

International School of Paris
Primary Years Programme

Curriculum Guide 2017-18



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The International Baccalaureate Primary Years Programme

The International School of Paris (ISP) is committed to implement and further develop the International Baccalaureate (IB) Programmes. In the Primary School, the Primary Years Programme (PYP) is followed from Nursery to Grade 5. ISP was officially authorized to offer the PYP by the IB in June 2004 and since then has successfully participated in IB evaluation visits in June 2007 and May 2012. Next accreditation visit is scheduled for February 2019. These accreditation visits acknowledge the work we are doing as a successful IB PYP school.

After reading this PYP Curriculum Guide, please contact the PYP Coordinator Sam Sheratt at ssherratt@isparis.edu or the Primary School Principal Kate Grant at kgrant@isparis.edu, if you have any further questions. The Primary School sets out to meet the diverse needs of the students through the Primary Years Programme, by ensuring that learning is engaging, relevant, challenging and significant. The school follows a transdisciplinary model, whereby themes of global significance frame the learning throughout the primary years, including early childhood. This means that students are encouraged to make connections between subject areas, and traditional curriculum areas are used as lenses to help students inquire into big ideas. The PYP is both a curriculum framework and a philosophy that facilitates structured inquiry. Through inquiry, the students are encouraged to question, wonder, doubt, speculate and generalize as part of their learning journey to construct meaning about the world around them. Students have the opportunity to explore significant local and global issues and are also encouraged to consider situations critically from multiple viewpoints.

In the Primary School, opportunities to share experiences between students, parents and teachers are a critical element in developing a sense of international mindedness. This begins with each student's ability to develop a sense of personal and community identity. We encourage all members of our community to share their personal histories as well as their cultural identities. In gaining an appreciation of themselves, the students are then exposed to other cultures, making use of our diverse student population. With this in mind, cross-cultural celebrations are encouraged throughout the Primary School. We invite students, their families and friends to lead these events, whether it is reading stories to students in English or in another language, sharing food or celebrating festivals. If you would like to be involved in visiting classes or presenting cross-cultural assemblies please email our Cross-Cultural Coordinator, Marianne Freire (mfreire@isparis.edu). We also hold an International Day once a year, in which parent participation is essential.

The PYP encourages students to become independent learners, and ISP encourages them to make connections between life in school, life at home and life in the world. By helping students to see that learning is connected to life, a strong foundation for future learning is established.

The Primary School encourages students to:

- Develop a strong set of problem-solving strategies;
- Think critically;
- Develop knowledge and skills to apply to new situations or tasks;
- Continue to question throughout their lives;
- Develop international mindedness;
- Take action as a result of the learning process.

Students will:

- Learn through inquiry;
- Build on prior knowledge;
- Work individually, with a partner and in groups;
- Be listened to;
- Be curious, be inquisitive, ask questions, explore and interact with the environment physically, socially and intellectually;
- Be supported in their journey to become independent, autonomous learners;
- Learn through differentiated experiences which accommodate for the range of abilities and learning styles in a group.

ISP is committed to:

- Providing learning environments that are stimulating and provocative;
- Effective ongoing professional development to ensure its teachers are lifelong learners and informed of the most recent effective practice;
- Supporting students and their families.

The International Baccalaureate Learner Profile

The IB learner profile represents ten attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities (IB, 2013).

Disposition	Description
Inquirers	We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.
Knowledgeable	We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.
Thinkers	We use critical and creative thinking skills to analyze and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.
Communicators	We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.
Principled	We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.
Open-minded	We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.
Caring	We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.
Risk-takers	We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.
Balanced	We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.
Reflective	We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

Curriculum framework

The aim of the PYP, to create a curriculum that is engaging, relevant, challenging and significant, is achieved through structured inquiry and the development of five essential elements: **knowledge, concepts, skills, attitudes and action.**

Knowledge: What do we want students to know?

While the PYP acknowledges the importance of traditional subject areas (language, mathematics, social studies, science, personal, social and physical education, and arts), it also recognizes the importance of acquiring a set of skills in context and of exploring content which transcends the boundaries of the traditional subjects and is relevant to students.

The PYP has six transdisciplinary themes that provide the framework for learning. These themes are globally significant and support the acquisition of knowledge, concepts and skills of the traditional subjects. They are revisited throughout the students' time in the PYP.

The PYP transdisciplinary themes are:

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 of 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 relationship within and between them; access to equal opportunities; peace and conflict resolution.

Students inquire into, and learn about, these globally significant issues through units of inquiry, each of which address a central idea relevant to a particular transdisciplinary theme. Please refer to the annex for ISP's program of inquiry for more information.

Concepts: What do we want students to understand?

The following key concepts are used to support and structure the inquiries. The exploration of concepts leads to a deeper understanding and allows students to transfer knowledge learned in one area of the curriculum to another.

Form	What is it like? The understanding that everything has a form with recognizable features that can be observed, identified, described and categorized.
Function	How does it work? The understanding that everything has a purpose, a role or a way of behaving that can be investigated.
Causation	Why is it like it is? The understanding that things do not just happen, that there are causal relationships at work and that actions have consequences.
Change	How is it changing? The understanding that change is the process of movement from one state to another. It is universal and inevitable.
Connection	How is it connected to other things? The understanding that we live in a world of interacting systems in which the actions of any individual element affect others.
Perspective	What are the points of view? The understanding that knowledge is moderated by perspectives; different perspectives lead to different interpretations, understandings and findings; perspectives may be individual, group, cultural or disciplinary.
Responsibility	What is our responsibility? The understanding that people make choices based on their understandings, and the actions they take as a result do make a difference.
Reflection	How do we know? The understanding that there are different ways of knowing and that it is important to reflect on our conclusions, to consider our methods of reasoning and the quality and the reliability of the evidence we have considered.

In addition to the above key concepts, children will inquire into related concepts in all curriculum areas. Instead of simply gaining knowledge and skills in mathematics, for example, they will deepen their understanding of concepts such as pattern, multiplication, place value and bias.

Skills: What do we want students to be able to do?

Throughout their learning in the Primary School, students acquire and apply a set of skills which are valuable not only for the teaching and learning that goes on within classroom but also in life outside the school. The PYP identifies five sets of transdisciplinary skills, or approaches to learning:

1. Thinking skills
2. Social skills
3. Communication skills
4. Self-management skills
5. Research skills

Attitudes: What do we want students to feel, value, and demonstrate?

The Primary School encourages attitudes and behaviors that contribute to the wellbeing of the individual and of the group. Students develop personal attitudes towards people, the environment and learning. **At ISP we encourage appreciation, commitment, confidence, cooperation, creativity, curiosity, empathy, enthusiasm, independence, integrity, respect and tolerance.**

Action: How do we want the students to act?

Students at ISP are encouraged to take action as a result of their learning. Action can be a demonstration of a sense of responsibility and respect for themselves, others and the environment.

Action usually begins in a small way but arises from genuine concern and commitment. Action as a result of learning often happens beyond the classroom, and teachers at ISP are always keen to know about action that the students take outside of school.

