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The Primary Years Programme
A basis for practice

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International Baccalaureate
Peterson House, Malthouse Avenue, Cardiff Gate
Cardiff, Wales GB CF23 8GL
United Kingdom
Phone: +44 29 2054 7777
Fax: +44 29 2054 7778
Website: http://www.ibo.org

The International Baccalaureate (IB) offers three high quality and challenging educational programmes for a worldwide community of schools, aiming to create a better, more peaceful world.

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Phone: +44 29 2054 7746
Fax: +44 29 2054 7779
Email: sales@ibo.org

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PYP104

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.

IB learner profile

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

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.

Contents

The continuum of international education

The International Baccalaureate (IB) offers three programmes of international education:

- the Primary Years Programme (PYP)—introduced in 1997
- the Middle Years Programme (MYP)—introduced in 1994
- the Diploma Programme (DP)—introduced in 1969.

The three programmes have a common educational framework: a consistent philosophy about teaching and learning that focuses on the development of the whole child, and an overarching concept of how to develop international-mindedness. Each programme promotes the education of the whole person, emphasizing intellectual, emotional, social and physical growth, involving the traditions of learning in languages, humanities, sciences, mathematics and the arts.

Each programme is self-contained, since there is no requirement for schools to offer more than one programme, but these programmes also provide the opportunity for schools to offer a continuous international educational experience from early childhood through to school graduation.

The IB's mission statement and the IB learner profile connect the three programmes, articulating the learning outcomes for IB students of all ages. The commonalities and differences between the programmes are identified in the IB document *Programme standards and practices*. These standards and practices are a set of criteria against which both the IB World School and the IB can measure success in the implementation of the three programmes.

> Examples of PYP practice are included throughout this document. The examples are modified versions of those supplied by IB World Schools. They are to be considered examples of good PYP practice, and not read as practices recommended by the IB. They indicate the interpretive nature of the programme, and the responsibility that school communities have to construct their own meaning in the context of the PYP framework.

The origins of the PYP

The PYP was developed as a result of the vision and effort, sustained for over 10 years until 1997, of the former International Schools Curriculum Project (ISCP). In 1997 the responsibility for ownership and ongoing development of the programme was handed over to the IB.

The ISCP was an independent, grass-roots movement of heads of school and teachers in international schools. Its aims were to:

- produce a common curriculum for international primary education that would suit all the learning communities represented within the group
- develop international-mindedness on the part of the learners.

There was a shared belief that the nature and substance of learning were the means of promoting corresponding insight, empathy and compassion.

The IB has broadened access to the PYP by making it available to a wide range of schools, all willing to support the mission of the IB and prepared to commit to the standards and practices drawn up to ensure successful implementation of the programme. IB World Schools offering the PYP include state or national-system schools, as well as independent fee-paying schools—the group to which designated international schools most usually belong.

The philosophy and curriculum framework of the PYP are described in the documents *Making the PYP happen: A curriculum framework for international primary education* and *Making the PYP happen: Pedagogical leadership in a PYP school*, both published by the IB in 2007. In addition, the following PYP curriculum documents have been published.

- *Developing a transdisciplinary programme of inquiry*, which includes a sample programme of inquiry and sample planners (published in 2008)
- *Exhibition guidelines*, which refers to a culminating project demonstrating the student's engagement with the principles and practices of the programme (published in 2008)
- Subject-specific scope and sequence documents for language, mathematics, social studies, science, arts (drama, music, visual arts), personal and social education, and physical education (revised and published in rotation)
- *Subject-specific expectations defined by age ranges* (published in 2005)

The following support for PYP implementation is available on the online curriculum centre (OCC).

- *PYP exhibition*—a series of examples showing how schools have engaged with the exhibition
- *Assessment in the PYP*—an online workshop

All PYP curriculum documents are available on the OCC (http://occ.ibo.org) to candidate schools and to IB World Schools. Additionally, these documents may be purchased online via the IB store (http://store.ibo.org).

The construction of knowledge

The PYP curriculum model is dependent on a commitment to a particular belief about how children learn, encapsulated most clearly in the constructivist approach. It is acknowledged that learners have beliefs about how the world works based on their experiences and prior learning. Those beliefs, models or constructs are revisited and revised in the light of new experiences and further learning. As we strive to make meaning of our lives and the world around us we travel continually on the cyclic path of constructing, testing, and confirming or revising our personal models of how the world works.

