

International School of Nanshan Shenzhen  
Grade 5: Unit of Inquiry Summary 2019-2020

	Aug. 26 <sup>th</sup> – Sept. 27 <sup>th</sup> (5 weeks)	Oct. 7 <sup>th</sup> – Nov. 6 <sup>th</sup> (4 ½ weeks)	Nov. 11 <sup>th</sup> – Dec. 20 <sup>th</sup> (5 ½ weeks)	Jan. 6 <sup>th</sup> – Feb. 21 <sup>st</sup> (4 ½ weeks)	Feb. 24 <sup>th</sup> – Mar. 27 <sup>th</sup> (5 weeks)www Apr. 7-10	April 13 <sup>th</sup> – June 12 <sup>th</sup> (8 weeks) SLC Prep Apr. 20-23
<b>Transdisciplinary Theme</b>	<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 relationship within and between them; access to equal opportunities; <b>peace and conflict resolution.</b>	<b>How We Organize Ourselves</b> An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; <b>societal decision-making</b> ; economic activities and their impact on humankind and the environment.	<b>Who We Are</b> An inquiry into the nature of the self; beliefs and values; <b>personal, physical, mental, social and spiritual health</b> ; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.	<b>How the World Works</b> An inquiry into the natural world and its laws; <b>the interaction between the natural world (physical and biological) and human societies</b> ; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.	<b>Where We Are In Place and Time</b> An inquiry into <b>orientation in place and time</b> ; 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.	<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.
<b>Unit Title</b>	Conflict Management	Governance	Adolescence	The Interdependence of Living Things	Ancient Civilizations	PYPX
<b>Central Idea</b>	The way people communicate may help overcome conflicts and lead to change.	People govern themselves in different ways.	Young people experience many changes before adulthood.	Living things adapt to or alter their surroundings.	Ancient civilizations contributed to the development of human society.	
<b>Lines of Inquiry (3-4)</b>	<ul style="list-style-type: none"> <li>• Causes of conflict</li> <li>• Resolution and management of conflict</li> <li>• The outcome of conflict</li> </ul>	<ul style="list-style-type: none"> <li>• Forms of government</li> <li>• Processes that change government</li> <li>• The responsibility of citizens in societal decision-making</li> </ul>	<ul style="list-style-type: none"> <li>• The organs and human body systems</li> <li>• Natural changes during puberty</li> <li>• Choices that impact the body systems</li> </ul>	<ul style="list-style-type: none"> <li>• Ecosystems, biomes and environments</li> <li>• Ways in which organisms are interconnected in nature</li> <li>• How humans can affect the balance in nature</li> </ul>	<ul style="list-style-type: none"> <li>• Archaeological discoveries and timelines</li> <li>• Ancient civilizations</li> <li>• The legacy of ancient societies</li> </ul>	
<b>Key Concepts (2-3)</b>	Causation Perspective Reflection	Form Change Responsibility	Function Change Reflection	Function Connection Causation	Perspective Form Connection	
<b>Related Concepts (3-4)</b>	Beliefs Communication Consequences	Rights Process Persuasion Power	Systems Biology Anatomy Wellbeing	Biodiversity Interdependence Balance	Discovery Archaeology History Culture	
<b>Transdisciplinary Skills (1-2)</b>	Resolving Conflict (Social) Dialectical Thought (Thinking)	Group Decision Making (Social) Speaking (Communication)	Informed Choices (Self-M'gt) Formulating Questions & Recording Data (Research)	Synthesis (Thinking) Presenting (Communication)	Organizing Data (Research) Analysis (Thinking)	Organization & Time Management (Self-Management) Adopting a variety of roles (Social)
<b>Attitudes (2-3)</b>	Respect Empathy	Integrity Tolerance	Independence Confidence	Cooperation Appreciation	Curiosity Enthusiasm	Creativity Commitment
<b>Learner Profile Attributes (2-3)</b>	Caring Open-minded	Principled Risk-taker	Balanced Reflective	Thinker Communicator	Inquirer Knowledgeable	
<b>Type of Action Focus</b>	Social Justice	Advocacy	Lifestyle Choices	Social Entrepreneurship	Participation	

