

## **BIG IDEAS**

Design can be responsive to identified needs.

Complex tasks require the acquisition of additional skills.

Complex tasks may require multiple tools and technologies.

Curricular Competencies	Content		
<ul> <li>Students are expected to be able to do the following:</li> <li>Applied Design Understanding context <ul> <li>Empathize with potential users to find issues and uncover needs and potential design opportunities</li> </ul> </li> <li>Defining <ul> <li>Choose a design opportunity</li> <li>Identify key features or potential users and their requirements</li> <li>Identify criteria for success and any constraints</li> </ul> </li> <li>Ideating <ul> <li>Generate potential ideas and add to others' ideas</li> <li>Screen ideas against criteria and constraints</li> <li>Evaluate personal, social, and environmental impacts and ethical considerations</li> <li>Choose an idea to pursue</li> </ul> </li> </ul>	The curriculum is designed to be offered in modules or courses of various lengths. Schools are required to provide students with the equivalent of a full- year "course" in Applied Design, Skills, and Technologies. This "course" can be made up of one or more modules. Schools may choose from among the modules listed below or develop new modules that use the Curricular Competencies of Applied Design, Skills, and Technologies 8 with locally developed content. Locally developed modules can be offered in addition to, or instead of, the modules in the provincial curriculum. <b>Computational Thinking</b> Students are expected to know the following: • software programs as specific and sequential instructions with algorithms that each be reliably repeated by others.		
	<ul> <li>that can be reliably repeated by others</li> <li>debugging algorithms and programs by breaking problems down into a series of sub-problems</li> <li>binary number system (1s and 0s) to represent data</li> <li>programming languages, including visual programming in relation to text-based programming and programming modular components</li> <li>Computers and Communications Devices</li> <li>Students are expected to know the following:</li> <li>design and function of digital infrastructures, from personal communication systems to wide area networks and the Internet of Things</li> <li>social, cultural, and economic impact of mobile devices</li> <li>systems for information transfer and communication, including videos, blogs, podcasts, and social media</li> <li>keyboarding techniques</li> </ul>		
<ul> <li>Identify and use sources of information</li> <li>Develop a plan that identifies key stages and resources</li> <li>Explore and test a variety of materials for effective use</li> <li>Construct a first version of the product or a prototype, as appropriate, making changes to tools, materials, and procedures as needed</li> <li>Record iterations of prototyping</li> </ul>			



Curricular Competencies	Content
<ul> <li>Testing <ul> <li>Test the first version of the product or the prototype</li> <li>Gather peer and/or user and/or expert feedback and inspiration</li> <li>Make changes, troubleshoot, and test again</li> </ul> </li> <li>Making <ul> <li>Identify and use appropriate tools, technologies, and materials for production</li> <li>Make a plan for production that includes key stages, and carry it out, making changes as needed</li> <li>Use materials in ways that minimize waste</li> </ul> </li> <li>Sharing <ul> <li>Decide on how and with whom to share their product</li> <li>Demonstrate their product and describe their process, using appropriate terminology and providing reasons for their selected solution and modifications</li> <li>Evaluate their product against their criteria and explain how it contributes to the individual, family, community, and/or environment</li> </ul> </li> </ul>	<ul> <li>Digital Literacy</li> <li>Students are expected to know the following: <ul> <li>elements of digital citizenship</li> <li>ethical and legal implications of current and future technologies</li> <li>strategies for curating personal digital content, including management, personalization, organization, and maintenance of digital content; e-mail management; and workflow</li> <li>search techniques, how search results are selected and ranked, and criteria for evaluating search results</li> <li>strategies to engage with personal learning networks</li> </ul> </li> <li>Drafting <ul> <li>Students are expected to know the following:</li> <li>manual and computer-aided drafting techniques</li> <li>elements of technical plans and drawings</li> <li>advantages of using vector files</li> <li>virtual creation using CAD</li> </ul> </li> </ul>
<ul> <li>Reflect on their design thinking and processes, and evaluate their ability to work effectively both as individuals and collaboratively in a group, including their ability to share and maintain an efficient co-operative work space</li> <li>Identify new design issues</li> <li>Applied Skills</li> <li>Demonstrate an awareness of precautionary and emergency safety procedures in both physical and digital environments</li> <li>Identify and evaluate the skills and skill levels needed, individually or as a group, in relation to a specific task, and develop them as needed</li> </ul>	<ul> <li>Students are expected to know the following:</li> <li>characteristics of entrepreneurial activity</li> <li>characteristics of social entrepreneurship in First Nations communities</li> <li>recognition of a market need and identification of target market</li> <li>development of a product or service, including its features and benefits</li> <li>forms of advertising and marketing that can influence a potential customer or buyer</li> <li>differences between consumer wants and needs</li> <li>role of money management in financing an idea or developing a product</li> </ul>



