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Primary Years Programme

Developing a transdisciplinary programme of inquiry





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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.

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Developing a transdisciplinary programme of inquiry

Introduction

This document aims to give guidance to schools developing a new transdisciplinary **programme of inquiry**, or revising an existing one.

The curriculum in a Primary Years Programme (PYP) school includes all student activities, academic and non-academic, for which the school takes responsibility. The curriculum is expressed as three interrelated components: the written, the taught and the assessed curriculums. All have an impact on student learning. At the heart of the curriculum is the learner constructing meaning.

Each school is required to document its written curriculum as specified in the International Baccalaureate (IB) *Programme standards and practices* (IB 2010).

The written curriculum is comprehensive and aligns with the requirements of the programme(s).

IB Programme standards and practices: Practice C2.1 (IB 2010)

The written curriculum identifies what is worth knowing for students. When developing the written curriculum in their schools, teachers and administrators need to consider the **transdisciplinary themes** and the subject-specific knowledge, concepts and skills.

The knowledge component of the written curriculum is determined by the belief that there are areas of knowledge that, while important for any student, are especially significant in schools that aim to promote international-mindedness on the part of their students.

The work of Ernest Boyer (Boyer 1995) has been seminal to the development of the PYP. Boyer proposed that students explore a set of themes that represents shared human experiences. He referred to these as “core commonalities”. Debate and discussion, representing multiple perspectives, about this idea of human commonalities have led to the selection of six transdisciplinary themes (see Figure 1) that are considered essential in the context of a programme of international education. These themes:

- have global significance—for all students in all cultures
- offer students the opportunity to explore the commonalities of human experience
- are supported by knowledge, concepts and skills from the traditional subject areas but utilize them in ways that transcend the confines of these subjects, thereby contributing to a transdisciplinary model of teaching and learning
- will be revisited throughout the students’ years of schooling, so that the end result is immersion in broad-ranging, in-depth, articulated curriculum content
- contribute to the common ground that unifies the curriculums in all PYP schools.

PYP transdisciplinary themes	
Who we are	
	An inquiry into the nature of the self; beliefs and values; personal, physical, mental, social and spiritual health; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.
Where we are in place and time	
	An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.
How we express ourselves	
	An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.
How the world works	
	An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.
How we organize ourselves	
	An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.
Sharing the planet	
	An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.

Figure 1

The PYP requirements under standard C2 state that:

The written curriculum incorporates relevant experiences for students.

- a. The written curriculum provides opportunities for student learning that is significant, relevant, engaging and challenging.

IB Programme standards and practices: Practice C2.6 (IB 2010)

The written curriculum promotes students' awareness of individual, local, national and world issues.

- a. The programme of inquiry includes the study of host or home country, the culture of individual students and the culture of others, including their belief systems.

IB Programme standards and practices: Practice C2.7 (IB 2010)

The written curriculum provides opportunities for reflection on human commonality, diversity and multiple perspectives.

IB Programme standards and practices: Practice C2.8 (IB 2010)

These requirements ensure that students inquire into, and learn about, globally significant issues in the context of **units of inquiry**, each of which addresses a **central idea** relevant to a particular transdisciplinary theme. These units collectively constitute the school's programme of inquiry, providing a scaffold for the development of international-mindedness.

What does a programme of inquiry include?

The PYP requirements under practice C1.3 state that:

Collaborative planning and reflection addresses vertical and horizontal articulation.

- a. There is a systematic approach to integration of the subject-specific scope and sequences and the programme of inquiry.
- b. The school ensures balance and articulation between the transdisciplinary programme of inquiry and any additional single-subject teaching.

IB Programme standards and practices: Practice C1.3 (IB 2010)

In addition, the PYP requirements under practice C2.1 outline the content of a school's programme of inquiry.

The written curriculum is comprehensive and aligns with the requirements of the programme(s).

- a. The programme of inquiry consists of six units of inquiry—one for each transdisciplinary theme—at each year/grade level, with the exception of students who are 3–5 years, where the requirement is at least four units at each year/grade level, two of which must be under "Who we are" and "How we express ourselves".
- b. The school ensures that there is a coherent, horizontally and vertically articulated programme of inquiry.
- c. The Primary Years Programme exhibition is one of the six transdisciplinary units of inquiry in the final year of the programme.

IB Programme standards and practices: Practice C2.1 (IB 2010)

Schools should be mindful of the fact that the transdisciplinary programme of inquiry is not merely a novel way of repackaging subject-specific content. Rather, it is a way of students using a range of subject-specific knowledge, concepts and skills in order to develop a deeper understanding of the transdisciplinary themes.

Transdisciplinary themes

The programme of inquiry is a matrix made up of the six transdisciplinary themes running vertically, and the age groups running horizontally. Organizing the curriculum around the six transdisciplinary themes contextualizes the learning for the students. It enables them to experience a balance of subject-specific knowledge, concepts and skills in order to develop an understanding of the transdisciplinary themes (see Figure 1).

Each transdisciplinary theme is accompanied by a description that explains what students will be inquiring into under this theme. This description should be referred to continually to ensure the relevance of the central ideas beneath it. It should be used as a tool to ensure the balance of the units of inquiry under each theme, rather than as a checklist.

All aspects of the descriptions of the transdisciplinary themes should be explored at some point in the programme of inquiry. The exception to this is schools that have fewer than five grade/year levels. Schools in this category should endeavour to address all aspects of the descriptions of the transdisciplinary themes in a reasonable manner in the number of years available to them.

Units of inquiry

In each of the cells of the matrix, a unit of inquiry is documented that is age-appropriate. Each unit of inquiry on the programme of inquiry should consist of a central idea, key concepts, related concepts, and lines of inquiry, as described in Figure 2.

Example of a unit on a programme of inquiry
<p>An inquiry into:</p> <p>How we organize ourselves</p> <p><i>An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.</i></p> <p>9–10 years</p> <p>Central idea</p> <p>New digital media changes the way in which people access information and connect to each other.</p> <p>Key concepts: function, causation, connection</p> <p>Related concepts: networks, access, ethics, platform</p> <p>Lines of inquiry</p> <ul style="list-style-type: none">• How new digital media is used or organized• Evaluating information• Our responsibility in virtual environments

Figure 2

Central idea

Each of the units of inquiry has a central idea. The central idea should be written in one sentence that expresses concisely an enduring understanding. Each central idea will support students' understanding of the particular transdisciplinary theme it is connected to, and should challenge and extend students' prior knowledge. Central ideas should be globally significant and have relevance to students in all cultures and contexts, offering students the opportunity to explore commonalities of human experience as framed by the description of the transdisciplinary theme.

Central ideas should be written in a neutral voice that does not convey a specific or particular value of an individual or group, eg teachers. In the development of central ideas, wording that is overly subjective, suggests bias, or implies judgment, opinion or expected behaviours should be avoided. Central ideas should be written in such a way to invite student inquiry, so that a range of responses is possible. This is so that students are encouraged to uncover the complexity of a central idea, construct their own meaning and assign their own value to the ideas being explored.

Each central idea should be written so as to promote conceptual development supported by the PYP key concepts identified for the unit of inquiry. This does not mean that the name of a PYP key concept has to be recorded in the central idea, but rather that the central idea has a conceptual underpinning that will help students develop their ability to think conceptually.

Clear links between the transdisciplinary theme, the central idea and the associated lines of inquiry need to be established and articulated. The summative assessment tasks (documented in the PYP planner that accompanies the unit of inquiry) should also be articulated with the central idea: if there is no effective way in which students can demonstrate—or teachers assess—their understanding of the central idea, the central idea will need to be revised until such assessment is possible.

Development of central ideas requires time, careful thought and collaboration among staff. At times, students may also be involved. The central idea should be engaging, relevant, challenging and significant, and written as a concise statement. The central idea should be compelling to learners of all abilities. Learners of various abilities and ages can study a well-formulated central idea to differing depths.

Central ideas do not have to be worded in a complex way, nor do they have to be written in language appropriate to the age of the students. Words that students may not have come across before, but are essential to the understanding of the central idea, should be included. This means that the central idea may need to be “unpacked” by the teachers or students and discussed in language that the students can understand. By the end of a unit of inquiry, it is reasonable to expect students to be articulate about the central idea and to explain their understanding in their own words.

At the planning stage, it may hinder the development of the unit of inquiry to spend time trying to come up with a “catchy” title in addition to the central idea. For this reason, the PYP sample programme of inquiry does not contain titles. There is evidence in some cases that, over time, the titles used to label the units may obscure the articulation between the central idea and the transdisciplinary theme. However, in the context of a school it may be convenient for teachers or students to add titles at a later stage in order to facilitate discussion about the units of inquiry.

Concepts

A school's programme of inquiry should demonstrate the opportunity for deeper exploration of all eight PYP key concepts. All eight key concepts must be represented on the programme of inquiry at each grade/year level.

The central idea should be designed to promote conceptual development. The concepts are identified early in the process and embedded in the central idea to help students to extend their critical thinking capacity. Listing the concepts (key concepts and related concepts) on the programme of inquiry will help to focus the direction of the inquiries. No more than three PYP key concepts should be selected to focus on in any one unit of inquiry.

Related concepts derived from the key concepts and from the subject areas should also be listed. They deepen an understanding of the subject areas while providing further opportunities to make connections throughout the learning, from one subject to another, and between disciplinary and transdisciplinary learning.

Alignment between the PYP key concepts, related concepts and lines of inquiry of a unit will provide opportunities for students' conceptual development, and deepen their understanding of the central idea.

There should be a balance of PYP key concepts used throughout each transdisciplinary theme. This does not mean that each key concept must be represented under each transdisciplinary theme but rather that schools are mindful of repetition or under-representation of concepts in order to ensure that there are appropriate opportunities for students to revisit and develop their understanding of all concepts.

Lines of inquiry

The purpose of the lines of inquiry is to clarify and develop understanding of the central idea. Each unit of inquiry will contain three or four lines of inquiry and these should be written as statements or phrases, not as questions, topics or tasks. There should be evidence of a connection between the lines of inquiry and aspects of the designated transdisciplinary theme.