Subject Integration	Visual Art Mandarin Social Studies Guidance?			Music Mandarin Math (data) Social Studies	Science PSPE PE Mandarin Guidance Tech Library	Science	PE? Mandarin Math (Shape & Space: 2D,3D, & Measurement) Social Studies	Visual Art Music PE Mandarin			
Math Stand-Alone	Math Mindset	Patterns 1 & 2	Numbers (place value)	-	Numbers (factors, multiples, prime & composite numbers)	Numbers (fractions, decimals, percent)	Numbers (x & ÷ of decimals)	Numbers (integers & Order of Operations)	-	Data (Probability)	Shape & Space (Transformations)  Patterns (Variables)
Writing	Realistic Fictions			Debates/Persuasive Writing—Paragraph structure 3.8	Informational Essays	Other Informational Texts		Fantasy Writing (What if...?)	XXXX		
Reading	Realistic Fiction (Story Arc, Summarizing/Visualizing)			Social Issues Book Clubs (Characters, Lessons/Themes)	Informational Text Structure vs. Realistic Fiction	Nonfiction Features and Vocabulary		Myths, Legends, Fantasy	XXXX		

### Learning Outcomes

	Sharing The Planet	How We Organize Ourselves	Who We Are	How the World Works	Where We Are in Place and Time	How We Express Ourselves
<b>Math</b> Scope & Sequence (integrated into the UOI)		<p><b>DATA</b></p> <p><b>Phase Five Conceptual Understandings:</b> Data can be presented effectively for valid interpretation and communication. Range, mode, median and mean can be used to analyse statistical data. Probability can be represented on a scale between 0-1 or 0 – 100%. The probability of an event can be predicted theoretically.</p> <p><b>PYP Outcomes:</b> <b>Constructing</b> - understand that different types of graphs have special purposes (DH4.1) <b>Transferring</b> - collect, display and interpret data in circle graphs (pie charts) and line graphs (DH4.5)</p>			<p><b>SHAPE &amp; SPACE</b></p> <p><b>PYP Outcomes</b> <b>Constructing</b> - understand the common language used to describe shapes (SS4.1) - understand systems for describing position and direction (SS4.5) - understand that 2D representations of 3D objects can be used to visualize and solve problems (SS4.6) - understand that geometric ideas and relationships can be used to solve problems in other areas of mathematics in real life (SS4.7) <b>Transferring</b> - analyse, describe, classify and visualize 2D (including circles, triangles and quadrilaterals) and 3D shapes, using geometric vocabulary (SS4.8)</p>	

**Applying**  
 - design a survey and systemically collect, record, organize and display the data in a bar graph, circle graph, line graph (DH4.9)

**NB Outcomes:**  
 - create, label and interpret line graphs to draw conclusions (SP1)  
 - Select, justify and use appropriate methods of collecting, including; questionnaires; experiments; databases; electronic media (SP2)  
 - graph collected data and analyze the graph to solve problems (SP3)

- describe lines and angles using geometric vocabulary (SS4.9)  
 - identify and use the language and notation of bearing to describe direction and position (SS4.11)  
 - explore the use of geometric ideas and relationships to solve problems in other areas of mathematics (SS4.13)

**Applying**  
 - use geometric vocabulary when describing shape and space in mathematical situations and beyond (SS4.14)  
 - apply the language and notation of bearing to describe direction and position (SS4.16)

**NB Outcomes:**  
 - Construct and compare triangles, including: scalene; isosceles; equilateral; right; obtuse; and acute in different orientations (SS4)  
 - describe and compare the sides and angles of regular and irregular polygons (SS5)

**MEASUREMENT**

**PYP Outcomes**

**Constructing**  
 - understand that procedures for finding area, perimeter and volume (M4.1)  
 - understand the relationships between area and perimeter, between area and volume, and between volume and capacity (M4.2)

**Transferring**  
 - develop and describe formulas for finding perimeter, area and volume (M4.4)  
 - use decimal and fraction notation in measurement, for example, 3.2cm, 1.47kg, 1 ½ miles (M4.5)  
 - read and interpret scales on a range of measuring instruments (M4.6)  
 - measure and construct angles in degrees using a protractor (M4.7)