Curricular Competencies	Content
<ul> <li>Applied Technologies</li> <li>Select, and as needed learn about, appropriate tools and technologies to extend their capability to complete a task</li> <li>Identify the personal, social, and environmental impacts, including unintended negative consequences, of the choices they make about technology use</li> <li>Identify how the land, natural resources, and culture influence the development and use of tools and technologies</li> </ul>	<ul> <li>Food Studies</li> <li>Students are expected to know the following: <ul> <li>cross-contamination, including prevention and management</li> <li>food preparation practices, including elements of a recipe, techniques, and equipment</li> <li>effects of removing or substituting ingredients, including nutritional profile, food quality, taste</li> <li>social factors that affect food choices, including eating practices</li> <li>variety of eating practices</li> <li>local food systems</li> <li>First Peoples food use and how that use has changed over time</li> </ul> </li> </ul>
	<ul> <li>Media Arts</li> <li>Students are expected to know the following:</li> <li>digital and non-digital media technologies, their distinguishing characteristics, and their uses, including layout and design, graphics and images, and video production techniques for using images, sounds, and text to represent characterizations and points of view of people, including themselves, as well as settings and ideas</li> <li>story principles and genre conventions</li> <li>media technologies and techniques to shape space, time, movement, and lighting within images, sounds, and text for specific purposes</li> <li>processes for manipulating and testing digital media data</li> <li>issues in ethical media practices, including cultural appropriation, moral copyright, reproduction, and privacy</li> <li>elements of media arts used to communicate meaning</li> <li>influences of digital media, including on communication and self-expression</li> </ul>



Curricular Competencies	Content
	Metalwork         Students are expected to know the following:         • characteristics and uses of ferrous and non-ferrous metals         • metal fastening techniques, including basic welding and fabrication practices         • metalworking techniques and processes using hand tools and power equipment         • elements of plans and drawings         • reclamation and repurposing of metals
	Power Technology         Students are expected to know the following:         • uses of power technology         • renewable and non-renewable sources of energy         • conversion and transmission of energy         • kinetic and potential energy         • effect of mass and inertia on speed and distance         • role of aerodynamics         • effects of forces on devices
	Robotics         Students are expected to know the following:         • uses of robotics in local contexts         • types of sensors         • user and autonomous control systems         • uses and applications of end effectors         • movement- and sensor-based responses         • program flow         • interpretation and use of schematics for assembling circuits         • identification and applications of components         • various platforms for robotics programming



Curricular Competencies	Content
	<ul> <li>Textiles</li> <li>Students are expected to know the following: <ul> <li>sources of textile materials</li> <li>hand and machine construction techniques for producing and/or repairing textile items</li> <li>basic components of patterns and instructions</li> <li>colour as an element of design</li> <li>personal factors that influence textile choices, including culture and self-</li> </ul> </li> </ul>
	Woodwork         Students are expected to know the following:         • historical and current contexts of woodworking
	<ul> <li>identification, characteristics, and properties of a variety of woods, both manufactured and natural</li> <li>elements of plans and drawings</li> <li>woodworking techniques</li> <li>traditional and non-traditional joinery using hand tools and power equipment</li> <li>options for reuse of wood and wood products</li> </ul>



COLUMBIA

# Area of Learning: ARTS EDUCATION

## **BIG IDEAS**

Creative growth requires patience,
readiness to take risks, and
willingness to try new approaches.

Individual and collective expression can be achieved through the **arts**. Dance, drama, music, and visual arts are each unique languages for creating and **communicating**.

Artists often challenge the status quo and open us to new perspectives and experiences.