Lines of inquiry should be written in such a manner as to develop conceptual understanding supported by the identified PYP key concepts and related concepts. Lines of inquiry should be relevant to the experience of the students within a particular developmental range. The lines of inquiry, as a set, should define the scope of the inquiry and help to focus student research. However, they should be open enough to extend student inquiries, and deepen understanding of the central idea.

In addition, lines of inquiry should be written in such a way as to provide opportunities for students to develop their understanding through multiple perspectives. To support this development of understanding, the lines of inquiry should be distinctive yet connected to one another, to provide a coherent context for learning.

Number of units of inquiry in the matrix

There could be as many as 54 units of inquiry in a programme of inquiry if schools have students aged 3 to 12 years old. However, as students aged 3 to 5 years only have to complete a minimum of four units, schools will generally have fewer units in the matrix.

Recording the exhibition on a programme of inquiry

In schools with three or more grade/year levels, it is a requirement that students participate in a PYP exhibition in the final grade/year of the school. In the exhibition grade/year, it is advisable that the school develops six units of inquiry (one for each of the transdisciplinary themes) and records these on the programme of inquiry.

The practice of developing a unit of inquiry under each transdisciplinary theme leads to a balanced programme of inquiry where understanding of each transdisciplinary theme is developed as fully as possible across the school. Every year, the school (with student involvement) replaces one of the six units with the PYP exhibition. The transdisciplinary theme under which the exhibition sits may differ from year to year depending on the issue selected (the exhibition may strongly reflect one particular theme but it is more likely that it will synthesize aspects of some or all of the transdisciplinary themes).

Developing a programme of inquiry for the first time

The PYP requirement under practice C1.1 states that:

Collaborative planning and reflection addresses the requirements of the programme(s).

- a. The programme of inquiry and all corresponding unit planners are the product of sustained collaborative work involving all the appropriate staff.

IB Programme standards and practices: Practice C1.1 (IB 2010)

The task of developing a programme of inquiry is one the whole staff, including classroom teachers and single-subject teachers, takes responsibility for. It represents a sustained collaborative process involving all the appropriate PYP staff, full-time or part-time, to the fullest possible extent.

It is the role and responsibility of the PYP coordinator to facilitate the process in a manner that he or she believes will work best for the staff. This may involve a series of small-group meetings and/or whole-staff meetings. Examples of how the process could work include the following.

- A core group of teachers develops a skeleton programme of inquiry that is then shared and fully developed with the rest of the staff.
- Groups of teachers develop units, either by age range or under each of the transdisciplinary themes. The whole staff then reviews the programme of inquiry to consider areas of redundancy or omissions.
- A national, regional or state curriculum may require that certain content be included in a school's programme of inquiry. The staff works to consider how this predetermined content might help to promote an understanding of the transdisciplinary themes.
- The whole staff works together all the way through the process to develop the complete programme of inquiry.

Schools should be aware that whatever method is selected for the development of a programme of inquiry, the process is a lengthy one, requiring many hours of collaboration and discussion. After a programme of inquiry has been developed, there will be many further refinements.

All PYP teaching staff, whether full-time or part-time, classroom teacher or single-subject teacher, then have the responsibility to develop accompanying planners that correspond to the units on the programme of inquiry.

When a school begins the process of developing a programme of inquiry, it should make use of the PYP subject-specific scope and sequences, the PYP sample programme of inquiry, and any other curriculum documents that the school may consider essential. Any national, local or regional requirements will guide the units of inquiry that a school chooses to develop and include in its programme of inquiry.

Providing high-quality resources for a new programme of inquiry may be expensive and time consuming. The resources available in a school (artifacts, audio-visual materials, books, people, places and technology) should all be carefully considered when a school develops a programme of inquiry in order to make the best use of the resources it already has. Additionally, consideration should be given to the resources available in the local community in order to provide a meaningful context for inquiry.

It is sometimes necessary to translate the programme of inquiry for those in the school community who need to understand the central ideas in a different language. This must be undertaken very carefully so that the concepts embedded in each central idea are not lost in the translation. For dual language schools that have to communicate the programme of inquiry to the school community in two languages, it is of particular importance to ensure consistency of conceptual understanding across both languages of instruction.

Connections with the subject-specific scope and sequences

The PYP requirements under practice C1.3 state that:

Collaborative planning and reflection addresses vertical and horizontal articulation.

- a. There is a systematic approach to integration of the subject-specific scope and sequences and the programme of inquiry.
- b. The school ensures balance and articulation between the transdisciplinary programme of inquiry and any additional single-subject teaching.

IB Programme standards and practices: Practice C1.3 (IB 2010)

The school's programme of inquiry and subject-specific scope and sequence documents are key components of the written curriculum.

The importance of the traditional subject areas is acknowledged. Indeed, the subject areas of language, mathematics, science, social studies, arts, and personal, social and physical education (PSPE) are specified as components of the PYP curriculum model. However, it is also recognized 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 that 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)

When planning a programme of inquiry, schools should be aware that all significant science and social studies teaching should take place within the programme of inquiry. Moreover, knowledge, concepts and skills from any of the other subject areas, ie language, mathematics, PSPE and arts, should be included in the programme of inquiry whenever there is an authentic connection to the students' learning and understanding of the transdisciplinary theme. Aspects of PSPE are pervasive across the curriculum and are the responsibility of all teachers. Therefore PSPE needs to be considered in all areas of the curriculum and not just in the transdisciplinary programme of inquiry.

Relevant subject area tags have not been included in the PYP programme of inquiry samples included in this publication in order to demonstrate that coverage of subject areas was not the driver in the collaborative planning process. However, after the development of the programme of inquiry, it is appropriate to identify when a unit has provided the opportunity for teaching about or through a particular subject area in order to address the balance between transdisciplinary and disciplinary learning in the PYP. It is suggested that two or three PYP subject areas that will support understanding of the central idea be identified and recorded for each unit on the programme of inquiry. All PYP subject areas should be represented within the programme of inquiry at each grade/year level. Additionally, there should be a balance of PYP subject areas identified to support understanding of each transdisciplinary theme (this does not mean that each subject area must be represented under each transdisciplinary theme).

The scope and sequence documents represent the planned learning within the subject areas. They inform the order of the units of inquiry and the teaching of any further knowledge, concepts and skills within each grade/year level. Depending on the circumstances of the individual school, these scope and sequence documents may be those published by the IB or adaptations thereof; they may be required content as specified by national, state or regional governing agencies; they may be developed entirely by the school; or they may be a combination of these things.

There should be a process of mapping the scope and sequence documents (whether they are mandated by the state, region or nation or developed by the school) with the programme of inquiry. This cross-referencing should continue between the documents throughout the ongoing development of the programme of inquiry. The scope and sequence documents should also be cross-referenced with each other as well as with the programme of inquiry.

The subject-specific strand descriptors in the annex of *Making the PYP happen: A curriculum framework for international primary education* (IB 2009) and the PYP subject-specific scope and sequence documents may be used as a tool to ensure that the balance of subject-specific knowledge and skills is purposefully integrated.

Note: The IB would encourage independent schools functioning with considerable autonomy to use the PYP subject-specific scope and sequence documents and not spend unnecessary time developing their own.

Refining a programme of inquiry

The PYP requirement under practice C2.9 states that:

The written curriculum is informed by current IB publications and is reviewed regularly to incorporate developments in the programme(s).

- a. There is a system for regular review and refinement of the programme of inquiry, individual units of inquiry and the subject-specific scope and sequences.

IB Programme standards and practices: Practice C2.9 (IB 2010)

The development of the school's programme of inquiry and the accompanying scope and sequence documents will differ in each setting due to the nature of the school and any locally or regionally determined subject requirements. The transdisciplinary themes provide the basis for much discussion and interpretation within a school, and allow for both local and global perspectives to be explored in the units. Consequently, it would be inappropriate for the PYP to attempt to produce a definitive programme of inquiry to be used by all schools. However, two sample programmes of inquiry are included in this publication for schools to use and adapt as they wish.

The PYP philosophy and practices have more of an impact on a school's culture when the individuals in the school work collaboratively to develop a transdisciplinary programme of inquiry designed to meet the school's needs and predetermined requirements. Schools should explore the possibilities for links between the units taught at each year level, and also across the different age ranges, so that the programme of inquiry is articulated both vertically and horizontally.

The units of inquiry that are chosen and developed should illuminate the transdisciplinary theme under which they are placed. A rigorous central idea that is conceptually rich will be targeted specifically to a particular transdisciplinary theme. The lines of inquiry will help to identify and clarify the direction the unit will take and, consequently, make the choice of transdisciplinary theme clearer. The concepts that drive the inquiry will also match the appropriate transdisciplinary theme for each grade/year level.

When schools have completed their first draft of a programme of inquiry, they should check for breadth and balance both vertically (down each transdisciplinary theme) and horizontally (across the year or grade level). This will ensure that a balance of subject-specific knowledge, concepts and skills has been included in the programme of inquiry, allowing the learner to build conceptual understanding and explore the essence of each transdisciplinary theme (see Figure 3).