					<p><b>Applying</b></p> <ul style="list-style-type: none"> <li>- select and use appropriate units of measurement and tools to solve problems in real-life situations (M4.9)</li> <li>- determine and justify the level of accuracy required to solve real-life problems involving measurement (M4.10)</li> <li>- use decimal and fractional notation in measurement, for example, 3.2cm, 1.47kg, 1 ½ miles (M4.11)</li> </ul> <p><b>NB Outcomes:</b></p> <ul style="list-style-type: none"> <li>- demonstrate an understanding of angles by: identifying examples of angles in the environment; classifying angles according to their measure; estimating the measure of angles using 45, 90, and 180 as reference angles; determining angle measures in degrees; drawing and labelling angles when the measure is specified (SS1)</li> <li>- demonstrate that the sum of interior angles is: 180 in a triangle; 360 in a quadrilateral (SS2)</li> <li>- demonstrate and apply a formula for determining the: perimeter of polygons; area of rectangles; volume of right rectangular prisms (SS3)</li> </ul>	
Language Scope and Sequence Outcomes  Listening & Speaking		<p><b>PYP Outcomes:</b></p> <p><b>NB Outcomes:</b></p> <ul style="list-style-type: none"> <li>- identify examples of prejudice, stereotyping, or bias in oral language; recognize their negative effect on individuals and cultures; and attempt to use language that shows respect for all people (3.2)</li> </ul>				
Language Scope and Sequence Outcomes  Viewing & Presenting						

Language Scope and Sequence Outcomes  Reading						
Language Scope and Sequence Outcomes  Writing						
<b>Science Scope &amp; Sequence</b> (Integrated into the UOI)			<p><b>PYP Outcomes:</b></p> <ul style="list-style-type: none"> <li>- explain the impact of diet in providing the body with sources of potential energy</li> <li>- explore health and safety issues facing children (for example, spread of diseases, accident, access to health care)</li> <li>- understand the role of vaccinations</li> <li>- explain the need to act responsibly with regards to his or her health and the health of others (for example, colds, head lice).</li> </ul> <p><b>NB Outcomes:</b></p> <ul style="list-style-type: none"> <li>- propose questions to investigate how our body functions and the contribution of its components (204-1)</li> <li>- describe how body systems help humans and other animals to <b>grow and reproduce</b> and to meet their basic needs (302-4)</li> <li>- describe the structure and function of the major organs of the <b>digestive system</b>(302-5a)</li> <li>- carry out procedures to investigate how simulated saliva can start the digestion process, by breaking down substances like starch into simple sugars; and record observations using sentences or charts (205-1, 305-7)</li> <li>- describe the structure and function of the major organs of the <b>excretory system</b>(302-5b)</li> <li>- describe the structure and function of the major organs of the <b>respiratory system</b>(302-5c)</li> </ul>	<p><b>PYP Outcomes:</b></p> <ul style="list-style-type: none"> <li>- describe the interactions of living things within and between ecosystems</li> </ul> <p><b>Review PYP Science Scope &amp; Sequence + NB outcomes to be added here.</b></p>		

			<ul style="list-style-type: none"> <li>- describe the structure and function of the major organs of the <b>circulatory system</b>(302-5d)</li> <li>- propose questions about the factors that affect breathing and heartbeat rate and rephrase these questions in a testable form (204-1, 204-2)</li> <li>- carry out procedures, making certain to control variables, when investigating the factors affecting breathing and heartbeat rate; compile and display data from these investigation ins a graph (205-1, 206-2)</li> <li>- demonstrate and describe the scientific processes used to investigate the factors that affect breathing and heartbeat rate (104-2)</li> <li>- describe the structure and function of the major organs of <b>the nervous system</b>(302-5e)</li> <li>- demonstrate how the <b>skeletal, muscular, and nervous systems</b>work together to produce movement (302-6)</li> <li>- carry out procedures to explore a person’s response time, and identify and suggest explanations for patterns and discrepancies in the data collected (205-1, 206-3)</li> <li>- select and use tools to build models of organs or body systems (205-2)</li> <li>- identify problems and work cooperatively with other students to refine their design of a model of an organ or body system (207-5)</li> <li>- describe nutritional and other requirements for maintaining a healthy body (302-9)</li> <li>- evaluate the usefulness of different information sources in answering questions about health and diet (206-4)</li> </ul>			
<b>Social Studies</b> Scope & Sequence	<b>PYP Outcomes:</b> - distinguish between personal beliefs and belief system - identify the source of beliefs	<b>PYP Outcomes:</b> - distinguish between personal beliefs and belief system - reflect upon how beliefs affect the individual and society			<b>PYP Outcomes:</b> - assess which aspects of past civilizations have had the most impact on the present day, using	

