriate	planning in isolation from other teachers
planning based on established curriculum goals (student learning expectations) in a coherent school-wide programme	planning that is disconnected from the curriculum
involving students in planning for their own learning and assessment	the teacher making all the decisions
planning that builds upon students' prior knowledge and experience	planning that ignores students' prior knowledge and experience
planning for student inquiry, to be explored in depth	planning a large number of activities that will be covered superficially

Planning in the MYP has	
increased emphasis on:	decreased emphasis on:
addressing assessment issues throughout the planning process	addressing assessment issues at the conclusion of the planning process
planning collaboratively to find the connections between and beyond the subject areas	planning that presents the curriculum as separate, isolated subject areas
planning that recognizes a diversity of student language profiles	planning that assumes all student language profiles are similar
planning that recognizes a range of ability levels	planning that assumes a single level of ability
planning inquiries that explore similarities and differences between cultures or places	planning activities that focus on one culture or place
planning inquiries from the contexts of the areas of interaction	planning activities where any cross-cultural dimension is tokenistic and the international dimension is tacked on as an afterthought
planning inquiries that focus directly on significant issues.	planning activities in which exploration of significant issues is incidental.

MYP requirements

Schools **must**

- have a whole-school approach to curriculum planning
- plan the curriculum in collaborative teams
- plan vertically and horizontally, that is from year 1 to year 5 of the programme and by grade level
- plan and document the curriculum in terms of subject content (including conceptual understanding and skills) that will allow students to reach the prescribed objectives
- plan the contexts for learning through the areas of interaction
- plan individual MYP units of work using the practices described in this guide
- provide professional development opportunities for teachers to further their understanding of the principles of the programme.

Organizing for learning

School structures

Leadership and management for change

The MYP represents an approach to teaching that is broad and inclusive. It provides a framework within which a wide variety of teaching strategies and styles can be accommodated, provided they are driven by a clear sense of purpose and a commitment to student inquiry.

The degree of change required to implement the MYP approach at the school-wide level will, obviously, depend on conditions within the school at the time of implementation. However, to be realistic, administrators and teachers **must recognize** that:

- school-wide adoption of the MYP approach will require change not only in the classroom but throughout the school
- the process, as with any change that requires people to examine and modify their current practice, is likely to be slow and beset with insecurities and difficulties
- engaging in this change process will have a beneficial impact on the whole school, the individual teachers and, most significantly, on the quality of student learning, and that the effort will be worth it
- the process of change in teaching practices will require substantial support from all teachers and administrators.

In IB World Schools, all constituents should be committed to learning and to developing international-mindedness. To achieve this, adults and students must be encouraged to identify problems and seek solutions in the pursuit of continuous improvement towards common goals.

The MYP coordinator and the educational team

The school's MYP coordinator has a key role to play in the development of the MYP at the school, including the organization and successful integration of the areas of interaction. The specific responsibilities of the MYP coordinator will vary, depending on the number of students and teachers, the type of school and its management structure. However, this should be viewed as a **leadership position** with the support of the entire management and teaching team.

Most schools must establish an **MYP educational team**, or steering committee, to assist the MYP coordinator by involving a number of key individuals among the teaching staff and administration. At times, the MYP educational team may include parents and students. The MYP educational team's function will be to consider implementation and development issues, such as:

- strategic and action planning
- the allocation of resources and establishment of priorities
- allocating meeting time for planning; collaboration and shared planning time are vital for successful implementation of the MYP, in addition to being requirements according to the *Programme standards and practices*
- timetabling or scheduling
- the induction of new teachers

- professional development needs
- individual teacher support
- curriculum review and development in the school
- planning for the personal project, including the allocation of supervisors
- preparation for regular programme evaluation.

Subject leadership

The IB acknowledges that some schools that decide to implement and develop the MYP may have an organizational structure that provides for a strong vertically coherent curriculum in each subject. The role of the subject leaders, or department chairs, can provide a strong foundation in the development of the written curriculum in terms of:

- alignment with MYP objectives
- developing interim objectives
- ensuring coherence of content from year to year.

Subject leaders are ideally placed to lead the development of modified assessment criteria and assessment strategies and tools in their respective subjects. They can also be instrumental in bringing together subject teachers in collaborative teams to develop MYP units of work.

Subject leaders would usually be members of the MYP educational team. In the case of large schools with many subject leaders, the team may wish to include fewer subject leaders, each with a responsibility to represent more than one subject or subject group.

Areas of interaction leadership

The IB does **not** require schools to appoint teachers to lead the integration of the areas of interaction. However, the following is intended to assist schools that decide to do so.

There are many models of management structures that have been shown to work effectively. For example, small schools may choose to appoint one leader who is responsible for all five areas. Alternatively, schools may choose to appoint one area of interaction leader for each grade level (year), who is responsible for the integration of all the areas for a particular age group. Large schools may decide to appoint five area of interaction leaders to lead the integration of each area in all the MYP years.

The area of interaction leaders will typically be members of the educational team. They should be responsible for:

- ensuring that the areas of interaction are well understood by teachers
- helping to decide how the areas of interaction can be addressed by subject-specific content and special activities in each year of the programme
- developing a framework of student learning expectations for their particular areas
- contributing to an overall plan for the integration of each area of interaction in a gradual way, according to the age group
- maintaining contact with subject leaders and teachers, helping to sustain momentum and enthusiasm
- guiding students when considering their personal projects
- assisting in the monitoring of the implementation of the areas of interaction.

Monitoring the areas of interaction

The MYP coordinator, supported by the school's educational team including the area of interaction leaders and the subject leaders, is responsible for monitoring the effective integration of the areas of interaction within teaching and school activities. In turn, this monitoring allows the collective discussion of, and adjustments to, the ways in which the school uses this essential dimension of the MYP.

In schools with a high staff turnover, this regular process of monitoring and allowing collective discussion is particularly crucial to the continued success of the programme. In all schools, however, it is a very important condition for the ongoing development of the MYP. In monitoring the implementation of an area of interaction, the following questions might be asked.

- Has a framework of student learning expectations for the integration of the area of interaction been devised?
- Are curricular strategies specified to identify where and how issues will be addressed in the curriculum?
- Does this plan of action ensure progression in learning from years 1 to 5?
- Are parents informed of the school's programme and do they support it?
- Is there coordination with other areas of interaction to ensure appropriate coverage and linkage?
- Is the school using available resources adequately?

MYP coordinators and individual teachers within the school can use a number of tools to help them monitor the effectiveness of the implementation of the areas of interaction. Such tools might include:

- evidence of reflection in student work, process journals, portfolios and self-assessment documents
- evaluation of action projects directly linked to the areas of interaction, such as community and service activities and environmental projects
- staff reflections on specific units of work or projects, self-evaluation and goal-setting tools
- ongoing discussions of, and adjustments to, the planning of the integration of the areas of interaction, remembering that long checklists do not equate with real change in the classroom
- evaluations of the efficacy of the framework of student learning expectations in each area and whether they guide students in the development of their personal projects
- evaluation of the integration of the areas of interaction in subject-specific and interdisciplinary teaching
- use of the self-study questionnaire devised by the IB for programme evaluation
- requests for guidance, such as monitoring of assessment by the IB.

Grade-level leaders

As part of the provision of care to their students, schools may have a pastoral structure that could include homeroom teachers, advisors and class or grade-level leaders. Usually, the role of the grade-level leader is to coordinate the pastoral care of students in a particular grade level, and includes facilitating the transition of students into and out of that particular grade level.

In some schools, an individual teacher may take on the role of grade-level leader and also area of interaction leader or subject leader. Schools are advised to ensure that, if multiple leadership responsibilities are taken on by individuals, then the expectations of each role are made clear.

Personal project supervisors

During the fifth year of the programme, all MYP students are expected to complete a personal project. Schools are required to appoint a supervisor to work with each student on the personal project. The supervisor should be an appropriately qualified person within the school but need not be a specialist in the particular field of study chosen by the student.