"Generally speaking, constructivists, including Vygotsky, Piaget, and Dewey define learning as the creation of meaning that occurs when an individual links new knowledge with … existing knowledge" (Williams and Woods 1997: 29). Consequently, when planning to teach it is important to ascertain students' prior knowledge, and provide experiences through the curriculum and through the environment that give them opportunities to:

- test and revise their models
- make connections between their previous and current perceptions
- construct their own meaning (examples 1 and 2).

Example 1

In learning more about the transdisciplinary theme "Who we are", students aged 5 and 6 inquired into the central idea "Making balanced choices about daily routines enables us to have a healthy lifestyle". At the beginning of the unit the teacher ensured that the learning environment contained a range of relevant stimulus material, in particular, pictures showing children and adults engaged in a variety of activities such as playing football, sleeping, smoking, riding bicycles, watching television. The teacher observed the students and kept anecdotal records of how they responded to the pictures.

One student spontaneously started to organize the pictures into two groups, illustrating her understanding of what is good for you and what is not good for you. She put the picture of a person sleeping into the "not good for you" group and was thoughtfully challenged by another student who explained that we need to rest, so sleeping is good for us. Another student then moved the picture of a child reading into the "not good for you group", explaining that the child should be exercising instead of reading. These exchanges prompted the teacher to ensure that the concepts of causation and well-being would be developed in the learning engagements that would provide the context for student inquiry during the unit.

Example 2

A class of students aged 8 were inquiring into the central idea "Energy to do work comes in many forms", related to the transdisciplinary theme "Sharing the planet". The teacher asked the students to make a drawing showing what happens to food as it travels through the body. They were asked to label any body parts they knew and to write an explanation of what happens to the food. The teacher used these drawings and explanations to assess the levels of knowledge, of understanding and misunderstanding within the group. The teaching was then planned more effectively to meet the needs of each student within this group.

Other theorists, including Bruner (1990) and Gardner (1993), have also argued that the focus of teaching curriculum content needs to change to enable teachers to make connections between learners' existing knowledge and their individual learning styles in the context of new experiences. This challenge is addressed in the PYP by providing opportunities for students to build meaning and refine their understanding, principally through structured **inquiry**. As students' learning and their attempts to understand the world around them are essentially social acts of communication and collaboration, this inquiry may take many forms, with students working sometimes on their own, with partners, or in larger groups.

In IB World Schools offering the PYP, the teachers' structuring of new experiences, and the support they give to students' ideas about new experiences, are fundamental to students' knowledge, understanding and conceptual development—the ability to have an understanding of concepts of various levels of abstraction, to make links between them, and to think conceptually. In the PYP it is recognized that development and learning are interrelated, and the PYP curriculum framework allows for conceptual development that applies across and beyond subject-specific areas.

The programme supports the student's struggle to gain understanding of the world and to learn to function comfortably within it, to move from not knowing to knowing, to identify what is real and what is not real, to acknowledge what is appropriate and what is not appropriate. To do this, the student must integrate a great deal of information, and apply this accumulation of knowledge in a cohesive and effective way.

Inquiry as a pedagogical approach

Inquiry, as the leading pedagogical approach of the PYP, is recognized as allowing students to be actively involved in their own learning and to take responsibility for that learning. Inquiry allows each student's understanding of the world to develop in a manner and at a rate that is unique to that learner.

Inquiry, interpreted in the broadest sense, is the process initiated by the student or the teacher that moves the student from his or her current level of understanding to a new and deeper level of understanding. Inquiry takes place at the knowing/not knowing intersection (Wells Lindfors 1999) and can take many forms, including:

- exploring, wondering and questioning
- experimenting and playing with possibilities
- making connections between previous learning and current learning
- making predictions and acting purposefully to see what happens
- collecting data and reporting findings
- clarifying existing ideas and reappraising perceptions of events
- deepening understanding through the application of a concept
- making and testing theories
- researching and seeking information
- taking and defending a position
- solving problems in a variety of ways.

Inquiry involves an active engagement with the environment in an effort to make sense of the world, and consequent reflection on the connections between the experiences encountered and the information gathered. Inquiry involves the synthesis, analysis and manipulation of knowledge, whether through play or through more formally structured learning.