<p>(integrated into the UOI)</p>	<ul style="list-style-type: none"> <li>- reflect upon how beliefs affect the individual and society</li> <li>- suggest ways in which an individual can overcome adversity</li> <li>- reflect on his or her own misconceptions about people (for example, relating to age, race, gender, disability)</li> <li>- assess which aspects of past conflicts have had the most impact on the present day, using evidence from a variety of sources</li> <li>- identify the long-term and short term effects of conflict <ul style="list-style-type: none"> <li>- practice techniques of meditation and negotiation within the class and/or school community</li> </ul> </li> <li>- document examples of conflict (local and global) and identify the causes and consequences evaluate effectiveness of real-life conflict management (for example, research and analyse a global conflict situation)</li> <li>- reflect on his or her own strategies in dealing with situations of personal conflict</li> </ul>	<ul style="list-style-type: none"> <li>- analyse how individuals' and communities' needs and/or wants are met</li> <li>- explore issues relating to children's (people's) rights, roles and responsibilities in relation to his or her own and other cultures</li> <li>- describe how organizations and individuals meet the needs and wants of children (people)</li> <li>- suggest ways in which an individual can overcome adversity</li> <li>- recognize the elements of a major political system (monarchy, democracy, dictatorship)</li> <li>- examine how the rights of a person in a particular society directly affect their responsibilities</li> <li>- identify and describe means by which citizens can monitor and influence actions of their governments and vice versa</li> <li>- explore a range of political systems (for example, local, regional, national or international) and the impact they have on individuals, groups and society</li> <li>- describe advantages and disadvantages of cultural and individual diversity</li> <li>- reflect on his or her own misconceptions about people (for example, relating to age, race, gender, disability)</li> </ul> <p style="text-align: center;"><b>NB Outcomes:</b></p> <ul style="list-style-type: none"> <li>- demonstrate an understanding of how we learn about the past (5.1.1)</li> <li>- illustrate the similarities and differences of past societies and your society (5.6.1)</li> </ul>			<p>evidence from a variety of sources</p> <ul style="list-style-type: none"> <li>- identify and describe the components of culture</li> <li>- recognize how rituals and traditions contribute to cultural identity</li> <li>- interpret cultural beliefs and values using the evidence provided by rituals, traditions and artifacts</li> <li>- reflect on the influence of the arts and technology throughout history in the representation of culture <ul style="list-style-type: none"> <li>- describe how artifacts, heirlooms and rituals are evidence of cultural identity</li> </ul> </li> </ul> <p style="text-align: center;"><b>NB Outcomes:</b></p> <ul style="list-style-type: none"> <li>- demonstrate an understanding of how we learn about the past (5.1.1) <ul style="list-style-type: none"> <li>- explain how environment influenced the development of an ancient society (5.2.1)</li> </ul> </li> <li>- explain the importance of social structure in a society from the middle ages (5.3.1)</li> <li>- illustrate the similarities and differences of past societies and your society (5.6.1)</li> </ul>	
<p><b>PSPE Scope &amp; Sequence</b> (integrated into the UOI)</p>			<p style="text-align: center;"><b>PYP Outcomes</b> <b>Phase Four Conceptual Understandings:</b></p> <p>Identifying and participating in activities we enjoy can motivate us to maintain a healthy lifestyle.</p> <p>There is a connection between exercise, nutrition and physical</p>			

