



Western International School of Shanghai  
*Inspiring minds to shape the future*

上海西华国际学校

[www.WISS.cn](http://www.WISS.cn)



# Parent PYP Curriculum Handbook

## Grade 2

## WISS Mission Statement

WISS cultivates healthy, balanced, confident and ethical people; striving to challenge and stimulate students to inquire, wonder, discover, and create each day. We aim to send into the world brave, compassionate, internationally minded global citizens with the skill and intellect to help shape the future.

## IB Mission Statement

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

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

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



## Welcome



I feel privileged to be a part of this special time in a child's lifetime, when they are growing, changing and learning about themselves with each new experience brings imagination, creativity, exploration, discoveries and wonderings. These moments come together to shape your child's understanding of the world around them and all the questions that follow are a way for children to express their natural curiosity. By working together in a close partnership with parents, we are able to develop the foundations for a lifetime of learning that are just the beginning of a very exciting journey.

The PYP encourages this natural curiosity and inspires children to be knowledgeable and caring young people and have the skills to inquire into and shape the world around them. This guide will provide you with more insight into the PYP curriculum and how we work to embrace this as a community; parents, students and staff together.

- **Fiona Morris**  
*Early Years Principal*



The PYP years are an exciting time for students as they learn who they are as learners and as people. As a PYP School, we strive to facilitate each student into becoming active, caring, lifelong learners who respect and contribute to the world. In the primary school, students learn through an inquiry-based curriculum which integrates traditional subjects like English, Mathematics, Chinese, Social Studies, and Science as well as subjects taught by specialist teachers to include Art, Music, PE, and Swimming. Students attend lessons in beautiful facilities to include our new science and cooking room, The Jungle, and engineering and robotics room, DaVinci's Innovation Space. But the absolute best part of the Primary School is our warm and caring community. Our very talented teachers and staff, enthusiastic students, and supportive parents form a community that I am very proud to be a part of. I invite you to learn more about the PYP at WISS and to come by for a visit to see how we approach learning.

- **Doreen J. Garrigan**  
*Primary Principal*



**Amy Kent**  
*PYP Coordinator*

## Grade 2 Programme of Inquiry

	Who We Are	Where we are in place and time	How we express ourselves	How the world works	How we organize ourselves	Sharing the planet
<b>PYP Transdisciplinary Themes</b>	An inquiry into the nature of the self; beliefs and values; personal, physical, mental, social and spiritual health; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.	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; our appreciation of the aesthetic.	An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.	An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.	An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.
<b>Central Idea and Lines of Inquiry</b>	<p>Role models often reflect the values of a person and/or group.</p> <p>An inquiry into:</p> <ul style="list-style-type: none"> <li>• What we value</li> <li>• Role Models</li> <li>• Influence of role models on choices</li> </ul>	<p>Innovation drives progress in transportation systems.</p> <p>An inquiry into:</p> <ul style="list-style-type: none"> <li>• Transportation Systems</li> <li>• Transportation over time</li> <li>• Future Transport</li> </ul>	<p>Creativity is a powerful tool for extending our ability to think, create and express ourselves.</p> <p>An inquiry into:</p> <ul style="list-style-type: none"> <li>• How we use and enjoy our imagination</li> <li>• How imagination helps to solve problems</li> <li>• Different ways of creative thinking</li> </ul>	<p>Patterns in the natural world can be observed in order to gather data and inform decision-making.</p> <p>An inquiry into:</p> <ul style="list-style-type: none"> <li>• Weather systems</li> <li>• Patterns allow for prediction</li> <li>• The impact of weather on the environment</li> </ul>	<p>Organizations share goals, roles and responsibilities.</p> <p>An inquiry into:</p> <ul style="list-style-type: none"> <li>• Structures of organizations within organizations</li> <li>• Roles and responsibilities within organizations</li> <li>• Strategies that organizations use for achieving shared goals</li> </ul>	<p>Living things interact with and depend on each other and their environment.</p> <p>An inquiry into:</p> <ul style="list-style-type: none"> <li>• Ecosystems</li> <li>• Different ways living things and their ecosystem are connected</li> <li>• Adaptations of animals and plants over time</li> </ul>
<b>PYP Key Concepts</b>	Causation, Responsibility, Reflection	Function, Change, Connection	Causation, Perspective	Form, Function, Causation	Function, Responsibility, Reflection	Form, Change, Connection

