

# Washington International School



## Curriculum Overview Grade 5

Updated August 2017

Using structured inquiry, the Primary Years Program (PYP) gives children a strong foundation in languages, mathematics, social studies, science and technology, visual arts, music, physical education, and personal and social education. The transdisciplinary themes include and transcend subject areas and are used to classify knowledge about the world. Each grade level follows a unique Program of Inquiry, with six transdisciplinary units of inquiry.

### Grade 5 Program of Inquiry

<p><b>Who We Are</b> An inquiry into the nature of self; beliefs and values; personal, physical, mental, social, and spiritual health; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.</p> <p><b>Central Idea:</b> Adolescence ushers in changes within our bodies and is celebrated to mark a passage in our lives.</p> <p><b>Lines of inquiry:</b></p> <ul style="list-style-type: none"> <li>• Body systems and how they work</li> <li>• Celebrations of passages</li> <li>• What adolescence and/or puberty means to us</li> </ul> <p><b>Key Concepts:</b> Function, Change, Responsibility, Perspective</p> <p><b>Subjects:</b> Science, PSPE, Art, Music, Digital Art, Math</p>	<p><b>Where We Are in Place and Time</b> An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations, and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.</p> <p><b>Central Idea:</b> Civilization is a way of life with distinct characteristics upon which our own lifestyle is based.</p> <p><b>Lines of Inquiry:</b></p> <ul style="list-style-type: none"> <li>• Characteristics of civilizations</li> <li>• Emergence of civilizations</li> <li>• Connection to life today</li> </ul> <p><b>Key Concepts:</b> Form, Causation, Perspective</p> <p><b>Subjects:</b> Social Studies, Science, Math</p>	<p><b>How We Express Ourselves</b> An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs, and values; the ways in which we reflect on, extend, and enjoy our creativity; our appreciation of the aesthetic.</p> <p><b>Central Idea:</b> Persuasion is one form of communication that can influence our opinions and the choices we make.</p> <p><b>Lines of Inquiry:</b></p> <ul style="list-style-type: none"> <li>• Ways persuasion influences our thinking and actions</li> <li>• Elements of effective persuasive communication</li> <li>• Messages and differing perspectives</li> </ul> <p><b>Key Concepts:</b> Change, Perspective, Connection</p> <p><b>Subjects:</b> Social Studies, Language, The Arts, Math</p>	<p><b>How the World Works</b> An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.</p> <p><b>Central Idea:</b> Energy exists in many forms; it is released from different sources and how we use it has implications.</p> <p><b>Lines of Inquiry:</b></p> <ul style="list-style-type: none"> <li>• Types and forms of energy</li> <li>• Sources of energy</li> <li>• Conservation of energy</li> <li>• Implications on society of using different sources of energy</li> </ul> <p><b>Key Concepts:</b> Form, Function, Perspective</p> <p><b>Subjects:</b> Science, Social Studies, Music, The Arts, Math</p>	<p><b>How We Organize Ourselves</b> An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.</p> <p><b>Central Idea:</b> Human beings use activism in order to protect their human rights.</p> <p><b>Lines of Inquiry:</b></p> <ul style="list-style-type: none"> <li>• The nature of justice</li> <li>• Societal decision-making</li> <li>• Actions that bring about change</li> </ul> <p><b>Key Concepts:</b> Change, Causation, Perspective</p> <p><b>Subjects:</b> Social Studies, Language, Math</p>	<p><b>Sharing the Planet</b> An inquiry into rights and responsibilities in the struggle to share finite resources with other people and other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.</p> <p><b>Lines of Inquiry:</b> As global citizens, we all have responsibilities to care for and share our planet.</p> <p><b>Key Concepts:</b> <i>Students select key concepts.</i></p>
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## LANGUAGE

Students in Grades 1-5 learn in, about, and through two languages in a dual language program. Receptive and productive skills of written, oral, and visual language are taught explicitly, as well as through the units of inquiry and integrated into other subject areas. Grammar, language mechanics, and phonetic learning are achieved through an inquiry-based approach whenever possible. In this way, students learn both through the use of the language in learning content, as well as through clearly defined lessons for skill development.