			<p>well-being. Setting personal goals and developing plans to achieve these goals can enhance performance. Understanding our limits and using moderation are strategies for maintaining a safe and healthy lifestyle.</p> <p><b>Active Living:</b></p> <ul style="list-style-type: none"> <li>- understand the interdependence of factors that can affect health and well-being (4.2)</li> <li>- identify realistic goals and strategies to improve personal fitness (4.3)</li> <li>- recognize the importance of moderation in relation to safe personal behavior (4.7)</li> </ul> <p><b>Interactions:</b></p> <ul style="list-style-type: none"> <li>- reflect critically on the effectiveness of the group during and at the end of the process (4.1)</li> <li>- build on previous experiences to improve group performance (4.2)</li> <li>- independently use different strategies to resolve conflict (4.3)</li> <li>- work towards a consensus, understanding the need to negotiate and compromise (4.4)</li> <li>- take action to support reparation in relationships and in the environment when hard has been done (4.5)</li> </ul>			
<p>Year-Round Language Outcomes</p>	<p><b>Listening and Speaking</b></p> <ul style="list-style-type: none"> <li>- infer meanings, draw conclusions and make judgements about oral presentations (SL5.4)</li> <li>- use an increasing vocabulary and more complex sentence structures with a high level of specificity (SL5.5)</li> <li>- paraphrase and summarize when communicating orally (SL5.8)</li> <li>- understand and use figurative language such as simile, personification and metaphor (SL5.9)</li> <li>- use oral language to formulate and communicate possibilities and theories (SL5.10)</li> <li>- use standard grammatical structures competently in appropriate situations (SL5.11)</li> </ul>	<p><b>Viewing and Presenting</b></p> <ul style="list-style-type: none"> <li>- view and critically analyse a range of visual texts, communicating understanding through oral, written and visual media (VP5.1)</li> <li>- examine and analyse 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 (VP5.9)</li> <li>- use appropriate terminology to identify a range of visual effects/formats and critically analyse their effectiveness, for example, mood, media, juxtaposition, proportion (VP5.11)</li> <li>- analyse the selection and composition of</li> </ul>	<p><b>Reading</b></p> <ul style="list-style-type: none"> <li>- read a wide range of text confidently, independently and with understanding (R5.1)</li> <li>- work in cooperative groups to locate and select texts appropriate to purpose and audience (R5.2)</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 (R5.3) --Myths, Legends, Fantasy</li> <li>- identify genre (including fantasy, biography, science fiction, mystery, historical novel) and</li> </ul>	<p><b>Writing</b></p> <ul style="list-style-type: none"> <li>- write independently and with confidence, showing the development of their own voice and style (W5.1)</li> <li>- write using a range of text types in order to communicate effectively, for example, narrative, instructional, persuasive (W5.2)</li> <li>- adapt writing according to the audience and demonstrate the ability to engage and sustain the interest of the reader (W5.3)</li> <li>- use appropriate paragraphing to organize ideas (W5.4)</li> </ul>		