## WISS English Learning Outcomes - Grade 2

Conceptual Understandings for written language: READING	
<ul style="list-style-type: none"> <li>• Different types of texts serve different purposes.</li> <li>• What we already know enables us to understand what we read.</li> <li>• Applying a range of strategies helps us to read and understand new texts.</li> <li>• Wondering about texts and asking questions helps us to understand the meaning.</li> <li>• The structure and organization of written language influences and conveys meaning.</li> </ul>	
READING LITERATURE - Learning Outcomes for written language:	
<b>Key Ideas and Details</b>	<b>Ask and answer such questions</b> as <i>who, what, where, when, why,</i> and <i>how</i> to demonstrate understanding of key details in a text.
	<b>Recount stories</b> , including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
	<b>Describe</b> how characters in a story respond to major events and challenges.
<b>Craft and Structure</b>	<b>Describe</b> how words and phrases (e.g. regular beats, alliteration, rhymes, repeated lines, etc.) supply rhythm and meaning in a story, poem, or song.
	<b>Describe the overall structure</b> of a story, including describing how the beginning introduces the story and the ending concludes the action.
	<b>Acknowledge differences in the points of view</b> of characters, including by speaking in a different voice for each character when reading dialogue aloud.
<b>Integration of Knowledge and Ideas</b>	<b>Use information</b> gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, and plot.
	<b>Compare and contrast two or more versions</b> of the same story (e.g. Cinderella stories) by different authors or from different cultures.
<b>Range of Reading and Level of Complexity <i>Responding to Literature</i></b>	By the end of year, <b>read and comprehend literature</b> proficiently. Students should be able to read proficiently in the Grades 2–3-text complexity band, with scaffolding as needed at the high end of the range.
	<b>Make connections between self, text, and the world</b> around them (e.g. text, media, and social interaction).
READING INFORMATIONAL TEXT - Learning Outcomes for written language:	
<b>Key Ideas and Details</b>	<b>Ask and answer such questions</b> as <i>who, what, where, when, why,</i> and <i>how</i> to demonstrate understanding of key details in a text.
	<b>Identify the main topic</b> of a multi-paragraph text as well as the focus of specific paragraphs within the text.
	<b>Describe the connections</b> between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
<b>Craft and Structure</b>	<b>Determine the meaning</b> of words and phrases in a text relevant to a Grade 2 topic or subject area.
	<b>Know and use various text features</b> (e.g. captions, bold print, subheadings, glossaries, indexes, electronic menus, icons, etc.) to efficiently locate key facts or information in a text.
	<b>Identify</b> the main purpose of a text, including what the author wants to answer, explain, or describe.
<b>Integration of Knowledge</b>	<b>Explain</b> how specific images (e.g. a diagram showing how a machine works) contribute to and clarify a text.

<b>and Ideas</b>	<b>Describe</b> how reasons support specific points the author makes in a text. <b>Compare and contrast</b> the most important points presented by two texts on the same topic.
<b>Range of Reading and Level of Complexity Responding to Literature</b>	By the end of year, <b>read and comprehend informational texts</b> proficiently. This includes history/social studies, science, and technical texts. Students should be able to read proficiently in the Grades 2–3 text complexity band, with scaffolding as needed at the high end of the range.
<b>READING FOUNDATIONAL SKILLS - Learning Outcomes for written language:</b>	
<b>Phonics and Word Recognition</b>	<b>Know and apply</b> grade-level phonics and word analysis skills in decoding words. <ul style="list-style-type: none"> <li>• Distinguish long and short vowels when reading regularly spelled one-syllable words.</li> <li>• Know spelling-sound correspondences for additional common vowel teams.</li> <li>• Decode regularly spelled two-syllable words with long vowels.</li> <li>• Decode words with common prefixes and suffixes.</li> <li>• Identify words with inconsistent but common spelling-sound correspondences.</li> <li>• Recognize and read grade-appropriate irregularly spelled words.</li> </ul>
<b>Fluency</b>	<b>Read</b> with sufficient <b>accuracy and fluency</b> to support comprehension. <ul style="list-style-type: none"> <li>• Read grade-level text with purpose and understanding.</li> <li>• Read grade-level text orally with accuracy, appropriate rate, and expression on successive readings.</li> </ul> <b>Use</b> context to confirm or self-correct word recognition and understanding, rereading as necessary.