Assessment

The International School of Paris recognizes that teaching and learning, and the assessment of that learning, are fundamentally interdependent.

Assessment is carried out in order to:

- Build up a clear picture of the student and his or her interests;
- Identify what and how the student is thinking and learning;
- Assess the effectiveness of the environment on the student's learning;
- Extend the student's learning.

Students

- Have differing learning styles;
- Have different cultural experiences, expectations and needs;
- Perform differently according to the context of learning;
- See self-assessment and peer assessment as a natural part of the learning process;
- Need to know their achievements and areas for improvement in the learning process;
- Should receive feedback that is positive and constructive.

At ISP, we promote the use of a range of assessment tools and strategies that are designed to give a clear picture of a student's prior knowledge and progress. Examples of these include anecdotal records, checklists, portfolios, continuums and rubrics.

Each student will be assessed by homeroom teachers and specialist teachers. Each student will share their assessments with their parents at regular intervals throughout the year.

Conferences and reports

Parents, teachers and students are all viewed as partners in learning. Progress in learning is reported in a variety of ways: parent-teacher conferences, three-way conferences, student-led conferences, and semester reports. Parents are expected to attend all of the conferences. Parents are always welcome to arrange conferences at school and, likewise, the school may initiate a conference with parents at any time during the year.

Written reports are published online two times a year to inform you of your child's progress in all subjects. If you have any questions or concerns regarding your child's report, please do not hesitate to speak to the teacher concerned.

Parent workshops

The beliefs, values and approaches of the PYP can be different compared to the curriculum that many families are used to. For this reason, ISP believes strongly in communicating both the theory and the practices of the PYP. Teachers host a curriculum evening for parents in September to explain the curriculum plans for the upcoming year and answer any questions you have about the grade and how it works.

Parent workshops are organized throughout the year for parents to attend and learn more about the program. We do hope that you will come to parent workshops and take the time to read the regular newsletters to stay informed about the PYP.

Portfolios

Students in the PYP create a portfolio based on a range of experiences and curriculum areas. The portfolio is a collection of work selected by the students and teachers and is a record of student's involvement in learning. It is designed to demonstrate success, growth, thinking skills, creativity, assessment strategies and reflection. It is a celebration of each student's active mind at work and provides a picture of progress and development over a period of time. Portfolios enable students to reflect with teachers, parents and peers in order to identify their strengths and growth as well as areas for improvement.

Learning support

Special educational needs are addressed with the help of learning support teachers. The inclusion model is used at ISP so learning support staff work alongside class teachers in class with identified students. Students who need extra practice in some basic skills may spend some time with the learning support teacher outside the classroom on a temporary or occasional basis to enable them to meet particular goals. This practice is exceptional and will be regularly reviewed. Students who receive support get a separate, written report to inform parents of their progress. Learning support staff are always happy to discuss children's individual needs with parents by appointment. External referrals may be made when necessary.

Academic honesty

Academic honesty at the Primary School means that students engage in the inquiry process as principled learners and critical thinkers who respect the ideas of others. Students will develop an understanding of what academic honesty is and why it is important to be academically honest.

Students will learn:

- The importance of considering different sources to explore a range of perspectives;
- The use of key words to research efficiently;
- How to highlight, take notes, paraphrase and summarize;
- How to think critically about the validity of sources;
- How to give credit to whom and where their ideas come from by citing sources, including inspirations;
- How to write a bibliography using the agreed conventions (including the title of the source, the author, the publication date, the publisher and the website if relevant);
- How to reflect on the learning process and consider what was learned from different contexts;
- To identify primary and secondary sources;
- The difference between facts and opinions;
- What constitutes plagiarism.

We will model and foster:

- Appreciation for their own work and the work of others
- Respect for different ideas
- Integrity through honesty
- Commitment to learning by showing self-discipline
- Independence in their work and thinking

Ultimately, **we aim for the students to take action for themselves** by applying their understanding, knowledge, skills and attitudes to take the initiative in being academically honest, and to take pride in their own accomplishments. Should a student be found not following these guidelines consciously,

a teacher will speak to him/her, ask the student to complete an ABC sheet if deemed appropriate, and involve the parents if necessary.

Homework

Purposes of homework:

- To develop a home/school partnership;
- To consolidate and reinforce skills, knowledge and concepts;
- To extend learning that has taken place in school;
- To develop important habits of self-discipline and organization.

Nursery and Pre-K

Parents are requested to read to their children in their mother tongue every night, play with them, talk to them about their day, share their library books and visit the city of Paris with them as often as possible.

Kindergarten

Read aloud to your child regularly in their home language. We encourage you to sit so that your child can see the pages as you read and point at the words so that he or she can follow the text as you read. Your child should read their levelled reading books in English to an adult every day. This does not need to be a long activity, 5-10 minutes of daily reading is plenty. It is much more beneficial to read daily for short periods than once a week for a longer period. Your child will regularly be given a list of sight words (magic words) to learn to read. They will need to practice these regularly to learn to recognize them on sight (without sounding them out). You will be given suggestions of games to play to help your child with learning these. We recommend practicing these every day for 5-10 minutes.

Grades 1-5

Students should read for at least 20 minutes every night, in their mother tongue and in English. Parents are also encouraged to continue reading to their children and to discuss books being read. Specific grade level routines and expectations will be shared at the curriculum information evening.

Recommended homework time (although this may vary depending on your child and the time of the year):

- Grades 1-3: Approximately one hour a week, plus reading every night and possible additional unit of inquiry work;
- Grades 4-5: Approximately two hours a week, plus reading every night and possible additional unit of inquiry work.

The Grade 5 Exhibition

At ISP, students in their final year of the PYP (Grade 5), participate in a culminating project, the Grade 5 PYP Exhibition. It is not only a celebration as students move from the Primary Years Programme into the Middle Years Programme, but it is also a final assessment where each student is required to demonstrate engagement with the essential elements of the PYP: **knowledge, concepts, skills, attitudes and action**. Students engage in a collaborative, transdisciplinary inquiry that involves them in identifying, investigating and offering solutions to real-life issues.

Parents and students from ISP are invited to attend the Grade 5 Exhibition. We expect at least one parent or guardian for each student to attend the Exhibition.

Subject areas

English Language

Language is fundamental to learning, thinking and communicating. Structured, purposeful inquiry is the main approach to teaching and learning language in the PYP although other teaching strategies and styles may also be used. Language is developed across the whole curriculum and as a result all teachers at ISP are language teachers, who model and teach the use of language. Learning takes place in authentic contexts, and literature plays a special role in enabling this to happen.

Students learn language when they are using it through speaking, listening, reading and writing in order to understand and express ideas. Teachers provide opportunities for this to happen in a safe and stimulating environment in order to encourage risk-taking and learning.

Our aim is to develop students' ability to express themselves fluently, confidently and accurately in oral, written and visual communication systems.

Language strands

- Oral communication: listening and speaking
- Written communication: reading and writing
- Visual communication: viewing and presenting

English is the main language of instruction in the school.