In the PYP, the lively, animated process of inquiry appears differently within different age ranges. The developmental range evident in a group of 5-year-olds can often be from 3 to 8 years. This demands that the teacher be a thoughtful participant in, and monitor of, the ongoing exploration and investigations that the students engage in or initiate. In particular, the teachers of the younger students need to be mindful of the role of the learning environment when presenting stimuli to the students, for them to wonder at, and be curious about, and to stimulate purposeful play.

Many different forms of inquiry are recognized, based on students' curiosity and on their wanting and needing to know more about the world. They are most successful when students' questions and inquiries are genuine and have real significance in helping them progress to new levels of knowledge and understanding. The most insightful inquiries, ones most likely to move the students' understanding further, come from existing knowledge. The structure of the learning environment, including the home, the classroom, the school and the community, and the behaviour modelled by others in that environment, particularly by the parent and the teacher, will lay down the knowledge foundation that will nurture meaningful participation and inquiry on the part of the students.

An explicit expectation of the PYP is that successful inquiry will lead to **action**, initiated by the student as a result of the learning process. This action may extend the student's own learning, or it may have a wider social impact, and will clearly look different within each age range, and from one age range to the next (examples 3 and 4).

Example 3

As part of a unit of inquiry a PYP class from an IB World School visited the local museum. The museum had many interactive displays, lots of child-friendly information presented through a variety of media. Before the visit the students had designed a data sheet to collect the information they needed to support their inquiries. However, all the information provided by the museum was in the host country language. The students who did not speak the host country language were dependent on the translating skills of those who did (the other students and some of the accompanying adults).

Upon their return to school, when the class discussed the visit, one student remarked on not being able to understand the written material on display. The class decided to write to the museum, including some suggestions to better support further visits from the school. The museum director responded to the class that he was keen to incorporate some of their suggestions to improve the museum visit for other students.

Example 4

In a unit related to the transdisciplinary theme "Sharing the planet", a class of students aged 5 and 6 were inquiring into the central idea "Plants need special conditions to survive and stay healthy". The key concepts for this unit were causation (in particular, the reasons why plants grow where they do, and why some plants seem healthier than others) and responsibility. While visiting the library during the course of the unit, a student asked the librarian to move one of the plants closer to the window, explaining that the plant would get more light. Additionally, other students who regularly arrived early in the morning spontaneously began to water the classroom plants as they waited for the teaching day to begin.

A concept-driven curriculum

Central to the philosophy of the PYP is the principle that purposeful, structured inquiry is a powerful vehicle for learning that promotes meaning and understanding, and challenges students to engage with significant ideas. Therefore, in the PYP there is also a commitment to a concept-driven curriculum as a means of supporting that inquiry.

The PYP provides a framework for the curriculum, including eight key **concepts** as one of the essential elements. It is accepted that these are not, in any sense, the only concepts worth exploring. Taken together, they form a powerful curriculum component that inspires the teacher- and/or student-constructed inquiries that lie at the heart of the PYP curriculum.

Form: What is it like?

Function: How does it work?

Causation: Why is it like it is?

Change: How is it changing?

Connection: How is it connected to other things?

Perspective: What are the points of view?

Responsibility: What is our responsibility?

Reflection: How do we know?

By identifying concepts that have relevance within each subject area, and across and beyond the subject areas, the PYP has defined an essential element for supporting its transdisciplinary model of teaching and learning. Expressed as open-ended questions, the eight key concepts provide the initial momentum and the underlying structure for the exploration of the content of the whole programme. For example, asking "What are the points of view?" is a common practice in IB World Schools offering the PYP. It broadens the thinking of students as they take that first essential step towards international-mindedness—expressing a curiosity about and a willingness to consider another's perspective.

All teachers refer to these questions during the process of collaborative planning, which is required by the PYP (example 5). They focus the teachers' thinking as they generate key questions relevant to particular content, whether it be subject-specific or related to transdisciplinary themes (example 6).

Example 5

When one IB World School first began implementing the PYP, the pedagogical leadership team thought the greatest obstacle to collaborative planning would be creating enough common planning time in each teacher's schedule. However, it quickly became apparent that this was only the first hurdle. Once ample planning time was allocated, two scenarios emerged. Firstly, some of the veteran teachers handed over lessons and unit planners to the new teachers without allowing for any exchange of ideas, consequently not providing the opportunity for the new teachers to feel involved in the planning process. Secondly, there was not enough sharing of classroom practice among the teachers.