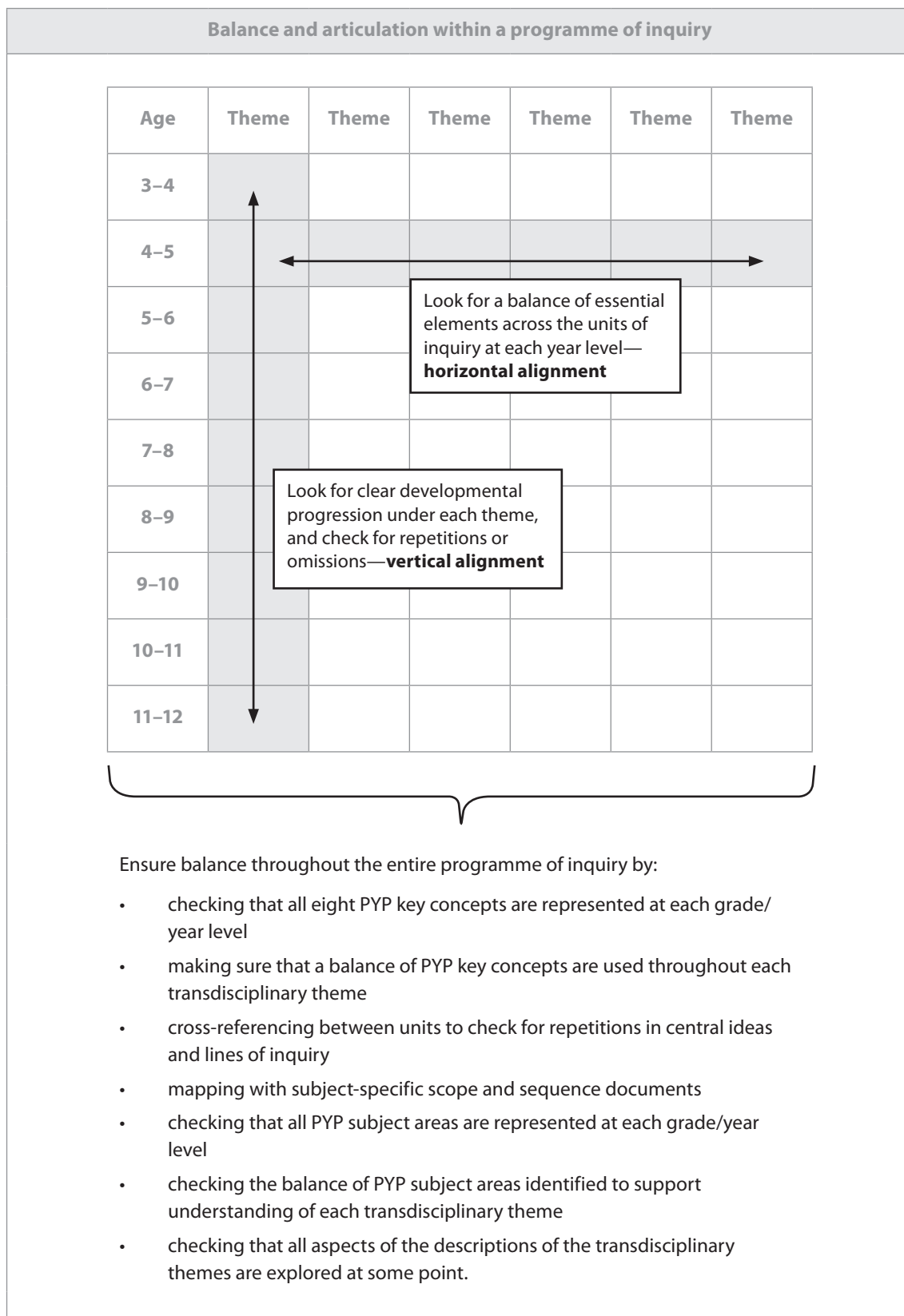


Figure 3

Teaching using the programme of inquiry

The PYP requirement under practice B2.10 states that:

The student schedule or timetable allows for the requirements of the programme(s) to be met.

- a. The schedule or timetable allows for in-depth inquiry into the transdisciplinary and disciplinary dimensions of the curriculum.

IB Programme standards and practices: Practice B2.10 (IB 2010)

All teachers, including single-subject teachers whenever appropriate, have a responsibility for developing planners to accompany the units of inquiry documented on the programme of inquiry. Sample planners are available in other PYP publications on the online curriculum centre (OCC).

The central ideas indicate the concepts and knowledge that will be documented on the planners. It is then the responsibility of the teachers to define the learning experiences and assessments they feel will allow students to come to an understanding of the central idea. Summative assessment tasks and the evidence of understanding that students will need to produce also need to be documented on the accompanying planners. Schools should bear this in mind when developing central ideas.

Teachers of 3–5 year olds (early childhood) must plan and teach a minimum of **four** units of inquiry, which include a unit under the transdisciplinary theme “Who we are”, and another under the theme “How we express ourselves”. These two themes, in particular, are considered fundamentally relevant to all young students.

In the early childhood years, a substantial degree of flexibility is offered in terms of the length of the required four units of inquiry. Due to the nature of development and learning during early childhood (3–5 years), it is acknowledged that some units may be year-long and, consequently, more than one unit may be addressed at the same time. The same degree of flexibility regarding the length of the units for 3–5 year olds is considered appropriate for 5–6 year olds. However, for students aged 5 years and older, all **six** transdisciplinary themes need to be addressed during the year. This flexibility is outlined in *Making the PYP happen: A curriculum framework for international primary education* (IB 2009).

Teaching and learning, whenever possible and appropriate, should be within the school’s programme of inquiry. However, there are occasions when this is not practical. During these times, teachers may use a number of the following models to teach subject-specific knowledge, concepts and skills.

- **Subject-specific inquiry:** There are times when teachers will teach subject-specific knowledge, concepts and skills, outside the programme of inquiry, using purposeful inquiry. They should use the PYP planner to structure their planning for this type of inquiry. Teachers should still ensure that authentic connections are made with the essential elements of the programme while maintaining the integrity of the subject area.
- **Preparing for or following on from a unit within the programme of inquiry:** The direct teaching of subject-specific knowledge, concepts and skills in a unit of inquiry may not always be feasible but, where appropriate, introductory or follow-up learning experiences may be useful to help students make connections across the curriculum. Teachers plan and teach learning experiences that prepare the students to participate in a unit of inquiry. Following on from a unit, students may demonstrate their understanding of the central idea in a subject-specific activity.
- **Skills-based teaching:** This refers to the teaching of subject-specific skills not directly related to a unit of inquiry but to support mastery and increase students’ skills base in areas such as literacy, numeracy, arts and PSPE. Nevertheless, teachers should be mindful that it is appropriate to develop and use subject-specific skills in the context of units of inquiry. In fact, it could be argued, that this authentic, contextualized learning is preferable.

Evaluating a programme of inquiry

The PYP requirement under practice C2.9 states that:

The written curriculum is informed by current IB publications and is reviewed regularly to incorporate developments in the programme(s).

- a. There is a system for regular review and refinement of the programme of inquiry, individual units of inquiry and the subject-specific scope and sequences.

IB Programme standards and practices: Practice C2.9 (IB 2010)

Schools should review and refine their programme of inquiry and scope and sequence documents regularly. As they continue to develop and refine their programme of inquiry, there should be continual cross-referencing with the scope and sequence documents.

Many schools choose to have a large printout of their programme of inquiry in a communal area that allows teachers (and often parents and students) to make comments about the units of inquiry and the overall programme of inquiry. The reflection on the relative success of the units of inquiry and the integration of the units throughout the programme of inquiry are important aspects of evaluating how well the programme of inquiry is working.

After teachers have spent some time teaching the programme of inquiry, there are likely to be changes that they wish to make to the units of inquiry. The school should determine the process it wishes to use for incorporating these changes. For example, in some schools a request to change the units of inquiry is made at the end of the year and the whole staff reviews the requests in order to identify any possible redundancies or omissions these changes may cause in the school's programme of inquiry.

It is a useful habit to revisit regularly the theme descriptions under the transdisciplinary theme as a prompt for expanding the scope of the central idea and making it more substantial.

The criteria in Figure 4 have been developed by the IB as a result of piloting a review service to provide schools with feedback on their programme of inquiry. Schools will find these criteria useful in helping them self-assess their programme of inquiry. A rubric that includes these criteria has been developed by the IB to support the self-assessment process in schools. The rubric can be found in the annex of this publication.

Criteria for reviewing a school's programme of inquiry	
Central ideas	There are six central ideas for all grade/year levels (other than 3–5 year olds).
	There are at least four central ideas at each grade/year level for 3–5 year olds including “Who we are” and “How we express ourselves”.
	Each central idea is written as one sentence.
	The PYP key concepts have been identified (no more than three) for each unit of inquiry.
	Central ideas are written in a neutral voice that does not convey a specific or particular value of an individual.
	Central ideas are written in such a way to invite student inquiry, so that a range of responses is possible.
	Central ideas are relevant to the transdisciplinary themes under which they have been placed.
	Central ideas are written in such a manner as to develop conceptual understanding supported by the identified PYP key concepts.
	Central ideas are globally significant addressing the commonalities of human experience.
Lines of inquiry	Three or four lines of inquiry have been identified for each unit.
	The lines of inquiry are written as statements or phrases, not questions, topics or tasks.
	The lines of inquiry develop understanding of the central idea.
	The lines of inquiry offer opportunities to develop understanding through multiple perspectives.
	The lines of inquiry develop understanding of aspects of the designated transdisciplinary theme.
	The lines of inquiry are relevant to the experience of the students within a particular developmental range.
	Within the unit, the lines of inquiry are distinctive yet connected to one another.
	The lines of inquiry are written in such a manner as to develop conceptual understanding supported by the identified PYP key concepts and related concepts.
Balance and articulation within the programme of inquiry	All eight PYP key concepts are represented at each grade/year level.
	There is a balance of PYP key concepts used throughout each transdisciplinary theme.
	The related concepts are derived from the subject areas and connect to the PYP key concepts.
	All the planned science and social studies content is incorporated into the programme of inquiry.
	The school has mapped its subject-specific scope and sequences with its programme of inquiry.
	Two or three PYP subject area focuses are recorded for each unit.
	All PYP subject areas are represented within the programme of inquiry at each grade/year level.
	There is a balance of PYP subject areas identified to support understanding of each transdisciplinary theme.
	All aspects of the descriptions of the transdisciplinary themes are explored at some point in the programme of inquiry.
	The PYP subject areas identified will support students' understanding of the central idea.
	The units throughout the programme of inquiry challenge and extend students' understanding.