### WRITTEN LANGUAGE: READING

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

Conceptual Understandings	Reading Outcomes for Grade 5
<p>Learners know that authors structure stories around significant themes, that effective stories have a structure, purpose, and sequence of events (plot) that help to make the author's intention clear, that synthesizing ideas and information from texts leads to new ideas and understanding, and that reading opens our minds to multiple perspectives and helps us to understand how people think, feel, and act.</p>	<ul style="list-style-type: none"> <li>• Read a wide range of texts confidently, independently, and with understanding</li> <li>• Work in cooperative groups to locate and select texts appropriate to purpose and audience</li> <li>• Participate in class, group, or individual author studies, gaining an in-depth understanding of the work and style of a particular author and appreciating what it means to be an author</li> <li>• Appreciate authors' use of language and interpret meaning beyond the literal</li> <li>• Understand that authors use words and literary devices to evoke mental images</li> <li>• Recognize and understand figurative language (for example: similes, metaphors, idioms)</li> <li>• Make inferences and be able to justify them</li> <li>• Identify and describe elements of a story (plot, setting, characters, theme) and explain how they contribute to its effectiveness</li> <li>• Compare and contrast the plots of two different but similar novels, commenting on effectiveness and impact</li> <li>• Participate in collaborative learning, considering multiple perspectives and working with peers to co-construct new understanding</li> <li>• Identify genre (including fantasy, biography, science fiction, mystery, historical novel) and explain elements and literary forms that are associated with different genres</li> <li>• Distinguish between fact and opinion, and reach their own conclusions about what represents valid information</li> <li>• Consistently and confidently use a range of resources to find information and support their inquiries</li> <li>• Use the Internet responsibly and knowledgeably, appreciating its uses and limitations</li> <li>• Locate, organize and synthesize information from a variety of sources including the library/media center, the Internet, people in the school, family, the immediate community, or the global community</li> <li>• Appreciate structural and stylistic differences between fiction and nonfiction; show understanding of this distinction when</li> </ul>

	structuring their own writing • Use a range of strategies to solve comprehension problems and deepen their understanding of a text
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A variety of authentic resources and texts are used to support the teaching of reading in each of our school languages. Fountas and Pinnell and GB+ support our reading program to identify books at individual student levels. A balanced approach to teaching reading is emphasized, working with students to decode words, comprehend texts, and read fluently across modeled, shared, guided, and independent stages of reading.

**WRITTEN LANGUAGE: WRITING**

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

Conceptual Understandings	Writing Outcomes for Grades 5
<p>Learners know that stories that people want to read are built around themes to which they can make connections, that effective stories have a purpose and structure that help to make the author’s intention clear, that synthesizing ideas enables us to build on what we know, reflect on different perspectives, and express new ideas, that knowing what we aim to achieve helps us to plan and develop different forms of writing, and that through the process of planning, drafting, editing, and revising, our writing improves over time.</p>	<ul style="list-style-type: none"> <li>• Write independently and with confidence, showing the development of their own voice and style</li> <li>• Write using a range of text types in order to communicate effectively (for example: narrative, instructional, persuasive)</li> <li>• Adapt writing according to the audience and demonstrate the ability to engage and sustain the interest of the reader</li> <li>• Use appropriate paragraphing to organize ideas</li> <li>• Use a range of vocabulary and relevant supporting details to convey meaning and create atmosphere and mood</li> <li>• Use planning, drafting, editing, and reviewing processes independently and with increasing competence</li> <li>• Critique the writing of peers sensitively; offer constructive suggestions</li> <li>• Vary sentence structure and length</li> <li>• Choose to publish written work in handwritten form or in digital format independently</li> <li>• Use written language as a means of reflecting on their own learning</li> <li>• Recognize and use figurative language to enhance writing (for example: similes, metaphors, idioms, alliteration)</li> <li>• Identify and describe elements of a story (setting, plot, character, theme)</li> <li>• Locate, organize, synthesize, and present written information obtained from a variety of valid sources</li> <li>• Use a range of tools and techniques to produce written work that is attractively and effectively presented</li> <li>• Demonstrate an increasing understanding of how grammar works</li> <li>• Use standard spelling for most words and use appropriate resources to check spelling</li> <li>• Use a dictionary, thesaurus, and spell checker confidently and effectively to check accuracy, broaden vocabulary, and enrich their writing</li> </ul>

A variety of authentic resources and texts are used to support the teaching of writing in each of our school languages. *Six Plus One Traits* is used for teaching writing in all school languages,

and a word study approach (in English, through the *Words Their Way* program) is used to develop phonetic skills in each language. A balanced approach to teaching writing is emphasized, working with students across modeled, shared, guided, and independent stages of reading and writing.

