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 4 Program of Inquiry**

<table>
<thead>
<tr>
<th>Who We Are</th>
<th>Where We Are in Place and Time</th>
<th>How We Express Ourselves</th>
<th>How the World Works</th>
<th>How We Organize Ourselves</th>
<th>Sharing the Planet</th>
</tr>
</thead>
<tbody>
<tr>
<td>An inquiry into the nature of self; beliefs and values; personal, social, and spiritual health; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.</td>
<td>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.</td>
<td>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.</td>
<td>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.</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Lines of Inquiry: • Different beliefs and values • Different types of religion • A glimpse into religious conflicts throughout history</td>
<td>Lines of Inquiry: • Properties of light • Innovations using the properties of light (throughout history)</td>
<td>Lines of Inquiry: • People express themselves through music • People express themselves through art • People express themselves through language</td>
<td>Lines of Inquiry: • Formation and structure of the Earth • Why the Earth is constantly changing • The beginnings of our world</td>
<td>Lines of Inquiry: • Types of governments and how they are organized • Role of government • US government as a case study</td>
<td>Lines of Inquiry: • Structure of plants and functions of their parts • Role plants play in the world • Issues that impact natural environments</td>
</tr>
</tbody>
</table>

**Grade 4 Program of Inquiry**

**Who We Are**
An inquiry into the nature of self; beliefs and values; personal, social, and spiritual health; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.

**Central Idea:** Humans have common beliefs that attempt to answer life’s big questions.

**Lines of Inquiry:**
- Different beliefs and values
- Different types of religion
- A glimpse into religious conflicts throughout history

**Key Concepts:** Form, Function, Perspective

**Subjects:** Language, Music, Art, Digital Art, Math

**Where We Are in Place and Time**
An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations, and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.

**Central Idea:** Understanding the properties of light allows people to use it in different ways.

**Lines of Inquiry:**
- Properties of light
- Innovations using the properties of light (throughout history)

**Key Concepts:** Perspective, Connection, Reflection

**Subjects:** Science, Social Studies, Math

**How We Express Ourselves**
An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs, and values; the ways in which we reflect on, extend, and enjoy our creativity; our appreciation of the aesthetic.

**Central Idea:** People express themselves through the arts.

**Lines of Inquiry:**
- People express themselves through music
- People express themselves through art
- People express themselves through language

**Key Concepts:** Form, Causation, Change

**Subjects:** The Arts, Math, Language, Music

**How the World Works**
An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.

**Central Idea:** The formation of the Earth helps us understand its features and why it’s a changing planet.

**Lines of Inquiry:**
- Formation and structure of the Earth
- Why the Earth is constantly changing
- The beginnings of our world

**Key Concepts:** Connection, Function, Responsibility

**Subjects:** Science, Math, Language, The Arts

**How We Organize Ourselves**
An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.

**Central Idea:** Governments enable society to function.

**Lines of Inquiry:**
- Types of governments and how they are organized
- Role of government
- US government as a case study

**Key Concepts:** Connection, Function, Responsibility

**Subjects:** Social Studies, Language, Music, The Arts, Math, PSPE

**Sharing the Planet**
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.

**Central Idea:** Human interdependence with plants impacts life.

**Lines of Inquiry:**
- Structure of plants and functions of their parts
- Role plants play in the world
- Issues that impact natural environments

**Key Concepts:** Responsibility, Function, Connection

**Subjects:** Science, Language, Math
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 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.