Figure 4

How the PYP sample programme of inquiry (2012) was developed

The development of a programme of inquiry within a school is an ongoing process. Teachers' understanding of concept-based, transdisciplinary inquiry is being strengthened through discussions with colleagues as part of a school's professional development activities and through regular collaborative planning sessions. Therefore each time a unit of inquiry is planned, taught and reflected upon, ways to improve the unit are identified and this in turn informs the development of the entire programme of inquiry.

In order to support teachers in understanding the changes that have been incorporated into the PYP sample programme of inquiry, a number of examples have been described here in more detail. Examples 1 and 2 are examples of units of inquiry where central ideas have been revised. Examples 3 and 4 are examples of units of inquiry where issues pertaining to lines of inquiry have been addressed. Examples 5 and 6 illustrate how units have been revised to strengthen balance and articulation across and within the programme of inquiry.

Each example includes an explanation of the changes that were made utilizing the criteria listed in Figure 4, as well as the units from both the 2008 sample (on the left-hand side) and the 2012 sample (on the right-hand side).

Example 1

The central idea in the 2008 sample is value-laden, in that it conveys the idea that our lives are enriched by friendships. The central idea was broadened to incorporate other types of relationships that may be significant to the students, eg classmates and neighbours. The new central idea does not convey a specific value and is also more open to student inquiry, ensuring a range of responses is possible. The related concepts and lines of inquiry were revised in light of the changes to the central idea.

2008	2012
<p>Who we are 4–5 years Central idea: Friendships enrich our lives and require nurturing in order to develop. Key concepts: causation, responsibility Related concepts: conflict or cooperation, interdependence Lines of inquiry</p> <ul style="list-style-type: none"> • How friends are made and kept • Why friends are needed • Characteristics that develop healthy friendships 	<p>Who we are 4–5 years Central idea: People's relationships with each other can have an impact on well-being. Key concepts: function, connection, responsibility Related concepts: cooperation, friendship, balance Lines of inquiry</p> <ul style="list-style-type: none"> • How we develop relationships • How relationships affect us • Roles and behaviours within relationships

Example 1

Example 2

The central idea in the 2008 sample was not written in such a way as to be open to student inquiry, ensuring a range of responses was possible. Limiting the focus to “a workplace” didn’t allow for students to transfer the understanding embedded in the central idea to other contexts. The lines of inquiry were also narrow in focus and did not offer opportunities to explore multiple perspectives. When revising this unit, it became clear that the aspect in the transdisciplinary theme that needed focusing on was “the structure and function of organizations”.

2008	2012
<p>How we organize ourselves 7–8 years Central idea: In a workplace people share responsibility towards a common purpose. Key concepts: function, causation connection Related concepts: cooperation, employment Lines of inquiry</p> <ul style="list-style-type: none"> • Purpose of a workplace • Interconnectedness of people in a workplace • Importance of a shared vision or common purpose 	<p>How we organize ourselves 7–8 years Central idea: People create organizations to solve problems and support human endeavour and enterprise. Key concepts: function, connection, responsibility Related concepts: work, collaboration, entrepreneurship, service Lines of inquiry</p> <ul style="list-style-type: none"> • Purpose of organizations • Why people join organizations • Strategies for problem solving within an organization • What makes an organization successful

Example 2

Example 3

The lines of inquiry in the 2008 sample were not written in such a way as to develop conceptual understanding supported by the identified key and related concepts. In addition, the second line of inquiry was too narrow in focus and would not allow for the exploration of multiple perspectives: not all places on Earth experience seasonal changes. As a result of the discussion about the global significance of the lines of inquiry, the central idea was revised to encompass other living things.

2008	2012
<p>How the world works 3–4 years Central idea: Our activity is usually connected to the Earth’s natural cycles. Key concepts: change, connection Related concepts: cycles, interaction Lines of inquiry</p> <ul style="list-style-type: none"> • Night and day cycles (dark and light) • Seasonal changes • Health and safety as related to climate and seasonal changes 	<p>How the world works 3–4 years Central idea: The Earth’s natural cycles influence the activity of living things. Key concepts: causation, change, connection Related concepts: cycles, interaction, pattern Lines of inquiry</p> <ul style="list-style-type: none"> • Natural cycles (eg night and day, weather patterns, seasons) • The actions people take in response to Earth’s natural cycles • Patterns of behaviour in living things related to Earth’s natural cycles

Example 3

Example 4

In the 2008 sample, the first two lines of inquiry were not written in such a way as to develop conceptual understanding supported by the identified key and related concepts. For example, an inquiry into “Types of governance” could result in students developing a list rather than a deeper understanding of “How government systems function”. In order to ensure that the unit was inquiring more directly into aspects of the transdisciplinary theme description of “How we organize ourselves”, the central idea and lines of inquiry were revised.

2008	2012
<p>How we organize ourselves 10–11 years Central idea: Governmental systems and decisions can promote or deny equal opportunities and social justice. Key concepts: function, responsibility Related concepts: equality, government or governance Lines of inquiry</p> <ul style="list-style-type: none"> • Types of governance • Principles of human rights and social justice • The effect of institutional behaviours and attitudes on social justice 	<p>How we organize ourselves 11–12 years Central idea: Government systems influence the lives of citizens. Key concepts: function, perspective, responsibility Related concepts: equality, citizenship, governance, law, politics Lines of inquiry</p> <ul style="list-style-type: none"> • How government systems function • How decision-making practices reflect human rights • Impact of government on citizens • The rights and responsibilities of citizenship

Example 4

Example 5

This unit of inquiry was not thought rigorous enough to challenge learners at the 9–10 year level. In addition, it was decided that the central idea would be more appropriately placed under the transdisciplinary theme “Who we are”. The central idea was revised to better reflect its new position under the transdisciplinary theme “Who we are”. The lines of inquiry were reworked in order to ensure that they provided opportunities for developing understanding of the revised central idea.

2008	2012
<p>How we express ourselves 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</p> <ul style="list-style-type: none"> • Role models and why we value them • Why we should develop our own gifts, talents and interests • How personal strengths can be applied to help others 	<p>Who we are 7–8 years Central idea: Choices of role models reflect the beliefs and values of individuals and societies. Key concepts: causation, perspective, reflection Related concepts: identity, peer pressure, opinion Lines of inquiry</p> <ul style="list-style-type: none"> • What determines our beliefs and values • How and why role models are chosen • Influence of role models on our choices and actions

Example 5

Example 6

The final example is the analysis of balance and articulation within and across transdisciplinary themes.

As part of the vertical analysis of the 2008 sample programme of inquiry, it was recognized that not all aspects of all transdisciplinary theme descriptions were explored. For example, in the units of inquiry under “Sharing the planet”, there was repeated exploration of “living things” and limited prospects for exploring “access to equal opportunities”. In the units of inquiry under “How we organize ourselves”, there were overlapping inquiries into “human-made systems and communities” and fewer opportunities for inquiry into “economic activities and their impact on humankind and the environment”. In response to this, several units were revised, and some were removed with new units introduced in their place.

It was also decided that several units of inquiry would be better placed under different transdisciplinary themes. For example, in the 2008 sample the 8–9 year unit of inquiry under “How we express ourselves” with the central idea “A variety of signs and symbols facilitates local and global communication” was really felt to be exploring systems of communication and therefore belonged under “How we organize ourselves”.

Finally, there were a few units of inquiry that did not challenge and extend students’ understanding. In some instances these units were improved or moved to a different age level. In other instances, they were replaced with a completely new unit. For example, under the transdisciplinary theme “Where we are in place and time”, the 3–4 year unit with the central idea “Documenting personal histories allows us to reflect on and celebrate who we are and where we’ve come from” was not deemed appropriate to the experience of this young age group and was replaced by a new unit with the central idea “Spaces and facilities in and around buildings determine how people use them”. Under the transdisciplinary theme “Sharing the planet”, the 8–9 year unit with the central idea “Water is essential to life, and is a limited resource for many people” was removed. It was felt that water as a resource could be explored in several other units under this transdisciplinary theme.

Example 6

Resources

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Samples

There are two **sample programmes of inquiry** included in this publication, one published in 2008 and one developed for this publication in 2012.

The 2012 sample provides a starting point for schools when developing their own programmes of inquiry. Schools are required to address the transdisciplinary themes, maintain both a vertical and horizontal balance, and be able to defend the rationale for the inclusion of units in their programme of inquiry. The specific units of inquiry in this sample programme of inquiry are not mandated and schools are free to make use of them in any way that suits their particular needs. It is highly unlikely that this sample programme of inquiry will fully meet the needs of any individual school. For many reasons, including availability of resources, some units in the sample may not be appropriate for some schools.

The 2008 sample is included in this publication as it contains content that articulates with the *Science scope and sequence* (IB 2008) and *Social studies scope and sequence* (IB 2008). Because of the changes incorporated into the 2012 sample, it is not as closely aligned with these scope and sequences.

In addition to the information included in this publication, further support for understanding all aspects of a programme of inquiry can be found in *Making the PYP happen: A curriculum framework for international primary education* (IB 2009) and *The PYP as a model for transdisciplinary learning* (IB 2010).

The IB has attempted to make this sample programme of inquiry as balanced, complete and user-friendly as possible. The PYP curriculum development team would appreciate your feedback on the 2012 sample. Schools are invited to send programmes of inquiry to the IB to inform future curriculum development: pypcurriculum@ibo.org.