The supervisor is expected to:

- make sure that the student has been provided with and understands the guidelines and the assessment criteria for the personal project
- guide the student on how to complete the personal project successfully
- emphasize to the student the importance of keeping an effective process journal
- carry out assessments during the project by offering positive, constructive oral and written comments at each stage, using the personal project assessment criteria as a basis for discussion
- ensure that the project is authentic and entirely the student's own work, and that third-party material is adequately referenced
- assess the project summatively according to the assessment criteria
- take part in the standardization of assessment process in the school.

The MYP *Personal project guide* gives supervisors more guidance on all aspects of the personal project and on its supervision.

Job descriptions

In smaller schools, some teachers may take on a variety of roles. They may find themselves combining two or three roles as subject leader, area of interaction leader and grade-level leader. Other, often larger, schools may have a policy of not appointing teachers to more than one leadership role. Whatever the policy, and whatever the roles and responsibilities, each role should be supported by a job description that clearly states the responsibilities and expectations of that role.

Job descriptions for all roles in the school should be made available for all staff. An organizational chart, although sometimes difficult to produce to accurately reflect the diverse and changing needs of schools, can be a useful tool for administrators and teachers to use to identify leadership responsibilities and lines of communication.

It is critical to the success of any school programme that a school develops and documents ways of monitoring and evaluating the efficacy of its organizational structure. With this in mind, it is recommended that schools find ways of monitoring the roles of all constituents.

School policies

Policies and procedures

In most organizations, **policies** are generally the domain of the governance structure. A policy can be defined as:

- a specific statement of belief, intent or guiding actions that implies clear commitment to consistent decision-making and resource allocation, or
- a definite method or course of action selected to guide and determine present and future decisions.

In schools, it is usual for administrators to propose or develop policies to the board for adoption and approval. Normally, administrators will then provide, in consultation with teachers, the necessary **procedures** to enact these board-approved policies.

In all schools offering the MYP, board members will need to be aware of the implications that their policies may have for the programme. As it is usual for administrators to sit on school boards, these individuals must ensure that board members understand the principles of the programme. Administrators should consider the provision of in-school training for school boards, and should invite board members to special events, such as any themed days or personal project fairs.

Policy support for the MYP

The implementation and development of the MYP can be supported and put into practice in everyday school life through the collective consideration, adoption and approval of appropriate school policies. For example, school boards could consider the adoption of the IB learner profile to forge agreements on the necessary attributes and expected behaviour of its students. The core philosophy of the MYP, the fundamental concepts and the areas of interaction, can be used to create policies that can influence the whole school community.

All schools offering the MYP **must** develop assessment and language policies and procedures. The document *Guidelines for developing a school language policy* must be consulted on the latter. Schools may also consider developing policies on:

- curriculum and learning
- communication
- equal opportunities for all
- student council and government
- student involvement in peer help groups and other school community activities
- hiring teachers
- contractual arrangements to allow for appropriate planning time
- active involvement of staff in decision-making
- the use of alcohol, drugs and tobacco
- the choice of food available at the school cafeteria and in vending machines
- student training in health and safety, including fire and first aid
- use of school facilities and equipment
- environmental issues, such as recycling and the promotion of waste reduction.

Essential agreements

When policies are approved by school boards, administrators will usually have the responsibility of coming up with procedures to enact the policies. Best practice has shown that the decision-making process should include staff input, as teachers will usually be in a position to advise administrators of potential issues and solutions.

The drafting of **essential agreements** is a very useful first step in developing procedures. Essential agreements stem from open discussion on the policy under development and are represented as formalized statements on procedures that will enable the policy to be enacted. Teachers and administrators together agree on the procedures, which are then put into action. After an agreed time, the agreements are reviewed, amended if necessary and then formalized as **procedures**.

During the implementation and development of the MYP, school policies may come under review and essential agreements may be used to develop procedures that uphold the principles of the programme.

Examples of ways to develop school policies for assessment, inclusion and academic honesty are included in the “Appendices” at the end of this guide.

Chapter summary

When implementing the MYP, schools will need to examine their organizational infrastructure to determine whether it will meet the needs of the programme. The IB advises schools, administrators and teachers that adoption of the MYP approach will lead to school-wide change; it further advises schools that these changes will result in a beneficial impact on the whole school, the individual teachers and, most significantly, on the quality of student learning.

Job descriptions and an organigram can be useful tools for administrators and teachers to identify leadership responsibilities and lines of communication. Schools must find ways of monitoring the efficacy of their school structures.

The implementation and development of the MYP can only be supported and put into practice in everyday school life through the collective consideration, adoption and approval of appropriate school strategic plans, action plans, policies and procedures.

MYP requirements

Schools must have:

- an informed and supportive governing body and administrative structure
- an MYP educational team, or steering committee, that welcomes and values input from all constituents, including students
- an appointed MYP coordinator, who is viewed as having a leadership position within the school
- subject leaders to provide a strong foundation in the development of the subjects
- supervisors to work with students on the personal project
- a teamwork approach to planning that involves varied combinations of the above to lead programme development at different levels
- clear, written plans that provide the school’s goals, strategies, accountabilities and timelines and that are available to all members of the community
- professional development opportunities for board members, administrators and teachers to further their understanding of the principles of the programme.

Appendices

Moderation

The following section on moderation is designed to give teachers an overview and to offer guidance on the principles and processes of moderation as they stand at the date of publication.

Specific details are included in the *MYP coordinator's handbook*, and are updated annually.

Introduction

Many IB World Schools offering the MYP request IB-validated grades for their students in the final year of the programme. This official validation of grades is optional, and requires a process of **external moderation** of the teachers' internal assessment.

Requesting IB-validated grades at the end of the programme has several advantages for the students and for the school.

- It provides students with external, international recognition of their achievement in a number of courses, determined by the school and the students themselves.
- It focuses the attention of teachers and students on the objectives of each subject group.
- It provides the school with a yearly report written by trained subject experts on the way in which each subject is assessed within the school, with detailed comments and suggestions.
- It guarantees to teachers, students and parents that the results achieved in these subjects have been confirmed by a process of external validation according to international standards.

The principles of moderation

The flexibility of the MYP, in terms of wide-ranging subject content, different styles of teaching and varied assessment strategies, tasks and tools, gives rise to issues of comparability and reliability. If the IB is to issue validated subject grades it must ensure that **common standards** are being applied by all schools, in different years, and to different subjects.

In all cases, MYP students are assessed **internally** by teachers; there is no formal examination structure, no system of external assessment, and the IB does not provide examinations. All schools are responsible for organizing appropriate assessment according to the objectives and criteria published in the subject-group guides and their own organization of the programme. The term **moderation** refers to the checking and unifying of the assessment standards; adjustment of results may or may not be required following this process, depending on the teachers' understanding and application of the criteria.

Moderation takes place in all level 1 languages and level 2 MYP languages. For more information about languages supported by the organization, please visit the IB public website. Different arrangements apply in the cases of language A and B moderation. The process involves teams of moderators recommended by IB World Schools offering the MYP. The moderators are invited and trained by the IB to conduct this important process.

IB-validated final grades, records of achievement and MYP certificates can only be awarded if a school undergoes moderation.

The processes of moderation

When a school requests grades validated by the IB for their students in the final year of the programme, it must register students with the IB according to guidelines provided in the current *MYP coordinator's handbook*, which also specifies the fees associated with this process. A school may register **all or some of its students** as candidates, in **one or any number of MYP subjects** as well as the personal project.

Schools that are developing the programme and preparing for moderation for the first time may find it very useful to request the service of **monitoring of assessment**.

