



ISTANBUL
INTERNATIONAL
COMMUNITY
SCHOOL

IICS IB PRIMARY YEARS PROGRAM OVERVIEW

A GUIDE FOR STUDENTS & PARENTS



IICS MISSION STATEMENT

Through its challenging curriculum and strong staff-student relationships, IICS provides a caring environment that inspires each student to excel and to be inquisitive, creative, compassionate, balanced, and internationally minded.

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 programs of international education and rigorous assessment. These programs encourage students across the world to become active, compassionate lifelong learners who understand that other people, with their differences, can also be right.

| | |
|--------------|---|
| Page | |
| 1 | IICS Mission Statement |
| 1 | International Baccalaureate Mission Statement |
| 3 | GUIDE TO THE PYP |
| 9-11 | Language in the PYP |
| 12-14 | Literacy Expectations Early Years 3, 4, 5 |
| 15-18 | Literacy Expectations Grades 1, 2, 3 |
| 19-23 | Literacy Expectations Grades 4, 5, 6 |
| 26-41 | MATHEMATICS IN THE PYP |
| 27-28 | Numeracy Expectations Early Years 3, 4, 5 |
| 29-32 | Numeracy Expectations Grades 1, 2, 3 |
| 33-41 | Numeracy Expectations Grades 4, 5, 6 |

GUIDE TO THE PYP

HOW DID THE PRIMARY YEARS PROGRAM START?

The Primary Years Program (PYP) of the International Baccalaureate Organization (IB) has been developed as a result of the vision and the efforts of the former International Schools Curriculum Project (ISCP).

The ISCP was an independent, grass-roots movement of school teachers and administrators in international schools. Its purpose was to produce a common international curriculum, and to develop an international-mindedness on the part of the children in those schools, in the belief that the nature and quality of children's learning were the means of promoting that awareness and sensitivity.

The IB introduced the PYP in 1997 to complete its three programs of international education (PYP, MYP and DP) and with them, the prospect of a continuous international educational experience from early childhood to school graduation. IICS has been authorized to provide the PYP Curriculum since 1997.

WHAT IS THE PRIMARY YEARS PROGRAM?

The Primary Years Program (PYP) is the first stage of the International Baccalaureate Program. It is for students aged 3 to 12 and focuses on the development of the whole child, not only in the classroom, but also in the world outside through other environments where children learn. It offers a framework that meets children's several needs: academic, social, physical, emotional, and cultural.

The PYP is a comprehensive approach to teaching and learning with an international curriculum model that provides:

- Guidelines for what students should learn
- A teaching methodology
- Assessment strategies

At the heart of the PYP is a commitment to structured inquiry as a vehicle for learning:

- Six organizing themes help teachers and students explore knowledge in the broadest sense of the word.
- Teacher and students use key questions that are concept-based to structure the Units of Inquiry.
- They acquire and apply transdisciplinary skills while developing an understanding of these important concepts.

WHY DID IICS CHOOSE THE PYP?

IICS offers the Primary Years Program of the International Baccalaureate Program because it puts the student at the center of the learning process; explicitly values the diversity of its student, parent, and teacher populations and strives to benefit from its diversity by exploring multiple perspectives and experiences. The PYP integrates best practices from different national curricula and is in line with current educational research.

The PYP aims to offer a balanced program that focuses on acquiring significant knowledge, developing essential skills, understanding meaningful concepts, and developing positive attitudes, leading to thoughtful action.

The PYP believes that an inquiry based teaching method, structured in Units of Inquiry with cross curricular links to other subject areas, is an effective approach to teach the knowledge, skills, concepts and attitudes that we value.

WHAT WILL YOUR CHILD BE LEARNING?

The PYP has designed a transdisciplinary curriculum, which draws the individual disciplines into a coherent whole, while preserving the essence of each subject.

Your child will:

- develop a deep understanding of important concepts;
- conduct research into knowledge which has local and global significance;
- acquire and practice a range of essential skills;
- be encouraged to develop positive attitudes towards learning, the environment and other people; and
- have the opportunity for involvement in responsible action and service.

In the spirit of internationalism, students are required to learn a second language in addition to the language of instruction of the school.

PROGRAM OF INQUIRY

The PYP curriculum is centred around six Units of Inquiry at each grade level (four in P1 and P2). In order to offer a balanced program of units at each grade level, the PYP has identified six transdisciplinary themes representing significant knowledge areas. All grade levels study one unit from each knowledge area.

The six transdisciplinary themes are:

| WHO WE ARE | WHERE WE ARE IN PLACE AND TIME | HOW WE EXPRESS OURSELVES |
|--|--|---|
| An inquiry of 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; and what it means to be human. | 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. | 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; and our appreciation of the aesthetic. |
| HOW THE WORLD WORKS | HOW WE ORGANIZE OURSELVES | SHARING THE PLANET |
| 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; and the impact of scientific and technological advances on society and on the environment. | An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; and economic activities and their impact on humankind and the environment. | 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; and peace and conflict resolution. |

All the Units of Inquiry in the primary school together constitute our Program of Inquiry, which provides a balanced program of concepts, knowledge, skills, attitudes and action in Social Studies and Science. The Program is subject to a yearly review.



WHAT DO OUR CLASSROOMS LOOK LIKE?

The character of the PYP is reflected in the classroom activities and arrangements.

Students will often be involved in whole class discussions while the teacher will visibly record the content of the discussion. This discussion will be on display during the rest of the unit and will be referred to at a later stage.

Students might work in smaller groups, doing research, collecting information, or working towards a performance or presentation. Children might also work in pairs or individually. There will also be time for direct whole class instruction or for quiet individual work.

The classroom looks active; students take initiative, assist each other, get their own resources, and may work in different areas in the classroom. Different groups of students may be working on different projects at the same time. Plentiful resources are available to stimulate and assist the learning and the results of the learning are displayed in the class. The Student Profile as well as the Central Idea of each unit will be visible in each classroom.

Our taught curriculum is designed to create:

“...a learning community in which adults and children alike investigate important ideas and enrich or improve their understanding of them.... The starting point is students’ current understanding and the goal is the active construction of meaning by building connections between human experience and information and processes from the disciplines.”

(Perspectives on Teaching Methods, IB PYP manual)

HOW WILL I KNOW WHAT MY CHILD IS DOING?

The PYP promotes the use of a range of assessment strategies which are designed to give a clear picture of your child's progress. There are two main types of assessment:

FORMATIVE

Formative assessment is interwoven with daily learning and helps teachers and students find out what the students already know in order to plan the next stage of learning. Formative assessment and teaching are directly linked: neither can function effectively or purposefully without the other.

SUMMATIVE

Summative assessment happens at the end of the teaching and learning process. It gives the students opportunities to demonstrate what they have learned.

The PYP also requires that individual portfolios of student achievement be kept, as an important mechanism for documenting progress. In the final year of the program, are expected to participate in a culminating project students aged 11 to 12-the PYP Exhibition. This is designed to demonstrate their proficiencies in all areas of the program.

WILL THE PYP HELP MY CHILD FIT INTO ANOTHER SCHOOL?

Although no school or curriculum can guarantee a perfect fit when children transfer to another school, particularly a school in a different country, parents may be reassured by the following points.

Transfer to schools following a national curriculum:

- Close attention is paid to a range of national curriculums when developing the PYP curriculum
- Students transferring from international schools usually have no trouble with the standards of national schools.

Transfer to other schools offering the PYP:

- Students in other schools implementing the PYP curriculum will have common learning experiences in terms of conceptual development, skill acquisition, positive attitudes, and meaningful action. There will be less uniformity of specific content in certain areas, since schools naturally wish to reflect the unique nature of their own locations.
- The PYP is working towards agreements on a common set of assessment, recording, and reporting strategies, which will facilitate the transfer of students.

WHERE CAN I FIND OUT MORE INFORMATION ABOUT THE PYP?

The following resources are available either online or through school:

- www.ibo.org
- Articles relating to the Primary School in the schools blog
- Basis of Practice Booklet from the IBO, copies at school
- Ask your child's classroom teacher
- Primary Principal
- Primary Assistant-Principal
- PYP Coordinator
- Information workshops – check the school calendar
- PYP workshops – check the school calendar



IB LEARNER PROFILE

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

As IB Learners we strive to be:

INQUIRERS

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

KNOWLEDGEABLE

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

THINKERS

We use critical and creative thinking skills to 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.

LANGUAGE IN THE PRIMARY YEARS PROGRAM

BELIEFS AND VALUES IN LANGUAGE

“Language stands at the center of the many interdependent cognitive, affective, and social factors that shape learning.”

David Corson, *Language Policy in Schools: A Resource for Teachers and Administrators* (1999)

Language is fundamental to learning, thinking, and communicating and permeates the whole curriculum. It is necessary not only to learn language, but also learn about language and through language. Learning best takes place in authentic contexts, and literature plays a special role in enabling this to happen. The strands of oral, written and visual communication are learned across and throughout the subject areas. Each aspect is only relevant in relation to the whole.

PYP schools have a special responsibility to recognize and support language development to ensure that all students are provided with the environment and the necessary language support to enable them to participate fully in the academic program and in the social life of the school, as well as to develop as individuals. All teachers in a PYP school are considered teachers of language. Language learning plays a major role in schools where the language(s) of instruction may not be the student’s first language. Research has shown that development of mother-tongue language is crucial for cognitive development and in maintaining cultural identity. It also has the potential to increase intercultural awareness and understanding, and enables students to remain in touch with and maintain esteem for the language, literature, and culture of their home country. It is a strong predictor of their long-term academic achievement, including acquisition of other languages. Respect for differences between languages and between dialects should be promoted.

Every child benefits from having access to different cultures, perspectives, and languages. Acquisition of more than one language enriches personal growth and helps facilitate international understanding. Therefore, a PYP school provides the opportunity for all students to learn more than one language. Exposure to and experience with language, in all its richness and diversity, opens doors to key questions about life and learning, and encourages students to develop responsible attitudes and find appropriate ways to take action, in order to make a difference in the world.

The IB Learner Profile is integral to teaching and learning language in the PYP because it represents the qualities of effective learners and internationally minded students. The Learner Profile, together with the five essential elements of the program—knowledge, concepts, skills, attitudes, and action—informs planning, teaching, and assessing in language.



THE ROLE OF LANGUAGE IN THE PROGRAM OF INQUIRY

The Program of Inquiry provides an authentic context for students to develop and use language. Wherever possible, language should be taught through the relevant, realistic context of the units of inquiry. The teacher plans language instruction that supports students' inquiries and the sharing of their learning.

Links to the transdisciplinary themes or central idea should be explicitly made when language is being taught outside the Program of Inquiry. A developing understanding of these links will contribute to the students' understanding of the use of language in the world.

Regardless of whether language is being taught within or outside the Program of Inquiry, in the PYP it is believed that purposeful inquiry is the way in which students learn best. The starting point should always be students' prior and current understanding. However, it should also be recognized that there are occasions when it is preferable for students to be given a series of strategies for learning language (including rote learning) in order to progress in their understanding rather than struggling to proceed.

HOW LANGUAGE PRACTICES ARE CHANGING

Structured, purposeful inquiry is the main approach to teaching and learning language in the PYP. However, it is recognized that many educational innovations (or, more accurately, educational reworkings) suffer from the advocacy of a narrow, exclusive approach. The PYP represents an approach to teaching that is broad and inclusive in that it provides a context within which a wide variety of teaching strategies and styles can be accommodated, provided that they are driven by a spirit of inquiry and a clear sense of purpose.

As an aid to reflection, the following set of subject-specific examples of good practice has been produced. It is believed that these examples are worthy of consideration by anyone committed to continuous improvement.

THE ROLE OF MOTHER TONGUE

Supporting mother tongue language literacy goes beyond preserving cultural connections. Research over the past three decades increasingly demonstrates that continuing language and literacy in the first language alongside the development of the new language is in the child's best academic interests. To this end, we strongly encourage families to develop routines and habits that promote the development of their first language(s).