Sample programme of inquiry (2012)

Age	An inquiry into: Who we are	An inquiry into: Where we are in place and time	An inquiry into: How we express ourselves	An inquiry into: How the world works	An inquiry into: How we organize ourselves	An inquiry into: Sharing the planet	
3–4	<p>Central idea Family relationships contribute to shaping our identity.</p> <p>Key concepts: form, responsibility, reflection</p> <p>Related concepts: similarities and differences, belonging, roles</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Diversity of families • Responsibilities within the family • How families influence who we become 	<p>Central idea Spaces and facilities in and around buildings determine how people use them.</p> <p>Key concepts: form, function, causation</p> <p>Related concepts: space, structure, design, safety</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Characteristics and arrangements of physical spaces • How people use different spaces • Our responsibility in sharing spaces with others 	<p>Central idea Through play we express our feelings and ideas and come to new understandings.</p> <p>Key concepts: function, connection, perspective</p> <p>Related concepts: imagination, creativity, communication</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Communicating through play • Imaginative use of materials • The role of toys in play 	<p>Central idea The Earth's natural cycles influence the activity of living things.</p> <p>Key concepts: causation, change, connection</p> <p>Related concepts: cycles, interaction, pattern</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Natural cycles (eg night and day, weather patterns, seasons) • The actions people take in response to Earth's natural cycles • Patterns of behaviour in living things related to Earth's natural cycles 	<p>Central idea People play different roles in the communities to which they belong.</p> <p>Key concepts: form, function, responsibility</p> <p>Related concepts: community, rules, interaction</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Various communities we belong to • Roles of people who are part of our communities • How communities are organized 	<p>Central idea Animals and people interact in different ways in different contexts.</p> <p>Key concepts: connection, perspective, responsibility</p> <p>Related concepts: characteristics, relationships, needs</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • The different roles animals play in peoples' lives • Suitability of particular animals for specific functions • Our responsibility for the well-being of animals 	<p>Central idea An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.</p>
4–5	<p>Central idea People's relationships with each other can have an impact on well-being.</p> <p>Key concepts: function, connection, responsibility</p> <p>Related concepts: cooperation, friendship, balance</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • How we develop relationships • How relationships affect us • Roles and behaviours within relationships 	<p>Central idea Interpretation of artifacts contributes to our understanding of peoples' histories.</p> <p>Key concepts: form, function, reflection</p> <p>Related concepts: artifact, history, value</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • How people analyse artifacts • How artifacts contribute to our understanding of the past • Why people keep or discard artifacts 	<p>Central idea Stories can engage their audience and communicate meaning.</p> <p>Key concepts: form, connection, perspective</p> <p>Related concepts: communication, characterization, expression</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • How to construct an effective story • What stories can convey • How stories are created and shared • Feelings and emotions that stories evoke 	<p>Central idea Materials behave and interact in certain ways, which determine how people use them.</p> <p>Key concepts: function, causation, change</p> <p>Related concepts: behaviour, prediction, innovation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Behaviour of materials • Changing properties of materials • Manipulation and application of materials to new purposes 	<p>Central idea Many products go through a process of change before they are consumed or used.</p> <p>Key concepts: change, connection, responsibility</p> <p>Related concepts: components, process, choice</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Origins of products • Changes products go through • Distribution of products • How people select the products they use 	<p>Central idea Plants sustain life on Earth and play a role in our lives.</p> <p>Key concepts: causation, perspective, responsibility</p> <p>Related concepts: interdependence, appreciation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Caring for plants • Products we derive from plants • How plants contribute to life on Earth 	<p>Central idea People interact with, use and value local environments in different ways.</p> <p>Key concepts: causation, perspective, responsibility</p> <p>Related concepts: conservation, development, interdependence</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Natural and human-made elements of local environments • How local environments addresses people's needs • How natural spaces are valued in local environments
5–6	<p>Central idea Awareness of our characteristics, abilities and interests informs our learning and development.</p> <p>Key concepts: form, perspective, reflection</p> <p>Related concepts: identity, similarities and differences</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Physical, social and emotional characteristics • Similarities and differences between ourselves and others • Personal abilities and interests 	<p>Central idea Homes reflect cultural influences and local conditions.</p> <p>Key concepts: form, connection, perspective</p> <p>Related concepts: culture, needs, ownership, locality</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • What constitutes a home • How homes reflect family values • How homes reflect local culture • Factors that determine where people live 	<p>Central idea Celebrations and traditions are expressions of shared beliefs and values.</p> <p>Key concepts: form, connection, perspective</p> <p>Related concepts: beliefs, values, belonging, culture</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Why people celebrate • Features of traditions and celebrations • Symbolic representations of celebrations and traditions • What meaning people assign to celebrations and traditions 	<p>Central idea All living things go through a process of change.</p> <p>Key concepts: causation, change, connection</p> <p>Related concepts: cycles, transformation, similarities and differences</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Patterns of growth • How living things change over their lifetime • Factors that can influence life cycles 	<p>Central idea Communities make efforts to create transportation systems that meet their needs.</p> <p>Key concepts: form, function, change</p> <p>Related concepts: network, technology, sustainability</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Features of transportation systems • Decisions involved in using transportation • How systems of transportation respond to changing needs 	<p>Central idea Communities make efforts to create transportation systems that meet their needs.</p> <p>Key concepts: causation, perspective, responsibility</p> <p>Related concepts: conservation, development, interdependence</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Natural and human-made elements of local environments • How local environments addresses people's needs • How natural spaces are valued in local environments 	

Age	An inquiry into: Who we are	An inquiry into: Where we are in place and time	An inquiry into: How we express ourselves	An inquiry into: How the world works	An inquiry into: How we organize ourselves	An inquiry into: Sharing the planet
6-7	<p>Central idea The choices people make affect their health and well-being.</p> <p>Key concepts: causation, responsibility, reflection</p> <p>Related concepts: choice, influence, balance</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • What it means to have a balanced lifestyle • How the choices we make affect our health • Different sources of information that help us make choices 	<p>Central idea Learning about previous generations helps us understand the relationship between the past and the present.</p> <p>Key concepts: causation, change, connection</p> <p>Related concepts: time, continuity, heritage</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Ways to find out about the past • How aspects of the past still influence us today • Why some behaviours and practices have changed or remained the same over time 	<p>Central idea Through the arts people use different forms of expression to convey their uniqueness as human beings.</p> <p>Key concepts: function, perspective, reflection</p> <p>Related concepts: perception, self-expression</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • The diverse ways in which people express themselves • How everyone can express their uniqueness through the arts • The role of art in culture and society 	<p>Central idea People apply their understanding of forces and energy to invent and create.</p> <p>Key concepts: form, function, causation</p> <p>Related concepts: ingenuity, technology, energy, forces</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Inventions that impact people's lives • How circumstances lead to the creation of important inventions • How understanding forces and energy helps inventors 	<p>Central idea Physical and virtual public spaces provide people with opportunities to make connections and establish a sense of community.</p> <p>Key concepts: function, connection, responsibility</p> <p>Related concepts: community, environment, participation, access</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Purposes of public spaces • Characteristics of different public spaces • How people use public spaces 	<p>Central idea People can make choices to support the sustainability of the Earth's resources.</p> <p>Key concepts: perspective, responsibility, reflection</p> <p>Related concepts: lifestyle, resources, waste</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Earth's finite and infinite resources • The impact of people's choices on the environment • The balance between meeting human needs and the use of limited resources
7-8	<p>Central idea Choices of role models reflect the beliefs and values of individuals and societies.</p> <p>Key concepts: causation, perspective, reflection</p> <p>Related concepts: identity, peer pressure, opinion</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • What determines our beliefs and values • How and why role models are chosen • Influence of role models on our choices and actions 	<p>Central idea The Earth's physical geography has an impact on human interactions and settlements.</p> <p>Key concepts: form, causation, connection</p> <p>Related concepts: geography, settlement, modification</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Variability of physical geography around the world • The relationship between location and settlement • Impact of human interaction on the physical environment 	<p>Central idea Changes in the Earth and its atmosphere have impacts on the way people live their lives.</p> <p>Key concepts: causation, change, connection</p> <p>Related concepts: geology, adaptation, weather, energy</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • How the different components of the Earth are interrelated • Why the Earth has changed and is continuing to change • Human response to the Earth's changes 	<p>Central idea The design of buildings and structures is dependent upon environmental factors, human ingenuity, and available materials.</p> <p>Key concepts: form, function, connection</p> <p>Related concepts: design, technology, sustainability</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Considerations to take into account when building a structure • The impact of buildings and structures on the environment • Local architecture and its connection with the needs of the community and availability of materials 	<p>Central idea People create organizations to solve problems and support human endeavour and enterprise.</p> <p>Key concepts: function, connection, responsibility</p> <p>Related concepts: work, collaboration, entrepreneurship, service</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Purpose of organizations • Why people join organizations • Strategies for problem solving within an organization • What makes an organization successful 	<p>Central idea When interacting with natural habitats, humans make choices that have an impact on other living things.</p> <p>Key concepts: causation, change, responsibility</p> <p>Related concepts: habitat, interdependence, behavioural adaptations, diversity</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Balance between rights and responsibilities when interacting with natural habitats • Human impact on natural habitats • How living things respond to changing environmental conditions
8-9	<p>Central idea The effective interactions between human body systems contribute to health and survival.</p> <p>Key concepts: function, connection, responsibility</p> <p>Related concepts: systems, interdependence, health, homeostasis</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Body systems and how they work • How body systems are interdependent • Impact of lifestyle choices on the body 	<p>Central idea A community's response to significant events provides an insight into the history and values of that community.</p> <p>Key concepts: causation, perspective, responsibility</p> <p>Related concepts: impact, bias, evidence, truth</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • The ways in which significant events may be recognized, locally and/or globally • How a significant event has an impact on a community • Why viewpoints differ about significant events 	<p>Central idea Signs and symbols are part of human-made systems that facilitate local and global communication.</p> <p>Key concepts: form, function, connection, access</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Iconography • How visual language facilitates communication • Specialized systems of communication 	<p>Central idea Distribution of wealth affects communities and individuals' access to equal opportunities.</p> <p>Key concepts: form, causation, reflection</p> <p>Related concepts: wealth, power, access</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Relationship between wealth and power • The impact of the distribution of wealth on communities and individuals • Equitable access to resources and opportunities 	<p>Central idea Signs and symbols are part of human-made systems that facilitate local and global communication.</p> <p>Key concepts: form, function, connection, access</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Iconography • How visual language facilitates communication • Specialized systems of communication 	<p>Central idea Signs and symbols are part of human-made systems that facilitate local and global communication.</p> <p>Key concepts: form, function, connection, access</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Iconography • How visual language facilitates communication • Specialized systems of communication