## ORAL LANGUAGE: LISTENING AND SPEAKING

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

Conceptual Understandings	Oral Language Outcomes for Grade 5
<p>Learners know that spoken language can be used to persuade and influence people, that metaphorical language creates strong visual images in our imagination, that listeners identify key ideas in spoken language and synthesize them to create their own understanding, and that people draw on what they already know in order to infer new meaning from what they hear.</p>	<ul style="list-style-type: none"> <li>• Participate appropriately as listener and speaker, in discussions, conversations, debates, and group presentations</li> <li>• Generate, develop, and modify ideas and opinions through discussion</li> <li>• Listen and respond appropriately to instructions, questions, and explanations</li> <li>• Infer meanings, draw conclusions, and make judgments about oral presentations</li> <li>• Use an increasing vocabulary and more complex sentence structures with a high level of specificity</li> <li>• Argue persuasively and justify a point of view</li> <li>• Show open-minded attitudes when listening to other points of view</li> <li>• Paraphrase and summarize when communicating orally</li> <li>• Understand and use figurative language such as simile, personification, and metaphor</li> <li>• Use oral language to formulate and communicate possibilities and theories</li> <li>• Use standard grammatical structures competently in appropriate situations</li> <li>• Use register, tone, voice level, and intonation to enhance meaning</li> <li>• Appreciate that people speak and respond according to personal and cultural perspectives</li> <li>• Use speech responsibly to inform, entertain, and influence others</li> <li>• Reflect on communication to monitor and assess their own learning</li> </ul>

Students use listening and speaking skills in a variety of settings every day. Our oral assessment, the SOPA (Student Oral Proficiency Assessment), sponsored by the Center for Applied Linguistics, helps us to assess oral language development in the non-English languages in Kindergarten, Grade 1, Grade 3, and Grade 5.

## VISUAL LANGUAGE: VIEWING AND PRESENTING

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

Conceptual Understandings	Visual Language Outcomes for Grade 5
<p>Learners know that the aim of commercial media is to influence and persuade viewers, that individuals respond differently to visual texts, according to their previous experiences, preferences, and perspectives, that knowing about the techniques used in visual texts helps us to interpret presentations and create our own visual effects, and that synthesizing information from visual texts is dependent upon personal interpretation and leads to new understanding.</p>	<ul style="list-style-type: none"> <li>• View and critically analyze a range of visual texts, communicating understanding through oral, written, and visual media</li> <li>• Identify factors that influence personal reactions to visual texts; design visual texts with the intention of influencing the way people think and feel</li> <li>• Analyze and interpret the ways in which visual effects are used to establish context</li> <li>• Identify elements and techniques that make advertisements, logos, and symbols effective and draw on this knowledge to create their own visual effects</li> <li>• Realize that cultural influences affect the way we respond to visual effects and explain how this affects our interpretation, for example, the use of particular colors or symbols</li> <li>• Realize that individuals interpret visual information according to their personal experiences and different perspectives</li> <li>• Show how body language (for example: facial expression, gesture and movement, posture and orientation, eye contact, and touch) can be used to achieve effects and influence meaning</li> <li>• Apply knowledge of presentation techniques in original and innovative ways; explain their own ideas for achieving desired effects</li> <li>• Examine and analyze text and illustrations in reference material, including online text, explaining how visual and written information work together to reinforce each other and make meaning more explicit</li> <li>• Navigate the Internet in response to verbal and visual prompts with confidence and familiarity; use ICT to prepare their own presentations</li> <li>• Use appropriate terminology to identify a range of visual effects/formats and critically analyze their effectiveness (for example: mood, media, juxtaposition, proportion)</li> <li>• Analyze the selection and composition of visual presentations; select examples to explain how they achieve a particular impact (for example: dominant images, use of color, texture, symbolism)</li> <li>• Identify the intended audience and purpose of a visual presentation; identify overt and subliminal messages</li> <li>• Reflect on ways in which understanding the intention of a visual message can influence personal responses</li> </ul>

Presentation skills incorporate oral language, communication styles and active listening. These skills are integrated into a variety of classroom activities and special projects, and culminate with the Grade 5 Final Exhibition presentations. In addition, our Information and Communications Literacies (ICL) outcomes explicitly address these skills.