<table>
<thead>
<tr>
<th>Conceptual Understandings</th>
<th>Reading Outcomes for Grades 3 and 4</th>
</tr>
</thead>
</table>
| Learners know that reading and thinking work together to enable us to make meaning, that checking, rereading and correcting our own reading as we go enable us to read new and more complex texts, that identifying the main ideas in the text helps us to understand what is important, that knowing what we aim to achieve helps us to select useful reference material to conduct research. | • Read a variety of books for pleasure, instruction, and information; reflect regularly on reading and set future goals  
• Distinguish between fiction and nonfiction and select books appropriate to specific purposes  
• Understand and respond to the ideas, feelings, and attitudes expressed in various texts, showing empathy for characters  
• Recognize the author’s purpose (for example: to inform, entertain, persuade, instruct)  
• Understand that stories have a plot; identify the main idea; discuss and outline the sequence of events leading to the final outcome  
• Appreciate that writers plan and structure their stories to achieve particular effects; identify features that can be replicated when planning their own stories  
• As part of the inquiry process, work cooperatively with others to access, read, interpret, and evaluate a range of source materials  
• Identify relevant, reliable, and useful information and decide on appropriate ways to use it  
• Access information from a variety of texts both in print and online (for example: newspapers, magazines, journals, comics, graphic books, e-books, blogs, wikis)  
• Know when and how to use the Internet and multimedia resources for research  
• Understand that the Internet must be used with the approval and supervision of a parent or teacher; read, understand, and sign the WIS Technology Acceptable Use policy  
• Use reference books, dictionaries, and computer and web-based applications with increasing independence and responsibility  
• Know how to skim and scan texts to decide whether they will be useful, before attempting to read in detail |

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

<table>
<thead>
<tr>
<th>Conceptual Understandings</th>
<th>Writing Outcomes for Grades 3 and 4</th>
</tr>
</thead>
</table>
| Learners know that writing and thinking work together to enable us to express ideas and convey meaning, that asking questions of ourselves and others helps to make our writing more focused and purposeful, that the way we structure and organize our writing helps others to understand and appreciate it, and that rereading and editing our own writing enables us to express what we want to say more clearly. | • Write independently and with confidence, demonstrating a personal voice as a writer  
• Write for a range of purposes, both creative and informative, using different types of structures and styles according to the purpose of the writing  
• Show awareness of different audiences and adapt writing appropriately  
• Select vocabulary and supporting details to achieve desired effects  
• Organize ideas in a logical sequence  
• Reread, edit and revise to improve their own writing (for example: content, language, organization)  
• Respond to the writing of others sensitively  
• Use a range of strategies to record words/ideas of increasing complexity  
• Realize that writers ask questions of themselves and identify ways to improve their writing  
• Work cooperatively with a partner to discuss and improve each other’s work, taking the roles of authors and editors  
• Work independently to produce written work that is legible and well-presented, written either by hand or in digital format  
• Use appropriate punctuation to support meaning  
• Use knowledge of written code patterns to accurately spell high-frequency and familiar words  
• Check punctuation, variety of sentence starters, spelling, and presentation  
• Use a dictionary and thesaurus to check accuracy, broaden vocabulary, and enrich their writing |

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

Learners know that taking time to reflect on what we hear and say helps us to make informed judgments and form new opinions, that thinking about the perspective of our audience helps us to communicate more effectively and appropriately, and that the grammatical structures of a language enable members of a language community to communicate with each other.

**Oral Language Outcomes for Grades 3 and 4**

- Listen appreciatively and responsively, presenting their own point of view and respecting the views of others
- Listen for a specific purpose in a variety of situations
- Identify and expand on main ideas in familiar oral texts
- Listen reflectively to stories read aloud in order to identify story structures and ideas
- Understand that ideas and opinions can be generated, developed, and presented through talk; they work in pairs and groups to develop oral presentations
- Argue persuasively and defend a point of view
- Explain and discuss their own writing with peers and adults
- Begin to paraphrase and summarize
- Organize thoughts and feelings before speaking
- Use a range of specific vocabulary in different situations, indicating an awareness that language is influenced by purpose, audience, and context
- Realize that grammatical structures can be irregular and begin to use them appropriately and consistently
- Use oral language appropriately, confidently, and with increasing accuracy
- Verbalize their thinking and explain their reasoning
- Recognize that different forms of grammar are used in different contexts
- Appreciate that language is not always used literally; understand and use the figurative language of their own culture

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

<table>
<thead>
<tr>
<th>Conceptual Understandings</th>
<th>Visual Language Outcomes for Grades 3 and 4</th>
</tr>
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</table>
| Learners know that visual texts have the power to influence thinking and behavior, that interpreting visual texts involves making an informed judgment about the intention of the message, and that to enhance learning we need to be efficient and constructive users of the Internet. | • View, respond to, and describe visual information, communicating understanding in oral, written, and visual form  
• Describe personal reactions to visual messages; reflect on why others may perceive the images differently  
• Understand and explain how visual effects can be used to reflect a particular context  
• Recognize and name familiar visual texts and explain why they are or are not effective (for example: advertising, logos, labels, signs, billboards)  
• Interpret visual cues in order to analyze and make inferences about the intention of the message  
• Explain how relevant personal experiences can add to the meaning of a selected film/movie; write and illustrate a personal story |
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.