Age	An inquiry into: Who we are	An inquiry into: Where we are in place and time	An inquiry into: How we express ourselves	An inquiry into: How the world works	An inquiry into: How we organize ourselves	An inquiry into: Sharing the planet
9–10	<p>Central idea Systems that define beliefs and values offer explanations about the world around us and what it means to be human.</p> <p>Key concepts: form, perspective, reflection</p> <p>Related concepts: diversity, perception, commitment</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Similarities and differences between belief systems (secular and faith-based) • How beliefs and values contribute to the formation and actions of communities • The impact of spiritual traditions on society 	<p>Central idea Exploration leads to discoveries, opportunities and new understandings.</p> <p>Key concepts: causation, perspective, reflection</p> <p>Related concepts: impact, navigation, colonialism, power</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Reasons for exploration (historical and personal) • How explorations have taken place over time • The consequences of exploration 	<p>Central idea Throughout history, people have interacted with each other and communicated using arts.</p> <p>Key concepts: change, connection, perspective</p> <p>Related concepts: aesthetics, metaphor</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • How people communicate through arts • How art works provide insight and information • The role of arts in different cultures, places and times • Development of art forms over time 	<p>Central idea Energy may be converted, transformed and used to support human progress.</p> <p>Key concepts: form, causation, responsibility</p> <p>Related concepts: conservation, transformation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Different forms of energy sources (renewable and non-renewable) • How energy is used (transformation) • Sustainable energy practices 	<p>Central idea New digital media changes the way in which people access information and connect to each other.</p> <p>Key concepts: function, causation, connection</p> <p>Related concepts: networks, access, ethics, platform</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • How new digital media is used or organized • Evaluating information • Our responsibility in virtual environments 	<p>Central idea Children worldwide encounter a range of challenges, risks and opportunities.</p> <p>Key concepts: form, perspective, reflection</p> <p>Related concepts: equality, rights, resilience, health</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Challenges, risks and opportunities that children encounter (local and global) • How children respond to challenges, risks and opportunities • Ways in which individuals and organizations work to protect children from risk
10–11	<p>Central idea Changes people experience at different stages of their lives affect their evolving sense of self.</p> <p>Key concepts: function, change, responsibility</p> <p>Related concepts: maturity, image, well-being, reproduction</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • The physical, social, emotional and intellectual changes that occur throughout life • Factors that contribute to well-being during adolescence • How relationships contribute to our self-concept 	<p>Central idea Evidence of past civilizations can be used to make connections to present-day societies.</p> <p>Key concepts: form, change, connection</p> <p>Related concepts: continuity, progress, difference, validity</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Characteristics of civilizations and societies • Connections between past and present • Implications for the future • Processes involved in collecting, analysing and validating evidence 	<p>Central idea Creating and responding to art develops understanding of ourselves and the world around us.</p> <p>Key concepts: function, perspective, reflection</p> <p>Related concepts: creativity, perception, bias/interpretation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • How arts can be a reflection of societal values and issues • The contexts in which artworks were created • How learning about arts develops appreciation • Personal preference in appreciation of arts 	<p>Central idea Natural materials can undergo changes that may provide challenges and benefits for society and the environment.</p> <p>Key concepts: function, change, responsibility</p> <p>Related concepts: sustainability, transformation, industrialization</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Conditions that cause reversible and irreversible changes in materials • How societies take advantage of the properties of materials • The impact of retrieval, production and the use of materials on the environment 	<p>Central idea Economic activity relies on systems of production, exchange and consumption of goods and services.</p> <p>Key concepts: function, connection, responsibility</p> <p>Related concepts: interdependence, inequality, fair trade</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • The role of supply and demand • The distribution of goods and services • Our responsibility as consumers 	<p>Central idea Reaching a resolution during periods or moments of conflict is influenced by the actions and reactions of all involved.</p> <p>Key concepts: causation, perspective, responsibility</p> <p>Related concepts: peace, reconciliation, exploitation, grief</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Cause of conflict (local and global) • Human rights and equity • Strategies used to resolve conflict • Consequences of resolutions
11–12	<p>Central idea People's cultural background has an impact on their beliefs, values and actions.</p> <p>Key concepts: form, connection, perspective</p> <p>Related concepts: interpretation, identity, subjectivity</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • What constitutes culture • How people use different experiences to inform their perspectives • The connections between beliefs and values, and the actions taken in response to them 	<p>Central idea Human migration is a response to challenges, risks and opportunities.</p> <p>Key concepts: causation, change, responsibility</p> <p>Related concepts: population, settlement, diversity, refugees</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • The reasons why people migrate • Migration throughout history • Effects of migration on communities, cultures and individuals 	<p>Central idea A person's behaviour and how they choose to present themselves project aspects of their identity.</p> <p>Key concepts: change, perspective, reflection</p> <p>Related concepts: identity, status, image, impression</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • How appearance and behaviour influence our perception of others • The influence of cultural and social norms on how we choose to present ourselves • Fashion as a form of expression 	<p>Central idea Understanding of scientific knowledge is constantly evolving and has an impact on people's lives.</p> <p>Key concepts: change, connection, responsibility</p> <p>Related concepts: ingenuity, progress, ethics, sustainability</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • What leads to advances in scientific knowledge and understanding • The role of technology in scientific understanding • The effects of scientific advances on people and the environment 	<p>Central idea Government systems influence the lives of citizens.</p> <p>Key concepts: function, perspective, responsibility</p> <p>Related concepts: equality, citizenship, governance, law, politics</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • How government systems function • How decision-making practices reflect human rights • Impact of government on citizens • The rights and responsibilities of citizenship 	<p>Central idea Biodiversity relies on maintaining the interdependent balance of organisms within systems.</p> <p>Key concepts: causation, connection, responsibility</p> <p>Related concepts: balance, biodiversity, interdependence</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Ways in which ecosystems, biomes and environments are interdependent • How human interaction with the environment can affect the balance of systems • The consequences of imbalance within ecosystems

Recording the exhibition on a programme of inquiry

In schools with three or more grade/year levels, it is a requirement that students participate in a PYP exhibition in the final grade/year of the school. In the exhibition grade/year, it is advisable that the school develops six units of inquiry (one for each of the transdisciplinary themes) and records these on the programme of inquiry.

The practice of developing a unit of inquiry under each transdisciplinary theme leads to a balanced programme of inquiry where understanding of each transdisciplinary theme is developed as fully as possible across the school. Every year, the school (with student involvement) replaces one of the six units with the PYP exhibition. The transdisciplinary theme under which the exhibition sits may differ from year to year depending on the issue selected (the exhibition may strongly reflect one particular theme but it is more likely that it will synthesize aspects of some or all of the transdisciplinary themes).

Sample programme of inquiry (2008)

Age	An inquiry into: Who we are	An inquiry into: Where we are in place and time	An inquiry into: How we express ourselves	An inquiry into: How the world works	An inquiry into: How we organize ourselves	An inquiry into: Sharing the planet
	<p>An inquiry into the nature of the self, beliefs and values; personal, physical, mental, social and spiritual health; human relationships including families, friends, communities and cultures; rights and responsibilities; what it means to be human.</p> <p>Central idea Increasing awareness of our personal characteristics and abilities, and those of others, allows our self-identity to develop.</p> <p>Key concepts: form, perspective, reflection</p> <p>Related concepts: identity, relationships</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Physical, social and emotional characteristics My role within my family Recognizing similarities and differences between myself and others 	<p>An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.</p> <p>Central idea Documenting personal histories allows us to reflect on and celebrate who we are and where we've come from.</p> <p>Key concepts: causation, change</p> <p>Related concepts: development (growth), family</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Ways of documenting personal history Personal change from birth to present: self and family Reflecting on past experience 	<p>An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.</p> <p>Central idea* We use play to express our feelings and ideas and in order to come to new understandings.</p> <p>Key concepts: function, connection, perspective</p> <p>Related concepts: beliefs, representation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Communicating through play Imaginative use of everyday materials Games and toys 	<p>An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.</p> <p>Central idea Our activity is usually connected to the Earth's natural cycles.</p> <p>Key concepts: change, connection</p> <p>Related concepts: cycles, interaction</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Night and day cycles (dark and light) Seasonal changes Health and safety as related to climate and seasonal changes 	<p>An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.</p> <p>Central idea Communities function more effectively when rules and routines are shared with all members.</p> <p>Key concepts: causation, responsibility, reflection</p> <p>Related concepts: community, system</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Various communities we belong to Purpose of rules and routines Reaching agreement 	<p>An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.</p> <p>Central idea Living things have certain requirements in order to grow and stay healthy.</p> <p>Key concepts: function, responsibility</p> <p>Related concepts: classification, living and non-living</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Characteristics of living things Our needs and the needs of other living things Our responsibility for the well-being of other living things
3-4	<p>Friendships enrich our lives and require nurturing in order to develop.</p> <p>Key concepts: causation, responsibility</p> <p>Related concepts: conflict or cooperation, interdependence</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> How friends are made and kept Why friends are needed Characteristics that develop healthy friendships 	<p>Journeys create change and can lead to new opportunities.</p> <p>Key concepts: causation, change</p> <p>Related concept: choice</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Types of journeys people make Choices and decisions involved in making a journey Changes experienced because of a journey 	<p>Stories inform and provoke us, and give us pleasure.</p> <p>Key concepts: connection, perspective, reflection</p> <p>Related concept: communication</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> What a story is What stories convey How stories are created and shared Feelings and emotions that stories evoke 	<p>Understanding the way materials behave and interact determines how people use them.</p> <p>Key concepts: function, change</p> <p>Related concepts: behaviour, prediction</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Behaviour and uses of materials Changing properties of materials Manipulation of materials for specific purposes 	<p>People use a variety of skills and strategies that contribute to their role in a community of learners.</p> <p>Key concepts: function, responsibility</p> <p>Related concepts: citizenship, independence</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Being part of a community of learners Skills, strategies and attitudes Making contributions to a community 	<p>Plants are a life-sustaining resource for us and for other living things.</p> <p>Key concepts: form, change, connection</p> <p>Related concepts: interdependence, systems</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> What plants provide for us and for other living things The structure of a plant Caring for plant life
4-5	<p>Making balanced choices about daily routines enables us to have a healthy lifestyle.</p> <p>Key concepts: function, causation, reflection</p> <p>Related concepts: balance, well-being</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Daily habits and routines (hygiene, sleep, play, eating) Balanced choices Consequences of choices 	<p>Communities are enriched by their members and the different perspectives they bring.</p> <p>Key concepts: change, perspective</p> <p>Related concepts: continuity, diversity</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> What a community is People within a community The personal stories of community members 	<p>People recognize important events through celebrations and traditions.</p> <p>Key concepts: form, perspective</p> <p>Related concepts: beliefs, culture, values</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> What traditions are How and why people celebrate Similarities and differences between various celebrations 	<p>All living things go through a process of change.</p> <p>Key concepts: change, connection</p> <p>Related concepts: cycles, transformation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Life cycles How living things change over their life time Developmental stages of various living things 	<p>Transportation systems are directly related to the needs of a community.</p> <p>Key concepts: function, connection</p> <p>Related concepts: systems</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Specific purposes of different transportation systems Factors that affect the kinds of systems that can be developed Relationship between transportation systems and the environment 	<p>People interact with, use and value the natural environment in different ways.</p> <p>Key concepts: causation, responsibility, reflection</p> <p>Related concepts: conservation, interdependence, order</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Local natural environment Human use of the local environment Actions that benefit or harm the local environment
5-6						