PYP CURRICULUM GUIDE

| HOW ARE LANGUAGE PRACTICES CHANGING? | |
|---|---|
| INCREASED EMPHASIS ON: | DECREASED EMPHASIS ON: |
| promoting integrated language development | teaching language as isolated strands |
| language as a transdisciplinary element throughout the curriculum | language as a separate discipline |
| additional-language teachers viewed (and viewing themselves) as PYP teachers | additional-language teachers seen as solely single-subject teachers |
| a literature-based approach to learning language | using skill-drill texts and workbooks to learn language |
| a teaching approach that sees making mistakes in language as inevitable and necessary for learning | a teaching approach that focuses on encouraging students not to make mistakes in language |
| reading for meaning | decoding only for accuracy |
| reading selected according to interest level | reading selected according to decoding level |
| student-selected reading materials | teacher-directed reading materials |
| making world classics available for reading | having only school classics available for reading |
| making culturally diverse reading material available | having only monocultural reading materials available |
| focusing on meaning when reading and writing | focusing primarily on accuracy when reading and writing |
| encouraging appropriate cooperative discussion in the classroom | enforcing silent, individual work in the classroom |
| students engaged in spontaneous writing | students carrying out teacher-imposed writing |
| a variety of scaffolded learning experiences—with the teacher providing strategies for the student to build on his or her own learning | activities where teachers simply model language for students |
| writing as a process | writing only as a product |
| developing a range of independent spelling strategies | a dependence on the teacher as the only source of correct spelling |
| nurturing appreciation of the richness of language | language study as grammar and syntax |
| literature as a means of understanding and exploring | literature study as vocabulary, grammar, and syntax |
| teaching students to read and research using multimedia resources | providing print-only resources for reading and research |
| using language for creative problem solving and information processing | using language for rote learning |
| a range of appropriate assessment methods such as portfolios, conferencing, miscue analysis, writing sample analysis, and response journals | standardized reading and writing assessments |

LITERACY EXPECTATIONS: EARLY YEARS 3, 4, 5

EARLY YEARS 3

ORAL COMMUNICATION: LISTENING AND SPEAKING

Students will use oral language for social interaction and to obtain knowledge of people, places, and things in their environment and in the wider community. They will communicate needs, feelings, and ideas in order to respond to a variety of experiences. They will participate appropriately in conversations, tell stories and events in sequence, and will give and follow instructions. In order to learn to communicate effectively, students will be given daily opportunities to listen and speak in authentic contexts, either independently, in small groups, or with a whole class.

- Begin to listen in small or large groups for increasing periods of time
- Begin to speak clearly in order to be understood
- Begin to use language to fulfil their needs, express feelings, etc.
- Begin to use language to connect new experiences to what they already know
- Begin to use language in imaginative and dramatic play
- Begin to talk about own stories, writing, pictures, and models
- Begin to listen and respond to stories, poems, rhymes, songs, instructions, questions, and explanations
- Begin to anticipate and predict when listening to texts read aloud
- Begin to listen effectively in order to follow instructions
- Begin to work with rhythm and rhyme
- Begin to use appropriate word order in simple sentences

EARLY YEARS 4

ORAL COMMUNICATION: LISTENING AND SPEAKING

Students will use oral language for social interaction and to obtain knowledge of people, places, and things in their environment and in the wider community. They will communicate needs, feelings, and ideas in order to respond to a variety of experiences. They will participate appropriately in conversations, tell stories and events in sequence, and will give and follow instructions. In order to learn to communicate effectively, students will be given daily opportunities to listen and speak in authentic contexts, either independently, in small groups or with a whole class.

- Begin to listen in small or large groups for increasing periods of time
- Speak clearly in order to be understood
- Use language to fulfil their needs, gain information, express feelings, etc.
- Use language to connect new experiences to what they already know
- Listen and respond to stories, poems, rhymes, songs, instructions, questions, and explanations
- Begin to anticipate and predict when listening to texts read aloud
- Begin to listen effectively in order to retell, sequence, and describe past events
- Listen effectively in order to follow instructions
- Begin to ask questions and give appropriate answers
- Use appropriate word order in simple sentences
- Use language in imaginative and dramatic play, and begin to use language for discussions and conversations
- Talk about their own stories, writing, pictures, and models
- Begin to identify differences in letter sounds
- Show an awareness of rhythm and rhyme

EARLY YEARS 5

ORAL COMMUNICATION: LISTENING AND SPEAKING

Students will use a variety of oral language appropriately and with increasing confidence. They will talk about their own thoughts, feelings, and opinions and they will be able to work in groups to discuss their ideas. They will appreciate that listening is important and, in both small, and large group situations, listen with increasing concentration and consideration. They will be able to pick out main events and relevant points, and they will increase their ability to anticipate and predict. Students will listen to others carefully and with sensitivity.

- Begin to listen attentively and respond in small and large groups
- Speak clearly in order to be understood
- Use language in imaginative and dramatic play, discussions, and conversations
- Listen effectively in order to retell, sequence, and describe past events
- Ask questions and give appropriate answers
- Show an awareness of rhythm and rhyme
- Use language to connect new experiences to what they already know
- Listen and respond to stories, poems, rhymes, songs, instructions, questions, and explanations
- Anticipate and predict when listening to texts read aloud
- Talk about their own stories, writing, pictures, and models
- Realize the importance of language to fulfil their needs, gain information, express feelings, etc
- Develop an active interest and respect for other languages
- Identify differences in letter sounds
- Begin to distinguish the beginning and ending of words
- Use appropriate word order in simple sentences and begin to use compound sentences
- Use grammatical rules in speech even though they may over generalize
- Begin to understand that language is influenced by purpose and audience
- Appreciate and relate to different voice tones
- Listen effectively in order to follow instructions
- Begin to give instructions, directions, and messages and respond to the instructions of others

LITERACY EXPECTATIONS: EARLY YEARS 3, 4, 5

EARLY YEARS 3

WRITTEN COMMUNICATION: WRITING

Students will be curious about print. They will enjoy playing and experimenting with writing by making marks to emulate writing. They will progress from scribble or “pretend” writing to writing letters and words. Drawing, sketching, and diagramming are important parts of early writing development as children imitate, rehearse, and think about the process. Students will use representations of their name (and/or those of family members) in a variety of ways. Regardless of their stage of writing development, they will assign meaning to messages and will gradually produce recognizable (though not necessarily conventional) spellings of a range of words. Students will be encouraged to write daily with or without support and guidance, either independently, in small groups, or with the whole class.

- Write their name
- Write random recognizable letters to represent words
- Discriminate between text and pictures
- Rely primarily on pictures to convey meaning
- Demonstrate awareness that print conveys meaning
- Make marks other than drawing on paper (scribbles)
- Begin to show an awareness of some of the letters or sounds
- Tell about own pictures and writing
- Begin to demonstrate an awareness of directionality
- Begin to use conventional pencil-grasp

EARLY YEARS 4

WRITTEN COMMUNICATION: WRITING

Students will be curious about print. They will enjoy playing and experimenting with writing by making marks to emulate writing. They will progress from scribble or “pretend” writing to writing letters and words. Drawing, sketching, and diagramming are important parts of early writing development as children imitate, rehearse and think about the process. Students will use representations of their name (and/or those of family members) in a variety of ways. Regardless of their stage of writing development, they will assign meaning to messages and will gradually produce recognizable (though not necessarily conventional) spellings of a range of words. Students will be encouraged to write daily with or without support and guidance, either independently, in small groups, or with the whole class.

- Recognize some names and words in context
- Use illustrations to tell stories
- Rhyme and play with words
- Participate in group reading (books, rhymes, poems and songs)
- Differentiate between numbers, letters, symbols, and drawings
- Demonstrate an awareness of directionality
- Demonstrate understanding of letter-sound relationship
- Print legible upper and lower case letters
- Use conventional pencil-grasp
- Write ‘words’ to describe or support pictures
- Use pictures and print to convey meaning
- Copy signs, labels, names, and words (environmental print)
- Match most letters to sounds
- Use beginning consonants to make words
- Pretend to read own writing
- See self as writers
- Take risks with writing

EARLY YEARS 5

WRITTEN COMMUNICATION: WRITING

Students will write confidently, with developing legibility and fluency. They will write for a variety of purposes and will develop an understanding of different story structures. They will begin to plan, edit, and review their own writing, showing an increasing ability to spell high frequency words. They will begin to use spelling patterns and will continue to use their phonetic skills to spell especially when constructing more complex words. As risk-takers, they will demonstrate confidence in attempting to write unfamiliar words using a variety of strategies. Daily independent and instructional writing are essential.

- Write text to match their own illustrations
- Write 1-2 sentences about a topic
- Begin to show confidence and a positive attitude to writing
- Use beginning, middle, and ending sounds to write words.
- Spell words on the basis of sounds without regard for conventional spelling patterns
- Understand that their own written texts remain constant
- Begin to read and reread their own written texts for themselves and others
- Use growing awareness of sound segments (phonemes, rhymes) to write words
- Begin to write legible upper and lower case letters in a consistent style
- Begin to accurately spell some sight words
- Experiment with capitals
- Experiment with punctuation
- Begins to use spacing between words
- Writes from top to bottom, left to right, and front to back

LITERACY EXPECTATIONS: EARLY YEARS 3, 4, 5

EARLY YEARS 3

VISUAL COMMUNICATION: VIEWING AND PRESENTING

Students will play, experiment, talk about, and relate to a variety of media. They will enjoy using media to make sense of the world and will learn to respond both verbally and non-verbally. They will show a natural curiosity and interest in many forms of familiar visual communication and, with guidance and support, will make connections between the real and the imaginary. Students will react to media items or factual information in order to understand and describe what they see.

- View and listen to media works and talks about what they mean
- Begins to construct meaning from visual texts with familiar content by using pictorial and visual cues
- Begins to tell the difference between real and animated objects or images

EARLY YEARS 4

VISUAL COMMUNICATION: VIEWING AND PRESENTING

Students will play, experiment, talk about and relate to a variety of media. They will enjoy using media to make sense of the world and will learn to respond both verbally and non-verbally. They will show a natural curiosity and interest in many forms of familiar visual communication and, with guidance and support, will make connections between the real and the imaginary. Students will react to media items or factual information in order to understand and describe what they see.

- View and listen to media works and talk about what they mean
- Construct meaning from visual texts with familiar content by using pictorial and visual cues
- Tell the difference between real and animated objects or images

EARLY YEARS 5

VISUAL COMMUNICATION: VIEWING AND PRESENTING

Students will understand that communication involves both visual, verbal and kinesthetic features. They will understand that signs and symbols carry meaning and will begin to read a range of signs widely used in their immediate environment. They will be able to read and use texts with different types of layout and will understand information presented by a range of visual media including television, theater, and computer. Using a variety of visual and technological media, the students will search for, record and present information. As they continue to develop an increasing understanding of what they view, they will make more informed choices.

- Understand that communication involves visual as well as verbal features
- Begin to understand that signs, symbols, and icons carry meaning
- Tell the difference between real and animated objects or images
- Begin to understand that not everything they see is useful or relevant
- Construct meaning from visual texts with familiar content by using pictorial and visual cues
- Begin to make inferences about what a character could be like by observing body language, facial expressions, gestures, clothing, and the way other characters respond to them
- Begin to use appropriate computer icons to activate computer programs
- Begin to demonstrate basic computer skills (e.g. turn computer on and off, log on, handle the mouse)

LITERACY EXPECTATIONS: GRADES 1, 2, 3

GRADE 1

ORAL COMMUNICATION: LISTENING AND SPEAKING

Students will use a variety of oral language appropriately and with increasing confidence. They will talk about their own thoughts, feelings, and opinions and they will be able to work in groups to discuss their ideas. They will appreciate that listening is important and, in both small and large group situations, listen with increasing concentration and consideration. They will increase their ability to anticipate and predict. Students will listen to others carefully and with sensitivity.