<b>Conceptual Understandings for Written Language: WRITING</b>	
<ul style="list-style-type: none"> <li>• We write in different ways for different purposes.</li> <li>• The structure of different types of texts includes identifiable features.</li> <li>• Applying a range of strategies helps us to express ourselves so that others can enjoy our writing.</li> <li>• Thinking about storybook characters and people in real life helps us to develop characters in our own stories.</li> <li>• When writing, the words we choose and how we choose to use them enable us to share our imaginings and ideas.</li> </ul>	
<b>WRITING - Learning Outcomes for Written Language:</b>	
<b>Text Types and Purposes</b>	<b>Write opinion pieces</b> in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g. <i>because, and, also</i> ) to connect opinion and reasons, and provide a concluding statement or section.
	<b>Write informative/explanatory texts</b> in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
	<b>Write narratives</b> in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.
<b>Production and Distribution of Writing</b>	With guidance and support from adults and peers, <b>focus on a topic</b> and <b>strengthen writing</b> as needed by revising and editing.
	With guidance and support from adults, <b>use a variety of digital tools</b> to produce and publish writing, including in collaboration with peers.
<b>Research to Build and Present Knowledge</b>	<b>Participate</b> in shared research and writing projects (e.g. read a number of books on a single topic to produce a report, record scientific observations).
	<b>Recall information</b> from experiences or <b>gather information</b> from provided sources to answer a question.
<b>Range of Writing</b>	<b>Create and present</b> a poem, narrative, play, art work, or personal response to a particular author or theme studied in class, with support as needed.

LANGUAGE Learning Outcomes for written language::	
Conventions of Standard English	<p><b>Demonstrate command of the conventions</b> of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> <li>• Use collective nouns (e.g. <i>group</i>).</li> <li>• Form and use frequently occurring irregular plural nouns (e.g. <i>feet, children, teeth, mice, fish</i>).</li> <li>• Use reflexive pronouns (e.g. <i>myself, ourselves</i>).</li> <li>• Form and use the past tense of frequently occurring irregular verbs (e.g. <i>sat, hid, told</i>).</li> <li>• Use adjectives and adverbs, and choose between them depending on what is to be modified.</li> </ul> <p>a. Produce, expand, and rearrange complete simple and compound sentences (e.g. <i>The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy</i>).</p>
	<p><b>Demonstrate command of the conventions</b> of standard English capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> <li>• Capitalize holidays, product names, and geographic names.</li> <li>• Use commas in greetings and closings of letters.</li> <li>• Use an apostrophe to form contractions and frequently occurring possessives.</li> <li>• Generalize learned spelling patterns when writing words (e.g., <i>cage</i> → <i>badge</i>; <i>boy</i> → <i>boil</i>).</li> </ul> <p>a. Consult reference materials, including beginning dictionaries, as needed to check and correct spelling.</p>
Knowledge of Language	<p><b>Use knowledge of language and its conventions</b> when writing, speaking, reading, or listening.</p> <p>Compare formal and informal uses of English.</p>
Vocabulary Acquisition and Use	<p><b>Determine or clarify the meaning</b> of unknown and multiple-meaning words and phrases based on Grade 2 reading and content, choosing flexibly from an array of strategies.</p> <ul style="list-style-type: none"> <li>• Use sentence-level context as a clue to the meaning of a word or phrase.</li> <li>• Determine the meaning of the new word formed when a known prefix is added to a known word (e.g. <i>happy/unhappy, tell/retell</i>).</li> <li>• Use a known root word as a clue to the meaning of an unknown word with the same root (e.g. <i>addition, additional</i>).</li> <li>• Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g. <i>birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark</i>).</li> </ul> <p>a. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.</p>
	<p><b>Demonstrate understanding</b> of word relationships and nuances in word meanings.</p> <ul style="list-style-type: none"> <li>• Identify real-life connections between words and their use (e.g. describe foods that are <i>spicy</i> or <i>juicy</i>).</li> </ul> <p>a. Distinguish shades of meaning among closely related verbs (e.g. <i>toss, throw, hurl</i>) and closely related adjectives (e.g. <i>thin, slender, skinny, scrawny</i>).</p>
	<p><b>Use words and phrases</b> acquired through conversations, responding to texts, reading and being read to, including using adjectives and adverbs (e.g. <i>When other kids are happy that makes me happy</i>).</p>