Age	An inquiry into: Who we are	An inquiry into: Where we are in place and time	An inquiry into: How we express ourselves	An inquiry into: How the world works	An inquiry into: How we organize ourselves	An inquiry into: Sharing the planet
6–7	<p>Central idea Homes reflect personal identity and local culture.</p> <p>Key concepts: form, connection, perspective</p> <p>Related concepts: creativity, diversity</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> The concept of home Different types of homes Circumstances that determine where people live 	<p>Central idea Public areas strengthen communities and provide people with opportunities to connect.</p> <p>Key concepts: function, connection</p> <p>Related concepts: cooperation, ownership</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Different public areas and their functions How public areas develop How these places differ from our homes 	<p>Central idea Imagination is a powerful tool for extending our ability to think, create and express ourselves.</p> <p>Key concepts: causation, perspective, reflection</p> <p>Related concepts: empathy, invention, transformation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> How we demonstrate and enjoy our imagination How our imagination helps us to consider other perspectives How imagination helps us to solve problems The value of imagination 	<p>Central idea Understanding the properties of air allows people to make practical applications.</p> <p>Key concepts: function, causation</p> <p>Related concepts: force, energy</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> The evidence of the existence of air What air can do and how we use it The relationship between air, light and sound 	<p>Central idea* Systems need to be in place to maintain organization in communities.</p> <p>Key concepts: connection, responsibility</p> <p>Related concepts: interdependence, organization, systems</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> The concept of organization Different systems of organization that we use personally Different systems of organization in our community Collection, storage and use of information for organization 	<p>Central idea People can establish practices in order to sustain and maintain the Earth's resources</p> <p>Key concepts: change, responsibility, reflection</p> <p>Related concepts: lifestyle, resources</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Limited nature of the Earth's resources Personal choices that can help sustain the environment Reusing and recycling different materials Reducing waste
7–8	<p>Central idea Relationships are enhanced by learning about other people's perspectives and communicating our own.</p> <p>Key concepts: perspective, reflection</p> <p>Related concepts: communication, empathy, open-mindedness</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Social interactions Acknowledging others' perspectives Managing and resolving conflict 	<p>Central idea The development of global perspectives is supported through understanding our place in the world in relation to others.</p> <p>Key concepts: connection, perspective</p> <p>Related concepts: context, location, orientation</p> <p>Lines of inquiry:</p> <ul style="list-style-type: none"> How we represent place Representations of place through time The relationship of our location to other parts of the world 	<p>Central idea Through the arts people use different forms of expression to convey their uniqueness as human beings.</p> <p>Key concepts: function, perspective, reflection</p> <p>Related concepts: perception, self-expression</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> The diverse ways in which people express themselves How everyone can express their uniqueness through the arts The role of art in culture and society 	<p>Central idea The design of buildings and structures is dependent upon the environment and available materials.</p> <p>Key concepts: connection, responsibility</p> <p>Related concepts: structure, sustainability, transformation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Considerations to take into account when building a structure How building impacts on the environment Indigenous architecture 	<p>Central idea In a workplace people share responsibility towards a common purpose.</p> <p>Key concepts: function, causation</p> <p>Related concepts: cooperation, employment</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Purpose of a workplace Interconnectedness of people in a workplace Importance of a shared vision or common purpose 	<p>Central idea Over time, living things need to adapt in order to survive.</p> <p>Key concepts: change, connection</p> <p>Related concepts: adaptation, evolution</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Concept of adaptation Circumstances that lead to adaptation How plants and animals adapt or respond to environmental conditions
8–9	<p>Central idea Understanding different ways of learning enables people to respond to their own learning needs as well as those of others.</p> <p>Key concepts: function, perspective, responsibility</p> <p>Related concepts: diversity, motivation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Learning communities How people construct knowledge Different learning styles How learning styles impact the way people engage in a learning community 	<p>Central idea Family histories provide an insight into cultural and personal identity.</p> <p>Key concepts: change, reflection</p> <p>Related concepts: chronology, history, tradition</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Family ancestry Artifacts, heirlooms or rituals that have meaning in a family Similarities and differences between generations within a family 	<p>Central idea A variety of signs and symbols facilitates local and global communication.</p> <p>Key concepts: form, connection</p> <p>Related concepts: culture, media, pattern</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Signs and symbols Reasons for the development of communication systems Specialized systems of communication 	<p>Central idea* Human survival is connected to understanding the continual changing nature of the Earth.</p> <p>Key concepts: causation, change, connection</p> <p>Related concepts: erosion, geology, tectonic plates, movement</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> How the different components of the Earth are interrelated How the Earth has changed and is continuing to change Why the Earth changes Human response to the Earth's changes 	<p>Central idea Communities provide interconnected services designed to meet people's needs.</p> <p>Key concepts: function, causation, connection</p> <p>Related concept: networks</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Reasons people live in the local community Services needed to support a community Planning services for a community 	<p>Central idea Water is essential to life, and is a limited resource for many people.</p> <p>Key concepts: function, responsibility</p> <p>Related concepts: conservation, equity, processes</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> Sources of water and how water is used What happens to water after we have used it Distribution and availability of usable water Responsibilities regarding water

Age	An inquiry into: Who we are	An inquiry into: Where we are in place and time	An inquiry into: How we express ourselves	An inquiry into: How the world works	An inquiry into: How we organize ourselves	An inquiry into: Sharing the planet	
9–10	<p>Central idea What we believe is a part of who we are.</p> <p>Key concepts: perspective, reflection</p> <p>Related concepts: diversity, perception</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • What we believe • How beliefs influence the way we behave • The impact of religion and spiritual traditions on society 	<p>Central idea Human migration is a response to challenges, risks and opportunities.</p> <p>Key concepts: causation, change, perspective</p> <p>Related concepts: population, settlement</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • The reasons why people migrate • Migration throughout history • Effects of migration on communities, cultures and individuals 	<p>Central idea Choices of role models reflect the characteristics that societies and individuals value.</p> <p>Key concepts: causation, perspective, reflection</p> <p>Related concepts: self-fulfilment, influence</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Role models and why we value them • Why we should develop our own gifts, talents and interests • How personal strengths can be applied to help others 	<p>Central idea Energy may be converted from one form to another and stored in various ways.</p> <p>Key concepts: form, function, connection transformation</p> <p>Related concepts: conservation, transformation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Forms of energy • The storage and transformation of energy • Conservation of energy • Renewable and sustainable energy 	<p>Central idea Markets depend on the ability to produce goods and supply services that can be exchanged.</p> <p>Key concepts: function, connection</p> <p>Related concepts: interdependence, supply and demand</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Medium of exchange in various marketplaces • Ethics of the marketplace • How and in what ways we depend on people in other places • How global movement and communication affect the availability of goods and services 	<p>Central idea Children worldwide face a variety of challenges and risks.</p> <p>Key concepts: function, reflection</p> <p>Related concepts: equality, rights</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Challenges and risks that children face and risks • Ways in which individuals, organizations and nations work to protect children from risk 	<p>Central idea Biodiversity relies on maintaining the interdependent balance of organisms within systems.</p> <p>Key concepts: connection, responsibility</p> <p>Related concepts: balance, biodiversity, interdependence</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Interdependence within ecosystems, biomes and environments • Ways in which organisms are interconnected in nature • How human interaction with the environment can affect the balance of systems
10–11	<p>Central idea Complex factors contribute to the process of making decisions that have implications for ourselves and others.</p> <p>Key concepts: causation, change, connection</p> <p>Related concepts: choice, systems</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Factors that influence our decisions • Decision-making processes for groups and individuals • Impact or consequences that decisions can have 	<p>Central idea Past civilizations shape present day systems and technologies.</p> <p>Key concepts: causation, change, perspective</p> <p>Related concepts: continuity, progress, technology</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Aspects of past civilizations that have survived • Reasons these systems and technologies developed • Why modern societies continue to use adaptations of these systems and technologies • Implications for the future 	<p>Central idea Rituals, traditions and artifacts provide a window into the beliefs and values of cultures.</p> <p>Key concepts: function, perspective, reflection</p> <p>Related concepts: beliefs, diversity</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • What constitutes a culture • Significance of rituals and traditions • How artifacts symbolize beliefs and values 	<p>Central idea The fact that materials can undergo permanent or temporary changes poses challenges and provides benefits for society and the environment.</p> <p>Key concepts: form, function, responsibility</p> <p>Related concepts: measurement, transformation</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Nature of chemical and physical changes of change in materials • Practical applications and implications of change in materials • Ethical dilemmas associated with manufacturing processes and by-products 	<p>Central idea Governmental systems and decisions can promote or deny equal opportunities and social justice.</p> <p>Key concepts: function, responsibility</p> <p>Related concepts: equality, government or governance</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Types of governance • Principles of human rights and social justice • The effect of institutional behaviours and attitudes on social justice 	<p>Central idea Biodiversity relies on maintaining the interdependent balance of organisms within systems.</p> <p>Key concepts: connection, responsibility</p> <p>Related concepts: balance, biodiversity, interdependence</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Interdependence within ecosystems, biomes and environments • Ways in which organisms are interconnected in nature • How human interaction with the environment can affect the balance of systems 	<p>Central idea Finding peaceful solutions to conflict leads to a better quality of human life.</p> <p>Key concepts: causation, perspective, responsibility</p> <p>Related concepts: conflict, diversity, justice</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Causes of conflict • Conflict resolution and management • Living and working together peacefully
11–12	<p>Central idea Personal well-being is dependent on a complex balance of interconnected factors.</p> <p>Key concepts: change, responsibility</p> <p>Related concepts: growth, relationships</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • The concept of "well-being" • Factors that contribute to well-being (physical, mental, social and spiritual) • Personal issues affecting our well-being 	<p>Central idea Exploration leads to discovery and develops new understandings.</p> <p>Key concepts: form, perspective, reflection</p> <p>Related concepts: consequences, discovery, geography</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Reasons for exploration (historical and personal) • Feelings and attitudes associated with exploration • What we learn through exploration • Methods of navigation 	<p>Central idea People's outward appearance can lead to perceptions and misconceptions.</p> <p>Key concepts: function, perspective, reflection</p> <p>Related concepts: creativity, diversity, stereotypes</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Personal adornments, clothing and identity • Reasons for what people wear • Impact of first impressions • Countering misconceptions 	<p>Central idea Reproduction of living things contributes to the continuation of the species.</p> <p>Key concepts: change, connection</p> <p>Related concepts: cycles, growth</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Reproduction as part of a life cycle • Reproductive processes • Genetics and hereditary factors 	<p>Central idea Technology impacts on the world of work and leisure.</p> <p>Key concepts: change, connection, responsibility</p> <p>Related concepts: communication, systems, ethics</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Technology and inventions of the home, workplace and leisure activities • Circumstances that lead to the development of important inventions and their impact • How technology supports/impacts sustainability 	<p>Central idea Finding peaceful solutions to conflict leads to a better quality of human life.</p> <p>Key concepts: causation, perspective, responsibility</p> <p>Related concepts: conflict, diversity, justice</p> <p>Lines of inquiry</p> <ul style="list-style-type: none"> • Causes of conflict • Conflict resolution and management • Living and working together peacefully 	

