



Western International School of Shanghai

Inspiring minds to shape the future

上海西华国际学校

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Parent PYP Curriculum Handbook

Grade 3

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 science/cooking room, *The Jungle*, and the art engineering and robotics room called, *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 especially come by for a visit to see how we approach learning.

- **Doreen Garrigan**
Primary Principal



Amy Kent
PYP Coordinator

Grade 3 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
PYP Transdisciplinary Themes	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.
Central Idea and Lines of Inquiry	Lifestyle choices as well as other factors contribute to human health and well-being. An inquiry into: <ul style="list-style-type: none"> • Body systems and how they are connected • Factors that impact good health • Responsibility when making healthy choices 	Legacies and contributions from past societies often guide the people who come after them. An inquiry into: <ul style="list-style-type: none"> • Historical evidence helps to understand the past • The chronology of progress over time • Legacies/Contributions of the past influence today 	Storytelling allows different perspectives to be communicated in a variety of ways. An inquiry into: <ul style="list-style-type: none"> • Purpose of storytelling • Creativity in making a story memorable • Influence of culture on stories 	Engineering design and creativity create solutions to human problems. An inquiry into: <ul style="list-style-type: none"> • Types of Forces • Role and purpose of simple machines • The relationship between efficiency and design 	Cities need systems and infrastructures in order to meet the changing needs of the community. An inquiry into: <ul style="list-style-type: none"> • Systems and infrastructures of a city • Influence of a community on a city • A utopian city 	As an essential resource for life, water is a limited one for many people An inquiry into: <ul style="list-style-type: none"> • Water as a finite resource • Distribution and availability of clean, usable water • Responsibility regarding water usage
PYP Key Concepts	Function, Connection, Responsibility	Change, Connection	Change, Perspective, Reflection	Form, Function, Connection	Causation, Connection, Change	Function, Responsibility

WISS English Learning Outcomes - Grade 3

Conceptual Understandings for written language: READING	
<ul style="list-style-type: none"> • Reading and thinking work together to enable us to make meaning. • Checking, rereading and correcting our own reading as we go enable us to read new and more complex texts. • Identifying the main ideas in the text helps us to understand what is important. • Knowing what we aim to achieve helps us to select useful reference material to conduct research. 	
READING LITERATURE - Learning Outcomes for written language:	
Key Ideas and Details	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
	Recount stories , including fables, fairytales, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.
	Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.
Craft and Structure	Determine the meaning of words and phrases as they are used in a text, distinguishing literal from non-literal language.
	Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
	Distinguish their own point of view from that of the narrator or those of the characters.
Integration of Knowledge and Ideas	Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).
	Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).
Range of Reading and Level of Complexity <i>Responding to Literature</i>	By the end of the year, read and comprehend literature , including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently .
	Recognize and make connections in narratives, poetry, and drama to other texts, ideas, cultural perspectives, personal events, and situations. a. Self-select text based upon personal preferences.
READING INFORMATIONAL TEXT - Learning Outcomes for written language:	
Key Ideas and Details	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
	Determine the main idea of a text; recount the key details and explain how they support the main idea.
	Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence , and cause/effect.
Craft and Structure	Determine the meaning of general academic and domain specific words and phrases in a text relevant to a grade 3 topic or subject area.
	Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
	Distinguish their own point of view from that of the author of a text.

Integration of Knowledge and Ideas	Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
	Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).
	Compare and contrast the most important points and key details presented in two texts on the same topic.
Range of Reading and Level of Complexity Responding to Literature	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.
READING FOUNDATIONAL SKILLS - Learning Outcomes for written language:	
Phonics and Word Recognition	<p>Know and apply grade-level phonics and word analysis skills in decoding words.</p> <ul style="list-style-type: none"> - Identify and know the meaning of the most common prefixes and derivational suffixes. - Decode words with common Latin suffixes. - Decode multi-syllable words. - Read grade-appropriate irregularly spelled words
Fluency	<p>Read with sufficient accuracy and fluency to support comprehension.</p> <ul style="list-style-type: none"> • Read grade-level text with purpose and understanding. • Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. <p>Use context to confirm or self-correct word recognition and understanding, rereading as necessary</p>

Conceptual Understandings for Written Language: WRITING	
<ul style="list-style-type: none"> • We write in different ways for different purposes. • The structure of different types of texts includes identifiable features. • Applying a range of strategies helps us to express ourselves so that others can enjoy our writing. • Thinking about storybook characters and people in real life helps us to develop characters in our own stories. • When writing, the words we choose and how we choose to use them enable us to share our imaginings and ideas. 	
WRITING - Learning Outcomes for Written Language:	
Text Types and Purposes	<p>Write opinion pieces on topics or texts, supporting a point of view with reasons. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.</p> <ul style="list-style-type: none"> • Provide reasons that support the opinion. c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons. <p>Provide a concluding statement or section.</p>
	<p>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ul style="list-style-type: none"> • Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. • Develop the topic with facts, definitions, and details. c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information. <p>Provide a concluding statement or section.</p>
	<p>Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ul style="list-style-type: none"> • Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.