- Use active listening skills such as making eye contact or asking questions
- Compare what is heard to prior knowledge and experience
- Follow simple oral directions
- Speak clearly and understandably
- Deliver brief oral presentations that:
 - demonstrate an understanding of a topic
 - include and sort relevant information and details about a topic
 - organize information with a clear beginning and end
 - express opinions
 - recall an event or personal experience
- Appreciate the voice tone to be used in varying circumstances
- Deliver simple dramatic presentations (e.g. recite poems, rhymes, songs, role-plays, and stories)
- Express thoughts, feelings, ideas, and opinions and be able to discuss them, respecting contributions from others
- Hear the beginning, middle, and end of words, including blends and digraphs

GRADE 2

ORAL COMMUNICATION: LISTENING AND SPEAKING

Students will appreciate the power of oral language and use speech with increasing awareness and responsibility. They will participate appropriately in discussions and will talk about a wide range of topics. They will use increasingly complex language confidently and creatively, with increasing accuracy, detail, and range of vocabulary. They will become increasingly aware of the use of oral language to articulate, organize, and reflect on learning. They will begin to communicate in more than one language.

- Listen appreciatively and considerately and respond in small and large group situations
- Begin to develop specific vocabulary to suit different purposes, e.g. descriptive, comparative, or persuasive vocabulary
- Appreciate that a word can have various meanings (e.g. light)
- Understand that ideas and opinions can be generated, developed, and presented through talking and working in pairs or groups
- Ask appropriate questions and give appropriate answers
- Participate in imaginative play, storytelling, role play, and dramatization of stories and poems
- Begin to justify and defend their point of view
- Develop an active interest and respect for other languages
- Appreciate and relate to different voice tones, and use voice tone, volume and intonation to enhance meaning
- Give instructions, directions, and messages and respond to the instructions of others
- Prepare and deliver an individual or small group presentation for a variety of purposes

GRADE 3

ORAL COMMUNICATION: LISTENING AND SPEAKING

Students will appreciate the power of oral language and use speech with increasing awareness and responsibility. They will participate appropriately in discussions and will talk about a wide range of topics. They will use increasingly complex language confidently and creatively, with increasing accuracy, detail, and range of vocabulary. They will become increasingly aware of the use of oral language to articulate, organize, and reflect on learning. They will begin to communicate in more than one language.

- Respect the importance of language and its effect on others, showing sensitivity
- Use discussions to generate, develop, modify, and present ideas
- Use a range of specific vocabulary to suit different purposes (e.g. descriptive, comparative, persuasive)
- Begin to paraphrase and summarize
- Begin to argue persuasively and defend a point of view
- Prepare and deliver an individual or small group presentation for a variety of purposes
- Listen appropriately for a sustained period and for a variety of purposes (e.g. to seek information, to gain knowledge, for instructions, for enjoyment)
- Participate appropriately in a variety of situations (e.g. stories, poetry, drama, instructions, discussions, class and group meetings, conversations, group presentations)
- Use language confidently, appropriately, and with increasing accuracy
- Organize thoughts and feelings before speaking
- Use register, tone, and voice level appropriately and purposefully
- Give instructions, directions and messages and respond appropriately to those of others.
- Develop an active interest and respect for other languages

LITERACY EXPECTATIONS: GRADES 1, 2, 3

GRADE 1

WRITTEN COMMUNICATION: READING

Students will read for pleasure and information with increasing independence. They will be confident about their own reading and will continue to develop a range of reading strategies to decode and make sense of text. They will discuss stories heard and read, demonstrate an awareness of the role of the characters and plot, and will respond to the ideas and feelings expressed. They will begin to use a variety of reference books and dictionaries independently. A balanced learning experience includes opportunities either independently, in small or in whole class situations. Daily independent and instructional reading are essential.

- Demonstrate phonemic and phonetic skills to solve unfamiliar words in grade-level texts independently
- Demonstrate fluent reading of grade appropriate texts
- Retell what the text is about
- Use vocabulary strategies to determine the meaning of unfamiliar words
- Use 'before reading' strategies to prepare for comprehension
- Use 'during reading' strategies to gather and connect ideas for comprehension
- Use 'after reading' strategies to assist with comprehension
- Demonstrate comprehension of text orally
- Demonstrate comprehension of text in writing
- Identify specific features of texts (e.g. contents page, index, glossary, back, and front cover)
- Understand the role of an author and illustrator
- Predict what may happen next in a story and revise or confirm predictions
- Identify with a character or a situation
- Compare information (e.g. recognizing similarities) in texts using prior knowledge and experience
- Create and use visual organizers such as Venn diagrams or webs, with teacher assistance, to demonstrate comprehension
- Monitor comprehension of independently or group-read texts by asking and answering questions
- Use criteria to choose independent reading materials (IPICK from Daily 5)
- Recognize and talk about a range of different text types (e.g. letters, lists, recipes, stories, poetry, plays, rhymes)
- Recognize and identify the difference between fiction and non-fiction texts
- Establish a purpose for reading (e.g. to be informed, to follow directions, to be entertained)
- Begin to use reference books, dictionaries, and computers with guidance

GRADE 2

WRITTEN COMMUNICATION: READING

Students will read a variety of fiction and non-fiction books confidently, fluently, and independently, and they will be able to select books appropriate to their reading level and for a specific purpose. They will be interested in a variety of literature and will begin to show an appreciation of different literary styles. They will understand and respond to the ideas, feelings, and attitudes expressed in various reading materials, and will be able to use reference books, dictionaries, and information technology independently. They will read daily in class and will regularly read for a sustained period of time, both in class and at home.

- Read simple chapter books
- Participate in small group literature discussion with guidance
- Begin to respond to and make personal connections with facts, characters, and situations in literature
- Recognize and use the different parts of a book (title page, contents page, chapter titles, index, glossary)
- Begin to use the appropriate resources to find information (reference books, dictionaries, IT) with guidance
- Begin to use complex alphabetical order
- Recognize and talk about a range of different texts types (e.g. letters, lists, recipes, stories, poetry, plays)
- Identify different kinds of genres (fiction, non-fiction, poetry, plays, fantasy)
- Compare and contrast characters and story events with guidance
- Begin to summarize and retell story events in sequential order
- Read silently for increasingly longer periods (15-20 minutes)
- Make predictions and begin to make inferences with justification
- Choose reading materials at appropriate level with guidance
- Begin to read text aloud with fluency, expression, and with regard to punctuation
- Begin to identify and describe elements of a story (setting, characters, message, beginning, middle, end, plot – problem/ solution)
- Use a variety of reading strategies to make meaning of texts: picture cues, phonics, self-correction, context, word structure cues, prediction, an increasingly developed sight vocabulary, memory, punctuation, syntax, rereading, and reading on
- Identify own reading strategies and set goals with guidance
- Use word structure cues (e.g. root words, prefixes, suffixes, word chunks) when encountering unknown words
- Self-correct for meaning
- Increase vocabulary by using meaning cues
- Begin to identify main ideas, recognize cause and effect, distinguish between fact and opinion
- Begin to make, question, and draw conclusions
- Read and follow written directions. Use reading strategies appropriately, depending on text and purpose
- Read to find specific information

GRADE 3

WRITTEN COMMUNICATION: READING

Students will read a variety of fiction and non-fiction books confidently, fluently, and independently, and they will be able to select books appropriate to their reading level and for a specific purpose. They will be interested in a variety of literature and will begin to show an appreciation of different literary styles. They will understand and respond to the ideas, feelings, and attitudes expressed in various reading materials, and will be able to use reference books, dictionaries, and information technology independently. They will read daily in class and will regularly read for a sustained period of time, both in class and at home.

- Read medium level chapter books
- Read silently for increasingly longer periods of time (20 – 30 minutes)
- Read text aloud with fluency, expression, and with regard to punctuation
- Participate in literature discussions with guidance
- Respond to literature using reasons and examples to support ideas and opinions with guidance
- Make connections to personal experiences, other authors, books, and perspectives
- Make inferences while reading
- Identify own reading strategies and set goals
- Read for pleasure, instruction, and information
- Choose reading materials at appropriate level and express preferences
- Begin to recognize the author's purpose (to inform, persuade, entertain, instruct)
- Expand knowledge of different genres (fiction, non-fiction, fables, biographies, plays, poetry, fantasy fiction, realistic fiction)
- Recognize and use the different parts of a book (contents page, index, glossary, dedication page, copyright page)
- Begin to use appropriate resources to find information with guidance (reference books, CD-ROMs, non-fiction texts)
- Begin to gather and use information from graphs, charts, tables, and maps with guidance
- Begin to use skimming and scanning to find specific information
- Identify main idea, recognize cause and effect, demonstrate understanding of the difference between fact and opinion with guidance
- Make, question, and draw conclusions with guidance
- Identify and describe elements of a story (setting, characters, plot, conflict, message)
- Follow multi-step written directions independently

PYP CURRICULUM GUIDE

LITERACY EXPECTATIONS: GRADES 1, 2, 3

GRADE 1

WRITTEN COMMUNICATION: WRITING

Students will write confidently, with developing legibility and fluency. They will write for a variety of purposes and will develop an understanding of different story structures. They will begin to plan, edit, and review their own writing, showing an increasing ability to spell high frequency words. They will begin to use spelling patterns and will continue to use their phonetic skills to spell especially when constructing more complex words. As risk-takers, they will demonstrate confidence in attempting to write unfamiliar words using a variety of strategies. Daily independent and instructional writing are essential.

- Generate writing ideas through discussions with others
- Develop a main idea for writing
- Determine purpose and audience
- Use organizational strategies (e.g. brainstorming, lists, webs, and Venn diagrams) to plan writing
- Organize writing to include a beginning, middle, and end
- Construct complete sentences with subjects and verbs
- Mimic language from literature when appropriate
- Use available technology to compose texts
- Reread own writing for clarity
- Add descriptive words and details
- Use resources (e.g. word wall, beginner's dictionary, etc.) to select effective vocabulary
- Proof-read writing to improve conventions (grammar, spelling, punctuation, capitalization)
- Apply tools (checklist, rubric, feedback) to judge quality of writing
- Write sample stories with a beginning, middle, and end that include descriptive words and details
- Write responses to stories that include simple judgements about the text
- Write friendly letters and invitations that follow a simple letter format
- Produce informal writings (messages, journals, notes, and poems) for various purposes
- Print legibly and space letters, words, and sentences appropriately
- Spell correctly words with regular short vowel patterns and most long vowel words (e.g. time, name, rain, say, feed, etc.)
- Begin to spell high frequency words correctly
- Create phonetically-spelled written work that can usually be read by the writer and others
- Spell unfamiliar words using strategies such as segmenting, sounding out, and matching familiar words and word parts
- Use end punctuation correctly, including question marks, exclamation marks, and full stops
- Use correct capitalization (e.g. the first word in a sentence, names and I)
- Use nouns, verbs, and adjective

GRADE 2

WRITTEN COMMUNICATION: WRITING

Students will develop fluency in writing, and will write independently and with confidence. They will begin to use a wide and vivid vocabulary with supporting details. They will understand that different types of writing have different structures. They will write for a range of purposes, both creative, and informational, and will plan, edit and review their own writing. They will spell most high-frequency words accurately and use a range of strategies to spell words of increasing complexity. They will present their writing appropriately using a consistent, legible style.

- Write short fiction with guidance
- Write sequenced stories with a beginning, middle, and end
- Show some knowledge of, and a willingness to use an appropriate writing process (prewriting which includes brainstorming, webbing, researching, planning, discussion, drawings, any gathering of information, drafting, revising)
- Begin to reread their written work in order to make revisions and improve their writing; conferencing – listen to others' writing and offer feedback; editing, begin to publish own work)
- Identify own writing strategies and set goals with guidance
- Organize ideas in a logical sequence in fiction and non-fiction writing with guidance
- Begin to compose different forms of poetry
- Use a dictionary and thesaurus
- Begin to recognize and use interesting language
- Recognize and use a range of different text formats (e.g. letters, lists, recipes, stories, poetry, plays)
- Write a variety of non-fiction pieces (e.g. facts about a topic, letters, lists with guidance)
- Begin to write a descriptive, narrative, or information paragraph with a topic sentence, supporting details, and closing sentence
- Use simple sentences and begin to write compound sentences
- Use capital letters, full stops, questions marks, and exclamation marks appropriately
- Use commas and apostrophes with guidance
- Add description and detail with guidance
- Use parts of speech properly (noun, pronoun, verb, adjective)
- Spell an increasing number of sight words correctly and move towards conventional spelling
- Show confidence and a positive attitude to writing
- Print legible upper and lower case letters in a consistent style
- Begin to write for a range of purposes and audiences
- Begin to consider suggestions from others about own writing

GRADE 3

WRITTEN COMMUNICATION: WRITING

Students will develop fluency in writing, and will write independently and with confidence. They will begin to use a wide and vivid vocabulary with supporting details. They will understand that different types of writing have different structures. They will write for a range of purposes, both creative, and informational, and will plan, edit, and review their own writing. They will spell most high-frequency words accurately and use a range of strategies to spell words of increasing complexity. They will present their writing appropriately using a consistent, legible style.