Stage 1: Using the prescribed assessment tasks

The individual subject-group guides and the *MYP coordinator's handbook* provide lists of prescribed assessment tasks. Teachers in schools requiring IB-validated grades and sending moderation samples are required to use these particular assessment tasks with their final-year students before the yearly moderation deadline. The tasks represent the minimum number and types of task that can be sent for each student in a moderation sample. Additional forms of assessment tasks may be included, provided students' work in the subject can be validly judged against the appropriate subject-group assessment criteria.

For practical reasons, moderation depends largely on written evidence of student performance. This in no way implies that student assessment should be limited to written tasks; teachers should use a full range of assessment tasks in the final assessment of their students during the final year.

Stage 2: Collating and submitting moderation samples

Moderation is achieved each academic year by requiring schools to have their teachers submit **moderation samples** for each subject in which candidates are registered by that school. Moderation samples from each school will contain student work assessed by their teachers for each subject and for the personal project.

By submitting work from samples of students representing a range of abilities, IB-appointed moderators are able to judge each school's understanding and application of the assessment criteria over the range of achievement levels.

The IB carries out the moderation process on each school's moderation sample in each subject by making the following assumptions.

- A teacher's application of the assessment criteria should not change over the course of the year.
- The same assessment standards are applied to all student work equally.
- If more than one teacher is involved in teaching and assessing student performance, **internal standardization** has taken place within the school **before** samples are selected for submission.

Sampling student work

The moderation sample for each subject must comprise **folders of work** from eight students unless instructions from the IB indicate otherwise. The choice of students may vary from subject to subject.

Teachers are required to include folders from:

- four students representing a spread across the average ability level for the subject in that school
- two comparatively higher ability students
- two comparatively lower ability students.

If the group of MYP students that are registered for a subject within the school consists of eight or fewer students, then folders of work from all these students must be sent to the IB.

Folders of student work

Each folder of student work **must**:

- be separate
- represent the work of only that student
- contain **at least** the minimum prescribed assessment tasks specified in the appropriate subject-group guide (or the finished project in the case of the personal project)
- provide two (2) identified **judgments** against each criterion, unless stated otherwise in the subject-group guide
- include the same tasks as other students wherever possible
- be submitted in either English, French, Spanish or Chinese (with the exception of languages A and B)
- be in the same language as all other student folders in the same moderation sample
- for practical reasons, not include group work (although it is recognized that group work is very important as a part of teaching and learning)
- be accompanied by a completed coversheet *Form F3.1* and, should a student want to retain exclusive copyright in a particular piece of work submitted for moderation, by a completed and signed *Student claim of exclusive copyright* form.

Teachers are advised that videos, cassettes, CDs, CD-Roms and all other media submitted for moderation must be accompanied by a full written description of the contents.

Organizing each folder

Each task included within a folder **must**:

- be clearly labelled to enable moderators to identify easily how the task corresponds to the coversheet; this labelling should include:
 - the name of the student
 - the name of the school
 - the type and title of the task
- identify clearly where and how the assessment criteria are assessed within the task, and the levels awarded by the teacher. This should correspond to the criteria and levels marked on coversheet *Form F3.1*.

Coversheets

The coversheet *Form F3.1* completed for each student **must**:

- be included with the folder
- identify the school, school code, subject and student
- describe the type and title of the assessment tasks in the folder
- record two judgments (unless otherwise stated in the relevant subject-group guide) made against each criterion for the different tasks
- include any background information on the reverse of the coversheet that may be helpful to the moderators in understanding that particular student's performance for a particular task or in general, for example:
 - the amount of support provided
 - separation of teacher instruction from student planning
 - special circumstances
 - general/specific information on the student
- record a judgment for criteria that are not moderated (for example, criterion F in the sciences)
- be signed by the teacher to **authenticate** the information provided. In the case of several teachers being involved in any particular subject, one teacher should sign the form for the subject concerned and the names of teachers involved in internal standardization should be included where appropriate.

A different coversheet, *Form F3.2*, must accompany the submission of sample personal projects. This form allows supervisors to include explanatory comments on the award of levels for each criterion to facilitate the process of moderation.

Authenticity of work

It is the responsibility of the school, through the MYP coordinator, to ensure that student assessment is conducted in a proper manner. It is essential that all work used for final assessment is the individual student's own work. If a school has any doubts about the authenticity of work carried out by students, results should be withheld for those students until the matter is resolved by the school and cases of suspected malpractice by students dealt with.

It is the responsibility of a school requiring IB-validated grades to submit to the IB only **authentic** work and assessment data for students. Schools should only send samples of work accomplished by students who are **registered as candidates** for IB-validated grades for that year, even though other non-registered students might be following the same courses.

Background documentation

Along with folders of work from the required number of students, teachers must submit other documents that have been used in the assessment of student performance. These documents will be invaluable to the moderator, as they give a much clearer picture of the contexts in which the assessment took place. This documentation should be included in a separate folder (the **"background information folder"**) and does not need to be duplicated for each student.

The documents may include:

- relevant tests or examination papers (which may include the teacher's answers or assessment guidance)
- descriptions of the conditions under which the work was completed (guidance/references provided, degree of redrafting permitted, time allocation, and so on)
- markschemes, or explanations as to how specific levels were awarded
- worksheets and instructions or guidance notes given to students
- task-specific clarifications arising from the published MYP assessment criteria that were used by the students.

Teachers are required to include a copy of the previous year's school-specific **moderation report** for that subject. If it is the school's first year of sending samples for moderation, teachers are required to include the **monitoring of assessment report**.

If teachers use third-party material as stimuli and/or as part of their tasks, this material must be fully referenced. This will include the title of the source, the author, the publication date, the publisher and, for books only, the ISBN. Examples of third-party material include, but are not limited to, articles (magazines, newspapers, and so on), cartoons, videos, movie excerpts, extracts from books, pictures (please check acknowledgment in the publication for their original sources), diagrams, graphs, tables, statistics and material from websites.

Checklists

Checklists for subjects and the personal project are available from MYP coordinators. These checklists must be given by the MYP coordinators to the teachers who are preparing the moderation sample. On completion of the sample, these checklists must be completed by the teacher, signed by the teacher and the MYP coordinator, and included in each sample.

Note: Samples that lack any of the requirements listed here may be inadequate for the purposes of moderation.

Where material for moderation is insufficient or submitted late, certificated results may be impossible to issue, or delayed until the appropriate information has been delivered to the IB, and further expenses will be incurred by the school. MYP grades will not be issued in subjects where moderation has not been possible. This will, in turn, prevent students from being awarded the MYP certificate.

It must be emphasized that if a moderation sample is incomplete, or if it is inappropriate for the purposes of moderation, then the school, not the IB, is responsible for the outcome of the certification process.

Mailing of moderation samples

All sample materials **must** reach moderators at the latest by the deadlines published in the *MYP coordinator's handbook*. Mailing of moderation samples is generally organized by the MYP coordinator.

The mailing of moderation samples **does not** signify the end of final assessment, nor do samples contain definitive indications of a student's final achievement. Moderation is a snapshot of what tasks are being set in the school, and how teachers are using the assessment criteria. After samples are sent, teachers must continue to set assessment tasks and assess students right up until the end of the final year.

Stage 3: Moderation

Moderators are trained and retrained each year through the IB Curriculum and Assessment Centre. They attend face-to-face standardization meetings, led by senior moderators, to ensure common application of the published criteria worldwide.

Moderators receive moderation samples from schools, and proceed to moderate the samples according to the standards and methods agreed upon at the standardization meetings. In particular, they will be checking that the tasks set by teachers are appropriate, that is, that they enable students to demonstrate the MYP objectives to a fifth-year standard, and that the teachers are applying the final assessment criteria appropriately, that is, that excellent work is awarded high levels and that poor work is awarded low levels.

Moderators will confirm or adjust the levels awarded by the teachers. The difference between teachers' levels and moderators' levels is what determines the **moderation factor**. A moderation factor is always calculated: note that little or no difference between teachers' and moderators' levels results in a moderation factor of "0"—which will lead to no change in student grades.