The leadership team realized that in addition to providing the teachers with dedicated time, teachers needed to learn how to plan collaboratively. As a result, during in-service days at the beginning of each school year, time has been set aside to learn this skill, focusing on community building with the aim of becoming a community of learners where all ideas are acknowledged, respected and valued.

Example 6

The team of teachers responsible for planning the teaching of students aged 7 and 8 meets regularly during the year. The units of inquiry to be taught this year have already been established and were, in fact, taught last year. However, the group of teachers has changed and it is important that this new group considers the reflections of last year's team. These reflections are documented on the planners developed last year. Each completed unit of inquiry will have a corresponding planner on file.

After consideration of the reflections, the new group will assess the relative success of each unit of inquiry. If the unit is to be taught again, each section documented on the planners will need to be reviewed to improve the teaching and learning. One section of the planner, box 2, lists the key questions set by the teacher to help the students engage with the central idea of the unit. This section also lists no more than three key concepts, and possibly subject-specific concepts, central to the development of the unit and allowing for an in-depth understanding of the central idea. Although a one-to-one correspondence is not required, the relationship between the concepts listed and the lines of inquiry and teacher questions should be evident.

Samples of student questions, some of which have been highlighted as having been particularly valuable, are listed in box 8 of the planner. The teachers consider both the previous teacher questions and the student questions in deciding to refresh the questions listed in box 2.

As the year progresses the teachers note which concepts are driving the inquiries from one unit to another. During the year all the concepts should have been referred to repeatedly and students' understanding of them developed further. The teachers will also be considering and monitoring the role of the concepts in the delivery of any subject-specific part of the programme that does not lie within the transdisciplinary units.

In this way, the concepts shape the extended, structured inquiry—**units of inquiry**—that are a distinguishing feature of the PYP. Schools plan and implement a set of these units each year at each grade level. Collectively, these units form a transdisciplinary school-wide component of the PYP, the **programme of inquiry**.

The subject-specific bodies of knowledge, concepts and skills (listed on the following page), together with the programme of inquiry provide a comprehensive, well-balanced curriculum that requires students to reflect on their roles and responsibilities and to participate fully in the learning process. The concepts help the teacher to make the learning coherent and the learning environment a provocative place, where the students' points of view, supported by knowledge, skill, reflection and understanding, are both valued and built upon (examples 7 and 8).

Example 7

In a unit of inquiry for students aged 11 and 12 under the transdisciplinary theme "Sharing the planet", the central idea is "Finding peaceful solutions to conflict leads to a better quality of life in a community". The teacher asks the following questions relating to the listed concepts.

- What are the reasons for conflict taking place in a community? (Suggested by the key concept **causation** and the related question "Why is it like it is?")
- How can differences be resolved without conflict? (Suggested by the key concept **perspective** and the related question "What are the points of view?")
- In what ways is peace an active rather than a passive state? (Suggested by the key concept **responsibility** and the related question "What is our responsibility?")

Example 8

In a unit of inquiry for students aged 4 and 5 under the transdisciplinary theme "How we express ourselves", the central idea is "We use play to express our feelings and ideas, and to come to new understanding". The teacher asks the following questions relating to the listed concepts.

- Why do we play? (Suggested by the key concept **perspective** and the related question "What are the points of view?")
- How do we play with others? (Suggested by the key concept **function** and the related question "How does it work?")
- What do toys and games help us learn? (Suggested by the key concept **connection** and the related question "How are they connected to other things?")

The transdisciplinary nature of the programme

The PYP acknowledges the importance of particular subject areas: language; mathematics; social studies; science; arts; personal, social and physical education.

The knowledge, concepts and skills that constitute each of these subject areas are documented in detailed frameworks—**scope and sequences**—that set out the overall expectations for each subject within age ranges, or as a developmental continuum. These documents are provided to schools as exemplar material. While some IB World Schools offering the PYP may adopt these scope and sequences, others may be required to accommodate a locally or regionally determined subject-based set of learning outcomes or standards.

However, the PYP also recognizes that educating students in a set of isolated subject areas, while necessary, is not sufficient. Of equal importance is the need to acquire skills in context, and to explore content that is relevant to students and transcends the boundaries of the traditional subjects. "To be truly educated, a student must also make connections across the disciplines, discover ways to integrate the separate subjects, and ultimately relate what they learn to life" (Boyer 1995: 82). Ernest Boyer proposed that students explore a set of themes representing shared human experiences such as "Response to the Aesthetic" and "Membership in Groups". He referred to these as "Core Commonalities". In the PYP, this idea of human commonalities shapes the **transdisciplinary themes**.