French language

Students also learn French from Nursery to Grade 5. From Grade 1 to 5 students are grouped according to their prior experience and knowledge of the French language. At each grade level there will be three or four levelled groups, depending on the number of students in the grade level and their knowledge of French. Mother tongue French students follow a different program to students learning French as a foreign language. In the Early Years classes, students are generally taught as one group although teachers differentiate for some activities.

English as an Additional Language (EAL)

At the International School of Paris, we welcome students from around the world. Our students come to us with diverse cultural identities and language profiles. The English as an Additional Language (EAL) department seeks to assist students in integrating into an English-speaking environment so that they feel comfortable at our school. An equally important concern is to enable students to access all curriculum areas. Therefore, EAL students attend most classes with their peers.

In order to enable students to develop confidence, skills and knowledge, EAL teachers instruct students in fundamental English skills in differentiated language lessons. EAL teachers work alongside class teachers to plan, teach and assess students' understanding of our curriculum.

Reporting

EAL teachers formally report on students currently receiving support. The reports reflect on the support currently received by the students, as well as the EAL teacher's observations on the students' ability to access the curriculum. In addition, EAL teachers attend parent-teacher conferences and include learning with the EAL teacher in the students' portfolios.

As students begin their English language learning process, we recognize that each one of them comes to us with a wealth of knowledge and skills. We encourage students to use their mother tongue to develop English skills. For this reason, we allow students to use their own language when appropriate. For older students, we expect them to use bilingual dictionaries and other reference materials in their mother tongue to assist their learning.

In the early stages of learning a language, learners may go through what is called “the silent stage.” We respect this. As students begin to speak in English, we celebrate their courage. In the process of learning English, students will make mistakes. We recognize that making mistakes is an essential part of learning needed to develop language skills.

At ISP, we use literature from around the world to embrace the student body’s multiculturalism. English support incorporates the various genres of literature and may connect to the current unit of inquiry studied in the class at that time.

Mother tongue language maintenance

Research indicates that students benefit academically, socially and emotionally when they are encouraged to develop and maintain proficiency in their first language while they are learning English. Language skills and conceptual understanding are readily transferable from one language to another, provided there are no learning exceptionalities. The first language provides a foundation for developing proficiency in additional languages, serves as a basis for emotional development, and provides a vital link with the student's family and cultural background. A strong foundation in the first language can also help students to:

- Readily reintegrate into their home country;
- Develop flexibility;
- Develop problem-solving skills;
- Make connections between previous learning and new learning;
- Communicate fully with family members;
- Experience a sense of cultural stability and continuity;
- Understand cultural and family values;
- Develop awareness of global issues;
- Expand their career opportunities.

(Taken from the Ontario Provincial School curriculum)

We encourage all students to take part in meaningful interactions in their mother tongue. Our Cross-Cultural Coordinator, Marianne Freire (mfreire@isparis.edu), assists all members of our community with setting up mother tongue language classes after school. Please contact her if you are interested in organizing language lessons.

Mathematics

Students develop their understanding of mathematical concepts in realistic contexts so that they can recognize the power of mathematics for describing and analysing the world around us. They inquire into relationships, interact with manipulatives and engage in conversations with others. They develop fluency with basic number facts and important skills and use these to solve problems, representing their thinking and solutions using the language of mathematics and symbolic notation.

Our aim is to develop students who are fluent in the language of mathematics and can apply their knowledge and understanding to real world situations. The curriculum is organized under the following strands and we aim to provide a balanced experience across the strands.

Mathematical strands

- Data handling
- Measurement
- Shape and space
- Pattern and function
- Number

Science

In the PYP, science is viewed as the exploration of the behaviors of, and the interrelationships among, the natural, physical and material worlds. Science in the curriculum encourages curiosity, develops an understanding of the world and enables students to develop a sense of responsibility regarding the impact of their actions on themselves, others and the world. Students actively construct and challenge their understanding of the world around them by combining scientific knowledge with reasoning and thinking skills. The scientific process, by encouraging hands-on experience and inquiry, enables the student to make informed and responsible decisions.

Our aim is to develop scientific concepts and knowledge through hypothesizing, making accurate observations and thinking critically about findings.

Science strands

- Living things
- Earth and space
- Materials and matter
- Forces and energy

Social studies

In the PYP, social studies is viewed as the study of people in relation to their past, their present and their future, their environment and their society. The social studies curriculum encourages curiosity and develops an understanding of a rapidly changing world. Students develop an understanding of their personal and cultural identities through social studies, as well as the skills and knowledge needed to participate actively in their classroom, their school, their community and the world: to understand themselves in relation to their community.

Our aim is to develop students' understanding of the world around them, historical and geographical influences and the role of individuals in communities.

Social studies strands

- Human systems and economic activities
- Social organization and culture
- Continuity and change through time
- Human and natural environments
- Resources and the environment

Personal, Social and Physical Education (PSPE)

PSPE in the PYP is concerned with the individual's wellbeing through the promotion and development of concepts, knowledge, attitudes and skills that contribute to this wellbeing. Wellbeing is intrinsically linked to all aspects of a student's experience at school and beyond. It encompasses physical, emotional, cognitive, spiritual and social health and development, and contributes to an

understanding of self, to developing and maintaining relationships with others, and to participation in an active, healthy lifestyle. PSPE is actually the combination of two curriculum areas, PE and PSE, which are described below.

Physical Education (PE)

Through Physical Education in the PYP, students are learning the “language” of physical movement, exploring the skills associated with the different areas of PE. Students learn to understand what they can and cannot do physically. They become aware of their own strengths and areas to develop in this discipline.

Physical activity is an essential aspect of a balanced, healthy lifestyle and learning through PE helps build self-esteem, confidence, cooperation and fitness.

Our aim is to stimulate students’ awareness of their own physical fitness and to simultaneously develop an interest and appreciation of sport and physical activity. Swimming is included in the program for students in Grades 1-5.

PE strands

- Active living
- Movement skills
- Interaction

Personal and Social Education (PSE)

Personal and Social Education (PSE) in the PYP provides the models, processes and values for handling social and personal issues and ensuring health and wellbeing. Through PSE, students will develop their self-identity, use appropriate social skills when interacting with others in a range of situations, and learn to communicate and manage their feelings, emotions and opinions. PSE is integrated into all areas of the curriculum and helps students develop positive attitudes and behaviors in order to meet challenges, make healthy lifestyle choices and serve as responsible, respectful members of society.

PSE strands

- Identity
- Active living
- Interactions

Arts

Arts are integral to the PYP. They are a powerful mode of communication through which students explore and construct a sense of self and develop an understanding of the world around them. Arts provide students with a wide range of opportunities and means to respond to their experiences and engage with historical, social and cultural perspectives. The students are stimulated to think and to articulate their thoughts in new ways and through a variety of media and technologies. The PYP recognizes that not all learning can be supported solely through language and that arts as a medium of inquiry also provide opportunities for learning, communication and expression. Learning about and through arts is fundamental to the development of the whole child, promoting creativity, critical thinking, problem-solving skills and social interactions. At ISP, arts are identified as dance, drama, music and visual arts.

Arts strands

- Responding
- Creating

Information and Communication Technology (ICT)

In the PYP, the ever-increasing impact of Information and Communication Technologies (ICT) on teaching and learning is recognized. The use of technologies is integrated as much as possible into student inquiries.