	<ul style="list-style-type: none"> • Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. • Use temporal words and phrases to signal event order. <p>Provide a sense of closure.</p>
Production and Distribution of Writing	With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose
	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
Research to Build and Present Knowledge	Conduct short research projects that build knowledge about a topic.
	Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
Range of Writing	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline specific tasks, purposes, and audiences.
	Create and present a poem, narrative, play, art work, or personal response to a particular author or theme studied in class.
LANGUAGE Learning Outcomes for written language::	
Conventions of Standard English	<p>Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> • Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. • Form and use regular and irregular plural nouns. c. Use abstract nouns (e.g., childhood). • Form and use regular and irregular verbs. e. Form and use the simple (e.g., I walked; I walk; I will walk) verb tenses. f. Ensure subject-verb and pronoun-antecedent agreement. • Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified. h. Use coordinating and subordinating conjunctions. <p>Produce simple, compound, and complex sentences.</p>
	<p>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> • Capitalize appropriate words in titles. b. Use commas in addresses. c. Use commas and quotation marks in dialogue. • Form and use possessives. e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, happiness). • Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words. • Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.
	<ul style="list-style-type: none"> • Use knowledge of language and its conventions when writing, speaking, reading, or listening. • Choose words and phrases for effect. • Recognize and observe differences between the conventions of spoken and written Standard English.
Knowledge of Language	<ul style="list-style-type: none"> • Use knowledge of language and its conventions when writing, speaking, reading, or listening. • Choose words and phrases for effect. • Recognize and observe differences between the conventions of spoken and written Standard English.
Vocabulary Acquisition and Use	<p>Determine or clarify the meaning of unknown and multiple meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> • Use sentence-level context as a clue to the meaning of a word or phrase. • Determine the meaning of the new word formed when a known affix is added to a known word (e.g., agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat). • Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., company, companion).

	<ul style="list-style-type: none"> • Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.
	<p>Demonstrate understanding of word relationships and nuances in word meanings.</p> <ul style="list-style-type: none"> • Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., take steps). • Identify real-life connections between words and their use (e.g., describe people who are friendly or helpful). • Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered).
	<p>Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).</p>

Conceptual Understandings for Oral Language: **LISTENING AND SPEAKING**

- Spoken language varies according to the purpose and audience.
- People interpret messages according to their unique experiences and ways of understanding.
- Spoken communication is different from written communication—it has its own set of rules.

LISTENING AND SPEAKING - Learning Outcomes Oral Language:

Comprehension and Collaboration	<p>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <ul style="list-style-type: none"> • Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. • 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). • Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. • Explain their own ideas and understanding in light of the discussion. • Seek to understand and communicate with individuals from different cultural backgrounds.
	<p>Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p>
	<p>Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p>
Presentation of Knowledge and Ideas	<p>Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p>
	<p>Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.</p>
	<p>Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 on page 38 for specific expectations.)</p>

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:

Visual Language

- View visual information and show understanding by asking relevant questions and discussing possible meaning.
- Discuss their own feelings in response to visual messages; listen to other responses.
- Realize that people react differently.
- Realize that visual information reflects and contributes to the understanding of context.
- Recognize and name familiar visual texts, for example, advertising, logos, labels, signs, ICT iconography.
- Observe and discuss familiar and unfamiliar visual messages; make judgments about effectiveness.
- Discuss personal experiences that connect with visual images.
- Use actions and body language to reinforce and add meaning to oral presentations.
- Select and use suitable shapes, colors, symbols and layout for presentations; practice and develop writing/ calligraphy styles.
- Realize that text and illustrations in reference materials work together to convey information, and can explain how this enhances understanding.
- With guidance, use the Internet to access relevant information; process and present information in ways that are personally meaningful.
- Use appropriate terminology to discuss visual texts for example, logos, font, foreground, background.
- View a range of visual language formats and discuss their effectiveness, for example, film/video, posters, drama.
- realize that effects have been selected and arranged to achieve a certain impact, for example, the way in which color, lighting, music and movement work together in a performance.
- Observe and discuss visual presentations; make suggestions about why they have been created and what the creator has been aiming to achieve.



WISS Chinese Language Learning Outcomes by Phase- Grade 3

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 3 in all 4 phases.