The programme defines transdisciplinary themes that identify areas of shared human experience and have meaning for individuals from different cultures and ethnicities. These themes are part of the common ground that unifies the learning in all IB World Schools offering the PYP. They provide the opportunity to incorporate both local and global issues in the **knowledge** component of the PYP written curriculum—what we want students to know about. There are six transdisciplinary themes.

Who we are

Where we are in place and time

How we express ourselves

How the world works

How we organize ourselves

Sharing the planet

Students inquire into and learn about local and global issues in the context of units of inquiry, each of which addresses a particular transdisciplinary theme (example 9). The students make connections and contributions, and deepen their understanding through the perspective of their personal and cultural experiences.

Example 9
Transdisciplinary theme: How we express ourselves.

Age group: 9–10 years.

Central idea: Choices of role models reflect the characteristics that societies and individuals value.

Key concepts: Causation, perspective, reflection.

Related concepts: Self-fulfillment, influence.

Lines of inquiry:

- role models and why we value them
- developing our own gifts, talents and interests
- how personal strengths can be used to help others.

Both the traditional subject areas and the transdisciplinary themes provide focuses for students' inquiry. These inquiries allow students to acquire and apply a set of **transdisciplinary skills**: social skills, communication skills, thinking skills, research skills, and self-management skills.

These skills are relevant to all learning, formal and informal, that goes on in the school, and in events experienced beyond its boundaries.

Students also develop skills and strategies drawn from the subject areas, but aligned with the six transdisciplinary skills. For example, becoming literate and numerate enhances students' communication skills. The acquisition of literacy and numeracy, in their broadest sense, is essential as these skills provide students with the tools of inquiry. However, the acquisition of knowledge, concepts and skills of the subject areas should not be limited to "stand alone" teaching opportunities but also needs to be an integral part of the units of inquiry (example 10).

Example 10
Students aged 5 and 6 are inquiring into the central idea "Systems need to be in place to maintain organization in communities", relevant to the transdisciplinary theme "How we organize ourselves". They are engaged in learning experiences that give them the opportunity to make authentic connections between the central idea and particular concepts and skills in mathematics, for example, people:

- use ordinal numbers to describe the position of things in a sequence
- estimate, identify and compare lengths of time: second, minute, hour, day, week, month
- collect, display and interpret data for the purpose of finding information.

A high level of collaboration is required when planning transdisciplinary units of inquiry. The planning teams, usually consisting of teachers at each year level, need to plan the units together with the remainder of the curriculum for the year. However, a whole-school approach should be taken when developing and

refining a complete programme of inquiry. The proposed units of inquiry at each year level need to be articulated from one year to another. This will ensure a robust programme of inquiry that provides students with experiences that are coherent and connected throughout their time in school (examples 11 and 12).

Teachers negotiate placement of units in programme of inquiry

Example 11

Working collaboratively, in multi-year-level teams, teachers in one IB World School began by reading and discussing the definitions of each transdisciplinary theme. Teachers then brainstormed all the "big ideas" that they thought might be developed under each particular theme. Once those ideas were identified, they were prioritized. Then, working in year-level teams, the most significant "big idea" was reworked into a developmentally appropriate central idea. This led to the further development of a transdisciplinary unit of inquiry, using the planner to record the planning process.

All teachers who taught within the primary section of the school, both homeroom and single-subject teachers, as well as the PYP coordinator, were involved in the process, thus ensuring that ownership of the programme belonged to them all.

Example 12

At the end of the school year, teachers meet with the PYP coordinator to reflect on the ways in which the units of inquiry fulfill a number of important requirements:

- suitability within the definition of the transdisciplinary themes
- balance between, and integration of, social studies and science
- distribution of other subject area focuses
- the absence of repetitive content
- units that are engaging, relevant and challenging
- alignment between the central idea, concepts and lines of inquiry and the summative assessment task(s)
- balance both vertically and horizontally throughout the programme of inquiry
- the opportunity for all aspects of each transdisciplinary theme to be explored within the programme.