Conceptual Understandings for Oral Language: LISTENING AND SPEAKING	
<ul style="list-style-type: none"> <li>• Spoken language varies according to the purpose and audience.</li> <li>• People interpret messages according to their unique experiences and ways of understanding.</li> <li>• Spoken communication is different from written communication and it has its own set of rules.</li> </ul>	
LISTENING AND SPEAKING - Learning Outcomes Oral Language:	
Comprehension and Collaboration	<p><b>Participate</b> in collaborative conversations about Grade 2 topics and texts. Students will discuss with diverse partners, including peers and adults in small and large groups.</p>

	<ul style="list-style-type: none"> <li>• Follow agreed-upon rules for discussions (e.g. gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</li> <li>• Build on others' talk in conversations by linking their comments to the remarks of others.</li> <li>• Ask for clarification and further explanation as needed about the topics and texts under discussion.</li> <li>• Seek to understand and communicate with individuals from different cultural backgrounds.</li> </ul>
	<b>Recount or describe key ideas or details</b> from a text read aloud or information presented orally or through other media.
	<b>Ask and answer questions</b> about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
<b>Presentation of Knowledge and Ideas</b>	<b>Tell a story or recount an experience</b> with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
	<b>Create audio recordings</b> of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.
	<b>Produce complete sentences</b> when appropriate to the task or situation, in order to provide requested details or clarification.

**Conceptual Understandings for Visual Language: VIEWING AND PRESENTING**

- Visual texts can expand our database of sources of information.
- Visual texts provide alternative means to develop new levels of understanding.
- Selecting the most suitable forms of visual presentation enhances our ability to express ideas and images.
- Different visual techniques produce different effects and are used to present different types of information.

**VIEWING AND PRESENTING - Learning Outcomes Visual Language:**

<b>Visual Language</b>	<ul style="list-style-type: none"> <li>• View visual information and show understanding by asking relevant questions and discussing possible meanings.</li> <li>• Discuss their own feelings in response to visual messages and listen to other responses.</li> <li>• Realize that visual information reflects and contributes to the understanding of context.</li> <li>• Recognize and name familiar visual texts. (e.g. advertising, logos, labels, signs, ICT iconography).</li> <li>• Observe and discuss familiar and unfamiliar visual messages; make judgments about effectiveness.</li> <li>• Discuss personal experiences that connect with visual images.</li> <li>• Use actions and body language to reinforce and add meaning to oral presentations.</li> <li>• Select and use suitable shapes, colors, symbols and layout for presentations; practice and develop writing/ calligraphy styles.</li> <li>• With guidance, use the Internet to access relevant information; process and present information in ways that are personally meaningful.</li> <li>• Use appropriate terminology to discuss visual texts (e.g. logos, font, foreground, background).</li> <li>• View a range of visual language formats and discuss their effectiveness (e.g. film/video, posters, drama).</li> <li>• Realize that effects have been selected and arranged to achieve a certain impact. (e.g. the way in which color, lighting, music and movement work together in a performance).</li> </ul>
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## WISS Chinese Language Learning Outcomes by Phase- Grade 2

*It is important to recognize that the differentiation seen within a grade depends largely on their exposure to Chinese.* In Grades 1-5, students are placed into Chinese language groupings based on language proficiency. Below are the learning outcomes for the END of Grade 2 in all 4 phases.