If a school is inconsistent in the award of levels within a sample (for example, being overly harsh with poor work, and overly lenient with average work) then **multiple moderation factors** will be applied within a subject to reflect this.

A full explanation of the process of determining moderation factors, with examples, is contained in the *MYP coordinator's handbook*.

Moderators will write a school-specific moderation report that comments on the following:

- background information in the sample
- suitability of the assessment tasks
- academic level of the subject as determined by the teacher expectations in the task
- use and application of the assessment criteria
- interpretation of the achievement level descriptors
- organization of the moderation samples
- suggestions and recommendations for future samples.

These subject-specific moderation reports, which are school specific, should be read in conjunction with the general moderation reports that are available on the online curriculum centre (OCC) or from the MYP coordinator. The school is expected to act upon any recommendations to improve future samples.

Final grades

Conducting final assessments

At intervals during the students' final year in the subject (normally in year 5, but possibly starting in year 4) teachers will use a variety of assessment tasks and the published MYP assessment criteria to make judgments about students' performance. Many tasks will allow judgments to be made in more than one criterion. A few tasks (for example, technology units of work) will allow judgments to be made against **all** the criteria for a subject at once.

For the purposes of final assessment, teachers **must** ensure that, for each student, they make **several judgments in each criterion**. This is to allow students the opportunity to demonstrate their true abilities in each criterion.

Schools requiring IB-validated grades must use **only** the MYP subject-specific criteria and achievement level descriptors, exactly as published, as a basis for determining these levels that will be submitted to the IB. It is not permissible to include criteria other than those published by the IB.

Making a final judgment

When the judgments on the various tasks have been made, teachers will be in a position to establish a final profile of achievement for each student by determining the single most appropriate level for each criterion. Where the original judgments for a criterion differ for specific assessment tasks, the teacher must decide which level best represents the student's final standard of achievement.

Teachers should not average the levels gained in year 5 for any given criterion. Students can develop academically right up to the end of the programme, and teachers must make a professional judgment (that is also supported by the work completed) as to which level best corresponds to a student's general level of performance for each of the criteria towards the end of the programme.

Determining criterion levels totals

To calculate the **criterion levels total** for each student, teachers must add up the final levels achieved in each of the criteria.

Note: At this point the criterion levels total for each student can be used to determine each student's **estimated grade**. This can be calculated from the **grade boundary tables** published in the *MYP coordinator's handbook*. The tables vary from subject to subject, but all of them provide a means of converting a criterion levels total into a grade based on a 1–7 scale. The **general grade descriptors** provide written descriptions of each of the grades, from 1 to 7. Schools may decide to communicate estimated grades to students, prior to receiving the official IB documents (generally at the beginning of the next school year). If they do, students must be advised that their final grades may differ from their estimated grades as a result of the moderation process.

Submitting assessment data

The MYP coordinator will enter **criterion levels totals** for all registered final-year students on the IB information system (IBIS). Each student will have a separate criterion levels total for each subject in which they are registered.

Estimated grades are not required.

Application of moderation factors

The moderation process determines whether an overall adjustment of a school's standards for a subject is required. Moderation factors will be applied to the **criterion levels totals** submitted by the school in each subject. If a school has been too harsh in its judgments of the performance levels against the criteria, a positive moderation factor will be applied to increase the levels totals. If a school has been too lenient in its judgments of the performance levels against the criteria, a negative moderation factor will be applied to decrease the levels totals. If a school has been on target with its judgments, a moderation factor of 0 is applied, resulting in no change to levels totals.

This process is applied to all schools involved in the moderation process, even in their first year of moderation. Schools are reminded of the availability of the **monitoring of assessment** service as part of possible preparation for the moderation process

Determining final grades

To determine final grades, the IB will apply the published grade boundaries to the moderated criterion levels totals.

MYP students receive final grades in the range from 1 to 7. The general MYP grade descriptors indicate the achievement required for the award of each subject grade. These descriptors appear in the *MYP coordinator's handbook* and on the back of the *MYP record of achievement*.

Documentation and certification

Following the process of external moderation, the school will receive either **one or two documents** for each student registered, depending on whether certain requirements have been met.

1. For every student registered as a candidate in one or more subjects and/or the personal project, the IB will provide an **MYP record of achievement** with a grade in each subject for which the school has submitted a final result and stating, where appropriate, that community and service requirements have been met.
2. Where appropriate, the IB will provide an **MYP certificate**, which states that the student has fulfilled the conditions for the award of the certificate.

Students must satisfy a number of conditions to be eligible for the MYP certificate. The IB recognizes that a variety of circumstances may prevent a number of students from being eligible for the award of the MYP certificate (for example, students who have arrived in the school in the last year and have therefore not fulfilled the minimum two-year participation in the programme). Nevertheless, many schools and students, as well as educational authorities, value the detail provided by the record of achievement, which lists every subject in which the student has received a validated MYP grade.

Award of the MYP certificate

The IB will issue an MYP certificate to each student who satisfies the following conditions. The student must:

- be registered, and have gained at least a grade 2 in at least one subject per subject group of the MYP
- have gained at least a grade 3 for the personal project
- have participated in the programme for at least the final two years
- have met the expectations of community and service to the satisfaction of the school
- have gained a grade total of at least 36 from the eight subject groups and the personal project combined, out of a possible maximum of 63.

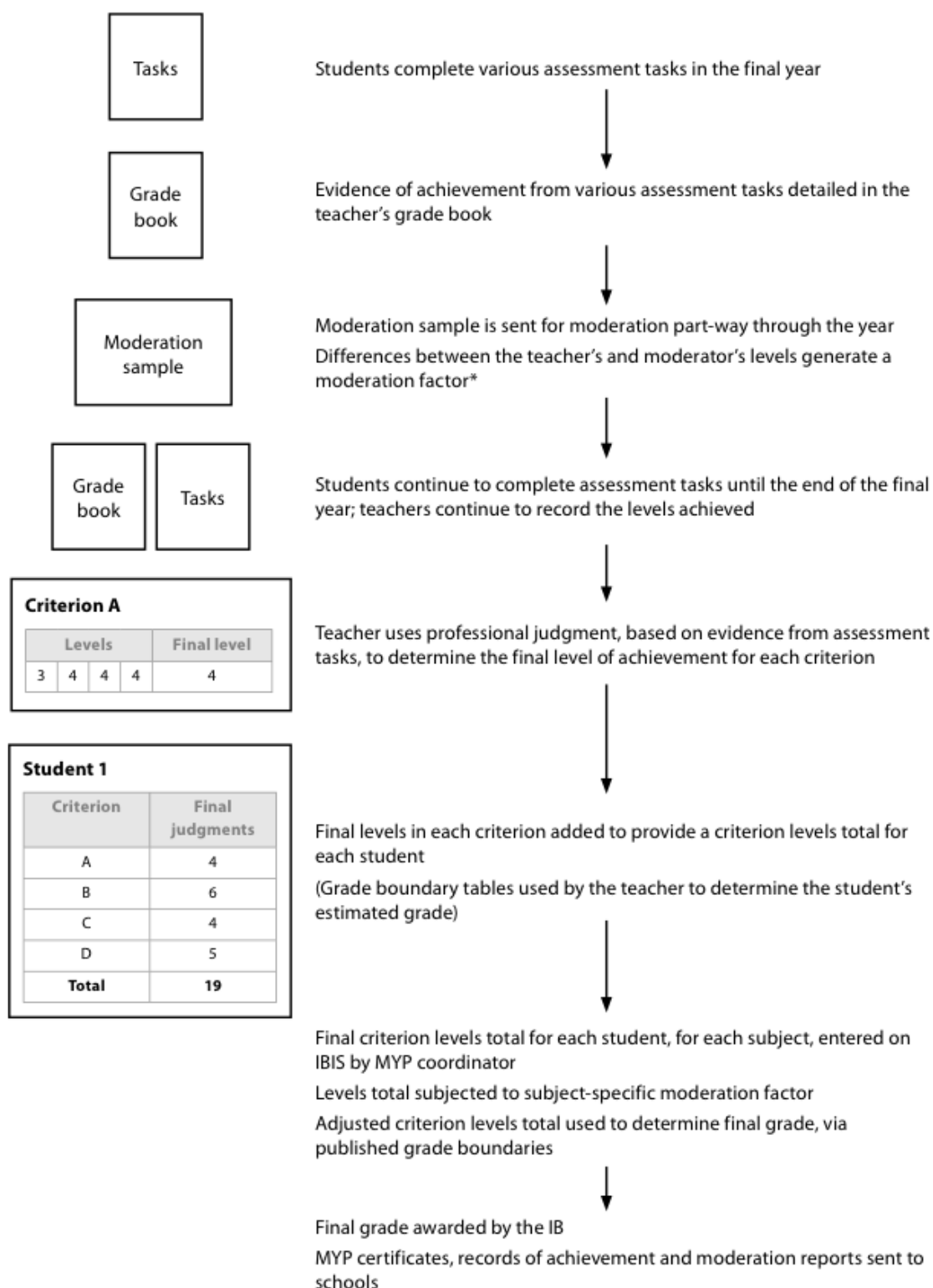
(This total and the maximum will be different in the case of the mother-tongue language option, or if a student has gained an exemption due to special educational needs.)