- Write for a variety of purposes using different text formats and writing styles
- Write about feelings and opinions
- Begin to select vocabulary according to the audience and purpose with guidance
- Use paragraphs to organize ideas with guidance
- Write descriptive, narrative, and informational paragraphs with guidance
- Write poetry using carefully chosen language with guidance
- Write non-fiction pieces with guidance (reports, lists, letters)
- Write fiction with a clear beginning, middle, and end
- Use commas, quotation marks, and apostrophes with guidance
- Increase use of visual strategies, spelling rules, and knowledge of word parts to spell correctly
- Use writing criteria for effective writing to set own writing goals with guidance
- Use the appropriate writing process:
 - Prewriting which includes brainstorming, webbing, researching, planning, discussion, drawings, any gathering of information,
 - Drafting for fiction and non-fiction pieces
 - Revising for clarity and to enhance ideas with guidance
 - Conferencing seek feedback on writing
 - Editing for punctuation, spelling, grammar with guidance
 - Reread written work in order to make revisions and improve writing
 - Begin to edit and proofread own and peers' writing before completing a final copy
 - Publish writing in a polished format
- Begin to develop a voice in own writing
- Begin to use literary devices such as similes, metaphors, onomatopoeia, and alliteration
- Use descriptive language and dialogue with guidance
- Use main parts of speech appropriately (noun, verb, adjective, adverb)
- Print a consistent, legible style
- Begin to develop a cursive style
- Begin to use graphic organisers to take notes in a variety of contexts
- Use resources (thesaurus, word lists) to make writing more effective with guidance

LITERACY EXPECTATIONS: GRADES 1, 2, 3

GRADE 1

VISUAL COMMUNICATION: VIEWING & PRESENTING

Students will understand that communication involves both visual, verbal, and kinesthetic features. They will understand that signs and symbols carry meaning and will begin to read a range of signs widely used in their immediate environment. They will be able to read and use texts with different types of layout and will understand information presented by a range of visual media including television, theater, and computer. As they continue to develop an increasing understanding of what they view, they will make more informed choices.

- Communicate clearly using a variety of verbal and non-verbal skills (eye contact, appropriate posture, appropriate volume and voice projection, facing the audience)
- Use appropriate greetings, conversational openings, and closings
- Organize and report the details of an event in sequential order
- Deliver oral summaries of events or books
- Create or use visual materials or media to enhance oral presentations
- Interpret information from maps, charts, diagrams, graphs, and other media forms
- Deliver presentations differently according to the purpose and the audience

GRADE 2

VISUAL COMMUNICATION: VIEWING & PRESENTING

Students will experience a wide variety of visual media materials. They will respond to viewing experiences orally and in writing. They will interpret visual media and recognize the power of visual media to influence thinking and behavior, and will begin to learn how to make informed choices in their personal viewing experiences. They will use a variety of materials to plan and create projects with different media and will use electronic media (e.g. CD, Internet) to find information.

- Understand that communication involves visual as well as verbal features
- Understand that signs, symbols, and icons carry meaning
- Begin to interpret visual cues in order to analyze and make inferences
- Use a range of communications media, (e.g. drama, video, photography, computers, texts with different types of layout) to locate, present, and record information
- Understand that not everything they see is useful or relevant and know how to make discerning choices
- Begin to interpret information provided in advertisements (catalogs, magazines, billboards, and television)
- Begin to understand the role of familiar media in their own and their family's daily life
- Begin to use appropriate technology such as a computer, printer, CD, digital camera
- Demonstrate an understanding of the basic elements of a poster
- Appreciate form and quality of visual presentation
- Search for, record, and present information from a variety of media and texts
- Explore and use visual communication in order to express their own ideas
- Begin to select the appropriate presentation format for their work

GRADE 3

VISUAL COMMUNICATION: VIEWING & PRESENTING

Students will experience a wide variety of visual media materials. They will respond to viewing experiences orally and in writing. They will interpret visual media and recognize the power of visual media to influence thinking and behaviour, and will begin to learn how to make informed choices in their personal viewing experiences. They will use a variety of materials to plan and create projects with different media and will use electronic media (e.g. CD, Internet) to find information.

- Understand that signs, symbols, and icons carry meaning
- Understand that communication involves visual as well as verbal features
- Use a range of communications media, (e.g. drama, video, photography, computers, texts with different types of layout) to locate, present, and record information
- Search for, record, and present information from a variety of media and texts
- Begin to select the appropriate presentation format for their work
- Understand that not everything they see is useful or relevant and know how to make discerning choices
- Demonstrate an understanding of the basic elements of a poster
- Explore and use visual communication in order to express their own ideas and interpret the ideas of others
- Appreciate form and quality of visual presentation

LITERACY EXPECTATIONS: GRADES 4, 5, 6

GRADE 4

ORAL COMMUNICATION: LISTENING AND SPEAKING

Students will show an increasing awareness of the power of oral language and how it helps them to construct meaning and connect with others. They will use speech responsibility to inform, entertain, and influence others. They will understand that oral language is a medium for learning and use the speaking and listening processes as learning strategies as well as for individual enjoyment. They will interact confidently with others in a variety of situations. They will use a variety of linguistic structures and features of spoken language to develop and present ideas and information, adapting their speaking and listening strategies to the context, purpose and audience. By reflecting on their own approach to communication and the ways in which others interact, they will monitor and assess their own learning.

- Begin to use discussion to generate, develop, modify, and present ideas
- Prepare and deliver individual presentations
- Use a wide vocabulary and accurate sentence structures
- Give instructions, directions, and messages and respond appropriately to those of others
- Listen appropriately for a sustained period
- Show an active interest in and respect for other languages
- Identify and appreciate differences and similarities between languages

GRADE 5

ORAL COMMUNICATION: LISTENING AND SPEAKING

Students will show an increasing awareness of the power of oral language and how it helps them to construct meaning and connect with others. They will use speech responsibility to inform, entertain, and influence others. They will understand that oral language is a medium for learning and use the speaking and listening processes as learning strategies as well as for individual enjoyment. They will interact confidently with others in a variety of situations. They will use a variety of linguistic structures and features of spoken language to develop and present ideas and information, adapting their speaking and listening strategies to the context, purpose, and audience. By reflecting on their own approach to communication and the ways in which others interact, they will monitor and assess their own learning.

- Argue persuasively and practice debating skills, presenting a point of view that is not necessarily their own
- Understand how language can influence points of view and the responses of others
- Infer meanings, draw conclusions, and make judgements
- Give complex instructions, directions, and messages and respond appropriately to those of others
- Listen appropriately for a sustained period and for a variety of purposes (e.g. to seek information, to gain knowledge, for instructions, for enjoyment)
- Begin to paraphrase and summarize

GRADE 6

ORAL COMMUNICATION: LISTENING AND SPEAKING

Students will show an increasing awareness of the power of oral language and how it helps them to construct meaning and connect with others. They will use speech responsibility to inform, entertain, and influence others. They will understand that oral language is a medium for learning and use the speaking and listening processes as learning strategies as well as for individual enjoyment. They will interact confidently with others in a variety of situations. They will use a variety of linguistic structures and features of spoken language to develop and present ideas and information, adapting their speaking and listening strategies to the context, purpose, and audience. By reflecting on their own approach to communication and the ways in which others interact, they will monitor and assess their own learning.

- Use discussion to generate, develop, modify, and present ideas
- Participate appropriately in complex discussions, conversations, class, and group meetings, debates and group presentations
- Prepare and deliver individual presentations for a variety of purposes (to entertain, to inform, to persuade, and to direct)
- Use a wide vocabulary and complex sentence structures with a high level of accuracy
- Understand and use a variety of literary devices such as metaphor, simile, and personification
- Paraphrase and summarize efficiently
- Communicate in more than one language

LITERACY EXPECTATIONS: GRADES 4, 5, 6

GRADE 4

WRITTEN COMMUNICATION: READING & WRITING

Students will read a wide range of texts with understanding and accuracy and will be able to use a variety of reading strategies for different texts and purposes. They will recognize and appreciate the various literary styles, forms, and structures, and appreciate the structural and stylistic differences between fiction and non-fiction. They will be able to discuss what has been read, reflect on, and talk about the feelings and motivations of the characters in the story, and analyze details of plot and characterization. They will appreciate the author's use of language and they will begin to recognize meaning beyond the literal. They will locate and use a range of reference materials to find information and they will understand that this information can be used to generate ideas and opinions and guide research. They will read for enjoyment and information daily for sustained periods, both in school and at home.

Students will write fluently and effectively for a wide range of purposes both creative and informal, using a range of styles. They will understand that different types of writing have different styles and structures, and are used for different purposes. Their writing will show a clear awareness of audience. They will use relevant and appropriate supporting details, a wide range of effective vocabulary and a variety of sentence structures and sentence lengths. They will use an appropriate writing process independently and confidently: planning, revising, and editing their own writing. Considering and acting upon the responses of others students will gain an awareness of themselves as authors and will develop their own voice and style to personalize their writing. They will write for enjoyment and communication daily for sustained periods, at school and, at home.

GRADE 5

WRITTEN COMMUNICATION: READING & WRITING

Students will read a wide range of texts with understanding and accuracy and will be able to use a variety of reading strategies for different texts and purposes. They will recognize and appreciate the various literary styles, forms and structures, and appreciate the structural and stylistic differences between fiction and non-fiction. They will be able to discuss what has been read, reflect on, and talk about the feelings and motivations of the characters in the story, and analyze details of plot and characterization. They will appreciate the author's use of language and they will begin to recognize meaning beyond the literal. They will locate and use a range of reference materials to find information and they will understand that this information can be used to generate ideas and opinions and guide research. They will read for enjoyment and information daily for sustained periods, both in school and at home.

Students will write fluently and effectively for a wide range of purposes, both creative and informal, using a range of styles. They will understand that different types of writing have different styles and structures and are used for different purposes. Their writing will show a clear awareness of audience. They will use relevant and appropriate supporting details, a wide range of effective vocabulary, and a variety of sentence structures and sentence lengths. They will use an appropriate writing process independently and confidently; planning, revising, and editing their own writing. Considering and acting upon the responses of others, students will gain an awareness of themselves as authors and will develop their own voice and style to personalize their writing. They will write daily for enjoyment and communication for sustained periods, at school, and at home.

GRADE 6

WRITTEN COMMUNICATION: READING & WRITING

Students will read a wide range of texts with understanding and accuracy and will be able to use a variety of reading strategies for different texts and purposes. They will recognize and appreciate the various literary styles, forms, and structures, and appreciate the structural and stylistic differences between fiction and non-fiction. They will be able to discuss what has been read, reflect on, and talk about the feelings and motivations of the characters in the story and analyze details of plot and characterization. They will appreciate the author's use of language and they will begin to recognize meaning beyond the literal. They will locate and use a range of reference materials to find information and they will understand that this information can be used to generate ideas and opinions and guide research. They will read for enjoyment and information daily for sustained periods, both in school and at home.

Students will write fluently and effectively for a wide range of purposes, both creative and informal, using a range of styles. They will understand that different types of writing have different styles and structures and are used for different purposes. Their writing will show a clear awareness of audience. They will use relevant and appropriate supporting details, a wide range of effective vocabulary, and a variety of sentence structures and sentence lengths. They will use an appropriate writing process independently and confidently, planning, revising, and editing their own writing. Considering and acting upon the responses of others, students will gain an awareness of themselves as authors and will develop their own voice and style to personalize their writing. They will write for enjoyment and communication daily for sustained periods, at school, and at home.