Curricular Competencies	Content
Students will be able to use creative processes to:       St <b>Exploring and creating</b> <ul> <li>Intentionally select and apply materials, movements, technologies, environments, tools, and techniques by combining and arranging artistic elements, processes, and principles in art making</li> <li>Create artistic works collaboratively and as an individual using ideas inspired by imagination, inquiry, experimentation, and purposeful play</li> <li>Explore relationships between identity, place, culture, society, and belonging through arts activities and experiences</li> <li>Demonstrate an understanding and appreciation of personal, social, cultural, historical, and environmental contexts in relation to the arts</li> </ul> <li><b>Reasoning and reflecting</b> <ul> <li>Develop, refine ideas, and critically appraise ideas, processes, and technical skills in a variety of art forms to improve the quality of artistic creations</li> <li>Reflect on works of art and creative processes to understand artists motivations and meanings</li> <li>Interpret works of art using knowledge and skills from various areas of learning</li> <li>Respond to works of art using one's knowledge of the world</li> </ul> </li>	<ul> <li>Students are expected to know the following:</li> <li>manipulation of elements, principles, and design strategies to create mood and convey ideas in the arts, including but not limited to: <ul> <li>dance: body, space, dynamics, time, relationships, form, and movement principles</li> <li>drama: character, time, place, plot, tension, mood, focus, contrast, balance</li> <li>music: beat/pulse, metre, duration, rhythm, tempo, pitch, timbre, dynamics, form, texture, notation</li> <li>visual arts: elements of design: line, shape, space, texture, colour, form, value; principles of design: pattern, repetition, balance, contrast, emphasis, rhythm, movement, variety, proportion, unity, harmony</li> </ul> </li> <li>processes, materials, movements, technologies, tools, strategies, and techniques to support creative works</li> <li>choreographic devices</li> <li>drama forms and drama conventions</li> <li>notation in music, dance and drama to represent sounds, ideas, movement, elements, and actions</li> <li>image development strategies</li> <li>symbolism and metaphor to explore ideas and perspective</li> <li>traditional and contemporary Aboriginal arts and arts-making processes</li> <li>a variety of national and international works of art and artistic traditions from diverse cultures, communities, times, and places</li> <li>ethical considerations and cultural appropriation related to the arts</li> <li>personal and collective responsibility associated with creating, experiencing, or presenting in a safe learning environment</li> </ul>



Curricular Competencies	Content
Communicating and documenting	
<ul> <li>Adapt learned skills, understandings, and processes for use in new contexts and for different purposes and audiences</li> </ul>	
<ul> <li>Interpret and communicate ideas using symbols and elements to express meaning through the arts</li> </ul>	
<ul> <li>Take creative risks to express feelings, ideas, and experiences</li> <li>Describe, interpret and <b>respond</b> to works of art</li> </ul>	
<ul> <li>Experience, document, choreograph, perform, and share creative works in a variety of ways</li> </ul>	
<ul> <li>Use the arts to communicate, respond to and understand environmental and global issues</li> </ul>	
<ul> <li>Demonstrate increasingly sophisticated application and/or engagement of curricular content</li> </ul>	



# Area of Learning: CAREER EDUCATION

UFirst v of education			<b>BIG IDEAS</b>		
Reflecting on our preferences and skills helps us identify the steps we need to take to achieve our career goals.	The value of work in our lives, communities, and society can be viewed from diverse perspectives.		Achieving our learning goals requires effort and perseverance.	Adapting to economic and labour market changes requires flexibility.	Our career paths reflect the personal, community, and educational choices we make.
		Le	arning Standards		
Curricular Competencies				Content	
Students are expected to be able	Students are expected to be able to do the following:		Students are expected to know the following:		
<ul> <li>Recognize the impact of per-</li> <li>Demonstrate respect, collaboration</li> <li>Recognize and explore diversion and society</li> <li>Demonstrate safety skills and</li> <li>Set and achieve realistic learnersion</li> </ul>	but how individual purposes and sonal public identity in the wo oration, and inclusivity in working erse perspectives on how work d appreciate the importance of w rning goals with perseverance a urriculum choices and co-curric twork of resources and mentors but the role of family expectation choices skills to expand their knowledge ters new learning experiences that se agies to a life, work, or commun	I pas choi orld ig w c co worl and cular <b>s</b> to ns a e of stim	ssions can support the ices of work vith others to solve problems ntributes to our community kplace safety resilience activities on <b>career paths</b> assist with career nd traditions, and of diverse career possibilities ulate <b>entrepreneurial</b> and	<ul> <li>career value of volunt</li> <li>Life and Career Plan</li> <li>graduation requirement</li> <li>role of mentors, family personal network in determination influence of technolog</li> <li>workplace safety         <ul> <li>hazard evaluation at a rights and responsi</li> <li>emergency procedution</li> </ul> </li> </ul>	career research ity ds and opportunities areness of jobs in the community eering nts /, community, school, and ecision making y in learning and working and control bilities of the worker ures hool, personal network, and



HF178EV of ducation

Language and text
can be a source of
creativity and joy.