ICT provides opportunities for the enhancement of learning, and may significantly support students in their inquiries, and in developing their conceptual understanding. At ISP, technology is considered as a tool for learning, albeit with its own set of skills, as opposed to an additional subject area.

Use of ICT

The following six ICT skills are relevant to all learners. Each skill is transdisciplinary and will support learning both within the transdisciplinary program of inquiry and within the subject areas:

- Investigating
- Creating
- Communicating
- Collaborating
- Organizing
- Becoming responsible digital citizens

Library

The library is viewed as the hub of a PYP school in which students develop essential information and literacy skills by accessing a range of media and texts.

Students will visit the library on a scheduled basis with their class once a week. All students will borrow books to take home during this time. Parents and students are welcome to visit the library at other times when the librarian is present.

An ISP Book Bag will be issued to students at the beginning of the year. This needs to be returned to the school at the end of the year.

It is important that students return their borrowed books the following library session. A replacement fee will be charged for any lost or damaged books or bags.

Annex 1: ISP 2016-17 program of inquiry: under review

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.

2016-17 program of inquiry: under review

Grade 5

Changes	Explorers	Arts in Action	Forces	Leaders	Exhibition
<p>Central idea</p> <p>We all experience and react to change as we grow up.</p>	<p>Central idea</p> <p>Exploration can lead to discovery and can develop new understandings.</p>	<p>Central idea</p> <p>Artists can be inspired to take action in response to an issue.</p>	<p>Central idea</p> <p>Different types of forces affect the motion and position of an object or a person.</p>	<p>Central idea</p> <p>The style and structure of leadership affects the way decisions are made.</p>	<p>Central idea</p> <p>To be determined by the students.</p>
<p>Key concepts</p> <p>Change, connection, responsibility</p>	<p>Key concepts</p> <p>Causation, reflection, change</p>	<p>Key concepts</p> <p>Form, change, perspective</p>	<p>Key concepts</p> <p>Form, function, change</p>	<p>Key concepts</p> <p>Form, function, connection</p>	<p>Key concepts</p>
<p>Related concepts</p> <p>Puberty, safety, maturity</p>	<p>Related concepts</p> <p>Exploration, discovery</p>	<p>Related concepts</p> <p>Action, arts</p>	<p>Related concepts</p> <p>Force, motion, efficiency</p>	<p>Related concepts</p> <p>Leadership, decision making</p>	<p>Related concepts</p>
<p>Lines of inquiry</p> <ul style="list-style-type: none"> - How our bodies are changing - How our rights and responsibilities are changing - How we react to the changes in our lives 	<p>Lines of inquiry</p> <ul style="list-style-type: none"> - Why people explore - Significant explorations and discoveries through time - How understanding changes and develops through exploration 	<p>Lines of inquiry</p> <ul style="list-style-type: none"> -What the arts are -How artists are inspired -How and why artists take actions through the arts. 	<p>Lines of inquiry</p> <ul style="list-style-type: none"> - Different types of forces and where they are found - How we use and overcome forces - How forces affect motion and position - How we can optimize the effect of forces in our lives 	<p>Lines of inquiry</p> <ul style="list-style-type: none"> - How decisions are made - What a leader is - Different structures and styles of leadership 	<p>Lines of inquiry</p>
<p>Subject areas</p> <p>Science, PSE, PE</p>	<p>Subject areas</p> <p>Social studies and science</p>	<p>Subject areas</p> <p>Arts and social studies</p>	<p>Subject areas</p> <p>Science and PSPE</p>	<p>Subject areas</p> <p>Social studies and PSPE</p>	<p>Subject areas</p>



Grade 4

Beliefs and Values	Historical Developments	Imagination	Natural Phenomena	Under Review	Peace and Conflict
Central idea Our beliefs and values influence the way we interact with other people.	Central idea People build upon and are influenced by the developments of the past.	Central idea Our imagination allows us to express ourselves creatively.	Central idea People and the environment are affected by natural phenomena in many ways.	Central idea	Central idea Different strategies can be used to resolve conflict and maintain peace.
Key concepts Causation, perspective, connection	Key concepts Change, connection, reflection	Key concepts Form, function, perspective	Key concepts Causation, change, connection	Key concepts	Key concepts Function, causation, responsibility
Related concepts Beliefs, values, religion	Related concepts Development, progress, evidence	Related concepts Imagination, inspiration	Related concepts Natural phenomena	Related concepts	Related concepts Peace, conflict, resolution
Lines of inquiry - Our own beliefs and values - Others' beliefs and values - The connections between people's beliefs and values - How beliefs and values affect the way we interact with others	Lines of inquiry - Key developments of the past - Influences of past developments on people - Evidence of the past today	Lines of inquiry - Various forms of expression - Sources of inspiration - How we and others express ourselves creatively - Different ways we can use our imagination	Lines of inquiry - Types of natural phenomena - Causes of natural phenomena - Ways to gather data about natural phenomena - The impact of natural phenomena on people and the environment	Lines of inquiry	Lines of inquiry - Causes of conflict - Strategies to maintain peace - Strategies to resolve conflict - How peace and conflict affect us
Subject areas Social studies, PSPE	Subject areas Arts, language, social studies	Subject areas Arts, PSPE, language	Subject areas Science, social studies	Subject areas Science	Subject areas PSPE, Social studies



Grade 3

Body Systems	Human Migration	Effective Communication	Energy in the World	Helpful Organizations	It's Not Fair!
Central idea Lifestyle choices influence how well our body systems function.	Central idea People migrate for different reasons with wide-ranging effects.	Central idea Many factors determine how effective communication is to an audience.	Central idea The transformation of energy and its use impact the world.	Central idea Organizations allow people to come together to take action.	Central idea Access to equal opportunities depends on different factors.
Key concepts Form, connection, responsibility	Key concepts Causation, change, perspective	Key concepts Form, causation, perspective	Key concepts Function, change, responsibility	Key concepts Function, causation, reflection	Key concepts Causation, perspective, responsibility
Related concepts Wellbeing, choice, interdependence	Related concepts Migration, culture, cultural identity	Related concepts Communication, culture, audience	Related concepts Energy, transformation, environment	Related concepts Organization, action, collaboration	Related concepts Equality, fairness, prejudice
Lines of inquiry - Choices that impact healthy bodies - The systems in our body - How the parts of a system work together	Lines of inquiry - Why people migrate from one place to another - The emotional impact of people migrating - The effects of emigration and immigration	Lines of inquiry - Forms of communication - Factors that influence effective communication - Adapting communication to suit different audiences	Lines of inquiry - Forms of energy - How we use energy - Transformation of energy - The impact of energy use	Lines of inquiry - Different types of organizations - Roles and responsibilities within organizations - The action organizations take and why - How we know if organizations are successful	Lines of inquiry - What is considered fair - The opportunities that people do and do not have access to - The factors that help and hinder access to equal opportunities
Subject areas Science, PSPE	Subject areas Social studies, language	Subject areas Language, arts	Subject areas Science, social studies, mathematics	Subject areas Social studies, PSPE	Subject areas Social studies, PSPE