This process requires teachers to give up ownership of "their" units of inquiry for the greater good of the school-wide programme of inquiry. It is understood and accepted that any unit may be modified if it does not meet the above criteria, or even removed completely. This reflective process helps all teachers grow immensely in their understanding of the PYP and of its impact on teaching and learning.

International-mindedness in the PYP

There is one compelling component that stands out from the common ground that represents good practice in all IB World Schools offering the PYP. That is, the kind of student we hope will graduate from a PYP school, the kind of student who, in the struggle to establish 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, which is central to the PYP definition of what it means to be internationally minded.

The IB learner profile is consciously value-laden, for this kind of learning is what the IB supports, and is the embodiment of the IB's philosophy of international education. The attributes described in the learner profile are appropriate to, and achievable by, all primary years students. The teacher needs to interpret these attributes in a manner appropriate to the age and development of the student. Schools should be aware that part of the adaptability and versatility of the programme lies in what these attributes may look like from one school culture to another (example 13).

Example 13

In a unit related to the transdisciplinary theme "How the world works", students aged 8 and 9 were inquiring into the central idea "Human survival is connected to understanding the continual changing nature of the Earth". Throughout the unit, the teachers looked for evidence of the development in students of particular attributes of the IB learner profile.

Inquirers—the inquiry encouraged the students to develop their research skills and become decision makers about their own learning. The guest speaker (a builder) sparked their curiosity about an aspect of the world around them. This prompted student-initiated investigations into why humans build shelters and houses, and how they build them to adapt to and interact with the environment. This broadened their perspective by adding a global dimension, and provided them with the opportunity to consider the perspectives of others.

Thinkers—students engaged in learning experiences that provoked them to think critically about the human dimension, and the positive and negative effects we have on our planet, for example, how to build safer homes, how organizations provide relief to victims of natural events, the consequences of deforestation. The learning engagements all presented the interconnectedness of natural phenomena and human intervention, provoking students' conceptual development.

Communicators—students shared knowledge, wonderings and insights through discussions, a variety of writing projects, sketches, illustrations and posters. Throughout this unit of inquiry, many visitors (parents and teachers) came to the classroom to observe and were surprised and impressed with the level of confidence and articulation of the students as they shared what they were learning. Students used PYP language in describing themselves as being "knowledgeable" and being "risk-takers".

As well as presenting schools with a philosophical perspective on what international education may be, the PYP prescribes a curriculum framework of **essential elements**:

- knowledge
- concepts
- skills
- attitudes
- action.

Each of these is reflected in the learner profile and is a reference point for the construction of a school's curriculum. One of these essential elements, highly congruent with the IB learner profile, is a particular set of **attitudes**—appreciation, commitment, confidence, cooperation, creativity, curiosity, empathy, enthusiasm, independence, integrity, respect and tolerance. These attitudes should affect deeply the learning environments and the personal interactions that occur within them.

Through acknowledging and struggling to meet the diverse needs of the student—physical, social, intellectual, aesthetic, cultural—PYP schools ensure that the learning is **engaging**, **relevant**, **challenging** and **significant**. What adds significance to student learning in the PYP is its commitment to a transdisciplinary model, whereby themes of global significance that transcend the confines of the traditional subject areas frame the learning throughout the primary years, including early childhood. These themes promote an awareness of the human condition and an understanding that there is a commonality of human experience. The students explore this common ground collaboratively, from the multiple perspectives of their individual experiences and backgrounds. This sharing of experience increases the students' awareness of, and sensitivity to, the experiences of others beyond the local or national community. It is central to the programme and a critical element in developing an international perspective, which must begin with each student's ability to

consider and reflect upon the point of view of someone else in the same class. To enhance this awareness of other perspectives, indeed of other cultures and other places, PYP students are expected to be learning a language additional to the language of instruction of the school at least from the age of 7.

The key concepts identified in the section "A concept-driven curriculum", each of which has relevance regardless of time or place, provide a structure for the exploration of the significant and authentic content that is identified in a school's programme of inquiry.

To summarize, when seeking evidence of international-mindedness in PYP schools, teachers need to look at what the students are learning, how they are demonstrating that learning, and how to nurture students within the school community. They need to consider whether students are making connections between life in school, life at home and life in the wider world. By helping students make these connections and see that learning is connected to life, a strong foundation for future learning is established.