Exploring **stories** and other **texts** helps us understand ourselves and make connections to others and to the world. People understand text differently depending on their worldviews and perspectives.

**Learning Standards** 

#### Texts are socially, culturally, and historically constructed.

Questioning what we hear, read, and view contributes to our ability to be educated and engaged citizens.

Curricular Competencies	Content
Jsing oral, written, visual, and digital texts, students are expected individually and collaboratively to be able to:	Students are expected to know the following:
<ul> <li>Comprehend and connect (reading, listening, viewing)</li> <li>Access information and ideas for diverse purposes and from a variety of sources and evaluate their relevance,</li> </ul>	Story/text <ul> <li>forms, functions, and genres of text</li> </ul>
<ul> <li>accuracy, and reliability</li> <li>Apply appropriate strategies to comprehend written, oral, and visual texts, guide inquiry, and extend thinking</li> <li>Synthesize ideas from a variety of sources to build understanding</li> <li>Recognize and appreciate how different features, forms, and genres of texts reflect different purposes, audiences, and messages</li> <li>Thick existently exectivally and reflectivally to curlers ideas within between and</li> </ul>	<ul> <li>text features</li> <li>literary elements</li> <li>literary devices</li> <li>elements of visual/graphic texts</li> <li>relevance, accuracy, reliability</li> </ul>
<ul> <li>Think critically, creatively, and reflectively to explore ideas within, between, and beyond texts</li> <li>Recognize and identify the role of personal, social, and cultural contexts, values, and perspectives in texts</li> </ul>	Strategies and processes <ul> <li>reading strategies</li> </ul>
<ul> <li>Recognize how language constructs personal, social, and cultural identity</li> <li>Construct meaningful personal connections between self, text, and world</li> <li>Respond to text in personal, creative, and critical ways</li> </ul>	<ul> <li>oral language strategies</li> <li>metacognitive strategies</li> <li>writing processes</li> </ul>
<ul> <li>Recognize how literary elements, techniques, and devices enhance and shape meaning</li> <li>Recognize an increasing range of text structures and how they contribute to meaning</li> <li>Recognize and appreciate the role of story, narrative, and oral tradition in expressing First Peoples perspectives, values, beliefs, and points of view</li> </ul>	Language features, structures, and conventions <ul> <li>features of oral language</li> <li>multi-paragraphing</li> </ul>
<ul> <li>Develop an awareness of the protocols and ownership associated with First Peoples texts</li> </ul>	<ul> <li>Ianguage usage and context</li> <li>elements of style</li> </ul>
Create and communicate (writing, speaking, representing)	syntax and sentence fluency
<ul> <li>Exchange ideas and viewpoints to build shared understanding and extend thinking</li> <li>Use writing and design processes to plan, develop, and create engaging and meaningful literary and informational texts for a variety of purposes and audiences</li> </ul>	<ul><li>conventions</li><li>presentation techniques</li></ul>
<ul> <li>Assess and refine texts to improve their clarity, effectiveness, and impact according to purpose, audience, and message</li> <li>Use an increasing reportains of conventions of Canadian spelling, grammar, and nunctuation</li> </ul>	
<ul> <li>Use an increasing repertoire of conventions of Canadian spelling, grammar, and punctuation</li> <li>Use and experiment with oral storytelling processes</li> <li>Select and use appropriate features, forms, and genres according to audience, purpose, and message</li> </ul>	
<ul> <li>Transform ideas and information to create original texts.</li> </ul>	



**BIG IDEAS** 

Listening and viewing with intent deepens our understanding of French.	We can express ourselves and talk about the world around us in French.	With increased fluency in French, we can participate more actively in <b>reciprocal</b> interactions.		Stories allow us to communicate ideas in a meaningful way.	Creative works allow us to experience culture in an authentic way.	Acquiring a new language and learning about another culture deepen our understanding of our own language and culture.	
			~				