# MATHEMATICS

Mathematics is taught through five content strands: Number, Shape and Space, Pattern and Function, Measurement, and Data Handling, both explicitly in stand-alone units, as well as integrated within the current unit of inquiry. Students justify and discuss their mathematical thinking, identify problem-solving strategies, and reflect on the most efficient strategies. A variety of paths to solving a problem is as valuable as finding the answer itself.

Building number sense (the ability to make sense of, compare, operate upon, and manipulate numbers) is central to our math program. Students are expected to achieve automaticity (both speed and accuracy) in basic facts in the four operations. Addition and subtraction fluency is expected by the end of Grade 2, while multiplication and division fluency is achieved by the end of Grade 4.

Mathematics resources used in classrooms include a wide variety of mathematics manipulatives, such as place value blocks, pattern blocks, and geoboards. In addition, a variety of online and text resources support our inquiry-based math program in all grades.

Overall Expectations for Grade 5	Mathematics Outcomes for Grade 5
<p><b>NUMBER</b> Learners will understand that the base 10 place value system extends infinitely in two directions and will be able to model, compare, read, write, and order numbers to 100,000 or beyond. They will understand that fractions, decimals, and percentages are ways of representing whole-part relationships and will work towards modeling, comparing, reading, writing, ordering, and converting fractions, decimals, and percentages. They will use mental and written strategies to solve problems involving whole numbers, fractions, and decimals in real-life situations, using a range of strategies to evaluate reasonableness of answers.</p>	<ul style="list-style-type: none"> <li>• Compare the base-ten system with non-zero systems</li> <li>• Read and represent numbers, using place value and the base 10 system, to one billion and to thousandths</li> <li>• Count, compare, and order numbers to one billion and to thousandths</li> <li>• Construct and deconstruct numbers to one billion and to thousandths</li> <li>• Write numbers to one billion in words, numerals, and expanded notation</li> <li>• Read, write and represent fractions of a region and a set with denominators up to 100</li> <li>• Compare and order fractions and mixed numbers</li> <li>• Read, write, and model improper fractions and mixed numbers and convert from one form to another</li> <li>• Find equivalent fractions with related denominators</li> <li>• Round whole numbers up to the nearest 100,000</li> <li>• Round decimals to the nearest whole and tenth</li> <li>• Use the distributive, commutative, and associative properties of addition and multiplication</li> <li>• Multiply four-digit numbers by two-digit numbers</li> <li>• Divide four-digit dividends by two-digit divisors</li> <li>• Express remainders as fractions and decimals to hundredths</li> <li>• Use common factors to simplify fractions</li> <li>• Identify common factors, common multiples, and prime numbers</li> <li>• Find equivalent fractions in order to add and subtract unlike fractions and mixed numbers with and without regrouping</li> <li>• Reduce fraction sums and differences to lowest terms</li> <li>• Multiply fractions with like and unlike denominators</li> <li>• Read, write, and model addition and subtraction of decimals to thousandths</li> </ul>