Assessment as feedback

The prime objective of assessment in the PYP is to provide feedback on the learning process. Bruner states that students should receive feedback "not as a reward or punishment, but as information" (Bruner 1961: 26). Teachers need to select assessment strategies and design assessment instruments to reflect clearly the particular learning outcomes on which they intend to report. They need to employ a range of strategies for assessing student work that take into account the diverse, complicated and sophisticated ways that individual students use to understand their experiences. Additionally, the PYP stresses the importance of both student and teacher self-assessment and reflection (examples 14 and 15).

Younger sister attends brother's parent conference

Example 14

Student-led conferences in a school with a very diverse population provide the opportunity for students to guide their parents or guardians through their recent "journey of learning", using their mother tongue. Conference tables set up in each classroom are prepared with laminated question prompts translated into multiple languages, for the parents to refer to. The students take their parents or guardians to the tables, where they explain the objectives of the conference: to highlight their "journey of learning", their personal growth, their challenges and their achievements. The students guide the adults through the contents of their portfolios, discussing the objectives of each included item and indicating their successes and room for growth. Each student has a "personal target sheet" to fill out as they reflect on successes and challenges. Teachers are present but stand apart from the conferences. As they guide the parents or guardians from room to room, the students have a "passport" to be signed by all teachers, to ensure that their development relevant to all areas of the curriculum is discussed.

Several student-led conferences take place in classroom

Example 15

A group of PYP coordinators meets regularly to share best practice and to negotiate their understanding of particular aspects of the programme. A recent meeting provided the opportunity for an inquiry into what good summative assessment looks like. The members of the group circulated anonymized planners and assessment evidence relating to the summative assessment task(s) documented on those planners.

To begin with, using information from *Making the PYP happen: A curriculum framework for international primary education*, the group decided on a set of criteria against which to evaluate the summative assessment tasks. For example, the task provides the opportunity for students to:

- express and reflect on different perspectives
- respond in a variety of ways according to their preferred learning styles.

The coordinators used this initial set of criteria to evaluate collectively the effectiveness of one of the summative assessment tasks. The criteria were then revised and improved and used again on the wide range of assessment tasks that were documented on the various planners.

The benefits of the time spent on this task were plentiful.

- The PYP network in this area was strengthened.
- Coordinators increased their resource bank by having access to copies of all the planners and assessed samples of student work.
- They had trialled a process that could then be copied back in their own schools with their own teachers.
- They had material with which to engage teaching teams in rigorous discussion about assessment.

The assessment strategies and instruments—rubrics, anecdotal records, checklists, anchor papers, continuums, portfolios of work—proposed by the PYP are designed to accommodate a variety of intelligences (Gardner 1993) and ways of knowing (Bruner 1986). Where possible, they should provide effective means of recording students' responses and performances in real-life situations that have genuine problems to solve. These authentic assessment strategies may be used in conjunction with other forms of assessment, such as standardized tests, in order to assess both student performance and the efficacy of the programme. (See *Making the PYP happen: A curriculum framework for international primary education*, page 50, for the "IBO position on standardized achievement tests".)

In its approach to assessment, the PYP recognizes the importance of assessing the actual process of inquiry as well as the result of inquiry, and aims to integrate and support both. The teacher is expected to record the detail of the inquiry initiated by students in order to look for an increase in the substance and depth of the inquiry.

The teacher needs to consider:

- if the nature of students' inquiry develops over time—if, in fact, they are asking questions of increasing depth and providing evidence of the capacity to think critically
- if students are becoming aware that real problems require solutions based on the integration of knowledge that spans and connects many subject areas
- if students are demonstrating mastery of skills and an accumulation of a comprehensive knowledge base to enable them to conduct their inquiries successfully, find solutions and solve problems
- if students are demonstrating both independence and an ability to work collaboratively.

Student discusses exhibition portfolio with mentor

In the final year of the PYP the students participate in a culminating project, the PYP exhibition. This requires that each student demonstrates engagement with the five essential elements of the programme—knowledge, skills, concepts, attitudes, action. It is both a transdisciplinary inquiry conducted in the spirit of personal and shared responsibility, as well as a summative assessment activity that is a celebration and rite of passage, symbolic and actual, from the PYP into the middle years of schooling (example 16).

Example 16

When a school community first began its PYP exhibition journey, the students and teachers in the final year/grade of the school, those directly involved, were the only ones who really seemed to know about the process. So, they began to share the process more purposefully within the school community.