PYP CURRICULUM GUIDE

LITERACY EXPECTATIONS: GRADES 4, 5, 6

GRADE 4

WRITTEN COMMUNICATION: READING & WRITING (continued)

- Reads aloud with fluency, expression, and confidence
- Reads silently for extended periods
- Use context cues, other reading strategies, and resources (e.g. dictionary, word lists, thesaurus) to increase vocabulary with guidance
- Begin to recognize an author's style
- Begin to recognize and understand figurative language (personification, onomatopoeia)
- Use prior knowledge and experiences to generate thoughtful oral and written response to their reading
- Identify and describe story elements (setting, characters, plot, message) and elements of the plot (conflict and resolution)
- Use information from graphs, charts, tables and maps
- Use a range of strategies for planning writing
- Edit for punctuation, spelling, and grammar
- Use a variety of note-taking strategies for collecting and organizing ideas, details, and information
- Show individuality and creativity in writing style
- Develop a personal voice in their writing
- Write with a fluent and legible style of cursive handwriting
- Write engaging stories that have a recognizable and appropriate structure
- Develop stories with plots that include problems and solutions with guidance
- Create characters with guidance
- Revise stories using description and details with guidance
- Begins to write organized fiction and non-fiction (e.g. research, reports, letters, summaries, chapters, persuasive essay, poetry)
- Begin to experiment with sentence length and complex sentence structure
- Vary beginnings and endings of sentences with guidance
- Use capital letters, full stops, question marks, and exclamation marks appropriately
- Use commas, quotation marks, and apostrophes correctly
- Publish writing in a polished format

GRADE 5

WRITTEN COMMUNICATION: READING & WRITING (continued)

- Categorize literature (fable, myth, biography, novel, essay)
- Identify genre (e.g. science fiction, mystery, historical novel)
- Read widely across the genre and show an interest in a variety of literature
- Read contemporary and classic literature
- Identify the elements of plot (exposition, rising action, climax, falling action, resolution) and the pattern in story outline (choice, reversal, and understanding)
- Compare and contrast different authors' styles and purposes
- Recognize and understand literary devices (personification, alliteration, onomatopoeia, similes, metaphors)
- Show awareness that poems have layers of meaning, that they need to be read and reread, and questioned and reflected on to yield their meaning
- Be aware that poems are open to range of interpretations
- Understand that words can evoke mental images
- Use specific vocabulary to comment on and analyze poetry (line, couplet, stanza, rhyme scheme, etc).
- Locate access, organize, and synthesize information from a variety of sources, e.g. encyclopaedias, articles, internet and non fiction texts)
- Generate new questions after reading and connect these to prior knowledge and experience.
- Use parts of informational texts such as titles, subheadings, bold, italics, captions, text boxes, tables of contents, glossary, and index
- Use resources (e.g. dictionary and thesaurus) to increase vocabulary
- Use writing independently and effectively to structure thinking and to communicate.
- Write persuasively about ideas, feelings, and opinions
- Begin to write organized and fluent non-fiction including simple bibliographies
- Use a range of modes in writing: narrative, descriptive, persuasive, expository

GRADE 6

WRITTEN COMMUNICATION: READING & WRITING (continued)

- Generate in depth responses and sustain small group literature discussions
- Probe for deeper meaning by making inferences in response to literature
- Seek recommendations and opinions about literature from others
- Set reading challenges and goals
- Critically evaluate their own choices in books and distinguish and appreciate commendable or notable literature
- Identify the different types of conflict in a story
- Recognize, analyze, and evaluate an author's style and purpose
- Recognize and understand figurative language (similes, metaphors, and idioms)
- Identify and discuss forms and structures
- Independently select the appropriate reading strategy for the purpose of the activity (e.g. scanning, skimming, rereading).
- Gather, analyze, and use information from graphs, charts, tables, and maps
- Use an appropriate writing process independently and confidently to communicate effectively and fluently i.e.:
 - Use prewriting strategies effectively to organize and strengthen writing
 - Revise to independently improve writing (e.g. ideas, organization, word choice, sentence fluency, voice, and conventions)
 - Use a range of tools to check spelling independently
 - Edit and proofread their own and peers' writing before completing a final copy.
 - Incorporate suggestions from others in own writing independently
 - Select and publish writing in polished format independently
- Display a sense of audience by writing in a variety of styles for a range of purposes: match the style of writing to the task, adapt writing according to the audience, and demonstrate the ability to engage and sustain the interest of the reader
- Plan, organize, and complete writing projects of increasing length and complexity

LITERACY EXPECTATIONS: GRADES 4, 5, 6

GRADE 5

WRITTEN COMMUNICATION: READING & WRITING (continued)

- Begin to set goals and identify strategies to improve writing in different genres
- Recognize and use the main parts of speech correctly (noun, verb, pronoun, adjective, and adverb)
- Use correct syntax and increasingly complex structure
- Vary sentence structure, beginnings, and endings
- Write cohesive paragraphs including reasons and examples with guidance
- Use transitional sentences to connect paragraphs
- Begin to develop the main characters and describe detailed settings in their stories
- Incorporate personal voice in writing with increasing frequency
- Use figurative language appropriately in writing (e.g. alliteration, personification, onomatopoeia, similes, and metaphors)
- Use standard spelling for most words and use appropriate resources to check spelling
- Show competency in word processing
- Selects and publishes writing in a polished format
- Use complex literature-response writing
- Create plots with problems and solutions
- Incorporate suggestions from others about own writing
- Use a variety of note-taking and study skills to comprehend oral and written text and gather information during research
- Compose different forms of poetry, including free verse and those with specific structure

GRADE 6

WRITTEN COMMUNICATION: READING & WRITING (continued)

- Write organized, fluent and detailed non-fiction independently
- Integrate information on a topic from a variety of resources
- Construct charts, graphs, and tables to convey information when appropriate
- Write in a wide variety of genres and forms for different purposes and audiences
- Create plots with a climax
- Create detailed, believable settings, and characters in stories
- Use dialogue to enhance character development appropriately
- Set goals and identify strategies to improve writing in different genres
- Recognize and use the main parts of speech correctly (noun, verb, pronoun, adjective, adverb, prepositions, and conjunctions)
- Use appropriate punctuation and grammar (e.g. parenthesis, hyphens, commas, semi-colons, colons, apostrophes, quotation marks)
- Revise writing to clarify ideas, provide examples, change sequence, and improve smooth flow of ideas
- Write cohesive paragraphs including supportive reasons and examples
- Use a range of vocabulary including content-specific vocabulary, which clearly and precisely conveys meaning and creates atmosphere and mood
- Use descriptive language, details, simile and imagery to enhance ideas
- Use voice to evoke an emotional response from readers
- Use figurative language appropriately in writing (e.g. similes, metaphors, idioms)

LITERACY EXPECTATIONS: GRADES 4, 5, 6

GRADE 4

VISUAL COMMUNICATION: VIEWING AND PRESENTING

Students will demonstrate appropriate viewing behavior for a large range of visual material (movies, posters, CD-ROMs, atlases, architectural plans, sculptures, paintings, graphic organizers, codes). They will respond to viewing experiences orally and in writing using specific vocabulary and terminology. They will show an understanding of media elements and the effect of design on the meaning of the visual. They will identify stereotypes and the purpose of visual materials. They will be willing to work with a variety of materials to plan and carry out different projects. They will recognize the implications of commercial media and will make informed judgments about television, film, and video productions.

- Analyze the different meanings that can be conveyed in different versions of the same story (e.g. film/film, film/book, comic strip).
- Understand that the form and quality of the presentation of their work reflects their thinking and attitude

GRADE 5

VISUAL COMMUNICATION: VIEWING AND PRESENTING

Students will demonstrate appropriate viewing behavior for a large range of visual material (movies, posters, CD-ROMs, atlases, architectural plans, sculptures, paintings, graphic organizers, codes). They will respond to viewing experiences orally and in writing using specific vocabulary and terminology. They will show an understanding of media elements and the effect of design on the meaning of the visual. They will identify stereotypes and the purpose of visual materials. They will be willing to work with a variety of materials to plan and carry out different projects. They will recognize the implications of commercial media and will make informed judgments about television, film, and video productions.

- Define the role advertising as part of media presentation
- Identify and analyze the structures and features characteristics of a range of visuals
- Recognize that visuals are constructed for particular reasons

GRADE 6

VISUAL COMMUNICATION: VIEWING AND PRESENTING

Students will demonstrate appropriate viewing behavior for a large range of visual material (movies, posters, CD-ROMs, atlases, architectural plans, sculptures, paintings, graphic organizers, codes). They will respond to viewing experiences orally and in writing using specific vocabulary and terminology. They will show an understanding of media elements and the effect of design on the meaning of the visual. They will identify stereotypes and the purpose of visual materials. They will be willing to work with a variety of materials to plan and carry out different projects. They will recognize the implications of commercial media and will make informed judgments about television, film, and video productions.

- Develop an awareness of how characters in film are constructed
- Interpret and analyze the purpose and point of view of a visual presentation (television program, advertisement, video)
- Recognize that our interpretations of visual presentations are influenced by our backgrounds and experience

MATHEMATICS IN THE PRIMARY YEARS PROGRAM

BELIEFS AND VALUES IN MATHEMATICS

"All students deserve an opportunity to understand the power and beauty of mathematics." Principles and Standards for School Mathematics, National Council of Teachers of Mathematics (NCTM 2000)

In the PYP, mathematics is viewed primarily as a vehicle to support inquiry, providing a global language through which we make sense of the world around us. It is intended that students become competent users of the language of mathematics and can begin to use it as a way of thinking, rather than seeing it as a series of facts and equations to be memorized. The power of mathematics for describing and analyzing the world around us is such that it is a highly effective tool for solving problems.

It is also recognized that students can appreciate the intrinsic fascination of mathematics and explore the world through its unique perceptions.

It is important that students acquire mathematical understanding by constructing their own meaning through ever-increasing levels of abstraction. Moreover, it is fundamental to the philosophy of the PYP that, since it is to be used in context, mathematics needs to be taught in relevant, realistic contexts, rather than through an attempt to impart a fixed body of knowledge directly to students.

The IB Learner Profile is integral to teaching and learning mathematics in the PYP because it represents the qualities of effective learners and internationally-minded students. The Learner Profile, together with the five essential elements of the program—knowledge, concepts, skills, attitudes and action—informs planning, teaching, and assessing in mathematics.

GOOD MATHEMATICS PRACTICE

Any development of mathematical understanding should start with students exploring their own personal experiences, understandings, and knowledge. Schools that have local and/or national curriculum requirements should articulate how best these can be incorporated into their planning, teaching, and assessing of mathematics. An example of how children learn mathematics is described in the following stages.

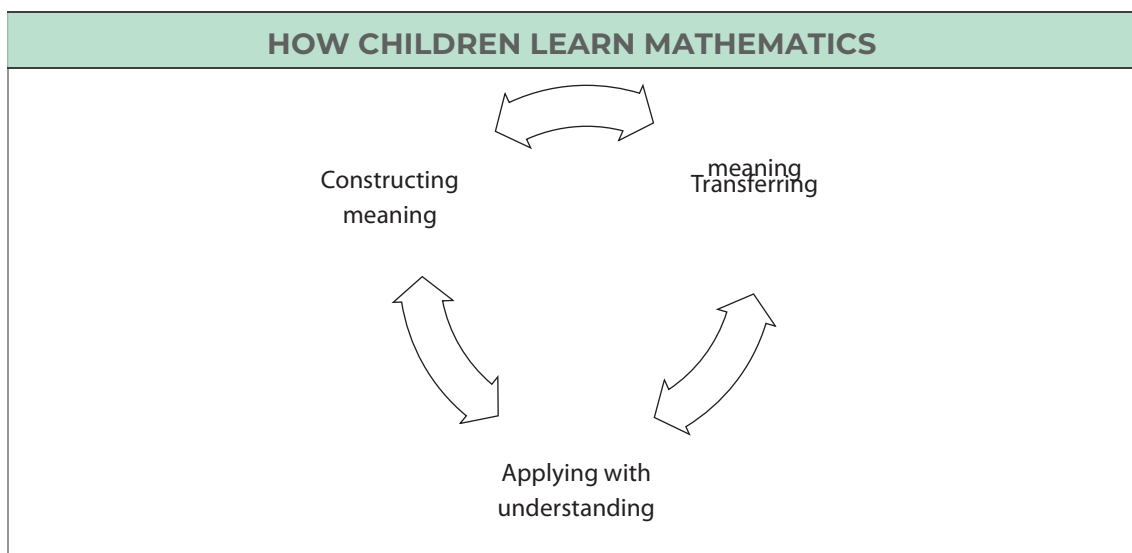


Figure 22

PYP CURRICULUM GUIDE

It is useful to identify these stages when planning developmentally appropriate learning experiences at all ages.