If more than one subject has been entered in a given subject group, only the single best grade will count towards certification, although all subject results will appear on the *MYP record of achievement*.

Achievement folders

The IB provides schools with individual achievement folders for each student completing the programme. This folder can hold documents issued by the IB, such as the MYP certificate and record of achievement, as well as school-based awards and those from other sources.

The MYP achievement folder is intended as a permanent record of the student's progress through the MYP; a well-organized folder is an excellent way of recording achievements in various aspects of the student's life at school, which cannot be otherwise given credit. It is also a way of profiling the student's involvement in various activities and projects developed in the contexts of the areas of interaction.



*little or no difference between levels result in a moderation factor of "0", that is, no change

Figure 16
Diagrammatic representation of the moderation process

Monitoring of assessment

The following section on monitoring of assessment is designed to give teachers an overview and to offer guidance on the principles and processes of monitoring of assessment as they stand at the date of publication.

Specific details are included in the *MYP coordinator's handbook*, and are updated annually

Introduction

Monitoring of assessment is a service available to IB World Schools offering the MYP that allows schools to send samples of assessed student work in order to receive feedback from an experienced **MYP moderator** in the form of a report.

The principles of monitoring of assessment

Monitoring of assessment is intended to provide support and guidance in the implementation and development of the programme with regard to internal assessment procedures and practices, and uses the expertise of trained moderators and experienced MYP subject specialists. Monitoring of assessment has been developed to help schools apply MYP assessment principles to their own local circumstances.

Monitoring of assessment is **not linked to validation of students' grades** and, therefore, differs from the process of external moderation.

Schools can send samples from **years 2 to 5** of the MYP.

Reasons for submitting samples for monitoring of assessment

There are three reasons for schools to submit monitoring of assessment samples.

1. As a requirement for the school's programme evaluation visit

If a school is due to receive its programme evaluation visit and has not registered candidates for moderation, it is a requirement that the school sends in a sample of work from **each subject group and the personal project** before the visit. Following the evaluation visit, a school may be required to send in further samples in some subjects as part of the recommended action in the evaluation report.

Schools delivering a five-year programme must send samples from year 5. Schools with an authorized two- or three-year programme must send samples from the final year of their programme.

2. As a pre-check before sending in samples for moderation

Schools planning to submit samples for moderation are strongly encouraged to use monitoring of assessment the year before they start. This service provides feedback to schools on their assessments in some or all subjects and/or the personal project. The feedback will allow the school to put in place any adjustments recommended by the moderators and therefore submit appropriate samples for the moderation process.

Only schools delivering a five-year, four-year or three-year programme (where these are the final years of the full-length programme) can send samples for monitoring of assessment as a pre-check for moderation. Schools must send samples from the final year.

3. To receive guidance on assessment in a particular subject

A school may simply require advice on the assessment of a particular subject. This service is not linked to the school's programme evaluation or plans for moderation.

Samples from **years 2, 3, 4 and 5** of the programme may be submitted for guidance regardless of the length of programme the school has been authorized to deliver.

The processes of monitoring of assessment

Content of samples

Important note

If teachers use third-party material as stimuli and/or as part of their tasks, this material must be fully referenced. This will include the title of the source, the author, the publication date, the publisher and, for books only, the ISBN. Examples of third-party material include, but are not limited to, articles (magazines, newspapers, and so on), cartoons, videos, movie excerpts, extracts from books, pictures (please check acknowledgment in the publication for their original sources), diagrams, graphs, tables, statistics and material from websites.

The content of the monitoring of assessment sample will vary, depending on the reasons why the school is sending the sample.

Samples that are being submitted for the purposes of the evaluation visit

The sample for each **subject must** include the components listed below.

- An outline of the subject coursework for the year, including background information on the organization of the course (time allocation, possible integration with other subjects, involvement in interdisciplinary projects)
- Assessed student work addressing the subject's assessment criteria and objectives, including:
 - different kinds of assessment tasks that reflect clearly the application of the criteria: teachers are advised to use the minimum requirements for a moderation sample for guidance as those give an even spread over the criteria
 - more-complex tasks reflecting several criteria: it is better to include a limited number of more-complex tasks than a series of very limited assignments or tests
 - tasks reflecting the areas of interaction
 - work from four students for each task: the same students do not have to be used for each task
- A separate folder for each task included in the sample, containing:
 - instructions, worksheets and guidance notes given to the students
 - a blank copy of the task/test and the teacher's corrected version, if applicable
 - information on the application of the criteria to each piece of work
 - descriptions of any modified criteria and task-specific rubrics used in the summative assessment of students in that year
- A completed coversheet *Form F4.4* for each task included in the sample
- A completed checklist

Important notes

Schools submitting samples as part of their evaluation visit are expected to use the MYP assessment criteria to assess students' progress against the MYP objectives.

However, if the samples come from year 3 or 4 of the programme the schools can modify the descriptors of the published assessment criteria. If this is the case, detailed information on the assessment criteria used should be included in the sample.

- For example, schools must still use "Criterion A—one world" to assess the relevant objectives as presented in the *MYP Sciences guide*. However, they can modify the levels and the descriptors of this criterion if they wish. These amendments must be appropriate and in the spirit of MYP criterion-related assessment. If the moderator feels the amendments are not appropriate, they may not assess some of the objectives and will comment on this in the report.

Schools are not required to provide grades.

In schools delivering a five-year programme, the sample for each **personal project** must include the components listed below.

- Information about the organization of the personal project within the school: this should include the role of the MYP coordinator, the personal project supervisors, time allocation, timetabling, information given to parents and students, and details of internal standardization
- Personal projects from four students, showing a range of abilities: the projects should be assessed using the MYP criteria, and accompanied by supervisor comments explaining the criterion levels awarded
- A completed coversheet *Form F4.5* for each project
- A completed checklist

Important note

Schools offering an authorized programme that ends before year 5 will not include any personal project samples in their monitoring of assessment samples.

Samples that are being submitted as a pre-check prior to moderation

The subject samples should follow the requirements for a moderation sample (with the exception of sending work from four students rather than eight) and should include the components listed below.