<table>
<thead>
<tr>
<th>Overall Expectations for Grades 3 and 4</th>
<th>Mathematics Outcomes for Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER</td>
<td>Read, write, and represent numbers, using place value and the base 10 system to one million and to hundredths</td>
</tr>
<tr>
<td>Learners will develop the understanding that fractions and decimals are ways of representing whole-part relationships and will demonstrate this understanding by modeling equivalent fractions and decimal fractions to hundredths or beyond. They will be able to model, read, write, compare, and order fractions, and use them in real-life situations. Learners will have automatic recall of addition subtraction, multiplication, and division facts. They will select, use, and describe a range of strategies to solve problems involving addition, subtractions, multiplication, and division, using estimation strategies to check the reasonableness of their answers.</td>
<td>Count, compare, and order numbers to one million and to hundredths</td>
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<td></td>
<td>Construct and deconstruct numbers to one million and to hundredths (expanded notation)</td>
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<td>Round three and four digit numbers to the nearest thousand</td>
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<td></td>
<td>Automatically recall basic multiplication and division facts to 10 x 10</td>
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<td></td>
<td>Demonstrate the role of zero and its utility within multiplication and division</td>
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<td></td>
<td>Identify the inverse relationship between multiplication and division</td>
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<td></td>
<td>Use distributive, commutative, and associative properties of addition, and multiplication</td>
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<td></td>
<td>Classify numbers as composite, square, and prime</td>
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<td></td>
<td>Read, write, and represent fractions of a region and a set with denominators up to 100</td>
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<td></td>
<td>Compare and order fractions with unlike denominators by using a benchmark of half and a whole on a number line</td>
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<td></td>
<td>Find equivalent fractions using a number line, drawing, and a formula</td>
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<td></td>
<td>Read, write, and model mixed numbers and improper fractions</td>
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<td></td>
<td>Add and subtract four- and five-digit numbers with regrouping across zero using different strategies and algorithms</td>
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<td></td>
<td>Apply skills of addition, subtraction, multiplication, and division to solve real-life problems</td>
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<td></td>
<td>Model and multiply one-digit by three-digit numbers and two-</td>
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<tr>
<td>SHAPE AND SPACE</td>
<td>PATTERN AND FUNCTION</td>
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<tr>
<td>Learners will sort, describe, and model regular and irregular polygons, developing an understanding of their properties. They will be able to describe and model congruency and similarity in 2D shapes. Learners will continue to develop their understanding of symmetry, in particular reflective and rotational symmetry. They will understand how geometric shapes and associated vocabulary are useful for representing and describing objects and events in real-world situations.</td>
<td>Learners will analyze patterns and identify rules for patterns, developing the understanding that functions describe the relationship or rules that uniquely associate members of one set with members of another set. They will understand the inverse relationship between multiplication and division, and the associative and commutative properties of multiplication. They will be able to use their understanding of pattern and function to make sense of real-life situations and, where appropriate, to solve problems involving the four operations.</td>
</tr>
<tr>
<td>• Classify, describe, and model all types of quadrilaterals: rhombus, trapezoid, parallelogram, kite, square, rectangle</td>
<td>• Describe and make generalizations about repeating and growing numeric patterns (identify a rule)</td>
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<tr>
<td>• Identify line segments as parallel and perpendicular within polygons</td>
<td>• Translate patterns from one representation to another and table</td>
</tr>
<tr>
<td>• Classify, sort, and describe all triangles by interior angles (right, obtuse, acute) and by their sides (isosceles, scalene, and equilateral)</td>
<td>• Recognize, describe, and extend number patterns using any operations of whole numbers</td>
</tr>
<tr>
<td>• Recognize and define similarity of simple geometric shapes</td>
<td>• Identify input and output of a function</td>
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<tr>
<td>• Predict and describe the results of translations, reflections, and rotations of 2-dimensional shapes</td>
<td>• Identify the function for a given numeric pattern of four in terms of multiplication</td>
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<tr>
<td>• Name and describe parts of circles: radius, diameter, and circumference</td>
<td>• Graph a function and predict other outcomes based on a slope</td>
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<tr>
<td>• Find locations, plot coordinates, and describe distances in the first quadrant using ordered pairs</td>
<td>• Apply the commutative and associative property of multiplication</td>
</tr>
<tr>
<td>• Find unknown quantities in factors, products, divisors, dividends, and quotients</td>
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</tr>
<tr>
<td>• Complete number sentences to demonstrate equality between two operations: (<em>x</em> = /_)</td>
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</tr>
<tr>
<td>• Find all factor pairs for a whole number in the range 1 to 100</td>
<td>• Find all factor pairs for a whole number in the range 1 to 100</td>
</tr>
<tr>
<td>• Recognize that a whole number is a multiple of each of its factors</td>
<td>• Recognize that a whole number is a multiple of each of its factors</td>
</tr>
<tr>
<td>• Determine whether a given whole number in the range 1 to 100 is a multiple of a given one-digit number</td>
<td>• Determine whether a given whole number in the range 1 to 100 is a multiple of a given one-digit number</td>
</tr>
<tr>
<td>• Use the relationships among addition, subtraction,</td>
<td>• Use the relationships among addition, subtraction,</td>
</tr>
</tbody>
</table>