Grade 2

Human Nature	Where Are We?	Whose Story Is It?	Properties of Materials	Consumer Choices	Managing Resources
Central idea Nature and nurture affect who we are as humans.	Central idea There are many diverse features that give a place its identity.	Central idea The way we understand stories is shaped by the perspective from which they are told.	Central idea The properties of materials determine how they can be used.	Central idea There are many factors that influence consumer choices.	Central idea The way we manage resources has an impact on our environment.
Key concepts Change, connection, reflection	Key concepts Form, connection	Key concepts Form, perspective, reflection	Key concepts Form, change, causation	Key concepts Form, function, causation	Key concepts Causation, responsibility
Related concepts Nature, nurture, human	Related concepts Place, diversity, identity	Related concepts Storytelling, bias	Related concepts Properties, changes of state, gas, solid, liquid	Related concepts Consumption, choice, needs, wants	Related concepts Resources, conservation, environment
Lines of inquiry - What it means to be human - How humans are the same and different to other animals - The influence of nature and nurture on us	Lines of inquiry - Different types of places - The diverse features of a place - How different features give a place its identity	Lines of inquiry - The elements of a story - Ways a story can be told - Different ways the same story can be interpreted - How a storyteller's perspective might change our understanding of the story	Lines of inquiry - Different materials and their origins - The properties of materials - How the properties of materials can change - How materials are used based on their properties	Lines of inquiry - What we consume - Our role in an economy - Needs and wants - The factors that influence our choices	Lines of inquiry - What a resource is - How we manage resources - The consequences of how we use resources - Ways to conserve resources
Subject areas Science, PSPE	Subject areas Social studies, arts, mathematics	Subject areas Language, arts	Subject areas Science, arts	Subject areas Language, mathematics, social studies	Subject areas Social studies, arts



Grade 1

Pieces of Me	I Spy Places	Sound All Around	Light Up Your Life	A Matter of Measurement	We All Need Each Other
Central idea Exploring what makes us who we are helps us to connect to others.	Central idea Different representations of a place help us to understand what that place is like.	Central idea Sound can help us understand and express our world.	Central idea People use their understanding of the behavior of light in their daily life.	Central idea People create systems of measurement to meet their needs in daily life.	Central idea All living things depend on each other in various ways.
Key concepts Form, causation, connection	Key concepts Form, function, perspective	Key concepts Form, function, perspective	Key concepts Form, function, connection	Key concepts Form, function, connection	Key concepts Form, connection, responsibility
Related concepts Culture, tradition, identity	Related concepts Place, representation	Related concepts Sound, communication	Related concepts Scientific principles of light	Related concepts Systems, needs, measurement	Related concepts Interdependence, ecosystem, biodiversity
Lines of inquiry - Who I am - How I am similar to and different from others - Traditions in my family	Lines of inquiry - Different ways places are represented - What different representations reveal about places - How we use representations of places in our lives	Lines of inquiry - Different sources of sound - How we express ourselves through sound - How we respond to sound	Lines of inquiry - Sources of light - The way light behaves - The way light is used - How light affects our lives	Lines of inquiry - The systems of time, money, length, mass, temperature and capacity - The tools we use to measure - How we use measurement in our daily lives	Lines of inquiry - What living things have in common - Various ways living things are connected - What impacts living things and their connection
Subject areas Social studies, PSPE	Subject areas Social studies, mathematics, arts	Subject areas Language, arts	Subject areas Science, social studies	Subject areas Mathematics, social studies	Subject areas Science, social studies



Kindergarten

Relationships	Evidence	Feelings	Survival	Rules and Routines	Dependence
Central idea The way we behave affects our relationships with others.	Central idea Different kinds of evidence allow us to understand people's unique personal histories.	Central idea People choose to communicate their feelings in different ways.	Central idea Living things have needs in order to grow and survive.	Central idea Rules and routines help us to establish a sense of community.	Central idea Humans depend on plants for many reasons.
Key concepts Form, connection, responsibility	Key concepts Form, perspective, reflection	Key concepts Form, reflection, causation	Key concepts Form, function, change	Key concepts Form, function, causation	Key concepts Form, function, change
Related concepts Relationships, conflict, behaviour	Related concepts Evidence, memories, uniqueness, history	Related concepts Feelings, expression, communication	Related concepts Survival, growth, needs, living things	Related concepts Rules, routines, sense of community	Related concepts Dependence, needs, process
Lines of inquiry - Who we have relationships with - Different types of behaviour - How relationships affect us	Lines of inquiry - How people's personal histories are unique - Important people, places and events in people's lives - Ways to remember the past	Lines of inquiry - Different feelings - What causes us to feel different ways - Ways to communicate feelings - How we choose to express our feelings	Lines of inquiry - How we know things are living - What living things need to survive - Ways living things protect themselves in their environment - The changes that happen as living things grow	Lines of inquiry - A sense of community - How rules and routines work - Why rules and routines help to create a sense of community	Lines of inquiry - Ways to group plants - Parts of plants - How people use plants - What the world would be like without plants
Subject areas PSPE, language	Subject areas Social studies, PSPE	Subject areas PSPE, arts, language	Subject areas Science, PSPE, language	Subject areas Social studies, PSPE, library	Subject areas Science, social studies



Pre-Kindergarten

Our Senses	Homes	Celebrations	Exploration		
Central idea We use our senses to learn about ourselves and our environment.	Central idea We make our homes in different places and in different ways.	Central idea People recognize important events through different celebrations.	Central idea Natural materials can be used and changed in different ways.		
Key concepts Form, function, responsibility	Key concepts Form, connection	Key concepts Form, causation, connection	Key concepts Form, function, change		
Related concepts Senses, health, safety	Related concepts Home, place, language	Related concepts Celebration, culture, beliefs	Related concepts Nature, use, properties		
Lines of inquiry - The senses we have and use - Our likes and dislikes - How we can take care of our senses	Lines of inquiry - What makes a home - Different types and styles of homes - What homes provide us with	Lines of inquiry - Different types of celebrations - Reasons for celebrations - Similarities and differences between celebrations	Lines of inquiry - Different ways to describe natural materials - How we can use natural materials in our environment - How natural materials can change		
Subject areas PSPE, science	Subject areas Social studies, mathematics	Subject areas Social studies, PSPE	Subject areas Science, social studies		



Nursery

Please note that units of inquiry for Nursery are under revision. Details will be shared at the start of the school year.