Phases of the PYP:	Phase 1 - Emergent	Phase 2 -Capable	Phase 3 - Proficient	Phase 4/5 - Fluent
<b>Conceptual Understanding by Phase:</b>	<i>Learners show an understanding that print represents the real or the imagined world. They know that reading gives them knowledge and pleasure; that it can be a social activity or an individual activity. They have a concept of a 'book' and an awareness of some of its structural elements. They use the visual cues to recall sounds and the words they are 'reading' to construct meaning.</i>	<i>Learners show an understanding that language can be represented visually through codes and symbols. They are extending their data bank of printed codes and symbols and are able to recognize them in new contexts. They are extending their data bank of printed codes and symbols and are able to recognize them in new contexts. They understand that reading is a vehicle for learning, and that the combination of codes conveys meaning.</i>	<i>Learners show an understanding that text is used to convey meaning in different ways and for different purposes – they are developing an awareness of context. They use strategies, based on what they know, to read for understanding. They recognize that the structure and organization of text conveys meaning.</i>	<i>Learners show an understanding of the relationship between reading, thinking and reflection. They know that reading is extending their world, both real and imagined, and that there is a reciprocal relationship between the two. Most importantly, they have established reading routines and relish the process of reading.</i>
<i>At the end of the year the student...</i>				
<b>Listening</b>	Is able to understand most simple classroom instructions in Chinese;  <b>Identifies</b> basic facts, main ideas and supporting details in prompts dealing with <b>familiar situations</b> ;  Responds appropriately to prompts given	Is able to understand most regular classroom instructions in Chinese;  <b>Understands</b> main ideas and supporting details in prompts dealing with <b>familiar and unfamiliar situations</b> ;  Responds appropriately based on own understanding, ideas and opinions	Is able to understand all class instructions in Chinese;  <b>Understands</b> main ideas and some details in prompts dealing with <b>social and simple academic situations</b> ;  Responds appropriately to instructions and conversations about topics studied <b>based on personal experiences and opinions</b>	Is able to understand all class instructions in Chinese;  <b>Understands</b> main ideas and some details in prompts dealing with <b>social and simple academic situations</b> ;  Responds appropriately to instructions and conversations about topics studied <b>based on personal experiences and opinions</b>
<b>Speaking</b>	Interacts in basic <b>structured exchanges</b> ;  Uses a <b>basic range</b> of vocabulary and grammar, some errors may hinder understanding;  Uses fairly clear pronunciation, errors do not hinder understanding	Engages in <b>rehearsed and some unrehearsed</b> exchanges to share ideas;  Uses a range of vocabulary taught and <b>good basic grammar</b> , errors do not hinder understanding;  Use clear pronunciation,	Engages in <b>rehearsed and many unrehearsed</b> exchanges to share ideas;  Uses vocabulary taught and <b>basic grammatical structures</b> , errors do not hinder understanding;  Use clear pronunciation, errors do not hinder	Is able to engage in <b>unrehearsed exchanges</b> to share thoughts and ideas;  Uses a <b>good range</b> of vocabulary and a <b>range of basic</b> grammatical structures, errors are minor;

		errors do not hinder understanding	understanding; <b>Identifies</b> register (with some support) and purpose	Uses clear pronunciation, correct intonation and fluency; <b>Understands</b> register and purpose with support
<b>Reading</b>	Reads texts <b>25-50</b> characters long, <i>pinyin support is acceptable</i> ; <b>Identifies</b> basic facts, main ideas and supporting details; <b>Introduced</b> to basic elements of format and style	Reads texts <b>75-100</b> characters long <i>with pinyin support if needed</i> <b>Understands</b> main ideas and supporting details; <b>Recognizes</b> to some elements of basic format and style of the text-types taught	Reads texts <b>100-200</b> characters long, <i>pinyin is acceptable</i> ; <b>Understands</b> main ideas, some details and can explain the storyline; <b>Identifies</b> to some elements of basic format and style of the text-types taught	Reads texts <b>150-250</b> characters long, <i>some pinyin support is acceptable</i> ; <b>Understands</b> main ideas, some details and can explain the general story line; <b>Identifies</b> elements of basic format and style of the text-types taught and can identify the intended audience with teacher support
<b>Writing</b>	Writes texts using <b>10-15</b> characters independently; Uses <b>basic</b> vocabulary and grammar taught; Tries to organize ideas <b>logically</b> <i>May use pinyin if needed</i>	Writes texts <b>50-75</b> characters long with some support; Uses a <b>range</b> of vocabulary and grammar taught; Organizes information and ideas logically with support <i>Can use pinyin to learn new words if needed</i>	Is able to write texts using <b>50-100</b> characters with some support; Uses vocabulary taught and <b>basic grammatical structures</b> with some support; Organizes information and ideas with some support <i>Can use pinyin to learn new words</i>	Is able to write texts using <b>50-100</b> characters with support; Uses a <b>good range</b> of vocabulary and <b>basic</b> grammatical structures, with some teacher support; errors do not hinder understanding; Organizes information and ideas <b>logically</b> <i>Can use pinyin to learn new words</i>