	<ul style="list-style-type: none"> <li>• Solve a problem with fractions or decimals</li> <li>• Estimate sums and differences and determine reasonableness with fractions and decimals</li> </ul>
<p><b>SHAPE AND SPACE</b> Learners will understand the properties of regular and irregular polyhedral. They will understand the properties of 2D shapes and understand that 2D representations of 3D objects can be used to visualize and solve problems in the real world (for example: through the use of drawing and modeling). Learners will develop their understanding of the use of scale (ratio) to enlarge and reduce shapes.</p>	<ul style="list-style-type: none"> <li>• Describe, model, and classify polygons by total degrees of interior angles</li> <li>• Classify, sort, and describe all triangles by interior angles (right, obtuse, and acute) and by their sides (isosceles, scalene, and equilateral)</li> <li>• Identify and demonstrate forms of symmetry (reflection, rotational, and glide symmetry)</li> <li>• Illustrate, name and measure parts of circles, including radius, diameter, and circumference</li> <li>• Model volume of cubes and rectangular prisms using cubes as units</li> <li>• Describe positions in all four quadrants using ordered pairs</li> <li>• Draw and translate simple shapes on the coordinate plane and translate, rotate, and reflect them in the axes</li> </ul>
<p><b>PATTERN AND FUNCTION</b> Learners will understand that patterns can be represented, analyzed, and generalized using algebraic expressions, equations, or functions. They will use words, tables, graphs and, where possible, symbolic rules to analyze and represent patterns. The students will continue to use their understanding of pattern and function to represent and make sense of real-life situations and to solve problems involving the four operations.</p>	<ul style="list-style-type: none"> <li>• Describe and make generalizations and predictions about complex repeating and growing numeric patterns (identify a rule)</li> <li>• Translate patterns from tables to graphs and draw conclusions about the patterns</li> <li>• Identify the function for a given complex numerical pattern</li> <li>• Use the commutative, distributive, and associative properties to find unknowns</li> <li>• Find unknown quantities in: factors, products, divisors, dividends, and quotients</li> <li>• Complete number sentences to demonstrate equality between operations: <math>\_ \times (\_ \_ ) = (\_ \_ ) + \_</math></li> <li>• Use the relationships among addition, subtraction, multiplication, and division to solve problems</li> <li>• Use the order of operations, using grouping symbols, to calculate</li> </ul>
<p><b>MEASUREMENT</b> Learners will understand that a range of procedures exists to measure different attributes of objects and events (for example: the use of formulas for finding area, perimeter, and volume). They will be able to decide on the level of accuracy required for measuring and using decimal and fraction notation when precise measurements are necessary. To demonstrate their understanding of angles as a measure of rotation, the learners will be able to measure and construct angles.</p>	<ul style="list-style-type: none"> <li>• Solve a variety of problems using measurement skills</li> <li>• Estimate, measure, and record in standard units of length, weight, and capacity using the appropriate tool/unit to the nearest .5 unit</li> <li>• Convert units of length, weight, and capacity within a system of measurement</li> <li>• Compare benchmark temperatures in Fahrenheit and Celsius</li> <li>• Use the formula “side + side + side+...” to find the perimeter of a polygon</li> <li>• Use the formula of “length x width” to find the area of a rectangle</li> <li>• Find the area of a triangle using the relationship between rectangles and triangles</li> <li>• Determine elapsed time to the minute</li> <li>• Make and record change from \$20.00</li> <li>• Calculate change from \$100.00</li> <li>• Choose an appropriate tool and unit to measure a specific attribute</li> <li>• Choose an appropriate formula to calculate the perimeter and area of polygons</li> </ul>



<p><b>DATA HANDLING</b> Learners will collect, organize, and display data for the purposes of valid interpretation and communication. They will be able to use the mode, median, mean, and range to summarize a set of data. Learners will understand that probability can be expressed on a scale and that the probability of an event can be predicted theoretically.</p>	<ul style="list-style-type: none"><li>• Organize and display data using tables, bar graphs, and line graphs</li><li>• Design a survey and systematically collect, organize, record, and interpret data</li><li>• Describe and compare data from tables, bar graphs, line graphs, and circle graphs</li><li>• Find, describe, and justify conclusions based on mode, mean, median, and range</li><li>• Select an appropriate type of graph for a given data set</li><li>• Identify trends and patterns and make predictions based on given data</li><li>• Represent probability with decimals, percents, and ratios</li><li>• Determine the theoretical probability of an event and explain why it might differ from experimental probability</li></ul>
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## SCIENCE

There are four science strands, which are integrated into the units of inquiry at each grade level, ensuring a balance throughout each year. Our learning outcomes are kept up to date in consultation with the Science Strands from the IBYP Scope and Sequence, as well as international and national curriculum standards.

### LIVING THINGS

The study of 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 systems, distinctive features, and natural phenomena that shape and identify the planet; the infinite and finite resources of the planet.

### MATERIALS AND MATTER

The study of 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 MACHINES

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.