Phase of the PYP:	Phase 1 - Emergent	Phase 2 -Capable	Phase 3 - Proficient	Phase 4/5 - Fluent
Conceptual Understanding by Phase:	<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>				
Listening	Is able to understand most simple classroom instructions in Chinese; Understands basic facts, messages, main ideas and supporting details in prompts dealing with familiar situations ; Responds appropriately to prompts given	Is able to understand most regular classroom instructions in Chinese; Understands main ideas and supporting details in prompts dealing with familiar and unfamiliar situations; Responds appropriately based on personal experience and opinions	Is able to understand all class instructions in Chinese; Understands main ideas and supporting details in prompts dealing with social and some academic situations ; Responds appropriately to instructions and conversations about topics studied based on personal experiences and opinions	Is able to understand all class instructions in Chinese; Understands main ideas and supporting details; draws simple conclusions from prompts dealing with social and some academic situations ; Responds appropriately to instructions and conversations about topics studied based on personal experiences and opinions
Speaking	Interacts in basic structured exchanges ; Uses a basic range of vocabulary and grammar, errors do not usually hinder understanding; Uses fairly clear pronunciation, errors do not hinder understanding	Engages in rehearsed and some unrehearsed exchanges to share ideas; Uses a range of vocabulary taught and some more complex grammatical structures with some support, errors do not hinder understanding; Use clear pronunciation,	Engages in rehearsed and many unrehearsed exchanges to share ideas; Uses vocabulary taught and basic grammatical structures , errors do not hinder understanding; Use clear pronunciation and is becoming aware of	Is able to engage in unrehearsed and fairly complex exchanges to share thoughts and ideas; Uses a good range of vocabulary and a range of grammatical structures, errors are minor; Uses clear pronunciation, correct intonation and

		errors do not hinder understanding	intonation and fluency; Understands register (with some support) and understands purpose	fluency; Understands register and purpose
Reading	<p>Reads texts 50-100 characters long, <i>pinyin support is acceptable</i>;</p> <p>Identifies basic facts, main ideas and supporting details and draws simple conclusions with support;</p> <p>Recognizes elements of format, introduced to author's purpose</p>	<p>Reads texts 100-200 characters long <i>with some pinyin support if needed</i></p> <p>Understands main ideas and supporting details, and draws simple conclusions with support;</p> <p>Identifies some basic conventions including format and style with teacher support</p>	<p>Reads texts 200-300 characters long, <i>some Pinyin is acceptable</i>;</p> <p>Understands main ideas, supporting details and draws simple conclusions</p> <p>Understands some basic conventions including format and style with teacher support</p>	<p>Reads texts 250-400 characters long;</p> <p>Understands main ideas, supporting details; draws simple conclusions;</p> <p>Identifies elements of the author's style and intentions based on the intended audience and purpose with teacher support</p>
Writing	<p>Writes texts using 15-25 characters independently;</p> <p>Uses a basic range of vocabulary and grammar fairly correctly, errors do not usually hinder understanding;</p> <p>Organizes information and ideas with some logic.</p> <p><i>May use pinyin if needed</i></p>	<p>Writes texts 75-100 characters long with minor support;</p> <p>Uses a range of vocabulary and grammar fairly correctly, errors do not usually hinder understanding;</p> <p>Organizes information and ideas logically using basic linking words</p> <p><i>Can use pinyin to learn new words if needed</i></p>	<p>Is able to write texts using 100-150 characters independently;</p> <p>Uses vocabulary taught and basic grammatical structures with support;</p> <p>Organizes information and ideas with some support</p> <p><i>May use some pinyin to learn new words</i></p>	<p>Is able to write texts using 100-200 characters independently, minor support may be needed;</p> <p>Uses a good range of vocabulary and basic grammatical structures, errors do not hinder understanding;</p> <p>Organizes information and ideas using basic linking words</p> <p><i>May use pinyin to learn new words or complex vocabulary</i></p>

WISS Mathematics Learning Outcomes - Grade 3

Math Strand: NUMBER

Numbers and Operations in Base-Ten	Conceptual Understandings:
	<ul style="list-style-type: none"> - Multiplication and division are inverse operations and can be modeled in a variety of ways. - Even complex operations can be modeled in a variety of ways. - An algorithm is a way to represent an operation. - Parts of a whole can be modeled and represented in different ways. - Different models and representations can be used to compare fractional parts - Fractions are a way of representing whole-part relationships.
Operations and Algebraic Thinking	Learning Outcomes-By the end of <u>Grade 3</u>, students are expected to:
	<ul style="list-style-type: none"> - Use place value to round whole numbers to the nearest 10 or 100. - Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. <ul style="list-style-type: none"> Multiply one-digit whole numbers by multiples of 10 in the range of 10-90 using strategies based on place value and properties of operations - Interpret products of whole numbers, e.g. interpret 5×7 as the total number of objects in 5 groups of 7 objects each. - Interpret whole number quotients of whole numbers, e.g. interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement qualities, e.g. by using drawings and equations with a symbol for the unknown number to represent the problem. - Determine the unknown whole number in a multiplication or division equation relating three whole numbers. - Apply properties of operations as strategies to multiply and divide. (Commutative property of multiplication, Associative property of multiplication, and Distributive property) - Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8. - Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. - Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
Fractions	<ul style="list-style-type: none"> - Describe a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; describe a fraction a/b as the quantity formed by a parts of size $1/b$. - Understand a fraction as a number on the number line; represent fractions on a number line diagram. <ul style="list-style-type: none"> o Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it