- digit by two-digit numbers using different strategies
- Divide three-digit dividends by one-digit divisors with and without regrouping, and with and without remainders using different strategies
- Interpret remainders within the context of problems
- Estimate sums, differences, products, and quotients, and determine reasonableness
- Add and subtract fractions and mixed numbers with like denominators
- Add and subtract unlike fractions and mixed numbers using models
- Add and subtract decimals up to hundredths
- Solve problems using fractions and decimals
| Multiplication, and division to solve problems  
• Use the order of operations, using grouping symbols, to calculate  
| MEASUREMENT  
Learners will continue to use standard units to measure objects, in particular developing their understanding of measuring perimeter, area, and volume. They will select and use appropriate tools and units of measurement, and will be able to describe measures that fall between two numbers on a scale. The learners will be given the opportunity to construct meaning about the concepts of an angle as a measure of rotation.  
• Solve a variety of problems using measurement skills  
• Estimate, measure, and record in standard units of length, weight, and capacity using the appropriate tool/unit to the nearest quarter unit  
• Estimate, record, and measure temperature in degrees (Fahrenheit and Celsius) to the nearest degree  
• Describe the relationship between area and perimeter  
• Use the formula “length x width” to determine the area of rectangles  
• Calculate the volume of rectangular prisms using the formula length x width x height  
• Tell time to the nearest minute using digital and analog clocks  
• Determine elapsed time in 5 minute intervals  
• Make and record change from $10.00  
• Find equivalent measurements and draw conclusions about the relationship among different measurable attributes within a system of measurement  
• Choose an appropriate tool and unit to measure a specific attribute  
| DATA HANDLING  
Learners will continue to collect, organize, display, and analyze data, developing an understanding of how different graphs highlight different aspects of data more efficiently. They will understand that scale can represent different quantities in graphs and that mode can be used to summarize a set of data. The learners will make the connection that probability is based on experimental events and can be expressed numerically.  
• Organize and display data using tables, bar graphs, and line graphs  
• Pose questions that can be answered by given data  
• Describe and compare data from tables, bar graphs, and line graphs  
• Find, describe, and justify conclusions based on: mode, mean, median, and range  
• Identify trends and patterns and make predictions based on given data  
• Predict the probability of outcomes of simple experiments and test predictions  
• Make reasonable predictions for the outcomes of probability experiments with six or fewer possible outcomes  
• Represent probability with fractions
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 IBPYP 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:
- Observe carefully in order to gather data
- Use a variety of instruments and tools to measure data accurately
- Use scientific vocabulary to explain their observations and experiences
- Identify or generate a question or problem to be explored
- Plan and carry out systematic investigations, manipulating variables as necessary
- Make and test predictions
- Interpret and evaluate data gathered in order to draw conclusions
- Consider scientific models and applications of these models (including their limitations)