- Folders of work from **four** students (two around the average level of ability within the school, one comparatively higher ability student, one comparatively lower ability student), which:
 - represent the work of only that student assessed against each criterion
 - contain at least the prescribed minimum specified in the appropriate guide
 - represent overall two identified judgments against each criterion (unless otherwise specified in the subject-group guides)
 - include the same tasks as other students wherever possible
 - contain clearly labelled tasks that enable the moderator to identify easily how each task corresponds to the coversheet: this labelling should include the corresponding number on the coversheet, the name of the student, the name of the school and the nature of the task
 - contain information that identifies clearly where and how the assessment criteria are assessed within the tasks, and the achievement levels awarded by the teacher: this should correspond to the criteria and levels marked on coversheet *Form F4.2*
 - are submitted in English, French, Spanish or Chinese (with the exception of languages A or B) as monitoring of assessment in a particular subject will take place in only one language
- A **separate** folder of documents (not duplicated for each student) providing background information essential for the assessment of student performance, including:
 - worksheets or instructions/guidance notes given to students
 - a blank copy of tasks/tests/examination papers used and the teacher's corrected versions
 - a description of the conditions under which the work was completed (in class/at home/length of preparation prior to task/time allowed to complete task, and so on)
 - all relevant markschemes
- A completed coversheet *Form F4.2* for each student folder, which:
 - identifies the school name, school code, subject and student

- describes the type and title of the assessment tasks in the folder
- records two judgments against each criterion (unless otherwise specified in the subject-group guides)
- includes any background information on the reverse of the coversheet that may be helpful to the moderators in understanding that individual student's performance for a particular task or in general (for example, the amount of support provided, separation of teacher instruction from student planning, special circumstances, general/specific information on the student)
- records a judgment for criteria that are not moderated (for example, criterion F in the sciences)
- A completed checklist

The personal project sample must include the components listed below.

- Information about the organization of the personal project within the school: this should include the role of the MYP coordinator and the personal project supervisors, time allocation, timetabling, information given to parents and students, as well as details of internal standardization
- Personal projects from four students, showing a range of abilities: the projects should be assessed using the MYP criteria, and accompanied by supervisor comments explaining the criterion levels awarded
- A completed coversheet *Form F4.3* for each project

Samples that are being submitted for general advice and guidance

The content of the samples sent for general advice/guidance is at the discretion of the school. Schools may wish to send in a complete sample, similar to that for the evaluation visit or prior to moderation. Alternatively, schools may wish to send in a single task for feedback. Obviously, the monitoring of assessment report received will vary in length and detail depending on the nature of the sample sent.

Reports to schools

Upon receipt of a sample, moderators will examine the information and student work/personal projects provided by the school, and will write a report providing guidance to the school on the questions listed below. The content of the report will vary, depending on the nature of the sample (personal project or subject) and the expressed aim of the service (programme evaluation, preparation for moderation, or general advice/guidance).

- How appropriate are the tasks chosen by the school to assess students against the objectives and criteria for the subject?
- Are all criteria addressed fully?
- Do the tasks allow students to reach the high achievement levels within the criteria according to the objectives of the course?
- Does the level of complexity of the tasks relate to the objectives and required framework of the subject?
- Are the supporting materials appropriate and clearly presented?
- Are the teachers' assessments consistent, as evidenced in the pieces of work submitted?
- In which areas does the students' work show a particularly strong performance, or a marked weakness?
- Does the school's scheme for summative assessment respect the objectives of the MYP subject or personal project?

The answers to these questions will determine the advice the moderator can give to the school.

The monitoring of assessment reports are shared with the appropriate regional office, which, in turn, sends them to members of the visiting team in the case of programme evaluation. Monitoring of assessment reports are, clearly, school specific and should be read in conjunction with the general moderation reports that are available on the online curriculum centre (OCC) or from the MYP coordinator. It is expected that any recommendations will be acted upon to improve assessment.

Differences between monitoring of assessment and moderation

The following table outlines the differences between monitoring of assessment and moderation.

Differences	
Monitoring of assessment: aims to provide advice and guidance regarding general assessment principles within a subject	Moderation: is linked to validation of schools' results in a specific subject
is optional for all IB World Schools offering the MYP, but is required as part of the programme evaluation process and the curriculum flexibility approval process for schools that do not submit to moderation	is required only for schools requesting IB-validated results
requires the school to pay a fixed fee per subject	requires the school to pay variable fees depending on the number of registered candidates
allows schools to send translated samples (except for languages A and B)	does not allow schools to send translated samples
leads to the production by the IB of a school-specific report providing feedback and guidance on assessment within the subject(s)	leads to the production by the IB of MYP documentation (records of achievement and certificates), as well as a school-specific report providing feedback and guidance
is based on samples of student work completed in the last four years of the MYP	is based on samples of work from the final year of the programme
involves no change to the school's grades	may lead to changes to the school's final grades on MYP records of achievement
takes place at any time between September and March , with two months' advance notice (for samples submitted as a requirement for a programme evaluation visit, schools should register ten months before the scheduled visit and submit the samples to IB Cardiff eight months before the visit)	takes place according to a fixed schedule (see section F of the <i>MYP coordinator's handbook</i>)
may involve, only for years 1 to 4, school-specific descriptors of achievement levels within the MYP criteria for the subject.	considers only the application of IB published assessment criteria, as stated in the subject group's assessment details. (Where appropriate, include task-specific clarifications that elaborate on the published assessment criteria).

School policies

Developing an assessment policy

The following questions can be used to assist a school in establishing an assessment policy.

- What is the school's philosophy of assessment?
- How is the school's philosophy of assessment aligned to its mission statement?
- What practices will be agreed upon in order to fulfill this philosophy?
- What are the purposes of assessment for all the constituents of the school community (students, teachers, parents, administrators)?

Schools will find it helpful to develop agreed assessment procedures as part of their assessment policy. These are procedures that can be put into place within the school and address how the school assesses, records and reports student progress.

The following questions can be used to assist a school in establishing agreements on assessment.

- How should we structure assessment?
- How often should we assess?
- What do we assess?
- Who is responsible for assessment and how?
- How should assessment information be recorded?
- How should assessment information be analysed and reported?
- How will assessment information be reported to students and parents?
- Who will have access to assessment information and where will it be located?
- How often will we review our assessment practices?
- Are there any mandatory requirements that must be satisfied?

Developing an inclusion policy

Teachers will find that their students come from a variety of backgrounds and have a range of academic, physical and other needs. Some of the students may have a recognized, diagnosed special educational need (SEN); other students may have special needs that have not yet been diagnosed. Examples of these special needs include:

- specific learning difficulties (such as dyslexia and dyscalculia)
- language and communication disorders (such as aphasia, dysphasia and articulation problems)
- emotional and behavioural difficulties
- physical disabilities affecting mobility
- sensory impairments (such as visual or hearing difficulties)
- medical conditions (such as asthma, epilepsy and diabetes)
- mental health conditions (such as attention deficit hyperactivity disorder, eating disorders and anxiety)
- the requirements of gifted and talented students.

As schools attempt to implement the MYP in an inclusive way, teachers will be designing learning experiences that will allow all students, including those who have special educational needs, to meet the objectives in each subject group. By differentiating their teaching strategies, teachers will provide all students with opportunities to reach these goals. Differentiated teaching aims to maximize students' potential, and allows them to demonstrate their learning in different ways.

As schools differ from each other in ways such as size, facilities and resources, so the provisions for students with special educational needs may differ from one school to another. However, any particular provisions made for students must be documented by the school, as these will form an important part of the curriculum planning and will be considered during the programme evaluation process. Further information on curriculum and assessment adaptations is available in the *MYP coordinator's handbook*.

The following questions can be used to assist a school in developing an SEN policy.

- What are the local, national and international legal obligations on inclusion that have to be met?
- What is the school's philosophy on inclusion and how does this articulate with its admissions policy?
- How do the philosophy on inclusion and the policy on admissions align with the school's mission statement?
- What are the budgetary implications?

The following questions can be used to assist a school in developing SEN procedures.