	<p>into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line</p> <ul style="list-style-type: none"> ○ Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line. <p>- Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <ul style="list-style-type: none"> ○ Understand two fractions as equivalent (equal) if they are the same size or the same point on a number line. ○ Identify and generate simple equivalent fractions. Explain 3 reasons why the fractions are equivalent, e.g. by using a visual fraction model. ○ Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. ○ Compare two fractions with the same numerator or the same denominator by reasoning about their size. Record the results of the comparison with the symbols $>$, $=$, or, and justify the conclusion, e.g. by using a visual fraction model. <p>-</p>
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Math Strand: MEASUREMENT

Measurement and Data	Conceptual Understandings
	<ul style="list-style-type: none"> - Objects and events have attributes that can be measured using appropriate tools. - Relationships exist between standard units that measure the same attributes.
	Learning Outcomes-By the end of <u>Grade 3</u>, students are expected to:
	<ul style="list-style-type: none"> - Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram. - Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and litres (l). <ul style="list-style-type: none"> ○ Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. - Recognize area as an attribute of plane figures and understand concepts of area measurement. <ul style="list-style-type: none"> ○ A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area. ○ A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. - Measure areas by counting unit squares (square cm, square meters, square inches, square feet, and improvised units). - Relate area to the operations of multiplication and addition. <ul style="list-style-type: none"> ○ Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. ○ Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. ○ Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning ○ Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

	<ul style="list-style-type: none"> - Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters. - Use timelines in units of inquiry and other real-life situations
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Math Strand: SHAPE AND SPACE

Geometry	Conceptual Understandings
	<ul style="list-style-type: none"> - Changing the position of a shape does not alter its properties. - Shapes can be transformed in different ways. - Geometric shapes and vocabulary are useful for representing and describing objects and events in real-world situations.
	Learning Outcomes-By the end of Grade 3, students are expected to:
	<ul style="list-style-type: none"> - Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). <ul style="list-style-type: none"> o Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories. o Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.
Shape and Space	<ul style="list-style-type: none"> - Describe and model congruency and similarity in 2D shapes - Analyze angles by comparing and describing rotations: whole turn; half turn; quarter turn; north, south, east and west on a compass - Locate features on a grid using coordinates - Describe and/or represent mental images of objects, patterns, and paths. - Recognize and explain symmetrical patterns, including tessellation, in the environment



Math Strand: DATA HANDLING

Data Handling	Conceptual Understandings
	<ul style="list-style-type: none">- Data can be collected, organized, displayed and analyzed in different ways.- Different graph forms highlight different aspects of data more efficiently.
	Learning Outcomes-By the end of <u>Grade 3</u>, students are expected to: <ul style="list-style-type: none">- Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs.- Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.
Measurement and Data	<ul style="list-style-type: none">- design a survey and systematically collect, organize and display data in pictographs and bar graphs- select appropriate graph form(s) to display data

Math Strand: PATTERNS AND FUNCTIONS

Operations and Algebraic Thinking	Conceptual Understandings
	<ul style="list-style-type: none">- Whole numbers exhibit patterns and relationships that can be observed and described.- Patterns can be represented using numbers and other symbols.
	Learning Outcomes-By the end of <u>Grade 3</u>, students are expected to: <ul style="list-style-type: none">- Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.
Patterns and Functions	<ul style="list-style-type: none">- Select appropriate methods for representing patterns, for example using words, symbols and tables- Use number patterns to make predictions and solve problems.- Use the properties and relationships of addition and subtraction to solve problems



Visual Arts Learner Outcomes

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



Music Learner Outcomes

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



Personal, Social and Physical Education Learner Outcomes

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

Overall Expectations in Science

Overall Expectations in Science	Description
Grade 2 and 3 (Phase 3 from the PYP)	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.

Science Strands	Description
Living Things	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.
Earth and Space	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.
Materials and Matter	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.
Forces and Energy	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
Grade 2 and 3 (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
Human Systems and Economic Activities	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.
Social Organization and Culture	The study of people, communities, cultures and societies; the ways in which individuals, groups and societies interact with each other.
Continuity and Change Through Time	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.
Human and Natural Environments	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.
Resources and the Environment	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.