<table>
<thead>
<tr>
<th>Transdisciplinary Theme</th>
<th>Science Outcomes for Grade 4</th>
</tr>
</thead>
</table>
| WHERE WE ARE IN PLACE AND TIME | • Distinguish between objects that emit their own light and those that reflect light from other sources  
• Identify a variety of natural light sources and artificial light sources  
• Describe and demonstrate an understanding of the properties of light, including the following: light travels in a straight path; light can be absorbed, reflected, and refracted  
• Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a light beam  
• Use tools and materials to design and build a device that uses light or sound to solve the problem of communication over a distance |
<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>
<table>
<thead>
<tr>
<th>HOW THE WORLD WORKS</th>
<th>SHARING THE PLANET</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>• Describe how igneous, sedimentary, and metamorphic rocks are formed and their characteristics</td>
<td>• Demonstrate an understanding that plants grow and change and have distinct characteristics</td>
</tr>
<tr>
<td>• Demonstrate understanding that deep ocean trenches, earthquakes, and volcanoes occur often along the boundaries between continents and oceans, and that major mountain chains form inside continents or near their edges</td>
<td>• Describe the basic needs of plants, including air, light, water, warmth, and space</td>
</tr>
<tr>
<td>• Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation</td>
<td>• Identify the major parts of plants, including: stems, flower, stamen, pistil, leaf, seed, and fruit, and describe how each contributes to the plant’s survival within the plant’s environment</td>
</tr>
<tr>
<td></td>
<td>• Describe how most plants get energy to live directly from the sun and how plants get the materials they need for growth chiefly from air and water</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Transdisciplinary Theme</th>
<th>Social Studies Outcomes for Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO WE ARE</td>
<td>• Distinguish between personal beliefs and belief systems</td>
</tr>
<tr>
<td>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.</td>
<td>• Define the elements of a belief system (creed, codes of behavior, rituals, community)</td>
</tr>
<tr>
<td></td>
<td>• Identify the major religions of the world in terms of their beliefs, rituals, and sacred texts</td>
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<tr>
<td></td>
<td>• Reflect upon how beliefs affect the individual and society</td>
</tr>
</tbody>
</table>
| WHERE WE ARE IN PLACE AND TIME | • Examine ways in which tools and techniques make certain tasks easier  
• Describe changes in scientific knowledge and technology that have affected your host country |
|--------------------------------|--------------------------------------------------------------------------------|
| SHARING THE PLANET             | • Describe social effects of environmental changes and crises resulting from natural phenomena  
• Evaluate conventional and alternative uses of land and water resources in the community, region, and beyond |
| HOW WE ORGANIZE OURSELVES      | • Describe how political institutions meet the needs and wants of individuals and society  
• Identify the elements of major political systems (for example: monarchy, democracy, constitutional monarchy, dictatorship) |
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.