CONSTRUCTING MEANING

Students construct meaning from direct experiences, including the use of manipulatives and conversation.

TRANSFERRING MEANING

Students connect the mathematical notation system with concrete objects and associated mathematical processes. The teacher provides the symbols for students. Students begin to describe their understanding using symbolic notation.

UNDERSTANDING AND APPLYING

Through authentic activities, students independently select and use appropriate symbolic notation to process and record their thinking. As they work through these stages, students and teachers use certain processes of mathematical reasoning:

- They use patterns and relationships to analyze the problem situations upon which they are working;
- They make and evaluate their own and each other's ideas;
- They use models, facts, properties, and relationships to explain their thinking; and
- They justify their answers and the processes by which they arrive at solutions.

In this way, students validate the meaning they construct from their experiences with mathematical situations. By explaining their ideas, theories, and results, both orally and in writing, they invite constructive feedback and also lay out alternative models of thinking for the class. Consequently, all benefit from this interactive process.

Play and exploration have a vital role in the learning and application of mathematical knowledge, particularly for younger students. In a PYP learning environment, mathematics skills and activities need to occur in authentic settings. As educators, we need to provide a variety of areas and resources to allow students to encounter situations that will introduce and develop these skills. In this environment, students will be actively involved in a range of activities that can be free or directed. In planning the learning environment and experiences, teachers need to consider that young students may need to revisit areas and skills many times before understanding can be reached. Applying mathematical skills to real-world tasks supports students' learning.

THE ROLE OF MATHEMATICS IN THE PROGRAM OF INQUIRY

Wherever possible, mathematics should be taught through the relevant, realistic context of the Units of Inquiry. The direct teaching of mathematics in a Unit of Inquiry may not always be feasible but, where appropriate, prior learning or follow-up activities may be useful to help students make connections between the different aspects of the curriculum. Students also need opportunities to identify and reflect on "big ideas" within and between the different strands of mathematics, the Program of Inquiry and other subject areas.

Links to the transdisciplinary themes should be made explicitly, whether or not the mathematics is being taught within the Program of Inquiry. A developing understanding of these links will contribute to the students' understanding of mathematics in the world. The role of inquiry in mathematics is important, regardless of whether it is being taught inside or outside the Program of Inquiry. However, it should also be recognized that there are occasions when it is preferable for students to be given a series of strategies for learning mathematical skills (including rote learning) in order to progress in their mathematical understanding rather than struggling to proceed.

HOW MATHEMATICS PRACTICES ARE CHANGING

Structured, purposeful inquiry is the main approach to teaching and learning mathematics in the PYP. However, it is recognized that many educational innovations (or, more accurately, educational reworkings) suffer from the advocacy of a narrow, exclusive approach. The PYP represents an approach to teaching that is broad and inclusive in that it provides a context within which a wide variety of teaching strategies and styles can be accommodated, provided that they are driven by a spirit of inquiry and a clear sense of purpose.

As an aid to reflection, the following set of subject-specific examples of good practice has been produced. It is believed that these examples are worthy of consideration by anyone committed to continuous improvement.

| HOW ARE MATHEMATICS PRACTICES CHANGING? | |
|---|--|
| Increased emphasis on: | Decreased emphasis on: |
| connecting mathematical concepts and applications to learning | treating mathematics as isolated concepts and facts |
| manipulatives, to make mathematics understandable to students | rote learning, memorization, and symbol manipulation |
| real-life problem solving using mathematics | word problems as problem solving |
| instruction built on what students know, what they want to know, and how they best might find out | instruction focused on what students do not know |
| a variety of strategies for possible multiple solutions—emphasis on process | one answer, one method, emphasis on answer |
| students being encouraged to speculate and pursue hunches | the teacher as the sole authority for right answers |
| a broad range of topics regardless of computational skills | computational mastery before moving on to other topics |
| mathematics as a means to an end | teaching mathematics disconnected from other learning |
| the use of calculators and computers for appropriate purposes | a primary emphasis on pencil and paper computations |
| Program of Inquiry as the context for learning | the textbook as the context for learning |
| students investigating, questioning, discussing, justifying, and journaling their mathematics | the use of worksheets |
| students and teachers engaged in mathematical discourse | teacher telling about mathematics |

6 TENETS OF MATHS @ IICS: OUR FUNDAMENTAL BELIEFS

- All students are capable of being deep mathematical thinkers who strive for excellence.
- Mathematics is a shared endeavor; co-constructing a repertoire of effective strategies.
- Mathematics is a language that enables us to see, discuss and critique to make sense of the world around us.
- Developing a critical, curious and creative mindset is crucial in supporting maths competencies.
- Mistakes are valuable and seen as opportunities to develop further understanding.
- Students experience the joy of mathematics, engaging in the world around them.

Rationale for curricular development in maths:

At IICS, the Primary school works within the conceptually based IBPYP framework, and is guided by the conceptual pedagogy within New Zealand Maths Curriculum and the New Zealand Ministry of Education Numeracy Development Projects (NDP).

New Zealand Maths was chosen as a core resource because NZ Maths reflects and aligns with the IB PYP philosophy, with strengths and emphasis in developing students' command of number sense. The NZ program provides a wide variety of well-researched resources, offering consistency and depth, both horizontally (across grades) and vertically (moving up between grades) within our Primary Maths Programme. This has profound benefits for teachers in terms of planning and consistency, and for students in terms of their maths learning journey. The New Zealand GloSS assessment is used as our baseline assessment, three times per year from EY5 - G6, to inform teachers as to what stage our students are working at in their maths understanding, and to inform instruction for their next steps in learning.

Levels:

The New Zealand Curriculum includes 4 levels of mathematical content which primary school students are taught. That is one level of maths content for every two years at school. So Level 1 applies in particular to students in EY5 and Grade 1, Level 2 to students in Grade 2 and Grade 3, and so on. The levels apply to all parts of maths: number, algebra, geometry, measurement and statistics.

Stages:

The stages refer to stages of the Number Framework, and relate to number in particular. Over time, researchers observed that children tend to pass through different stages as they learn to solve number problems. These developmental stages are numbered consecutively. Each stage is a description of things students do, and they are quite different from the prescribed levels of content in the curriculum. Students are assessed throughout the year using the Gloss Strategy assessment to indicate their strategy stage and their next steps in learning.

The NZ standards are aligned with our grade levels as follows:

EY3 - EY4: Early Learning Progression

EY5 - G1: NZ Level 1

G2 - G3: NZ Level 2

G4 - G5: NZ Level 3

G6: Level 4 & 5

EY5 - Grade 6 levels are presented in detail via the following link:

<http://nzmaths.co.nz/nzc-and-standards>

Early Learning Progression (EY34) levels can be found here:

<http://nzmaths.co.nz/supporting-rich-mathematical-interactions-ece>

Suggestions for how you can support your child at home can be found here:

<http://nzmaths.co.nz/maths-our-house>

6 TENETS OF MATHS

@ IICS: OUR FUNDAMENTAL BELIEFS

NZ Math Parent Guides:

- [Supporting Early Years Learners \(EY3-4\)](#)
- [Supporting EY5 learning: maths](#)
- [Supporting GRADE 1 learning: maths](#)
- [Supporting GRADE 2 learning: maths](#)
- [Supporting GRADE 3 learning: maths](#)
- [Supporting GRADE 4 learning: maths](#)
- [Supporting GRADE 5 learning: maths](#)
- [Supporting GRADE 6 learning: maths](#)

Mental Computation and Recall of Facts

Fluency in computation is an important skill for students to be functional and successful in maths. Students exhibit computational fluency when they demonstrate flexibility in the computational methods they choose, understand and can explain these methods, and efficiently produce accurate answers. Fluency is more than memorizing facts or procedures, and it is more than understanding and being able to use one procedure for a given situation. Fluency builds on a foundation of conceptual understanding, strategic reasoning, and problem-solving (NGA Center & CCSSO, 2010; NCTM, 2000, 2014). Fluency is about number and operational competency, and understanding, across contexts, and with purpose. Students develop computational and mathematical fluency when they work on relevant, real-world maths problems.

How can we support children in becoming fluent with numbers?

As with much of mathematics, the key to fluency is in making connections to build understanding, and making them at the right time in a child's learning.

Manipulatives

We learn by developing our understanding from the concrete to the abstract. However the meaning isn't in the manipulatives themselves – it has to be intellectually constructed by children over a period of time, through playing around with them and connecting them directly to mental and recorded calculation.

Talking about their work

You can't do maths unless you talk maths. But the type and quality of the talk is very important. It is not simply children sharing how they did a particular calculation, but describing why and how it worked, and how their method is the same or different to those of others. In other words, it is giving children opportunities to use those higher-level skills of comparing, explaining and justifying within the context of maths. Russell says, 'The reason that one problem can be solved in multiple ways is that mathematics does not consist of isolated rules, but connected ideas. Being able to solve a problem in more than one way, therefore, reveals the ability and the predilection to make connections between and among mathematical areas and topics'.

Consolidation in meaningful contexts

By offering children practice in meaningful contexts we help them to make links between the types of situations that a particular strategy might suit. This is developing a mathematical memory, which is different from just memorizing. Therefore, important mathematical procedures and understandings are rarely "forgotten over the summer" because they are based on a web of connected ideas about fundamental mathematical relationships.

"All children are different in their thinking, strengths and interests. Mathematics classes of the past decade have valued one type of math learner, one who can memorize well and calculate fast. Yet data from the 13 million students who took PISA tests showed that the lowest achieving students worldwide were those who used a memorization strategy – those who thought of math as a set of methods to remember and who approached math by trying to memorize steps. The highest achieving students were those who thought of math as a set of connected, big ideas".

<https://hechingerreport.org/memorizers-are-the-lowest-achievers-and-other-common-core-math-surprises/>

6 TENETS OF MATHS @ IICS: OUR FUNDAMENTAL BELIEFS

Maths Journals

While students learn how to "do" maths, they must also learn how to articulate what they are thinking and learning. Journaling builds the academic language associated with mathematics, which enhances thinking ability in maths. Every lesson is a language lesson!

Maths journals provide many opportunities for students to organize and record their work. Maths journals support students' learning because, in order to get their ideas on paper, children must organize, clarify, and reflect on their thinking. Maths journals also serve as a valuable assessment resource that can inform classroom instruction. Reviewing a student's maths journal provides a useful insight into what a child understands, how they approach ideas, and what misconceptions they have.

At IICS, maths journals are used as a tool to promote positive maths dispositions amongst our students, and they are a place where the learning conversations between teacher and student are made evident.

Maths seems different these days. Are there any things I shouldn't do now with my child?

It's useful to remember that mathematics itself hasn't changed. What was true about numbers and equations, measurements, shapes, maps and graphs when you were at school, is still true today. What is different is that there is a lot more discussion in classrooms these days on understanding how and why things work the way they do in maths. Rather than only knowing and remembering rules, children are encouraged to see the patterns that make the rules true. Therefore, one thing that is unhelpful, is to shut down discussion about maths. Do encourage your child to talk about how they solve a problem (get an answer) and importantly why. You can then show them your way and talk about why you do what you do.

If my child works out an answer differently from the way I do, what should I say?

You could say:

- "It's good that there are often lots of ways to solve a problem (get an answer). Let's look at your way and then look at my way and talk about what's the same and what's different."
- "I'm really interested to know how you did that and why you did it that way."
- "Gosh, that's two ways we've got to solve this. Are there any other ways?"
- "I wouldn't have thought of doing it that way. Tell me why you did that."