# WISS Mathematics Learning Outcomes - Grade 2

## Math Strand: NUMBER

<p style="text-align: center;"><b>Numbers in Base-Ten</b></p>	<p><b>Conceptual Understandings:</b></p>
	<ul style="list-style-type: none"> <li>- The base-10 place value system is used to represent numbers and number relationships.</li> <li>- The operations of addition, subtraction, multiplication and division are related to each other and are used to process information to solve problems.</li> <li>- Number operations can be modeled in a variety of ways.</li> <li>- There are many mental methods that can be applied for exact and approximate computations.</li> <li>- Fractions are ways of representing whole-part relationships.</li> </ul>
<p style="text-align: center;"><b>Operations and Algebraic Thinking</b></p>	<p><b>Learning Outcomes-By the end of <u>Grade 2</u>, students are expected to:</b></p>
	<ul style="list-style-type: none"> <li>- Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g. 706 equals 7 hundreds, 0 tens and 6 ones.             <ul style="list-style-type: none"> <li>o Understand the following as special cases: 100 can be thought of as a bundle of ten tens—called a ‘hundred’</li> <li>o The numbers 100, 200, 300, and so on... refer to one, two, three... hundreds (and 0 tens and 0 ones)</li> </ul> </li> <li>- Count within 1000; skip-count by 5’s, 10’s and 100’s</li> <li>- Read and write numbers to 1000 using base-ten numerals, number names and expanded form</li> <li>- Compare two three-digit numbers based on meanings of the hundreds, tens and ones digits, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons.</li> <li>- Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</li> <li>- Add up to four two-digit numbers using strategies based on place value and properties of operations.</li> <li>- Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method.</li> <li>- Mentally add 10 or 100 to a given number 100 - 900, and mentally subtract 10 or 100 from a given number 100 - 900. Explain why addition and subtraction strategies work, using place value and the properties of operations (Note: Explanations may be supported by drawings or objects.)</li> </ul>

## Math Strand: MEASUREMENT

Measurement and Data	<b>Conceptual Understandings</b>
	<ul style="list-style-type: none"><li>- Standard units allow us to have a common language to identify, compare, order and sequence objects and events.</li><li>- We use tools to measure the attributes of objects and events.</li><li>- Estimation allows us to measure with different levels of accuracy.</li></ul>
	<b>Learning Outcomes-By the end of <u>Grade 2</u>, students are expected to:</b> <ul style="list-style-type: none"><li>- Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</li><li>- Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</li><li>- Estimate lengths using units of inches, feet, centimeters, and meters.</li><li>- Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</li><li>- Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.</li><li>- Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, and represent whole-number sums and differences within 100 on a number line diagram.</li><li>- Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.</li><li>- Estimate and compare lengths of time: second, minute, hour, day, week and month.</li><li>- Use measures of time to assist with problem solving in real-life situations</li><li>- Solve word problems involving various money systems bills, using monetary symbols appropriately.</li></ul>

## Math Strand: SHAPE AND SPACE

Geometry	<b>Conceptual Understandings</b>
	<ul style="list-style-type: none"><li>- Shapes are classified and named according to their properties.</li><li>- Some shapes are made up of parts that repeat in some way.</li><li>- Specific vocabulary can be used to describe an object's position in space.</li></ul>
	<b>Learning Outcomes-By the end of <u>Grade 2</u>, students are expected to:</b> <ul style="list-style-type: none"><li>- Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</li><li>- Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.<ul style="list-style-type: none"><li>o Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.</li></ul></li></ul>

## Math Strand: DATA HANDLING

Data Handling	<b>Conceptual Understandings</b>
	<ul style="list-style-type: none"> <li>- Information can be expressed as organized and structured data.</li> <li>- Objects and events can be organized in different ways.</li> <li>- Some events in daily life are more likely to happen than others.</li> </ul>
	<b>Learning Outcomes-By the end of <u>Grade 2</u>, students are expected to:</b>
Measurement and Data	<ul style="list-style-type: none"> <li>- Collect, display and interpret data for the purpose of answering questions</li> <li>- Create a pictograph and sample bar graph of real objects and interpret data by comparing quantities (for example, more, fewer, less than, greater than)</li> <li>- Use tree, Venn and Carroll diagrams to explore relationships between data</li> <li>- Identify and describe chance in daily events (impossible, less likely, maybe, most likely, certain)</li> </ul>
	<ul style="list-style-type: none"> <li>- Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a <u>line plot</u>, where the horizontal scale is marked off in whole-number units.</li> <li>- Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph.</li> </ul>