All about me		Story telling	Changes	Schools	
Central idea There are many ways that I am the same and I am different from my friends and my family		Central idea People share ideas feelings and experiences with others through storytelling.	Central idea Changes happen in the world around us	Central idea Routines and relationships at school are important for our learning.	
Key concepts Form, connection		Key concepts Connection, perspective	Key concepts Form, change, causation	Key concepts Function, responsibility	
Related concepts Identity		Related concepts Story	Related concepts Change	Related concepts Relationships	
Lines of inquiry - Who I am - My likes and dislikes - What makes me the same and different from others		Lines of inquiry - Different ways to tell stories - Connections to stories and our own experiences or the experiences of others - The value of storytelling	Lines of inquiry - We are inquiring into what things are like. - We are inquiring into changes we see. - We are inquiring into why things change.	Lines of inquiry - We are inquiring into class routines. - We are inquiring into relationships in school. - We are inquiring into learning together.	
Subject areas English, mathematics, personal and social education		Subject areas English, visual arts, dance, drama, music, personal and social education	Subject areas English, science	Subject areas English, mathematics, social studies, personal and social education	

Annex 2: overall expectations by subject

Acknowledging that learning is a developmental process, the IB presents a set of developmental continuums that are designed as diagnostic tools to assist teachers in planning learning experiences for students, and in monitoring students' development throughout the primary years. The overall expectations are therefore presented in developmental phases for rather than by age range. At the first parent information evening in September, class teachers will distribute the expected learning outcomes for the grade level and curriculum newsletters will also provide more detailed information on what the students are learning.

Language

Oral language: listening and speaking

Phase 1

Learners show an understanding of the value of speaking and listening to communicate. They recognize that sounds are associated with objects or with symbolic representations of them. They are using language to name their environment, to get to know each other, to initiate and explore relationships, to question and inquire.

Phase 2

Learners show an understanding that sounds are associated with objects, events and ideas, or with symbolic representations of them. They are aware that an object or symbol may have different sounds or words associated with it in different languages. They are beginning to be cognizant about the high degree of variability of language and its uses.

Phase 3

Learners show an understanding of the wide range of purposes of spoken language: that it instructs, informs, entertains, reassures; that each listener's perception of what they hear is unique. They are compiling rules about the use of different aspects of language.

Phase 4

Learners show an understanding of the conventions associated with speaking and listening and the value of adhering to those conventions. They are aware that language is a vehicle for becoming knowledgeable, for negotiating understanding and for negotiating the social dimension.

Phase 5

Learners are able to understand the difference between literal and figurative language and how to use language differently for different purposes. They are aware that they are building on their previous experiences and using language to construct new meaning.

Visual language: viewing and presenting

Phase 1

Learners show an understanding that the world around them is full of visual language that conveys meaning. They are able to interpret and respond to visual texts. Although much of their own visual language is spontaneous, they are extending and using visual language in more purposeful ways.

Phase 2

Learners identify, interpret and respond to a range of visual text prompts and show an understanding that different types of visual texts serve different purposes. They use this knowledge to create their own visual texts for particular purposes.

Phase 3

Learners show an understanding that visual text may represent reality or fantasy. They recognize that visual text resources can provide factual information and increase understanding. They use visual text in a reflective way to enrich their storytelling or presentations and to organize and represent information.

Phase 4

Learners show an open-mindedness about the use of a range of visual text resources to access information. They think critically, and are articulate about the use of visual text to influence the viewer. They are able to use visual imagery to present factual information or to tell a story.

Phase 5

Through inquiry, learners engage with an increasing range of visual text resources. As well as exploring the viewing and presenting strategies that are a part of the planned learning environment, they select and use strategies that suit their learning styles. They are able to make connections between visual imagery and social commentary. They show more discernment in selecting information they consider reliable. They are able to use visual imagery to support a position.

Written language: reading

Phase 1

Learners show an understanding that print represents the real or the imagined world. They know that reading gives them knowledge and pleasure; that it can be a social activity or an individual activity. They have a concept of a “book” and an awareness of some of its structural elements. They use visual cues to recall sounds and the words they are “reading” to construct meaning.

Phase 2

Learners show an understanding that language can be represented visually through codes and symbols. They are extending their data bank of printed codes and symbols and are able to recognize them in new contexts. They understand that reading is a vehicle for learning, and that the combination of codes conveys meaning.

Phase 3

Learners show an understanding that text is used to convey meaning in different ways and for different purposes—they are developing an awareness of context. They use strategies, based on what they know, to read for understanding. They recognize that the structure and organization of text conveys meaning.

Phase 4

Learners show an understanding of the relationship between reading, thinking and reflection. They know that reading is extending their world, both real and imagined, and that there is a reciprocal relationship between the two. Most importantly, they have established reading routines and relish the process of reading.

Phase 5

Learners show an understanding of the strategies authors use to engage them. They have their favorite authors and can articulate reasons for their choices. Reading provides a sense of accomplishment, not only in the process, but in the access it provides them to further knowledge about, and understanding of, the world.

Written language: writing

Phase 1

Learners show an understanding that writing is a form of expression to be enjoyed. They know that how you write and what you write conveys meaning; that writing is a purposeful act, with both individual and collaborative aspects.

Phase 2

Learners show an understanding that writing is a means of recording, remembering and communicating. They know that writing involves the use of codes and symbols to convey meaning to others; that writing and reading use the same codes and symbols. They know that writing can describe the factual or the imagined world.

Phase 3

Learners show an understanding that writing can be structured in different ways to express different purposes. They use imagery in their stories to enhance the meaning and to make it more enjoyable to write and read. They understand that writing can produce a variety of responses from readers. They can tell a story and create characters in their writing.

Phase 4

Learners show an understanding of the role of the author and are able to take on the responsibilities of authorship. They demonstrate an understanding of story structure and are able to make critical judgments about their writing, and the writing of others. They are able to rewrite to improve the quality of their writing.

Phase 5

Learners show an understanding of the conventions pertaining to writing, in its different forms, that are widely accepted. In addition, they demonstrate a high level of integration of the strands of language in order to create meaning in a manner that suits their learning styles. They can analyze the writing of others and identify common or recurring themes or issues. They accept feedback from others.

Mathematics

Data handling

Data handling allows us to make a summary of what we know about the world and to make inferences about what we do not know.

- Data can be collected, organized, represented and summarized in a variety of ways to highlight similarities, differences and trends; the chosen format should illustrate the information without bias or distortion.
- Probability can be expressed qualitatively by using terms such as “unlikely”, “certain” or “impossible”. It can be expressed quantitatively on a numerical scale.

Overall expectations

Phase 1

Learners will develop an understanding of how the collection and organization of information helps to make sense of the world. They will sort, describe and label objects by attributes and represent information in graphs including pictographs and tally marks. The learners will discuss chance in daily events.

Phase 2

Learners will understand how information can be expressed as organized and structured data and that this can occur in a range of ways. They will collect and represent data in different types of graphs, interpreting the resulting information for the purpose of answering questions. The learners will develop an understanding that some events in daily life are more likely to happen than others and they will identify and describe likelihood using appropriate vocabulary.

Phase 3

Learners will continue to collect, organize, display and analyze data, developing an understanding of how different graphs highlight different aspects of data more efficiently. They will understand that scale can represent different quantities in graphs and that mode can be used to summarize a set of data. The learners will make the connection that probability is based on experimental events and can be expressed numerically.

Phase 4

Learners will collect, organize and display data for the purposes of valid interpretation and communication. They will be able to use the mode, median, mean and range to summarize a set of data. They will create and manipulate an electronic database for their own purposes, including setting up spreadsheets and using simple formulas to create graphs. Learners will understand that probability can be expressed on a scale (0–1 or 0%–100%) and that the probability of an event can be predicted theoretically.