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

EY 3-4

Number Sequence: Numbers to 20

Number Facts: Facts with 10

| | | |
|--------------------|--|--|
| Number and Algebra | Number Concepts and Knowledge | <ul style="list-style-type: none"> Objects in a set can be counted <p>Continuum of counting <i>Pre-counting</i> An understanding of the concepts more, less and the same and an appreciation of how these are related. Children at this stage develop these concepts by comparison and no counting is involved.</p> <p><i>One-to-one counting</i> Developing children's ability to count. Two skills are needed: - ability to say the standard list of counting words in order - ability to match each spoken</p> <p><i>Counting sets</i> Developing children's understanding of cardinality. This means that children understand when you count the items in a set, the last number counted tells the size of that set. They also know that the number in a set will remain constant as long as no items are added to the set, or taken from the set.</p> <p><i>Counting from one to solve number problems</i> <i>Counting objects to solve addition and subtraction problems.</i> <i>Counting on to solve number problems</i> Using cardinality and the forward and backward number sequences they can count on or back to solve number problems. Once students count by ones they can learn to 'skip count', or count in multiples of a given number. Skip counting in 2s, 5s or 10s are the most commonly used.</p> |
| | Number Strategies | <ul style="list-style-type: none"> Objects in a set can be counted <p>Continuum of counting <i>Pre-counting</i> An understanding of the concepts more, less and the same and an appreciation of how these are related. Children at this stage develop these concepts by comparison and no counting is involved.</p> <p><i>One-to-one counting</i> Developing children's ability to count. Two skills are needed: - ability to say the standard list of counting words in order - ability to match each spoken</p> <p><i>Counting sets</i> Developing children's understanding of cardinality. This means that children understand when you count the items in a set, the last number counted tells the size of that set. They also know that the number in a set will remain constant as long as no items are added to the set, or taken from the set.</p> <p><i>Counting from one to solve number problems</i> <i>Counting objects to solve addition and subtraction problems.</i> <i>Counting on to solve number problems</i> Using cardinality and the forward and backward number sequences they can count on or back to solve number problems. Once students count by ones they can learn to 'skip count', or count in multiples of a given number. Skip counting in 2s, 5s or 10s are the most commonly used.</p> |
| | Communication: Equations and Expressions | <ul style="list-style-type: none"> Counting, grouping and equal sharing strategies can be recorded using words, numbers and pictures. |
| | Patterns and Relationships | <ul style="list-style-type: none"> Some patterns are repeating and some are sequential. |

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

EY 3-4

Number Sequence: Numbers to 20

Number Facts: Facts with 10

| | | |
|--------------------------|---------------------------|---|
| Measurement and Geometry | Measurement | <ul style="list-style-type: none"> Objects have measurable attributes that can be compared. <p>Continuum of comparison <i>Identifying the attribute</i> Become aware of the physical attributes of objects in order to clearly identify what is to be measured</p> <p><i>Direct comparison</i> Directly compare the attributes of two or more objects to establish, for example, which is longer, heavier or holds more. When comparing three or more objects they can be ordered.</p> <p><i>Indirect comparison</i> Indirectly compare objects when it is not possible to place them together directly. For example, children can measure around the bottom of a sand volcano using string and then compare the length of the string with the distance around the base of another volcano to find out which is longer.</p> <p><i>Using something to measure</i> The key focus of this step is to use ordinary objects to measure. Suitable objects are usually known to children and readily available. For example steps or hands can be used to measure length, and cups measure volume. Anything used to measure in this way can be described as a unit.</p> |
| | Shape | <ul style="list-style-type: none"> Objects can be sorted by their appearance. <p>Continuum of sorting <i>Objects the same</i> Features or attributes of objects by finding objects that are alike.</p> <p><i>Objects the same and different</i> Sort objects into groups that are alike and different. As they do this they are encouraged to think about the features of 2- dimensional shapes and 3- dimensional objects.</p> <p><i>Classifying objects</i> Developing the understanding that groups of objects share features. For example, objects can be grouped by the number of sides or faces that they have.</p> |
| | Position and Orientations | <ul style="list-style-type: none"> The position and movement of an object can be described. Position, direction and pathways can be shown on maps. (This begins to be explored in Grade 1) |
| | Transformation | <ul style="list-style-type: none"> Position and appearance of an object can be changed by reflecting (flipping), translating (sliding) and rotating (turning) it. |
| Statistics | Statistical investigation | <ul style="list-style-type: none"> Collecting data as evidence to tell a story about a <i>question of interest</i>. |
| | Statistical literacy | <ul style="list-style-type: none"> Reasoning from data. |
| | Probability | <ul style="list-style-type: none"> Beginning to explore chance situations. |

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

EY 5

Number Sequence: Numbers to 100

Number Facts: Addition

Place Value: Numbers to 100

| | | |
|--------------------|--|--|
| Number and Algebra | Number Concepts and Knowledge | <ul style="list-style-type: none"> Objects in a set can be counted <p>Continuum of counting</p> <p><i>Pre-counting</i> An understanding of the concepts more, less and the same and an appreciation of how these are related. Children at this stage develop these concepts by comparison and no counting is involved.</p> <p><i>One-to-one counting</i> Developing children's ability to count. Two skills are needed: - ability to say the standard list of counting words in order - ability to match each spoken</p> <p><i>Counting sets</i> Developing children's understanding of cardinality. This means that children understand when you count the items in a set, the last number counted tells the size of that set. They also know that the number in a set will remain constant as long as no items are added to the set, or taken from the set.</p> <p><i>Counting from one to solve number problems</i></p> <p><i>Counting objects to solve addition and subtraction problems.</i></p> <p><i>Counting on to solve number problems</i> Using cardinality and the forward and backward number sequences they can count on or back to solve number problems. Once students count by ones they can learn to 'skip count', or count in multiples of a given number. Skip counting in 2s, 5s or 10s are the most commonly used.</p> |
| | Number Strategies | <ul style="list-style-type: none"> Counting can be used to solve number problems |
| | JAM/GIoSS Stages | <p>Stage 0-Emergent Students at the Emergent stage are unable to consistently count a given number of objects because they lack knowledge of counting sequences and/or the ability to match things in one-to-one correspondence.</p> <p>Stage 1-One to One Counting The One to One Counting stage is characterized by students who can count and form a set of objects up to ten but cannot solve simple problems that involve joining and separating sets, like $4 + 3$.</p> <p>Stage 2 -Counting From One on Materials Students at the Counting From One on Materials stage rely on counting physical materials, like their fingers. They count all the objects in both sets to find an answer to a joining or separating of sets problem.</p> <p>Stage 3-Counting From One by Imaging The Counting from One by Imaging stage is characterized by students counting all of the objects. Students at this stage are able to image visual patterns of the objects in their mind and count them.</p> <p>Stage 4-Advanced Counting Students at the Advanced Counting stage understand that the end number in a counting sequence measures the whole set and can relate the addition or subtraction of objects to the forward and backward number sequences by ones, tens, etc.</p> |
| | Communication: Equations and Expressions | <ul style="list-style-type: none"> Counting, grouping and equal sharing strategies can be recorded using words, numbers and pictures. |
| | Patterns and Relationships | <ul style="list-style-type: none"> Some patterns are repeating and some are sequential. |

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

EY 5

Number Sequence: Numbers to 100

Number Facts: Addition

Place Value: Numbers to 100

| | | |
|--------------------------|---------------------------|---|
| Measurement and Geometry | Measurement | <ul style="list-style-type: none"> Objects have measurable attributes that can be compared. <p>Continuum of comparison</p> <p><i>Identifying the attribute</i> Become aware of the physical attributes of objects in order to clearly identify what is to be measured</p> <p><i>Direct comparison</i> Directly compare the attributes of two or more objects to establish, for example, which is longer, heavier or holds more. When comparing three or more objects they can be ordered.</p> <p><i>Indirect comparison</i> Indirectly compare objects when it is not possible to place them together directly. For example, children can measure around the bottom of a sand volcano using string and then compare the length of the string with the distance around the base of another volcano to find out which is longer.</p> <p><i>Using something to measure</i> The key focus of this step is to use ordinary objects to measure. Suitable objects are usually known to children and readily available. For example steps or hands can be used to measure length, and cups measure volume. Anything used to measure in this way can be described as a unit.</p> |
| | Shape | <ul style="list-style-type: none"> Objects can be sorted by their appearance. <p>Continuum of sorting</p> <p><i>Objects the same</i> Features or attributes of objects by finding objects that are alike.</p> <p><i>Objects the same and different</i> Sort objects into groups that are alike and different. As they do this they are encouraged to think about the features of 2- dimensional shapes and 3- dimensional objects.</p> <p><i>Classifying objects</i> Developing the understanding that groups of objects share features. For example, objects can be grouped by the number of sides or faces that they have.</p> |
| | Position and Orientations | <ul style="list-style-type: none"> The position and movement of an object can be described. Position, direction and pathways can be shown on maps. (This begins to be explored in Grade 1) |
| | Transformation | <ul style="list-style-type: none"> Position and appearance of an object can be changed by reflecting (flipping), translating (sliding) and rotating (turning) it. |
| Statistics | Statistical investigation | <ul style="list-style-type: none"> Collecting data as evidence to tell a story about a <i>question of interest</i>. |
| | Statistical literacy | <ul style="list-style-type: none"> Reasoning from data. |
| | Probability | <ul style="list-style-type: none"> Beginning to explore chance situations. |

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

GRADE 1

Number Sequence: Numbers to 100

Number Facts: Addition

Place Value: Numbers to 100

| | | |
|--------------------|--|--|
| Number and Algebra | Number Concepts and Knowledge | <ul style="list-style-type: none"> Objects in a set can be counted <p>Continuum of counting</p> <p><i>Pre-counting</i> An understanding of the concepts more, less and the same and an appreciation of how these are related. Children at this stage develop these concepts by comparison and no counting is involved.</p> <p><i>One-to-one counting</i> Developing children's ability to count. Two skills are needed: - ability to say the standard list of counting words in order - ability to match each spoken</p> <p><i>Counting sets</i> Developing children's understanding of cardinality. This means that children understand when you count the items in a set, the last number counted tells the size of that set. They also know that the number in a set will remain constant as long as no items are added to the set, or taken from the set.</p> <p><i>Counting from one to solve number problems</i></p> <p><i>Counting objects to solve addition and subtraction problems.</i></p> <p><i>Counting on to solve number problems</i> Using cardinality and the forward and backward number sequences they can count on or back to solve number problems. Once students count by ones they can learn to 'skip count', or count in multiples of a given number. Skip counting in 2s, 5s or 10s are the most commonly used.</p> |
| | Number Strategies | <ul style="list-style-type: none"> Counting can be used to solve number problems |
| | JAM/GIoSS Stages | <p>Stage 0-Emergent Students at the Emergent stage are unable to consistently count a given number of objects because they lack knowledge of counting sequences and/or the ability to match things in one-to-one correspondence.</p> <p>Stage 1-One to One Counting The One to One Counting stage is characterized by students who can count and form a set of objects up to ten but cannot solve simple problems that involve joining and separating sets, like $4 + 3$.</p> <p>Stage 2 -Counting From One on Materials Students at the Counting From One on Materials stage rely on counting physical materials, like their fingers. They count all the objects in both sets to find an answer to a joining or separating of sets problem.</p> <p>Stage 3-Counting From One by Imaging The Counting from One by Imaging stage is characterized by students counting all of the objects. Students at this stage are able to image visual patterns of the objects in their mind and count them.</p> <p>Stage 4-Advanced Counting Students at the Advanced Counting stage understand that the end number in a counting sequence measures the whole set and can relate the addition or subtraction of objects to the forward and backward number sequences by ones, tens, etc.</p> |
| | Communication: Equations and Expressions | <ul style="list-style-type: none"> Counting, grouping and equal sharing strategies can be recorded using words, numbers and pictures. |
| | Patterns and Relationships | <ul style="list-style-type: none"> Some patterns are repeating and some are sequential. |