Eight core science skills are developed through the learning experiences across the strands:

- a. Observe carefully in order to gather data
- b. Use a variety of instruments and tools to measure data accurately
- c. Use scientific vocabulary to explain their observations and experiences
- d. Identify or generate a question or problem to be explored
- e. Plan and carry out systematic investigations, manipulating variables as necessary
- f. Make and test predictions
- g. Interpret and evaluate data gathered in order to draw conclusions
- h. Consider scientific models and applications of these models (including their limitations)

Transdisciplinary Theme	Science Outcomes for Grade 5
<b>WHO WE ARE</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.	<ul style="list-style-type: none"><li>• Analyze the impact of human activities and technological innovations on human health</li><li>• Investigate and describe the structure and function of major organs of various human body systems (respiratory, circulatory, and digestive)</li><li>• Assess the effects of social and environmental factors on human health and propose ways in which individuals can reduce the harmful effects of these factors and take advantage of those that are beneficial</li><li>• Use scientific inquiry/experimentation skills to investigate changes in body systems, as a result of physical activities</li></ul>
<b>WHERE WE ARE IN PLACE AND TIME</b>	<ul style="list-style-type: none"><li>• Investigate which simple machines were developed by past civilizations (for example: lever, ramp, pulley, screw, wheel)</li></ul>

<p>An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations, and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations from local and global perspectives.</p>	<ul style="list-style-type: none"> <li>• Explore the principle of using gears to provide more work for less energy</li> <li>• Analyze why and how we still use simple machines</li> </ul>
<p><b>HOW THE WORLD WORKS</b>  An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.</p>	<ul style="list-style-type: none"> <li>• Identify and describe different forms of energy</li> <li>• Demonstrate how energy can be stored and transformed from one form to another (for example: storage of fat, batteries as a store of energy)</li> <li>• Assess renewable and sustainable energy sources (for example: wind, solar, water)</li> <li>• Examine ways in which the local community could be improved in relation to the conservation of energy</li> <li>• Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents</li> <li>• Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment</li> </ul>
<p><b>SHARING THE PLANET</b>  An inquiry into rights and responsibilities in the struggle to share finite resources with other people and other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.</p>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of science skills related to all four science strands based on their inquiry and key concepts</li> </ul>

## SOCIAL STUDIES

Social studies learning, like science, is integrated entirely into the Program of Inquiry, using a balanced approach across all grade levels. There are five strands outlined in our social studies program, which also draw from the PYP, as well as documents outlining national and international standards and benchmarks.

### 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 ORGANIZATIONS AND CULTURE

The study of people, communities, culture, 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.

Five core social studies skills are developed through the learning experiences across the strands:

- a. Formulate and ask questions about the past, the future, places, and society
- b. Use and analyze evidence from a variety of historical, geographical, and societal sources
- c. Orientate in relation to place and time
- d. Identify roles, rights, and responsibilities in society
- e. Assess the accuracy, validity, and possible bias of sources

Transdisciplinary Theme	Social Studies Outcomes for Grade 5
<p><b>WHO WE ARE</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.</p>	<ul style="list-style-type: none"><li>• Examine the interaction between people and the environment and understand how people both shape and are shaped by the environment in which they live</li><li>• Explain behavioral norms and taboos in different cultures</li></ul>

<p><b>WHERE WE ARE IN PLACE AND TIME</b>  An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations, and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations from local and global perspectives.</p>	<ul style="list-style-type: none"> <li>• Identify and use the primary and secondary sources to examine the past and the present</li> <li>• Explain why people in different times and places view the world differently (for example: empathy, perspective skills)</li> <li>• Describe changes in society (for example: political, social, cultural)</li> <li>• Explain the major ways groups, societies, and nations interact with one another (for example: trade, cultural exchanges, and international organizations)</li> </ul>
<p><b>HOW WE EXPRESS OURSELVES</b>  An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs, and values; the ways in which we reflect on, extend, and enjoy our creativity; our appreciation of the aesthetic.</p>	<ul style="list-style-type: none"> <li>• Recognize the foundations of one's own and others' viewpoints</li> <li>• Understand the impact of conformity and nonconformity on individuals and groups</li> <li>• Examine how socialization influences choice in personal identity</li> <li>• Differentiate articulated speech based on real facts and fallacious theories</li> <li>• Explain how cultural attitudes, values, and beliefs influence personal behavior and the development of personal identity</li> <li>• Describe how sociological circumstances (race, ethnicity, gender, class, etc.) influence an individual's perceptions of and reactions to the world</li> </ul>
<p><b>HOW THE WORLD WORKS</b>  An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.</p>	<ul style="list-style-type: none"> <li>• Describe the social effects of environmental changes and crises resulting from natural phenomena</li> <li>• Evaluate conventional and alternative uses of land and water resources in the community, region, and beyond</li> <li>• Evaluate conventional and alternative uses of resources</li> </ul>
<p><b>HOW WE ORGANIZE OURSELVES</b>  An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.</p>	<ul style="list-style-type: none"> <li>• Identify issues involving rights, roles, and responsibilities of individuals in relation to broader society</li> <li>• Identify and describe means by which citizens can monitor, evaluate and influence actions of their government</li> <li>• Explain different strategies to resolve conflict</li> <li>• Identify and describe means by which citizens can monitor and influence actions of their governments and vice versa</li> </ul>