<table>
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<tr>
<th>Overall Expectations</th>
<th>Learning Outcomes for Grades 3 and 4</th>
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</table>
| **Find and access information sources** | • With guidance, develop one’s personal learning system of information sources  
• Identify the location of resources within the library  
• Identify the physical parts of a book  
• With guidance, use the library’s online catalog to locate sources to meet information needs  
• Use library material’s call number to identify the material’s language and location in the library  
• With guidance, identify where to find online resources and tools, including reference sources, databases, and recommended search engines  
• With guidance, use school’s online resources (for example: encyclopedia, search engines, media articles, videos, images) to search for textual and audiovisual information  
• With guidance, locate information using effective online search strategies, and refine search strategies based on results  
• With guidance, propose and explain search strategies, including goals, actions, and reflection |
| **Select appropriate information sources and evaluate information critically** | • With guidance, formulate and refine an information need and the questions that would meet it  
• With guidance, decide which resource type best matches an information need  
• With guidance, use multiple resources and formats, particularly in the quest to validate information  
• With guidance, critically evaluate print and digital information sources (for example: relevancy, accuracy, author credibility/bias, timeliness, validity, importance, and social/cultural context)  
• With guidance, identify and critically evaluate digital advertising  
• With guidance, seek information sources that offer diverse perspectives  
• Differentiate between fiction and nonfiction  
• Distinguish between fact and opinion in nonfiction resources  
• With guidance, seek evidence within information sources that reinforces and/or disproves a hypothesis  
• With guidance, identify and use primary sources of information  
• With guidance, recognize that information found within a specific source matches the information need  
• With guidance, monitor gathered information and assess for gaps and weaknesses |
| **Extract, organize, and interpret information so that it is useful knowledge** | • With guidance, identify and use a book’s text features (for example: table of contents, heading, index, glossary, caption, diagram) to retrieve relevant information |
| Collaborate with others to exchange ideas, develop new understandings, and communicate knowledge | • With guidance, work productively and respectfully with others in learning situations  
• Share information, knowledge, and opinions with others in a group  
• With guidance, give and receive peer feedback  
• With guidance, make changes that incorporate peer feedback into revised drafts  
• With guidance, use collaborative digital tools to organize information, such as notes, and share understandings |
| Create and present products that express understanding and new meaning | • With guidance, choose the appropriate communication tool for the purpose  
• With guidance, create a coherent and focused product that includes an introduction, supporting information, and a conclusion  
• With guidance, plan, compose, and revise drafts of products  
• Convey clear and accurate factual information to an audience  
• Provide opinions and supporting evidence to an audience  
• With guidance, express knowledge and artistic creativity in a variety of forms using increasingly sophisticated print and digital media  
• With guidance, produce digital media following foundational media production process (for example: idea creation, storyboard, script writing, rehearsal, recording, editing, publishing)  
• With guidance, use presentation design principles (for example: color, balance, white space, minimal distractions) to communicate content effectively  
• With guidance, make presentation content and layout choices that exhibit awareness of purpose and audience  
• With guidance, use effective and efficient media production techniques and design principles (for example: ‘rules of thirds,’ lighting, steady hand, quality audio, etc.)  
• With guidance, practice presenting, reflecting, and editing the product  
• With guidance, evaluate research process and product to determine completeness and possible future strategies |
| Use information and | • With guidance, follow school’s technology rules as outlined in |
| Use technology hardware and software effectively to access information and communicate | Log in and out of school’s network and learning management system, software, and online accounts with effective student-created passwords  
With guidance, use browser tools and search engines  
Navigate and manipulate text and images using device specific tools  
Touch type proficiently at 15-20 WPM  
With guidance, search for, retrieve, download, save, print, and share files in a variety of formats with naming protocols and folder system  
With guidance, use built-in operating system features and software to individualize one’s learning needs  
With guidance, describe technology using correct terminology |
|---|---|
| technology ethically and responsibly | Follow library use and circulation procedures and policies  
With guidance, access and manage own patron record within online catalog  
With guidance, understand the concept of intellectual property and commit to the ethical use of others’ ideas and creations  
With guidance, express understanding in own words rather than those found in sources  
With guidance, use quotations to appropriately reproduce authors’ words and avoid plagiarism  
With guidance, define and identify the components of a citation given the type of the source  
With guidance, create a modified source list  
With guidance, access, display, create, and communicate digital material that builds a positive digital ‘footprint’ in compliance with the WIS Acceptable Use Policy  
With guidance, manage one’s own online security  
Use hardware and software responsibly, as outlined in the WIS Technology Acceptable Use Policy |
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 4, 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 4 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 4 students use digital media to compose music. Students continue to develop an appreciation of music through exploration of a variety of baroque, classical, and romantic era composers.

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 4 studio art, students understand and apply how composition, line, color, form, and shape visually communicate messages to the viewer. Abstract expressionism is a focus as well. In digital art class, students learn how to manipulate images and develop graphic design projects.

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.