## Math Strand: PATTERNS AND FUNCTIONS

Patterns and Functions	<b>Conceptual Understandings</b>
	<ul style="list-style-type: none"> <li>- Whole numbers exhibit patterns and relationships that can be observed and described.</li> <li>- Patterns can be represented using numbers and other symbols.</li> </ul>
	<b>Learning Outcomes-By the end of <u>Grade 2</u>, students are expected to:</b>
	<ul style="list-style-type: none"> <li>- Select appropriate methods for representing patterns, for example using words, symbols and tables</li> <li>- Use number patterns to make predictions and solve problems.</li> <li>- Use the properties and relationships of addition and subtraction to solve problems</li> </ul>



## Visual Arts Learner Outcomes

Visual Arts Learner Outcomes	Responding	Creating
<p><b>Grade 2 and 3</b> (Phase 3 from the PYP)</p>	<ul style="list-style-type: none"> <li>• compare, contrast and categorize artworks from a range of cultures, places and times</li> <li>• identify and consider the contexts in which artworks were made</li> <li>• use their knowledge and experiences to make informed interpretations of artworks</li> <li>• reflect on their own and others' creative processes to inform their thinking</li> <li>• use relevant and insightful questions to extend their understanding</li> <li>• recognize that different audiences respond in different ways to artworks</li> <li>• provide constructive criticism when responding to artwork.</li> </ul>	<ul style="list-style-type: none"> <li>• show awareness of the affective power of visual arts</li> <li>• make connections between the ideas they are exploring in their artwork and those explored by other artists through time, place and cultures</li> <li>• create artwork for a specific audience</li> <li>• use a personal interest, belief or value as the starting point to create a piece of artwork</li> <li>• use a range of strategies to solve problems during the creative process.</li> </ul>



## Music Learner Outcomes

Music Learner Outcomes	Responding	Creating
<p><b>Grade 2 and 3</b> (Phase 3 from the PYP)</p>	<ul style="list-style-type: none"> <li>• sing with accuracy and control focusing awareness on the musical elements</li> <li>• sing partner songs</li> <li>• discuss music that relates to social issues and/or values</li> <li>• compare aspects of music from different times and places</li> <li>• create and perform a movement sequence accompanied by music that they have created</li> <li>• share and compare their experiences as audience members at various performances</li> <li>• describe the process used to create their own music and compare it with others, in order to improve their compositions</li> <li>• analyze different compositions describing how the musical elements enhance the message</li> <li>• reflect upon how their music expresses their personal voice and the impact it has on others.</li> </ul>	<ul style="list-style-type: none"> <li>• create a musical composition expressing their own ideas and feelings on a social issue</li> <li>• deliver a musical message to different audiences (for example, peace message to parents, kindergarten children, friends)</li> <li>• create and perform a movement sequence using known musical elements</li> <li>• improvise upon a basic pattern to reinforce the importance of the individual within the group</li> <li>• create and record a composition focusing on form, structure and style to give more meaning to their message</li> <li>• express themselves as individuals through musical composition</li> <li>• read and write music using non-traditional notation.</li> </ul>



## Personal, Social and Physical Education Learner Outcomes

Personal, Social and Physical Education Learner Outcomes	Identity	Interactions	Active Living
<b>Grade 2 and 3</b> (Phase 3 from the PYP)	<ul style="list-style-type: none"> <li>• explain how a person’s identity is made up of many different things, including membership in different cultures, and that this can change over time</li> <li>• examine different factors (heritable and non-heritable) that shape an identity (for example, gender, sexuality, nationality, language group)</li> <li>• identify how their attitudes, opinions and beliefs affect the way they act and how those of others also impact on their actions</li> <li>• recognize personal qualities, strengths and limitations</li> <li>• analyze how they are connected to the wider community</li> <li>• reflect on how they cope with change in order to approach and manage situations of adversity</li> <li>• reflect on their own cultural influences, experiences, traditions and perspectives, and are open to those of others</li> <li>• use understanding of their own emotions to interact positively with others</li> <li>• embrace optimism to shape a positive attitude towards themselves and their future</li> <li>• explain how self-talk can influence their behavior and their approach to learning</li> <li>• motivate themselves intrinsically and behave with belief in themselves</li> <li>• work and learn with increasing independence.</li> </ul>	<ul style="list-style-type: none"> <li>• recognize that committing to shared goals in group situations improves individual and shared experiences and outcomes</li> <li>• identify individual strengths that can contribute to shared goals</li> <li>• develop a shared plan of action for group work that incorporates each individual’s experiences and strengths</li> <li>• adopt a variety of roles for the needs of the group, for example, leader, presenter</li> <li>• discuss ideas and ask questions to clarify meaning</li> <li>• reflect on the perspectives and ideas of others</li> <li>• apply different strategies when attempting to resolve conflict</li> <li>• reflect on shared and collaborative performance.</li> </ul>	<ul style="list-style-type: none"> <li>• identify ways to live a healthier lifestyle</li> <li>• understand how daily practices influence short- and long-term health</li> <li>• understand that there are substances that can cause harm to health</li> <li>• demonstrate an understanding of the principles of training in developing and maintaining fitness</li> <li>• identify different stages of life and how these can affect physical performance</li> <li>• develop plans to improve performance through technique refinement and practice</li> <li>• demonstrate greater body control when performing movements</li> <li>• self-assess performance and respond to feedback on performance from others</li> <li>• plan, perform and reflect on movement sequences in order to improve</li> <li>• identify potential personal and group outcomes for risk-taking behaviors.</li> </ul>