#### **Learning Standards**

Curricular Competencies	Content
<ul> <li>Students are expected to be able to do the following:</li> <li>Recognize the relationship between French letter patterns and pronunciation</li> <li>Use a variety of strategies to increase understanding</li> <li>Understand increasingly complex key information and supporting details in texts</li> <li>Understand and retell stories</li> <li>Narrate simple stories</li> <li>Seek clarification and provide verification of meaning</li> <li>Exchange ideas and information using complete sentences orally and in writing: <ul> <li>ask and answer a variety of questions about familiar topics</li> <li>describe people, objects, and personal interests</li> <li>compare and contrast basic characteristics of objects and people</li> <li>explain reasons for emotional and physical states</li> <li>express basic beliefs and opinions</li> </ul> </li> </ul>	Content         Students are expected to know the following:         • French letter patterns         • common, high frequency vocabulary and sentence structures for communicating meaning:         - asking and responding to different types of questions         - expressing time and frequency         - describing people, objects, and personal interests         - comparing and contrasting         - explaining reasons for preferences, emotions, and physical states         - expressing basic beliefs and opinions         - describing cultural aspects of communities
<ul> <li>express basic beliefs and opinions</li> <li>Identify and share information about Francophone communities around the world</li> <li>Expand their experience of Francophone culture through the exploration of Francophone creative works</li> <li>Describe cultural aspects of Francophone communities, practices, and traditions</li> <li>Describe similarities and differences between their own cultural practices and</li> </ul>	
<ul> <li>Describe similarities and unreferices between their own cultural practices and traditions and those of Francophone communities</li> <li>Explore ways to engage with Francophone communities, people, or experiences</li> </ul>	<ul> <li>around the world</li> <li>cultural aspects of Francophone communities, practices, and traditions</li> </ul>

June 2016



## **BIG IDEAS**

Number represents,	Computational		Discrete linear relationships		The relationship between	Analyzing <b>data</b> by
describes, and	fluency and		can be represented in		surface area and volume of	determining averages is one
compares the	flexibility extend		many connected ways		3D objects can be used to	way to make sense of large
quantities of ratios,	to operations		and used to identify and		describe, measure, and	data sets and enables us to
rates, and percents.	with fractions.		make generalizations.		compare spatial relationships.	compare and interpret.
		l		J		

Curricular Competencies	Content
Students are expected to do the following:	Students are expected to know the following:
<ul> <li>Reasoning and analyzing <ul> <li>Use logic and patterns to solve puzzles and play games</li> <li>Use reasoning and logic to explore, analyze, and apply mathematical ideas</li> <li>Estimate reasonably</li> <li>Demonstrate and apply mental math strategies</li> <li>Use tools or technology to explore and create patterns and relationships, and test conjectures</li> <li>Model mathematics in contextualized experiences</li> </ul> </li> <li>Understanding and solving <ul> <li>Apply multiple strategies to solve problems in both abstract and contextualized situations</li> <li>Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving</li> <li>Visualize to explore mathematical concepts</li> <li>Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures</li> </ul> </li> <li>Communicating and representing <ul> <li>Use mathematical vocabulary and language to contribute to mathematical discussions</li> <li>Explain and justify mathematical tideas and decisions</li> <li>Communicate mathematical thinking in many ways</li> <li>Represent mathematical ideas in concrete, pictorial, and symbolic forms</li> </ul> </li> </ul>	<ul> <li>perfect squares and cubes</li> <li>square and cube roots</li> <li>percents less than 1 and greater than 100 (decimal and fractional percents)</li> <li>numerical proportional reasoning (rates, ratio, proportions, and percent)</li> <li>operations with fractions (addition, subtraction, multiplication, division, and order of operations)</li> <li>discrete linear relations (extended to larger numbers limited to integers)</li> <li>expressions- writing and evaluating using substitution</li> <li>two-step equations with integer coefficients, constants, and solutions</li> <li>surface area and volume of regular solids, including triangular and other right prisms and cylinders</li> <li>Pythagorean theorem</li> </ul>
Connecting and reflecting	<ul> <li>construction, views, and nets of 3D objects</li> <li>central tendency</li> </ul>
<ul> <li>Reflect on mathematical thinking</li> <li>Connect mathematical concepts to each other and to other areas and personal interests</li> <li>Use mathematical arguments to support personal choices</li> <li>Incorporate First Peoples worldviews and perspectives to make connections to</li> </ul>	<ul> <li>theoretical probability with two independent events</li> <li>financial literacy — best buys</li> </ul>



Lifelong participation in

physical activity has many

benefits and is an essential

part of a healthy lifestyle.

Advocating for the

health and well-being

of others connects us to

our community.