PYP CURRICULUM GUIDE

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

GRADE 1

Number Sequence: Numbers to 100

Number Facts: Addition

Place Value: Numbers to 100

| | | |
|--------------------------|---------------------------|---|
| Measurement and Geometry | Measurement | <ul style="list-style-type: none"> Objects have measurable attributes that can be compared. <p>Continuum of comparison <i>Identifying the attribute</i> Become aware of the physical attributes of objects in order to clearly identify what is to be measured</p> <p><i>Direct comparison</i> Directly compare the attributes of two or more objects to establish, for example, which is longer, heavier or holds more. When comparing three or more objects they can be ordered.</p> <p><i>Indirect comparison</i> Indirectly compare objects when it is not possible to place them together directly. For example, children can measure around the bottom of a sand volcano using string and then compare the length of the string with the distance around the base of another volcano to find out which is longer.</p> <p><i>Using something to measure</i> The key focus of this step is to use ordinary objects to measure. Suitable objects are usually known to children and readily available. For example steps or hands can be used to measure length, and cups measure volume. Anything used to measure in this way can be described as a unit.</p> |
| | Shape | <p>Level 1 objects can be sorted by their appearance.</p> <p>Continuum of sorting <i>Objects the same</i> Features or attributes of objects by finding objects that are alike.</p> <p><i>Objects the same and different</i> Sort objects into groups that are alike and different. As they do this they are encouraged to think about the features of 2- dimensional shapes and 3- dimensional objects.</p> <p><i>Classifying objects</i> Developing the understanding that groups of objects share features. For example, objects can be grouped by the number of sides or faces that they have.</p> |
| | Position and Orientations | <p>Level 1 The position and movement of an object can be described.</p> <p>Level 2 Position, direction and pathways can be shown on maps. (This begins to be explored in Grade 1)</p> |
| | Transformation | <p>Level 1 Position and appearance of an object can be changed by reflecting (flipping), translating (sliding) and rotating (turning) it.</p> |
| Statistics | Statistical investigation | <p>Level 1 Collecting data as evidence to tell a story about a <i>question of interest</i>.</p> |
| | Statistical literacy | <p>Level 1 Reasoning from data.</p> |
| | Probability | <p>Level 1 Beginning to explore chance situations.</p> |

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

GRADE 2

Number Sequence: Numbers to 1000

Number Facts: Single digit Multiplication

Place Value: Numbers to 1000

| | | |
|--------------------------|--|---|
| Number and Algebra | Number Concepts and Knowledge | Level 2 our number system is based on groupings of the number ten. |
| | Number Strategies | Level 2 numbers are abstract units that can be either treated as wholes or partitioned and recombined. |
| | JAM/GLOSS Stages | Stage 5 Early Additive At the Early Additive stage, students have begun to recognize that numbers are abstract units that can be treated simultaneously as wholes or can be partitioned and recombined. This is called part-whole thinking. |
| | Communication: Equations and Expressions | Level 2 number operations and strategies to solve number operations can be recorded using words, numbers, diagrams and symbols. |
| | Patterns and Relationships | Level 2 patterns can be described with a rule. |
| Measurement and Geometry | Measurement | Level 2 units can be used to measure objects. <ul style="list-style-type: none"> • non-standard • standard (simple) |
| | Shape | Level 2 objects can be sorted by their geometric properties. |
| | Position and Orientations | Level 2 position, direction and pathways can be shown on maps |
| | Transformation | Level 2 some objects have symmetry and do not change position or appearance under some transformations. |
| Statistics | Statistical investigation | Level 2 letting go of the individual's story and moving towards telling the class story. |
| | Statistical literacy | Level 2 arguing from the data. |
| | Probability | Level 2 beginning to recognise that some events are more likely than others in chance situations. |

PYP CURRICULUM GUIDE

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

GRADE 3

Number Sequence: Numbers to 1000

Number Facts: Single digit Multiplication

Place Value: Numbers to 1000

| | | |
|--------------------------|--|---|
| Number and Algebra | Number Concepts and Knowledge | Level 2 our number system is based on groupings of the number ten. |
| | Number Strategies | Level 2 numbers are abstract units that can be either treated as wholes or partitioned and recombined. |
| | JAM/GLOSS Stages | Stage 5 Early Additive At the Early Additive stage, students have begun to recognize that numbers are abstract units that can be treated simultaneously as wholes or can be partitioned and recombined. This is called part-whole thinking. |
| | Communication: Equations and Expressions | Level 2 number operations and strategies to solve number operations can be recorded using words, numbers, diagrams and symbols. |
| | Patterns and Relationships | Level 2 patterns can be described with a rule. |
| Measurement and Geometry | Measurement | Level 2 units can be used to measure objects. <ul style="list-style-type: none"> • non-standard • standard (simple) |
| | Shape | Level 2 objects can be sorted by their geometric properties. |
| | Position and Orientations | Level 2 position, direction and pathways can be shown on maps. |
| | Transformation | Level 2 some objects have symmetry and do not change position or appearance under some transformations. |
| Statistics | Statistical investigation | Level 2 letting go of the individual's story and moving towards telling the class story. |
| | Statistical literacy | Level 2 arguing from the data. |
| | Probability | Level 2 beginning to recognise that some events are more likely than others in chance situations. |

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

GRADE 4

Number Sequence: Numbers to 1 000 000

Number Facts: Multi digit multiplication facts and factors that add to 1

Place Value: All whole numbers and tenths

| | | |
|--------------------------|--|---|
| Number and Algebra | Number Concepts and Knowledge | Level 3 numbers can be represented in a variety of ways. |
| | Number Strategies | Level 3 numbers can be partitioned and combined to solve more complex addition and subtraction and simple multiplication and division problems. |
| | JAM/GIoSS Stages | <p>Stage 6 Advanced Additive Students at the Advanced Additive stage are learning to choose appropriately from a repertoire of part-whole strategies. They see numbers as whole units in themselves but also understand that “nested” within these units is a range of possibilities for subdivision and recombining.</p> <p>Stage 7-Advanced Multiplicative Students at the Advanced Multiplicative stage are learning to choose appropriately from a range of part-whole strategies to solve and estimate the answers to problems involving multiplication and division. These strategies require one or more of the numbers involved in a multiplication or division to be partitioned, manipulated, then recombined.</p> <p>Stage 8-Advanced Proportional Students at the Advanced Proportional stage are learning to select from a repertoire of part-whole strategies to solve and estimate the answers to problems involving fractions, proportions, and ratios. These strategies are based on finding common factors and include strategies for the multiplication of decimals and the calculation of percentages.</p> |
| | Communication: Equations and Expressions | Level 3 Equations show relationships of equality between parts on either side of the equal sign. |
| | Patterns and Relationships | Level 3 Some patterns are repeating and some are sequential. |
| | | |
| Measurement and Geometry | Measurement | Level 3 attributes of an object can be measured against a standard scale. |
| | Shape | Level 3 shapes can be defined by their geometric properties. |
| | Position and Orientations | Level 3 position, direction and pathways can be shown on maps. |
| | Transformation | Level 3 some objects have symmetry and do not change position or appearance under some transformations. |
| Statistics | Statistical investigation | Level 3 telling the class story with supporting evidence. |
| | Statistical literacy | Level 3 being a savvy consumer of data. |
| | Probability | Level 3 quantifying one-stage chance situations by deriving probabilities and probability distributions from theoretical models and/or estimating probabilities and probability distributions from experiments. |

PYP CURRICULUM GUIDE

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

GRADE 5

Number Sequence: Numbers to 1 000 000

Number Facts: Multi digit multiplication facts and fractions that add to 1

Place Value: All whole numbers and tenths

| | | |
|--------------------------|--|---|
| Number and Algebra | Number Concepts and Knowledge | Level 3 numbers can be represented in a variety of ways. |
| | Number Strategies | Level 3 numbers can be partitioned and combined to solve more complex addition and subtraction and simple multiplication and division problems. |
| | JAM/GloSS Stages | <p>Stage 6 Advanced Additive Students at the Advanced Additive stage are learning to choose appropriately from a repertoire of part-whole strategies. They see numbers as whole units in themselves but also understand that “nested” within these units is a range of possibilities for subdivision and recombining.</p> <p>Stage 7-Advanced Multiplicative Students at the Advanced Multiplicative stage are learning to choose appropriately from a range of part-whole strategies to solve and estimate the answers to problems involving multiplication and division. These strategies require one or more of the numbers involved in a multiplication or division to be partitioned, manipulated, then recombined.</p> <p>Stage 8-Advanced Proportional Students at the Advanced Proportional stage are learning to select from a repertoire of part-whole strategies to solve and estimate the answers to problems involving fractions, proportions, and ratios. These strategies are based on finding common factors and include strategies for the multiplication of decimals and the calculation of percentages.</p> |
| | Communication: Equations and Expressions | Level 3 Equations show relationships of equality between parts on either side of the equal sign. |
| | Patterns and Relationships | Level 3 Some patterns are repeating and some are sequential. |
| Measurement and Geometry | Measurement | Level 3 attributes of an object can be measured against a standard scale. |
| | Shape | Level 3 shapes can be defined by their geometric properties. |
| | Position and Orientations | Level 3 position, direction and pathways can be shown on maps. |
| | Transformation | Level 3 some objects have symmetry and do not change position or appearance under some transformations. |
| Statistics | Statistical investigation | Level 3 telling the class story with supporting evidence. |
| | Statistical literacy | Level 3 being a savvy consumer of data. |
| | Probability | Level 3 quantifying one-stage chance situations by deriving probabilities and probability distributions from theoretical models and/or estimating probabilities and probability distributions from experiments. |

PYP CURRICULUM GUIDE

Curriculum Outcomes: We are currently redeveloping our maths curriculum in line with current and innovative best practices for the 2019-20 school year.

GRADE 6

Number Sequence: Fractions, Percentages and negative numbers

Number Facts: Common factors, divisibility rules and conversion of common fractions

Place Value: Decimals, Percentages and powers of ten

| | | |
|--------------------------|---------------------------|--|
| Number and Algebra | Measurement | Level 4 rational numbers can be represented and operated on in a variety of ways to solve problems. |
| | Shape | Level 5 proportional thinking can be applied to solve real problems involving rational numbers. |
| | Position and Orientations | <p>Stage 6 Advanced Additive Students at the Advanced Additive stage are learning to choose appropriately from a repertoire of part-whole strategies. They see numbers as whole units in themselves but also understand that “nested” within these units is a range of possibilities for subdivision and recombining.</p> <p>Stage 7-Advanced Multiplicative Students at the Advanced Multiplicative stage are learning to choose appropriately from a range of part-whole strategies to solve and estimate the answers to problems involving multiplication and division. These strategies require one or more of the numbers involved in a multiplication or division to be partitioned, manipulated, then recombined.</p> <p>Stage 8-Advanced Proportional Students at the Advanced Proportional stage are learning to select from a repertoire of part-whole strategies to solve and estimate the answers to problems involving fractions, proportions, and ratios. These strategies are based on finding common factors and include strategies for the multiplication of decimals and the calculation of percentages.</p> |
| | Transformation | <p>Level 4 linear relationships between variables can be represented by a linear equation. Level 4 rules to describe the relationship between variables can involve multiple operations.</p> <p>The generalisation of number properties and the use of algebraic symbols to describe relationships. For example, the distributive property of multiplication over addition can be expressed as the general rule $a(e + h) = ae + ah$. The use of this property to solve multiplication problems using place value partitioning will be familiar, as in $6 \times 13 = 6 \times (10 + 3) = 6 \times 10 + 6 \times 3 = 60 + 18 = 78$.</p> <p>Students will be able to describe the relationship between two variables using tables, using words, as an equation, and graphically. In general, straight line relationships are the main focus at level 4. For example, the equation $t = 30w - 100$ can be used to describe the relationship between the number of weeks saving \$30 per week and the total amount saved, when the beginning point is an overdraft of \$100. This can be shown in a table and graphically:</p> |
| Measurement and Geometry | Measurement | <p>Level 4 the application of multiplicative thinking to measurement. Level 5 all measurements are approximate.</p> |
| | Shape | Level 5 geometric properties of shapes can be used to calculate lengths and angles. |
| | Position and Orientations | Level 4 position, direction and pathways can be operated on using coordinate systems and maps. |
| | Transformation | Level 4 is that some properties of objects do not change under different transformations. |
| Statistics | Statistical investigation | Level 4 telling the class story with supporting evidence. |
| | Statistical literacy | Level 4 thinking beyond the data presented. |
| | Probability | Level 4 estimating probabilities and probability distributions from experiments and deriving probabilities and probability distributions from theoretical models for two-stage chance situations. |



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