## INFORMATION AND COMMUNICATIONS LITERACIES (ICL)

Through stand alone and integrated learning experiences, students learn to access, select, organize, and present information in a variety of ways. Digital citizenship and ethical and appropriate use of technology are important aspects of our ICL curriculum and are explored in a variety of settings with our students. In addition, appreciation of literature is an explicit goal of students' experience in our Library.

Overall Expectations	Learning Outcomes for Grade 5
Find and access information sources	<ul style="list-style-type: none"> <li>• With guidance, develop one's personal learning system of information sources (for example: book, databases, tutorials, websites)</li> <li>• Use the library's online catalog to locate sources to meet information needs</li> <li>• Identify where to find online resources and tools, including reference sources, databases, and recommended search engines</li> <li>• Use school's online resources to search for textual and audiovisual information</li> <li>• With minimal guidance, locate information using effective online search strategies and refine search strategies based on results</li> <li>• With guidance, propose and explain search strategies, including goals, actions, and reflection</li> </ul>
Select appropriate information sources and evaluate information critically	<ul style="list-style-type: none"> <li>• Formulate and refine an information need and the questions that would meet it</li> <li>• With guidance, decide which resource type best matches an information need</li> <li>• Use multiple resources and formats, particularly in the quest to validate information</li> <li>• With guidance, critically evaluate print and digital information sources</li> <li>• Identify and critically evaluate digital advertising</li> <li>• With guidance, seek information sources that offer diverse perspectives</li> <li>• Seek evidence within information sources that reinforces and/or disproves a hypothesis</li> <li>• With guidance, identify and use primary sources of information</li> <li>• Recognize that information found within a specific source matches the information need</li> <li>• Monitor gathered information and assess for gaps and weaknesses</li> </ul>
Extract, organize, and interpret information so that it is useful knowledge	<ul style="list-style-type: none"> <li>• Identify and use a book's text features (for example: table of contents, heading, index, glossary, caption, diagram) to retrieve relevant information</li> <li>• With guidance, use skimming and scanning reading techniques</li> <li>• With guidance, interpret data found in a variety of media sources</li> <li>• With guidance, generate and record relevant information from interviews and surveys, using appropriate formats</li> <li>• Use tools to organize information meaningfully</li> <li>• Create brief, relevant notes from information sources that include quotations with attribution, paraphrasing, key facts, and</li> </ul>

	<ul style="list-style-type: none"> <li>own ideas</li> <li>• With guidance, combine information from different sources and in different languages</li> <li>• With guidance, identify patterns, connections, and perspectives within information</li> <li>• With guidance, organize notes into main idea and subtopics</li> <li>• Draw conclusions to create new understandings</li> <li>• Recognize when information found within a specific source matches the information need</li> </ul>
Collaborate with others to exchange ideas, develop new understandings, and communicate knowledge	<ul style="list-style-type: none"> <li>• Work productively and respectfully with others in learning situations</li> <li>• Give and receive peer feedback</li> <li>• Make changes that incorporate peer feedback into revised drafts</li> <li>• With guidance, use collaborative digital tools to organize information, such as notes, and share understandings</li> </ul>
Create and present products that express understanding and new meaning	<ul style="list-style-type: none"> <li>• Choose the appropriate communication tool for the purpose</li> <li>• With guidance, create a coherent, focused, authentic product that includes an introduction, supporting information, and a conclusion</li> <li>• With guidance, plan, compose, and revise drafts of increasingly complex products</li> <li>• Convey clear and accurate conceptual knowledge and factual information to an audience</li> <li>• With guidance, express knowledge and artistic creativity in a variety of forms using increasingly sophisticated print and digital media</li> <li>• Produce digital media following foundational media production process (for example: idea creation, storyboard, script writing, rehearsal, recording, editing, publishing)</li> <li>• With guidance, use presentation design principles (for example: color, balance, white space, minimal distractions) to communicate content effectively</li> <li>• With guidance, make presentation content and layout choices that exhibit awareness of purpose and audience</li> <li>• With guidance, use effective and efficient media production techniques and design principles (for example: 'rules of thirds,' lighting, steady hand, quality audio, etc.)</li> <li>• With guidance, practice presenting, reflecting, and editing the product</li> <li>• Evaluate research process and product to determine completeness and possible future strategies.</li> </ul>
Use information and technology ethically and responsibly	<ul style="list-style-type: none"> <li>• With guidance, follow school's technology rules as outlined in the WIS Technology Acceptable Use Policy regarding increasingly sophisticated information and technology resources</li> <li>• Access and manage own patron record within online catalog</li> <li>• Understand the concept of intellectual property and commit to the ethical use of others' ideas and creations</li> <li>• Express understanding in own words rather than those found in sources</li> <li>• Use quotations to appropriately reproduce authors' words and avoid plagiarism</li> <li>• Define and identify the components of a citation given the type of the source</li> </ul>