In the students' final year of the PYP, there are five units of inquiry and the exhibition. The exhibition may be related to any transdisciplinary theme at the discretion of the school. This sample programme of inquiry has included six units of inquiry in the final year, any one of which could be replaced by the exhibition. Only IB World Schools are required to participate in the exhibition although candidate schools may choose to do so.

* Sample planners have been developed for those units marked with an asterisk.

Annex

This PYP programme of inquiry rubric has been developed as a tool for schools to use to self-assess their programme of inquiry. The rubric contains criteria to assess central ideas, lines of inquiry, and the balance and articulation of knowledge and concepts within the programme of inquiry.

PYP programme of inquiry rubric

After reading *Developing a transdisciplinary programme of inquiry* (2012) it would be appropriate for a school to carry out a self-assessment of its programme of inquiry using this rubric.

Prior to completing the self-assessment, a school should ensure that the programme of inquiry is presented in the same format as the PYP sample programme of inquiry included in *Developing a transdisciplinary programme of inquiry* (2012), with central idea, key concepts, related concepts and lines of inquiry included. For the purpose of a school's self-assessment it is important that the school has identified the PYP subject areas relevant to each unit of inquiry.

The terms "all, or almost all", "many", "some" and "few" used in the rubric have a degree of subjectivity. The percentages below are provided as approximate guidelines to ensure a common understanding. However, schools are encouraged to resist counting, but rather to consider their programme of inquiry holistically and to estimate based on repeated reading of the whole document.

- "All or almost all" to mean more than 95% (for example, all except for 1 or 2 units out of 50)
- "Many" to mean 61%–95%
- "Some" to mean 11%–60%
- "Few" to mean 10% or below (for example, 5 or fewer units out of 50)

A Microsoft Word version of this rubric can be found in the HTML version of *Developing a transdisciplinary programme of inquiry* (2012).

Central ideas		Yes	No
1	a. There are six central ideas for all grade/year levels (other than 3–5 year olds).	Yes	No
	b. There are at least four central ideas at each grade/year level for 3–5 year olds including “Who we are” and “How we express ourselves”.	Yes	No
	c. Each central idea is written as one sentence.	Yes	No
	d. The PYP key concepts have been identified (no more than three) for each unit of inquiry.	Yes	No
2	All, or almost all, central ideas are written in a neutral voice that does not convey a specific or particular value of an individual.	Some central ideas are written in a neutral voice that does not convey a specific or particular value of an individual.	A few central ideas are written in a neutral voice that does not convey a specific or particular value of an individual.
3	All, or almost all, central ideas are written in such a way to invite student inquiry, so that a range of responses is possible.	Some central ideas are written in such a way to invite student inquiry, so that a range of responses is possible.	A few central ideas are written in such a way to invite student inquiry, so that a range of responses is possible.
4	All, or almost all, central ideas are relevant to the transdisciplinary themes under which they have been placed.	Some central ideas are relevant to the transdisciplinary themes under which they have been placed.	A few central ideas are relevant to the transdisciplinary themes under which they have been placed.
5	All, or almost all, central ideas are developed conceptual understanding supported by the identified PYP key concepts.	Some central ideas are written in such a manner as to develop conceptual understanding supported by the identified PYP key concepts.	A few central ideas are written in such a manner as to develop conceptual understanding supported by the identified PYP key concepts.
6	All, or almost all, central ideas are globally significant addressing the commonalities of human experience.	Some central ideas are globally significant addressing the commonalities of human experience.	A few central ideas are globally significant addressing the commonalities of human experience.

Lines of inquiry		Yes	No
	<p>a. Three or four lines of inquiry have been identified for each unit.</p> <p>b. The lines of inquiry are written as statements or phrases, not questions, topics or tasks.</p>	Yes	No
7			
8	In all, or almost all, units the lines of inquiry develop understanding of the central ideas.	In many units the lines of inquiry develop understanding of the central ideas.	In some units the lines of inquiry develop understanding of the central ideas.
9	In all, or almost all, units the lines of inquiry offer opportunities to develop understanding through multiple perspectives.	In many units the lines of inquiry offer opportunities to develop understanding through multiple perspectives.	In some units the lines of inquiry offer opportunities to develop understanding through multiple perspectives.
10	In all, or almost all, units the lines of inquiry develop understanding of aspects of the designated transdisciplinary theme.	In many units the lines of inquiry develop understanding of aspects of the designated transdisciplinary theme.	In some units the lines of inquiry develop understanding of aspects of the designated transdisciplinary theme.
11	In all, or almost all, units the lines of inquiry are relevant to the experience of the students within a particular developmental range.	In many units the lines of inquiry are relevant to the experience of the students within a particular developmental range.	In some units the lines of inquiry are relevant to the experience of the students within a particular developmental range.
12	In all, or almost all, units the lines of inquiry are distinctive yet connected to one another.	In many units the lines of inquiry are distinctive yet connected to one another.	In some units the lines of inquiry are distinctive yet connected to one another.
13	In all, or almost all, units the lines of inquiry are written in such a manner as to develop conceptual understanding supported by the identified PYP key concepts and related concepts.	In many units the lines of inquiry are written in such a manner as to develop conceptual understanding supported by the identified PYP key concepts and related concepts.	In some units the lines of inquiry are written in such a manner as to develop conceptual understanding supported by the identified PYP key concepts and related concepts.

Balance and articulation within the programme of inquiry		Yes	No	
14	a. All eight PYP key concepts are represented at each grade/year level.	Yes	No	
	b. There is a balance of PYP key concepts used throughout each transdisciplinary theme.* (This does not mean that each key concept must be represented under each transdisciplinary theme.)	Yes	No	
	c. The related concepts are derived from the subject areas and connect to the PYP key concepts.	Yes	No	
	d. All the planned science and social studies content is incorporated into the programme of inquiry.	Yes	No	
	e. The school has mapped its subject-specific scope and sequences with its programme of inquiry.	Yes	No	
	f. Two or three PYP subject area focuses are recorded for each unit.	Yes	No	
	g. All PYP subject areas are represented within the programme of inquiry at each grade/year level.	Yes	No	
	h. There is a balance of PYP subject areas identified to support understanding of each transdisciplinary theme. (This does not mean that each subject area must be represented under each transdisciplinary theme.)	Yes	No	
15	All, or almost all, aspects of the descriptions of the transdisciplinary themes are explored at some point in the programme of inquiry.	Many aspects of the descriptions of the transdisciplinary themes are explored at some point in the programme of inquiry.	Some aspects of the descriptions of the transdisciplinary themes are explored at some point in the programme of inquiry.	A few aspects of the descriptions of the transdisciplinary themes are explored at some point in the programme of inquiry.
16	In all, or almost all, units the PYP subject areas identified will support students' understanding of the central idea.	In many units the PYP subject areas identified will support students' understanding of the central idea.	In some units the PYP subject areas identified will support students' understanding of the central idea.	In a few units the PYP subject areas identified will support students' understanding of the central idea.
17	All, or almost all, units throughout the programme of inquiry challenge and extend students' understanding.	Many units throughout the programme of inquiry challenge and extend students' understanding.	Some units throughout the programme of inquiry challenge and extend students' understanding.	A few units throughout the programme of inquiry challenge and extend students' understanding.
Note				
14b. * Applies only to schools with at least five consecutive grade/year levels				