Whitsty of ducation

Daily participation in different types

of physical activity influences our

physical literacy and personal

health and fitness goals.

### **BIG IDEAS**

Healthy choices

influence our physical,

emotional, and mental

well-being.

Healthy relationships

can help us lead

rewarding and fulfilling

lives.

Learning Standards					
Curricular Competencies	Content				
<ul> <li>Students are expected to be able to do the following:</li> <li>Physical literacy <ul> <li>Develop, refine, and apply fundamental movement skills in a variety of physical activities and environments</li> <li>Develop and apply a variety of movement concepts and strategies in different physical activities</li> <li>Apply methods of monitoring and adjusting exertion levels in physical activity</li> <li>Develop and demonstrate safety, fair play, and leadership in physical activities</li> <li>Identify and describe preferred types of physical activity</li> </ul> </li> <li>Healthy and active living <ul> <li>Participate daily in physical activity designed to enhance and maintain health components of fitness</li> <li>Develop strategies for promoting healthy eating choices in different settings</li> <li>Assess factors that influence healthy choices and their potential health effects</li> <li>Identify factors that influence on behaviour</li> <li>Identify and apply strategies to pursue personal healthy-living goals</li> <li>Reflect on outcomes of personal healthy-living goals and assess strategies used</li> </ul> </li> </ul>	<ul> <li>Students are expected to know the following:</li> <li>proper technique for fundamental movement skills, including non-locomotor, locomotor, and manipulative skills</li> <li>movement concepts and strategies</li> <li>ways to monitor and adjust physical exertion levels</li> <li>how to participate in different types of physical activities, including individual and dual activities, rhythmic activities, and games</li> <li>training principles to enhance personal fitness levels including the FITT principle, SAID principle, and specificity</li> <li>effects of different types of physical activity on the body</li> <li>healthy sexual decision making</li> <li>marketing and advertising tactics aimed at children and youth, including those involving food and supplements</li> <li>potential short-term and long-term consequences of health decisions, including those involving nutrition, protection from sexually transmitted infections, and sleep routines</li> <li>sources of health information</li> <li>basic principles for responding to emergencies</li> <li>strategies to protect themselves and others from potential abuse, exploitation, and harm in a variety of</li> </ul>				



Curricular Competencies	Content
<ul> <li>Social and community health</li> <li>Propose strategies for avoiding and/or responding to potentially unsafe, abusive, or exploitive situations</li> <li>Propose strategies for responding to discrimination, stereotyping, and bullying</li> <li>Propose strategies for developing and maintaining healthy relationships</li> <li>Create strategies for promoting the health and well-being of the school and community</li> </ul>	<ul> <li>consequences of bullying, stereotyping, and discrimination</li> <li>media and social influences related to psychoactive substance use and potentially addictive behaviours</li> <li>signs and symptoms of stress, anxiety, and depression</li> <li>influences of physical, emotional, and social changes on identities and relationships</li> </ul>
Mental well-being	
<ul> <li>Describe and assess strategies for promoting mental well-being, for self and others</li> <li>Describe and assess strategies for managing problems related to mental well-being and substance use, for others</li> <li>Create and assess strategies for managing physical, emotional, and social changes during puberty and adolescence</li> <li>Explore and describe the impact of transition and change on identities</li> </ul>	



# **BIG IDEAS**

Life processes are performed at the cellular level.

The behaviour of matter can be explained by the kinetic molecular theory and atomic theory. Energy can be transferred as both a particle and a wave.

The theory of plate tectonics is the unifying theory that explains Earth's geological processes.