	<p>- appreciate that people speak and respond according to personal and cultural perspectives (SL5.13)</p> <p>- reflect on communication to monitor and assess their own learning (SL5.15)</p> <p><b>New Brunswick Outcomes</b></p> <p>- contribute thoughts, ideas and experiences to discussion, and ask questions to clarify their ideas and those of their peers (1.1)</p> <p>- ask and respond to questions to seek clarification or explanation of ideas and concepts (1.2)</p> <p>- contribute to and respond constructively in conversation, small-group, and whole-group discussion, recognizing their roles and responsibilities as speakers and listeners (2.1)</p> <p>- use word choice and expression appropriate to the speaking occasion (2.2)</p> <p>- give and follow precise instructions and respond to questions and discussions (2.3)</p> <p>- demonstrate an awareness of the needs, right, and feelings of others by listening attentively and speaking in a manner appropriate to the situation (3.1)</p>	<p>visual presentations; select examples to explain how they achieve a particular impact, for example, dominant images, use of colour, texture, symbolism (VP5.12)</p>	<p><b>explain elements and literary forms that are associated with different genres (R5.4)</b></p> <p>- appreciate structural and stylistic differences between fiction and non-fiction; show understanding of this distinction when structuring their own writing (R5.5)</p> <p><b>- make inferences and be able to justify them (R5.9)</b></p> <p><b>- compare and contrast the plots of two different but similar novels, commenting on effectiveness and impact (R5.11)</b></p> <p>- distinguish between fact and opinion, and reach their own conclusions about what represents valid information (R5.12)</p> <p><b>- use a range of strategies to solve comprehension problems and deepen their understanding of a text (5.13)</b></p> <p>- consistently and confidently use a range of resources to find information and support their inquiries (R5.14)</p> <p>- participate in collaborative learning, considering multiple perspectives and working with peers to co-construct new understanding (R5.15)</p> <p>- use the internet responsibly and knowledgeably, appreciating its uses and limitations (R5.16)</p> <p><b>New Brunswick Outcomes</b></p> <p><b>- select, independently, texts appropriate to their interests and learning needs (4.1)</b></p> <p><b>- read widely and experience a variety of children's literature with an emphasis in genre and authors (4.2)</b></p> <p><b>- use and integrate the pragmatic, semantic, syntactic and graphophonic cueing systems (including context clues, word order, structural analysis to identify roots, prefixes, and suffixes) and a variety of strategies to construct meaning; use dictionary to determine word meaning in context (4.4)</b></p> <p><b>- describe and discuss their own processes and strategies in reading and viewing (4.5)</b></p> <p>- answer with decreasing assistance, their own questions and those of others by selecting relevant information from a variety of texts</p> <ul style="list-style-type: none"> <li>• respond to personal, group, and instructional needs for information through accessing a variety of texts</li> <li>• demonstrate an understanding of how classification systems and basic reference materials are used to facilitate research</li> </ul>	<p>- use a range of vocabulary and relevant supporting details to convey meaning and create atmosphere and mood (W5.5)</p> <p>- use planning, drafting, editing and reviewing processes independently and with increasing competence (W5.6)</p> <p>- critique the writing of peers sensitively; offer constructive suggestions (W5.7)</p> <p>- vary sentence structure and length (W5.8)</p> <p>- demonstrate an increasing understanding of how grammar works (W5.9)</p> <p>- use standard spelling for most words and use appropriate resources to check spelling (W5.10)</p> <p>- use dictionary, thesaurus, spellchecker confidently and effectively to check accuracy, broaden vocabulary and enrich their writing (W5.11)</p> <p>- choose to publish written work in handwritten form or in digital format independently (W5.12)</p> <p>- use written language as a means of reflecting on their own learning (W5.13)</p> <p>- locate, organize, synthesize and present written information obtained from a variety of valid sources (W5.16)</p> <p>- use a range of tools and techniques to produce written work that is attractively and effectively presented (W5.17)</p> <p><b>New Brunswick Outcomes</b></p> <p>- use a range of strategies in writing and other ways of representing to</p> <ul style="list-style-type: none"> <li>• frame questions and answers to those questions</li> <li>• generate topics of personal interest and importance</li> <li>• record, develop, and reflect on ideas, attitudes, and opinions</li> <li>• compare their own thoughts and beliefs to those of others</li> <li>• describe feelings, reactions, values, and attitudes</li> <li>• record and reflect on experiences and their responses to them</li> <li>• formulate and monitor goals for learning</li> <li>• practice and extend strategies for monitoring learning (8.1)</li> </ul> <p>- create written and media texts, collaboratively and independently, in different modes (expressive, transactional, and poetic), and in an increasing variety of forms (9.1)</p> <p>- invite responses to early drafts of their writing/media productions</p>