Measurement

To measure is to attach a number to a quantity using a chosen unit. Since the attributes being measured are continuous, ways must be found to deal with quantities that fall between numbers. It is important to know how accurate a measurement needs to be or can ever be.

Overall expectations

Phase 1

Learners will develop an understanding of how measurement involves the comparison of objects and the ordering and sequencing of events. They will be able to identify, compare and describe attributes of real objects as well as describe and sequence familiar events in their daily routine.

Phase 2

Learners will understand that standard units allow us to have a common language to measure and describe objects and events, and that while estimation is a strategy that can be applied for approximate measurements, particular tools allow us to measure and describe attributes of objects

and events with more accuracy. Learners will develop these understandings in relation to measurement involving length, mass, capacity, money, temperature and time.

Phase 3

Learners will continue to use standard units to measure objects, in particular developing their understanding of measuring perimeter, area and volume. They will select and use appropriate tools and units of measurement, and will be able to describe measures that fall between two numbers on a scale. The learners will be given the opportunity to construct meaning about the concept of an angle as a measure of rotation.

Phase 4

Learners will understand that a range of procedures exists to measure different attributes of objects and events, for example, the use of formulas for finding area, perimeter and volume. They will be able to decide on the level of accuracy required for measuring and using decimal and fraction notation when precise measurements are necessary. To demonstrate their understanding of angles as a measure of rotation, the learners will be able to measure and construct angles.

Shape and space

The regions, paths and boundaries of natural space can be described by shape. An understanding of the interrelationships of shape allows us to interpret, understand and appreciate our two-dimensional (2D) and three-dimensional (3D) world.

Overall expectations

Phase 1

Learners will understand that shapes have characteristics that can be described and compared. They will understand and use common language to describe paths, regions and boundaries of their immediate environment.

Phase 2

Learners will continue to work with 2D and 3D shapes, developing the understanding that shapes are classified and named according to their properties. They will understand that examples of symmetry and transformations can be found in their immediate environment. Learners will interpret, create and use simple directions and specific vocabulary to describe paths, regions, positions and boundaries of their immediate environment.

Phase 3

Learners will sort, describe and model regular and irregular polygons, developing an understanding of their properties. They will be able to describe and model congruency and similarity in 2D shapes. Learners will continue to develop their understanding of symmetry, in particular reflective and rotational symmetry. They will understand how geometric shapes and associated vocabulary are useful for representing and describing objects and events in real-world situations.

Phase 4

Learners will understand the properties of regular and irregular polyhedra. They will understand the properties of 2D shapes and understand that 2D representations of 3D objects can be used to visualize and solve problems in the real world, for example, through the use of drawing and modelling. Learners will develop their understanding of the use of scale (ratio) to enlarge and reduce shapes. They will apply the language and notation of bearing to describe direction and position.

Pattern and function

To identify pattern is to begin to understand how mathematics applies to the world in which we live. The repetitive features of patterns can be identified and described as generalized rules called “functions”. This builds a foundation for the later study of algebra.

Overall expectations

Phase 1

Learners will understand that patterns and sequences occur in everyday situations. They will be able to identify, describe, extend and create patterns in various ways.

Phase 2

Learners will understand that whole numbers exhibit patterns and relationships that can be observed and described, and that the patterns can be represented using numbers and other symbols. As a result, learners will understand the inverse relationship between addition and subtraction, and the associative and commutative properties of addition. They will be able to use their understanding of pattern to represent and make sense of real-life situations and, where appropriate, to solve problems involving addition and subtraction.

Phase 3

Learners will analyze patterns and identify rules for patterns, developing the understanding that functions describe the relationship or rules that uniquely associate members of one set with members of another set. They will understand the inverse relationship between multiplication and division, and the associative and commutative properties of multiplication. They will be able to use their understanding of pattern and function to represent and make sense of real-life situations and, where appropriate, to solve problems involving the four operations.

Phase 4

Learners will understand that patterns can be represented, analyzed and generalized using algebraic expressions, equations or functions. They will use words, tables, graphs and, where possible, symbolic rules to analyze and represent patterns. They will develop an understanding of exponential notation as a way to express repeated products, and of the inverse relationship that exists between exponents and roots. The students will continue to use their understanding of pattern and function to represent and make sense of real-life situations and to solve problems involving the four operations.

Number

Our number system is a language for describing quantities and the relationships between quantities. For example, the value attributed to a digit depends on its place within a base system.

Numbers are used to interpret information, make decisions and solve problems. For example, the operations of addition, subtraction, multiplication and division are related to one another and are used to process information in order to solve problems. The degree of precision needed in calculating depends on how the result will be used.

Overall expectations

Phase 1

Learners will understand that numbers are used for many different purposes in the real world. They will develop an understanding of one-to-one correspondence and conservation of number, and be able to count and use number words and numerals to represent quantities.

Phase 2

Learners will develop their understanding of the base 10 place value system and will model, read, write, estimate, compare and order numbers to hundreds or beyond. They will have automatic recall of addition and subtraction facts and be able to model addition and subtraction of whole numbers using the appropriate mathematical language to describe their mental and written strategies. Learners will have an understanding of fractions as representations of whole-part relationships and will be able to model fractions and use fraction names in real-life situations.

Phase 3

Learners will develop the understanding that fractions and decimals are ways of representing whole-part relationships and will demonstrate this understanding by modelling equivalent fractions and decimal fractions to hundredths or beyond. They will be able to model, read, write, compare and order fractions, and use them in real-life situations. Learners will have automatic recall of addition, subtraction, multiplication and division facts. They will select, use and describe a range of strategies to solve problems involving addition, subtraction, multiplication and division, using estimation strategies to check the reasonableness of their answers.

Phase 4

Learners will understand that the base 10 place value system extends infinitely in two directions and will be able to model, compare, read, write and order numbers to millions or beyond, as well as model integers.

They will develop an understanding of ratios. They will understand that fractions, decimals and percentages are ways of representing whole-part relationships and will work towards modelling, comparing, reading, writing, ordering and converting fractions, decimals and percentages. They will use mental and written strategies to solve problems involving whole numbers, fractions and decimals in real-life situations, using a range of strategies to evaluate reasonableness of answers.

Science

Phase 1

Students will develop their observational skills by using their senses to gather and record information, and they will use their observations to identify simple patterns, make predictions and discuss their ideas. They will explore the way objects and phenomena function, and will recognize basic cause and effect relationships. Students will examine change over varying time periods and know that different variables and conditions may affect change. They will be aware of different perspectives, and they will show care and respect for themselves, other living things and the environment. Students will communicate their ideas or provide explanations using their own scientific experience and vocabulary.

Phase 2

Students will develop their observational skills by using their senses to gather and record information, and they will use their observations to identify patterns, make predictions and refine their ideas. They will explore the way objects and phenomena function, identify parts of a system, and gain an understanding of cause and effect relationships. Students will examine change over varying time periods, and will recognize that more than one variable may affect change. They will be aware of different perspectives and ways of organizing the world, and they will show care and respect for themselves, other living things and the environment. Students will communicate their ideas or provide explanations using their own scientific experience.