Curricular Competencies	Content
<ul> <li>Students are expected to be able to do the following:</li> <li>Questioning and predicting <ul> <li>Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest</li> <li>Make observations aimed at identifying their own questions about the natural world</li> <li>Identify a question to answer or a problem to solve through scientific inquiry</li> <li>Formulate alternative "Ifthen" hypotheses based on their questions</li> <li>Make predictions about the findings of their inquiry</li> </ul> </li> <li>Planning and conducting <ul> <li>Collaboratively plan a range of investigation types, including field work and experiments, to answer their questions or solve problems they have identified</li> <li>Measure and control variables (dependent and independent) through fair tests</li> <li>Observe, measure, and record data (qualitative and quantitative), using equipment, including digital technologies, with accuracy and precision</li> <li>Use appropriate SI units and perform simple unit conversions</li> <li>Ensure that safety and ethical guidelines are followed in their investigations</li> </ul> </li> <li>Processing and analyzing data and information</li> <li>Experience and interpret the local environment</li> <li>Apply First Peoples perspectives and knowledge, other ways of knowing, and local</li> </ul>	<ul> <li>Students are expected to know the following:</li> <li>characteristics of life</li> <li>cell theory and types of cells</li> <li>photosynthesis and cellular respiration</li> <li>the relationship of micro-organisms with living things: <ul> <li>basic functions of the immune system</li> <li>vaccination and antibiotics</li> <li>impacts of epidemics and pandemics on human populations</li> </ul> </li> <li>kinetic molecular theory (KMT)</li> <li>atomic theory and models</li> <li>protons, neutrons, and quarks</li> <li>electrons and effects of electromagnetic radiation</li> <li>light: <ul> <li>properties</li> <li>behaviours</li> <li>ways of sensing</li> <li>plate tectonic movement</li> </ul> </li> </ul>
<ul> <li>Apply First People's perspectives and knowledge, other ways of knowing, and local knowledge as sources of information</li> <li>Construct and use a range of methods to represent patterns or relationships in data, including tables, graphs, keys, models, and digital technologies as appropriate</li> <li>Seek patterns and connections in data from their own investigations and secondary sources</li> <li>Use scientific understandings to identify relationships and draw conclusions</li> </ul>	<ul> <li>major geological events of local significance</li> <li>First Peoples knowledge of: <ul> <li>local geological formations</li> <li>significant local geological events</li> </ul> </li> <li>layers of Earth <ul> <li>(continued)</li> </ul> </li> </ul>



Curricular Competencies	Content
<ul> <li>Evaluating</li> <li>Reflect on their investigation methods, including the adequacy of controls on variables (dependent and independent) and the quality of the data collected</li> <li>Identify possible sources of error and suggest improvements to their investigation methods</li> <li>Demonstrate an awareness of assumptions and bias in their own work and secondary sources</li> <li>Demonstrate an understanding and appreciation of evidence (qualitative and quantitative)</li> <li>Exercise a healthy, informed skepticism and use scientific knowledge and findings from their own investigations to evaluate claims in secondary sources</li> <li>Consider social, ethical, and environmental implications of the findings from their own and others' investigations</li> </ul>	
<ul> <li>Applying and innovating</li> <li>Contribute to care for self, others, community, and world through personal or collaborative approaches</li> <li>Co-operatively design projects</li> <li>Transfer and apply learning to new situations</li> <li>Generate and introduce new or refined ideas when problem solving</li> </ul>	
<ul> <li>Communicating</li> <li>Communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate</li> <li>Express and reflect on a variety of experiences and perspectives of place</li> </ul>	



# **BIG IDEAS**

Contact and conflict between
peoples stimulated significant
cultural, social, and
political change.

Human and environmental factors shape changes in population and living standards.

Exploration, expansion, and colonization had varying consequences for different groups. Changing ideas about the world created tension between people wanting to adopt new ideas and those wanting to preserve established traditions.

Curricular Competencies	Content
<ul> <li>Students are expected to be able to do the following:</li> <li>Use Social Studies inquiry processes and skills to ask questions; gather, interpret, and analyze ideas; and communicate findings and decisions</li> <li>Assess the significance of people, places, events, or developments at particular times and places (significance)</li> <li>Identify what the creators of accounts, narratives, maps, or texts have determined is significant (significance)</li> <li>Assess the credibility of multiple sources and the adequacy of evidence used to justify conclusions (evidence)</li> <li>Characterize different time periods in history, including periods of progress and decline, and identify key turning points that mark periods of change (continuity and change)</li> <li>Determine which causes most influenced particular decisions, actions, or events, and assess their short-and long-term consequences (cause and consequence)</li> <li>Explain different perspectives on past or present people, places, issues, or events, and compare the values, worldviews, and beliefs of human cultures and societies in different times and places (perspective)</li> <li>Make ethical judgments about past events, decisions, or actions, and assess the limitations of drawing direct lessons from the past (ethical judgment)</li> </ul>	<ul> <li>Students are expected to know the following:</li> <li>social, political, and economic systems and structures, including those of at least one indigenous civilization</li> <li>scientific and technological innovations</li> <li>philosophical and cultural shifts</li> <li>interactions and exchanges of resources, ideas, arts, and culture between and among different civilizations</li> <li>exploration, expansion, and colonization</li> <li>changes in population and living standards</li> </ul>