To facilitate staff understanding, during one of the school's professional development meetings, the year 5 teachers and the PYP coordinator set up inquiry centres about the exhibition. One centre had the video from the previous year, and another had photo albums where each class had documented the process. Two more centres contained the implementation standard relating to the exhibition, and large posters that the students had created showing how the essential elements of the PYP—knowledge, concepts, skills, attitudes, action—related to their exhibition. Teachers rotated around the four centres, where they were able to write down questions that were answered in the feedback session at the end.

As well as informing teachers about the exhibition, this also provided a good introduction for new teachers to how inquiry centres could work. Similar inquiry centres were set up at the beginning of the exhibition process with the year 5 students and their parents working side by side, writing questions and learning about the exhibition together.

Summary

The PYP focuses on the heart as well as the mind and addresses social, physical, emotional and cultural needs in addition to those considered to be more academic. The traditional subject areas are valued, with an extra emphasis on the balance between the acquisition of essential knowledge and skills and the search for the meaning of, and understanding about, the world. The programme provides the opportunity for learners to construct meaning, principally through concept-driven inquiry. The threads of students' learning are brought together in the transdisciplinary programme of inquiry, which in turn allows them to make connections with life outside the school. This overview of the PYP is encapsulated in the PYP model (figure 1).

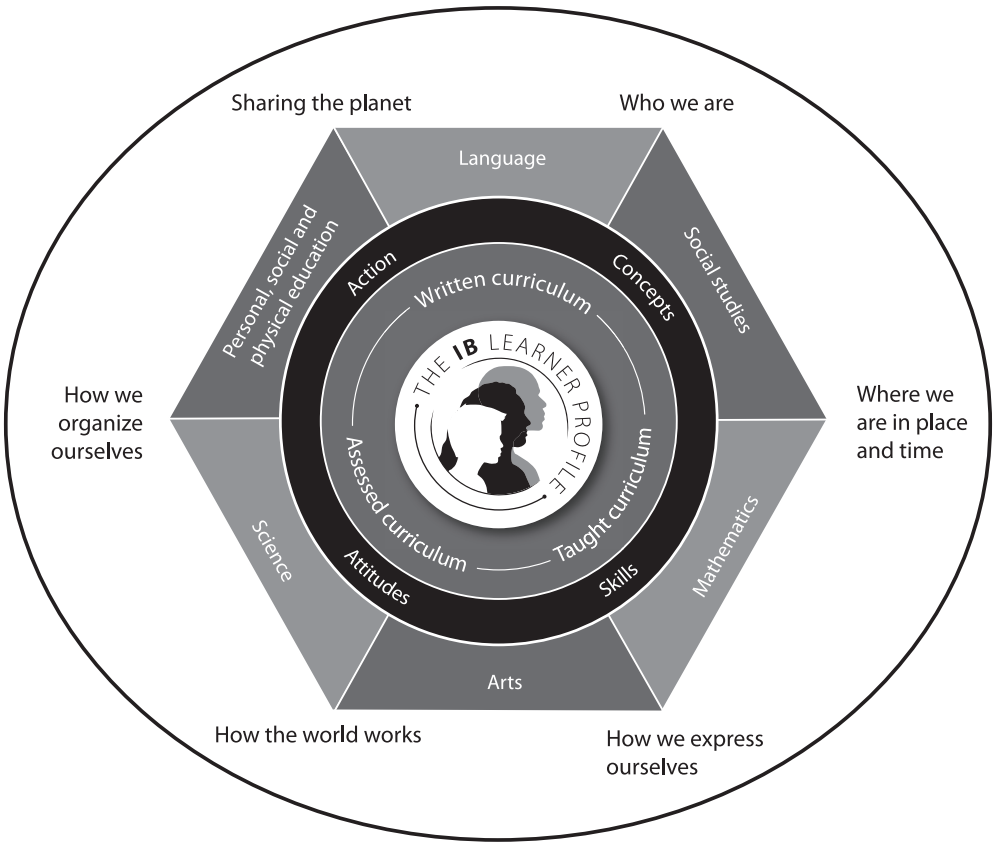

Figure 1
PYP model

The PYP enables students to develop an insight into the experiences of others, through:

- the knowledge component of the curriculum
- the IB learner profile and the attitudes that support it
- the students' own conceptual development
- the expectation that they will engage in socially responsible action as a result of the learning experience.

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