	<ul style="list-style-type: none"> <li>• With guidance, create a modified source list</li> <li>• With guidance, access, display, create, and communicate digital material that builds a positive digital 'footprint' in compliance with the WIS Acceptable Use Policy</li> <li>• With guidance, manage one's own online security</li> <li>• Use hardware and software responsibly, as outlined in the WIS Technology Acceptable Use Policy</li> </ul>
<p>Use technology hardware and software effectively to access information and communicate</p>	<ul style="list-style-type: none"> <li>• Manage log-in credentials for multiple accounts</li> <li>• With guidance, use increasingly sophisticated browser tools (for example: extensions, bookmarks)</li> <li>• Touch type proficiently at 20-25 WPM</li> <li>• Search for, retrieve, download, save, print, and share files and a variety of formats with naming protocols and folder system</li> <li>• With guidance, use built-in operating system features and software to individualize one's learning needs</li> <li>• Describe technology using correct terminology</li> </ul>



## PHYSICAL EDUCATION (PE)

The PE curriculum aims to develop habits of healthy, balanced living, as well as gross motor skills.

- Individual pursuits: locomotion, manipulation, motor skills, techniques, rules, purpose, performance, and achievement
- Movement composition: sequence, movements, performance, communication, and feelings
- Games: categories, space, rules, modification, innovation, and teamwork [cooperation]
- Adventure challenges: critical thinking, collaboration, teamwork, goal setting, and roles
- Health-related fitness: healthy lifestyle, choices, decision-making, fitness, and development

Students are introduced to the fundamental skills of a variety of sports and activities. Participation in cooperative and competitive game play begins at an age-appropriate level as students are exposed to different active pursuits, with the hope of instilling a lifelong affinity for fitness. In Grade 5, students participate in a variety of team and individual sports, hone gymnastics skills, and explore dances from around the world.

## MUSIC

Music classes incorporate learning in the following five curriculum areas:

- Performing: singing and playing instruments
- Creating and composing
- Notation
- Listening and Appreciation
- Music in society

Grade 5 students learn the language of music with a focus on expression, rhythm, form, timbre, melody, harmony, and texture. They learn to notate music in the treble clef. Students apply a growing repertoire of music and performance skills using percussion instruments, marimbas, xylophones, and recorders. In addition, Grade 5 students use digital media to compose and perform music. Students continue to develop an appreciation of music through exploration of a variety of contemporary classical pieces and 20<sup>th</sup> century American music.

## ART

Studio and digital art classes provide students with instruction in the following curriculum areas:

- Creative processes
- Elements and principles of art and design
- Reflection and appreciation
- Visual art in society

In Grade 5 studio art, students understand and apply how composition, line, color, form, and shape visually communicate messages to the viewer in overt and subtle ways. Students apply their critical thinking skills to design problems. In digital art class, students develop graphic design projects on both computers and iPads.

## CURRICULUM REVIEW PROCESS

Curriculum is periodically reviewed and revised based on updates from the IB PYP, consideration of advancements in educational research, and collaborative curriculum design across school divisions.