## Overall Expectations in Science

Overall Expectations in Science	Description
<p><b>Grade 2 and 3</b> (Phase 3 from the PYP)</p>	<p>Students will develop their observational skills by using their senses and selected observational tools. They will gather and record observed information in a number of ways, and they will reflect on these findings to identify patterns or connections, make predictions, and test and refine their ideas with increasing accuracy. Students will explore the way objects and phenomena function, identify parts of a system, and gain an understanding of increasingly complex cause and effect relationships. They will examine change over time, and will recognize that change may be affected by one or more variables. They will examine how products and tools have been developed through the application of science concepts. They will be aware of different perspectives and ways of organizing the world, and they will be able to consider how these views and customs may have been formulated. Students will consider ethical issues in science-related contexts and use their learning in science to plan thoughtful and realistic action in order to improve their welfare and that of other living things and the environment. Students will communicate their ideas or provide explanations using their own scientific experience and that of others.</p>

Science Strands	Description
<b>Living Things</b>	The study of the characteristics, systems and behaviors of humans and other animals, and of plants; the interactions and relationships between and among them, and with their environment.
<b>Earth and Space</b>	The study of planet Earth and its position in the universe, particularly its relationship with the sun; the natural phenomena and systems that shape the planet and the distinctive features that identify it; the infinite and finite resources of the planet.
<b>Materials and Matter</b>	The study of the properties, behaviors and uses of materials, both natural and human-made; the origins of human-made materials and how they are manipulated to suit a purpose.
<b>Forces and Energy</b>	The study of energy, its origins, storage and transfer, and the work it can do; the study of forces; the application of scientific understanding through inventions and machines.



## Overall Expectations in Social Studies

Overall Expectations in Social Studies	Description
<b>Grade 2 and 3</b> (Phase 3 from the PYP)	Students will extend their understanding of human society, focusing on themselves and others within their own community as well as other communities that are distant in time and place. They will investigate how and why groups are organized within communities, and the ways in which communities reflect the cultures and customs of their people. They will recognize the interdependency of systems and their function within local and national communities. They will increase their awareness of how people influence, and are influenced by, the places in their environment. Students will explore the relationship between valuing the environment and protecting it. They will extend their understanding of time, recognizing important events in people's lives, and how the past is recorded and remembered in different ways. They will broaden their understanding of the impact of advances in technology over time, on individuals, society and the environment.

Social Studies Strands	Description
<b>Human Systems and Economic Activities</b>	The study of how and why people construct organizations and systems; the ways in which people connect locally and globally; the distribution of power and authority.
<b>Social Organization and Culture</b>	The study of people, communities, cultures and societies; the ways in which individuals, groups and societies interact with each other.
<b>Continuity and Change Through Time</b>	The study of the relationships between people and events through time; the past, its influences on the present and its implications for the future; people who have shaped the future through their actions.
<b>Human and Natural Environments</b>	The study of the distinctive features that give a place its identity; how people adapt to and alter their environment; how people experience and represent place; the impact of natural disasters on people and the built environment.
<b>Resources and the Environment</b>	The interaction between people and the environment; the study of how humans allocate and manage resources; the positive and negative effects of this management; the impact of scientific and technological developments on the environment.