- What are the local, national and international legal requirements of teachers in meeting the needs of all their students?
- What is the extent of our students' special educational needs at present?
- What expertise do we already have?
- What expertise will we need?
- What do we already do for SEN students?
- Which testing or screening tools do we have access to?
- Which tests are our staff qualified to administer?
- Who will be responsible for notifying parents, students and teachers of testing results?
- How will we document our provision for SEN?
- How will the provision for SEN be structured, coordinated and monitored?
- How will our provision for SEN be supported by our professional development?
- What information should we hold on our SEN students, where should it be held and who should manage it?
- Who will have access to student files?
- How will we coordinate the passing on of information at transition stages—changing schools, changing sections, changing campuses?
- Where do we need to improve our provision for SEN students?

Developing an academic honesty policy

Academic honesty is a set of values that promotes personal integrity and good practice in learning and assessment, and in the MYP is part of approaches to learning. The IB recognizes that academic honesty is influenced by factors that include peer pressure, culture, parental expectations, role modelling and taught skills. Academic honesty can be demonstrated through the dynamic relationship between personal, social and technical skills.

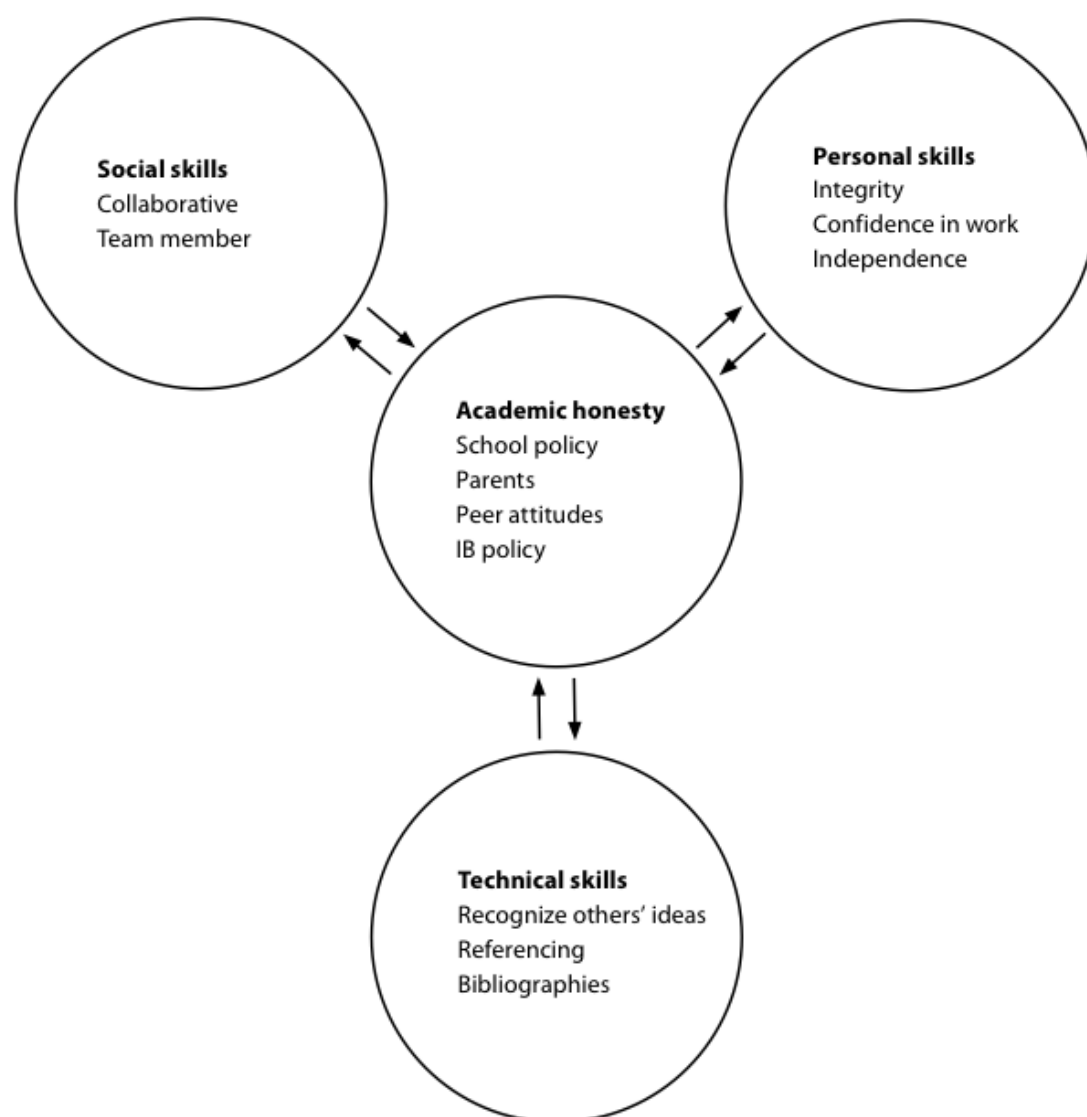


Figure 17

The dynamic relationship between personal, social and technical skills

Teachers are encouraged to contribute to the development of their own academic honesty policies that show:

- encouragement of honesty
- guidelines on teaching students how to use all forms of resources adequately—including information and communication technology (ICT)
- the procedures to be followed when dishonesty is discovered.

Academic honesty is the responsibility of all schools, teachers and students in the MYP. Specific areas of academic honesty include:

- **personal skills**—discussions on integrity, confidence in one's own work, willingness to work independently, self-evaluation skills, determination to achieve individual potential
- **social skills**—discussions on how to work collaboratively, how to contribute to a group or team, how to acknowledge work by other group or team members, peer-evaluation skills
- **technical skills**—recognition of when others' ideas, physical skills and/or techniques should be acknowledged, which sources of information should be acknowledged, understanding plagiarism, how to construct a bibliography, how to reference correctly.

Glossary of MYP terms

Achievement folder	A folder provided by the IB for each of a school's graduating students, whether or not they have registered for IB-validated grades. The school and the student include IB documents as well as school-produced records and statements in this folder.
Achievement level	The level given when the student work reflects the corresponding descriptor. Achievement levels are shown in the left-hand column of the assessment criteria.
Aim	An aim states, in a general way, what the teacher may expect to teach or do, what the student may expect to experience or learn and how the student may be changed by the learning experience.
Approaches to learning (ATL)	One of the areas of interaction; it is concerned with the development of thinking skills, strategies and attitudes and the ability to reflect on one's own learning.
Area of interaction leader	Schools may designate leaders for each of the areas of interaction; they are entrusted with liaison between the teachers involved, parents, students and, if necessary, the community.
Areas of interaction	The five central elements of the MYP, embedded within and across the subject groups of the programme. They are: <ul style="list-style-type: none"> • approaches to learning (ATL) • community and service • health and social education • environments • human ingenuity (formerly <i>homo faber</i>).
Assessment criteria	Criteria against which a student's performance is measured as evidenced by work produced. Subject-group guides provide assessment criteria to be used for final assessment for each subject group, and for the personal project.
Assessment rubric	A grid that contains levels and descriptors.
Assessment strategy	The method or approach that teachers use when gathering information about student learning, for example, observation, open-ended tasks, selected responses.
Assessment task	The activity or series of activities with which students engage in order for assessment to take place.
Assessment tool	The device teachers use to measure and record assessment information and data collected, for example, anecdotal records.
Community and service	One of the areas of interaction; it is concerned with developing community awareness and a sense of responsibility through community involvement.
Criterion levels total	The sum of the final levels awarded for each individual criterion in any given subject.