Phase 3

Students will develop their observational skills by using their senses and selected observational tools. They will gather and record observed information in a number of ways, and they will reflect on these findings to identify patterns or connections, make predictions, and test and refine their ideas with increasing accuracy. Students will explore the way objects and phenomena function, identify parts of a system, and gain an understanding of increasingly complex cause and effect relationships. They will examine change over time, and will recognize that change may be affected by one or more variables. They will examine how products and tools have been developed through the application of science concepts. They will be aware of different perspectives and ways of organizing the world, and they will be able to consider how these views and customs may have been formulated. Students will consider ethical issues in science-related contexts and use their learning in science to plan thoughtful and realistic action in order to improve their welfare and that of other living things and the environment. Students will communicate their ideas or provide explanations using their own scientific experience and that of others.

Phase 4

Students will develop their observational skills by using their senses and selected observational tools. They will gather and record observed information in a number of ways, and they will reflect on these findings to identify patterns or connections, make predictions, and test and refine their ideas with increasing accuracy. Students will explore the way objects and phenomena function, identify parts of a system, and gain an understanding of increasingly complex cause and effect relationships. They will examine change over time, and they will recognize that change may be affected by one or more variables. Students will reflect on the impact that the application of science, including advances in technology, has had on themselves, society and the environment. They will be aware of different perspectives and ways of organizing the world, and they will be able to consider how these views and customs may have been formulated. Students will examine ethical and social issues in science-related contexts and express their responses appropriately. They will use their learning in science to plan thoughtful and realistic action in order to improve their welfare and that of other living things and the environment. Students will communicate their ideas or provide explanations using their own scientific experience and that of others.

Social studies

Phase 1

Students will explore their understanding of people and their lives, focusing on themselves, their friends and families, and their immediate environment. They will practice applying rules and routines to work and play. They will gain an increasing awareness of themselves in relation to the various groups to which they belong and be conscious of systems by which they organize themselves. They will develop their sense of place, and the reasons why particular places are important to people. They will also develop their sense of time, and recognize important events in their own lives, and how time and change affect people. They will explore the role of technology in their lives.

Phase 2

Students will increase their understanding of their world, focusing on themselves, their friends and families and their environment. They will appreciate the reasons why people belong to groups, the roles they fulfill and the different ways that people interact within groups. They will recognize connections within and between systems by which people organize themselves. They will broaden their sense of place and the reasons why particular places are important to people, as well as how and why people's activities influence, and are influenced by, the places in their environment. Students will start to develop an understanding of their relationship with the environment. They will

gain a greater sense of time, recognizing important events in their own lives, and how time and change affect people. They will become increasingly aware of how advances in technology affect individuals and the environment.

Phase 3

Students will extend their understanding of human society, focusing on themselves and others within their own community as well as other communities that are distant in time and place. They will investigate how and why groups are organized within communities, and the ways in which communities reflect the cultures and customs of their people. They will recognize the interdependency of systems and their function within local and national communities. They will increase their awareness of how people influence, and are influenced by, the places in their environment. Students will explore the relationship between valuing the environment and protecting it. They will extend their understanding of time, recognizing important events in people's lives, and how the past is recorded and remembered in different ways. They will broaden their understanding of the impact of advances in technology over time, on individuals, society and the environment.

Phase 4

Students will recognize different aspects of human society, focusing on themselves and others within their own community as well as groups of people that are distant in time and place. They will extend their understanding of how and why groups are organized within communities, and how participation within groups involves both rights and responsibilities. They will understand the interdependency of systems and their function within local and national communities. Students will gain an appreciation of how cultural groups may vary in their customs and practices but reflect similar purposes. They will deepen their awareness of how people influence, and are influenced by, places in the environment. They will realize the significance of developing a sense of belonging and stewardship towards the environment, valuing and caring for it, in the interests of themselves and future generations. Students will consolidate their understanding of time, recognizing how ideas and actions of people in the past have changed the lives of others, and appreciating how the past is recorded and remembered in different ways. They will gain an understanding of how and why people manage resources. They will understand the impact of technological advances on their own lives, on society and on the world, and will reflect on the need to make responsible decisions concerning the use of technologies.

Arts

Responding

Phase 1

Learners show an understanding that the different forms of arts are forms of expression to be enjoyed. They know that dance, drama, music and visual arts use symbols and representations to convey meaning. They have a concept of being an audience of different art forms and display awareness of sharing art with others. They are able to interpret and respond to different art forms, including their own work and that of others.

Phase 2

Learners show an understanding that ideas, feelings and experiences can be communicated through arts. They recognize that their own art practices and artwork may be different from others. They are beginning to reflect on and learn from their own stages of creating arts. They are aware that artworks may be created with a specific audience in mind.

Phase 3

Learners show an understanding that issues, beliefs and values can be explored in arts. They demonstrate an understanding that there are similarities and differences between different cultures, places and times. They analyze their own work and identify areas to revise to improve its quality. They use strategies, based on what they know, to interpret arts and understand the role of arts in our world.

Phase 4

Learners show an understanding that throughout different cultures, places and times, people have innovated and created new modes in arts. They can analyze different art forms and identify common or recurring themes or issues. They recognize that there are many ways to enjoy and interpret arts. They accept feedback from others.

Creating

The process of *creating* provides students with opportunities to communicate distinctive forms of meaning, develop their technical skills, take creative risks, solve problems and visualize consequences. Students are encouraged to draw on their imagination, experiences and knowledge of materials and processes as starting points for creative exploration. They can make connections between their work and that of other artists to inform their thinking and to provide inspiration. Both independently and collaboratively, students participate in creative processes through which they can communicate ideas and express feelings. The *creating* strand provides opportunities for students to explore their personal interests, beliefs and values and to engage in a personal artistic journey. The *responding* and *creating* strands are dynamically linked in an ongoing and reflexive relationship. Students are encouraged to reflect continually upon their work throughout the process of creating, thus reinforcing the close link between these strands.

Phase 1

Learners show an understanding that they can express themselves by creating artworks in dance, drama, music and visual arts. They know that creating in arts can be done on their own or with others. They are aware that inspiration to create in arts comes from their own experiences and imagination. They recognize that they use symbols and representations to convey meaning in their work.

Phase 2

Learners show an understanding that they can use arts to communicate their ideas, feelings and experiences. They use strategies in their work to enhance the meaning conveyed and to make it more enjoyable for others. They are aware that their work can provoke different responses from others. They understand the value of working individually and collaboratively when creating different art forms.

Phase 3

Learners show that, as artists, they can influence thinking and behavior through the arts they create. They think critically about their work and recognize that their personal interests, beliefs and values can inform their creative work. They show an understanding of the relationships between their work and that of others.

Phase 4

Learners show an understanding that their own creative work in dance, drama, music and visual arts can be interpreted and appreciated in different ways. They explore different media and begin to innovate in arts. They consider the feedback from others in improving their work. They recognize

that creating in arts provides a sense of accomplishment, not only in the process, but also in providing them with a way to understand the world.