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			<ul style="list-style-type: none"> <li>• use a range of reference texts and a database or an electronic search to aid in the selection of texts</li> <li>• increase their abilities to access and assess information in response to their own and others questions (5.1)</li> <li>- describe, share, and discuss their personal reactions to a range of texts across genres, topics, and subjects (6.1)</li> <li>- use their background knowledge to question and analyze information presented in print and visual texts (7.1)</li> <li>- recognize how conventions and characteristics of different types of print and media texts help them understand what they read and view (7.2)</li> </ul>	<ul style="list-style-type: none"> <li>• use audience reaction to help shape subsequent drafts</li> <li>• reflect on their final drafts from reader's/viewer's/listener's points of view (9.3)</li> <li>- use a range of prewriting, drafting, revising, editing, proofreading, and presentation strategies (10.1)</li> <li>- use technology with increasing proficiency to create, revise, edit and publish texts (10.3)</li> <li>- demonstrate a commitment to shaping and reshaping pieces of writing and other representations through stages of development and refinement (10.4)</li> <li>- demonstrate an increasing understanding of the conventions of written language in final products <ul style="list-style-type: none"> <li>• use basic spelling rules and show an understanding of irregularities</li> <li>• use appropriate syntax in final products</li> <li>• use references while editing (dictionaries, classroom charts, checklists, thesauri, other writers) (10.2)</li> </ul> </li> <li>- select, organize, and combine relevant information from three or more sources to construct and communicate meaning (10.5)</li> </ul>	
Year-Round Math Outcomes	<p align="center"><b><u>NUMBERS</u></b> <b>Constructing</b></p> <ul style="list-style-type: none"> <li>- model numbers to millions and beyond (N4.1)</li> <li>- model ratios (N4.2)</li> <li>- model integers in appropriate contexts (N4.3)</li> <li>- model improper fractions and mixed numbers (N4.5)</li> <li>- simplify fractions using manipulatives (N4.6)</li> <li>- model decimal fractions to thousandths and beyond (N4.7)</li> <li>- model percentages (N4.8)</li> <li>- understand the relationship between fractions, decimals and percentages (N4.9)</li> <li>- model addition, subtraction, multiplication and division of fractions (N4.10)</li> <li>- model addition, subtraction, multiplication and division of decimals (N4.11)</li> </ul> <p align="center"><b>Transferring</b></p> <ul style="list-style-type: none"> <li>- read, write, compare and order whole numbers up to millions or beyond (N4.12)</li> <li>- read and write ratios (N4.13)</li> </ul>	<p align="center"><b><u>DATA ANALYSIS</u></b> <b>Constructing</b></p> <ul style="list-style-type: none"> <li>- understand that probability can be expressed in scale (0-1) or per cent (0% - 100%) (DH4.3)</li> <li>- understand the difference between experimental and theoretical probability (DH4.4)</li> </ul> <p align="center"><b>Transferring</b></p> <ul style="list-style-type: none"> <li>- express probabilities using scale (0-1) or per cent (0% - 100%) (DH4.8)</li> </ul> <p align="center"><b>Applying</b></p> <ul style="list-style-type: none"> <li>- determine the theoretical probability of an event and explain why it might differ from experimental probability (DH4.12)</li> </ul> <p align="center"><b>New Brunswick Outcomes:</b> Demonstrate an understanding of probability by: identifying all possible outcomes of a probability experiment; differentiating between experimental and theoretical probability; determining the theoretical probability of outcomes in a probability experiment; determining the experimental</p>	<p align="center"><b><u>MEASUREMENT</u></b></p>	<p align="center"><b><u>PATTERNS &amp; FUNCTION</u></b> <b>Constructing</b></p> <ul style="list-style-type: none"> <li>- understand that patterns can be generalized by a rule (PF4.1)</li> <li>- understand that patterns can be represented, analysed and generalized using tables, graphs, words, and when possible, symbolic rules (PF4.4)</li> </ul> <p align="center"><b>Transferring</b></p> <ul style="list-style-type: none"> <li>- represent the rule of a pattern by using a function (PF4.5)</li> <li>- analyse pattern and function using words, tables and graphs, and when possible, symbolic rules (PF4.6)</li> </ul> <p align="center"><b>Applying</b></p> <ul style="list-style-type: none"> <li>- select appropriate methods to analyse patterns and identify rules (PF4.7)</li> <li>- use functions to solve problems (PF4.8)</li> </ul> <p align="center"><b>New Brunswick Outcomes:</b> -demonstrate an understanding of the relationship within tables of values to solve problems (PR1)</p>	<p align="center"><b><u>SHAPE &amp; SPACE</u></b> <b>Constructing</b></p> <ul style="list-style-type: none"> <li>- understand the properties of regular and irregular polyhedral (SS4.2)</li> <li>- understand how scale (ratios) is used to enlarge and reduce shapes (SS4.4)</li> </ul> <p align="center"><b>Transferring</b></p> <ul style="list-style-type: none"> <li>- identify and use scale (ratios) to enlarge and reduce shapes (SS4.10)</li> </ul> <p align="center"><b>Applying</b></p> <ul style="list-style-type: none"> <li>- use scale (ratios) to enlarge and reduce shapes (SS4.15)</li> </ul> <p align="center"><b>New Brunswick Outcomes</b></p> <ul style="list-style-type: none"> <li>- Perform a combination of translations(s), rotations(s) and/or reflections(s) on a single 2D shape, with and without technology, and draw and describe the image (SS6)</li> <li>- perform a combination of successive transformations of 2D shapes to create a design, and identify and describe the transformations (SS7)</li> <li>- Identify and plot points in the first quadrant of a Cartesian plane using whole number ordered pairs (SS8)</li> </ul>