Criterion-related assessment	An assessment process based on determining levels of achievement against previously agreed criteria. MYP assessment is criterion-related.
Descriptors	Achievement level descriptors describe the differences in student accomplishment for each assessment criterion and correspond to the achievement level that should be awarded.
Environments	One of the areas of interaction; it is concerned with the interdependence of human beings and their environments, and with sustainable development.
External moderation	See moderation .
Final assessment	The summative assessment of student work at the end of the fifth year of the MYP.
Formative assessment	Ongoing assessment aimed at providing information to guide teaching and improve student performance.
Fundamental concepts	<p>The basic educational principles of the MYP. They are:</p> <ul style="list-style-type: none"> • holistic learning • intercultural awareness • communication.
Grade	<p>The number assigned to standards of student achievement. A grade is reached by applying the grade boundaries table to the student's criterion levels total. A grade can only be arrived at when all subject-specific criteria have been used for assessment.</p> <p>Final grades for student work in the MYP range from 1 (lowest) to 7 (highest).</p> <p>Schools may also use this scale for assessment other than final assessment.</p>
Grade boundary	The lowest and highest criterion levels totals corresponding to a particular grade. These are determined for each subject group and published in the <i>MYP coordinator's handbook</i> .
Health and social education	One of the areas of interaction; it is concerned with human issues and relationships, mental and physical health, and the interactions between the student and society.
Holistic learning	One of the fundamental concepts of the MYP; it stresses the interrelatedness of various disciplines and issues, and the education of the whole person.
Horizontal planning	Planning horizontally involves a team of teachers of the same grade level working together to plan for learning.
Human ingenuity (<i>homo faber</i>)	One of the areas of interaction; it is concerned with the evolution, processes and products of human creativity, and their impact on society and on the mind.
IBIS (formerly IBNET)	A service that allows MYP coordinators to complete administrative procedures and obtain news and information from the IB via a password-protected web server.
Integrated subjects	School-specific subjects that integrate elements of several disciplines within or across MYP subject groups.

Internal assessment	The assessment of a student's work that is carried out by a student's teacher(s).
Internal standardization	The process by which all teachers of one subject or subject group in a school ensure a common understanding and application of criteria and descriptors.
Issue of results	The issue of MYP records of achievement and certificates by the IB, following the moderation of the schools' internal assessment. The documents are sent directly to schools following their submission of internal assessment results (this applies only to schools that request IB-validated grades).
Judgment	The consideration of a student's work against an individual assessment criterion.
Markscheme	This is an indication of how a teacher has assigned levels to a particular task. In some cases, the markscheme may be the MYP criteria as published. In other cases, the teacher may need to provide an answer key, indicate question levels on a reading comprehension, or provide criteria that have been clarified to be task specific, depending on the task and the purpose.
Middle Years Programme (MYP)	The IB's programme designed for students between the ages of 11 and 16 years.
Moderation	The procedure by which sample assessed work from teachers is reviewed and adjusted externally to ensure assessment has been carried out according to MYP criteria and standards (this applies only to schools that request IB-validated grades).
Moderation factor	A mathematical adjustment applied to a criterion levels total to ensure a common assessment standard.
Moderation registration	All schools requesting IB-validated final grades for their students are required to register subjects for moderation using the IBIS online moderation registration form.
Monitoring of assessment	A service that provides support and guidance to schools with regard to internal assessment procedures. It is offered to all schools, and required as part of the programme evaluation procedure for schools not submitting to moderation.
Mother tongue	The language(s) learned first; the language(s) identified with as a "native" speaker; the language known best; the language used most.
MYP certificate	The official IB document stating that the student has fulfilled a number of requirements, as stated in the <i>MYP coordinator's handbook</i> .
MYP coordinator	The pedagogical leader of the MYP in the school who oversees the effective development of the programme. The MYP coordinator ensures effective communication about the programme within the school, and between the school and the IB.
Objective	One of a set of statements for a subject or the personal project, describing the skills, knowledge and understanding that will be assessed in the course/project. The assessment criteria correspond to the objectives. Student achievement of the objectives is rated by the assessment criteria.

Online curriculum centre (OCC)	A web-based service to schools at http://occ.ibo.org that aims to support the Primary Years Programme, Middle Years Programme and Diploma Programme. Teachers can take part in online discussions, access selected IB publications, exchange ideas and resources, read news and information from the IB, and participate in special events.
Peer-conferencing	Student discussions with fellow students to gain insight into the task, topic, concepts and skills at hand, and to provide feedback and suggestions on draft work.
Performances of understanding	A particular kind of learning experience—one that encourages flexible thinking with knowledge in novel situations. They become “understanding performances” when students are asked to use information deliberately to advance a new understanding. Performances of understanding allow students both to build and demonstrate their understanding in and across subjects. They are based on the theory that understanding is not something we have—like a set of facts we possess—but rather is something we can do.
Personal project	A project that is the culmination of the students’ experience in the MYP and shows their experience of the areas of interaction. It is completed in the final year of the programme.
Personal project supervisor	The member of staff within a school who is responsible for working directly with the student on the completion of the personal project.
Programme evaluation	A mandatory process for all IB World Schools offering the MYP, whereby the IB assists schools in their own self-evaluation procedures as well as ensuring the quality of programmes.
Record of achievement	The official IB document issued to all students registered for IB-validated grades. It lists final grades in each subject and the personal project and, where relevant, the satisfactory completion of community and service.
Samples of work	Samples of students’ work are submitted by schools for moderation or monitoring of assessment, on the instructions of the IB. These are then reviewed by IB-appointed moderators.
Special educational needs (SEN)	Special educational needs students, as defined by the IB, may: <ul style="list-style-type: none"> display difficulties or live with conditions that are a barrier to learning and therefore need particular teaching strategies for classroom management and effective education display a higher than average aptitude in one or more subjects that requires adaptation of the curriculum to cater for their accelerated learning needs.
Student learning expectations	MYP schools provide student learning expectations for each area of interaction. Student learning expectations for the areas of interaction are guidelines on what students are expected to learn through the areas of interaction at different stages of the programme. The MYP uses the term “expectations” to differentiate them from subject-based objectives. Whereas success in achieving the objectives is measured through applying assessment criteria, student learning expectations are not assessed, although they may be monitored. These learning expectations are differentiated from assessment objectives because they are not rated on a scale.

Student registration	All schools requesting IB-validated final grades are required to register each student with the IB using the IBIS student registration form.
Subject group	The programme model for the MYP includes eight subject groups. They are: <ul style="list-style-type: none"> • language A • language B • humanities • sciences • mathematics • arts • physical education • technology.
Subject-group guide	A guide, published by the IB for each of the subject groups, stating the mandated objectives and assessment details.
Summative assessment	The culminating assessment for a unit, term or course of study, designed to provide information on the student's achievement level against specific objectives.
Task-specific clarification	Task-specific clarifications are ways in which a teacher can make it clear to students the specific things needed in an assessment. One way of doing a task-specific clarification might be to write a task-specific rubric. Another way might be to give an oral description, or to write a separate worksheet of explanation.
Task-specific rubric	An assessment grid adapted by the teacher, which better identifies how the general achievement level descriptors can be addressed by the students for a given task. Task-specific rubrics are useful in every year of the MYP. A task-specific rubric is one way of providing a task-specific clarification for year 5 students.
Teacher-conferencing	Student discussions with the teacher to gain insight into the task, topic, concepts and skills at hand, and to provide feedback and suggestions on draft work.
Teacher support material	Teacher support material published by the IB includes examples of assessed student work for the subject groups and the personal project. This material may appear as paper documents or online publications. It is intended to give practical help to aid understanding and implementation of the theory in the subject guides.
Teaching hour	The length of teaching periods varies from school to school. For practical reasons, the IB refers to one teaching hour as the equivalent of 60 minutes.
Unit of work	A series of lessons, focused through an area of interaction, significant concepts and a unit question, designed to enable students to achieve some of the objectives of an MYP subject group.
Vertical planning	The goal of vertical planning is to sequence learning (in terms of subject objectives and learning expectations for the areas of interaction) to ensure continuity and progression from year 1 to year 5.
Weighting	A measure of the relative emphasis of each assessment criterion (and therefore the emphasis of each objective).

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