	<ul style="list-style-type: none"> <li>- read and write integers in appropriate contexts (N4.14)</li> <li>- convert improper fractions to mixed numbers and vice versa (N4.16)</li> <li>- simplify fractions in mental and written form (N4.17)</li> <li>- read, write, compare and order decimal fractions to thousandths or beyond (N4.18)</li> <li>- read, write, compare and order percentages (N4.19)</li> <li>- convert between fractions, decimals and percentages (N4.20)</li> <li style="text-align: center;"><b>Applying</b></li> <li>- use whole numbers up to millions or beyond in real-life situations (N4.21) <ul style="list-style-type: none"> <li>- use ratios in real-life situations (N4.22)</li> <li>- use integers in real-life situations (N4.23)</li> </ul> </li> <li>- convert improper fractions to mixed numbers and vice versa in real-life situations (N4.24) <ul style="list-style-type: none"> <li>- simplify fractions in computation answers (N4.25) <ul style="list-style-type: none"> <li>- use fractions, decimals and percentages interchangeably in real-life situations (N4.26)</li> <li>- select and use an appropriate sequence of operations to solve word problems (N4.27)</li> <li>- select an efficient method for solving a problem: mental estimation, mental computation, written algorithms, by using a calculator (N4.28)</li> <li>- use strategies to evaluate the reasonableness of answers (N4.29)</li> </ul> </li> <li>- use mental and written strategies for adding, subtracting, multiplying and dividing fractions and decimals in real-life situations (N4.30)</li> </ul> </li> <li>- estimate and make approximations in real-life situations involving fractions, decimals and percentages (N4.31)</li> </ul> <p style="text-align: center;"><b>New Brunswick Outcomes</b></p> <ul style="list-style-type: none"> <li>- demonstrate an understanding of place value for numbers; (N1) <ul style="list-style-type: none"> <li>• Greater than one million</li> <li>• Less than one thousandth</li> </ul> </li> <li>- solve problems involving large numbers, using technology (N2)</li> </ul>	<p style="text-align: center;">probability of outcomes in a probability experiment; comparing experimental results with the theoretical probability for an experiment. (SP4)</p>		<ul style="list-style-type: none"> <li>-Represent and describe patterns and relationships using graphs and tables (PR2) <ul style="list-style-type: none"> <li>- Represent generalizations arising from number relationships using equations with letter variables (PR3)</li> <li>- Demonstrate and explain the meaning of preservation of equality concretely, pictorially and symbolically (PR4)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- perform and describe single transformations of a 2D shape in the first quadrant of a Cartesian plane (limited to whole number vertices) (SS9)</li> </ul>
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	<ul style="list-style-type: none"> <li>- demonstrate an understanding of factors and multiples by; <ul style="list-style-type: none"> <li>• Determining multiples and factors of numbers less than 100</li> <li>• Identifying prime and composite numbers</li> <li>• Solving problems involving multiples (N3)</li> </ul> </li> <li>- relate improper fractions to mixed numbers (N4)</li> <li>- demonstrate an understanding of ratio, concretely, pictorially and symbolically (N5)</li> <li>- demonstrate an understanding of percent, (limited to whole numbers) concretely, pictorially and symbolically (N6)</li> <li>- demonstrate an understanding of integers, concretely, pictorially and symbolically (N7)</li> <li>- demonstrate an understanding of multiplication and division of decimals (1-digit whole number multipliers and 1-digit natural number divisors) (N8)</li> <li>- explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers) (N9)</li> </ul>							
	Year-Round Skills	<b>Science</b>		<p>Observe carefully in order to gather data</p> <p>Use a variety of instruments and tools to measure data accurately</p> <p>Use scientific vocabulary to explain their observations and experiences</p> <p>Identify or generate a question or problem to be explored</p> <p>Plan and carry out systematic investigations, manipulating variables as necessary</p> <p>Make and test predictions</p> <p>Interpret and evaluate data gathered in order to draw conclusions</p> <p>Consider scientific models and application of these models (including their limitations)</p>				
		<b>Social Studies</b>		<p>Formulate and ask questions about the past, the future, places and society</p> <p>Use and analyse evidence from a variety of historical, geographical and societal sources</p> <p>Orientate in relation to place and time</p> <p>Identify roles, rights and responsibilities in society</p>				
		<b>PYP Transdisciplinary Skills</b>		<b>Social Skill</b> Accepting responsibility Respecting others Cooperating Resolving conflict Group decision-making Adopting a variety of group roles	<b>Communication Skills</b> Listening Speaking Reading Viewing Presenting Non-verbal communication	<b>Research Skills</b> Formulating questions Observing Planning Collecting data Recording data Organizing data	<b>Thinking Skills</b> Acquisition of knowledge Comprehension Application Analysis Synthesis Evaluation Dialectical thought Metacognition	<b>Self-Management Skills</b> Gross motor skills Fine motor skills Spatial awareness Organization Time management Safety Healthy lifestyle Codes of behavior

					Interpreting data Presenting research findings		Informed choices
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