Curriculum Pacing Guide 2022-2023

The purpose of this pacing guide is to assist in mapping out the assessment of curricular objectives of Science 7, to facilitate collaboration between Science 7 teachers within the division, and to provide professional development opportunities relevant to the current unit of study.

For the 2022-2023 school year, there is flexibility within each semester, meaning that there is no required order in which to teach and assess the units of study, as long as the outcomes are appropriately taught, evaluated and assessed by the end of each semester. Units B, D, and E must be completed by January 31, 2023. Please note that each unit is equally weighted in the Science 7 Program of Studies and the Science 7 Common Summative Assessment. The suggested time frame assumes 45 minute periods, and may need to be adjusted to accommodate different schedules.

Grade 7 Science

	Reporting Standards (PTP General Outcome)	General Outcomes from Program of Studies (To be Assessed and Reported)	Specific Skill Outcomes (To be Taught, NOT Necessarily Reported)	Enrichment Notes (Please Visit SharePoint for Resources)
UNIT B Plants for Food and Fibre Suggested time frame: 27 classes	7.SCI.B.1 7.SCI.B.2 7.SCI.B.3 7.SCI.B.4 7.SCI.S.IP.1	**Science, Technology and Society (STS) and Knowledge Outcomes** 1. Investigate plant uses; and identify links among needs, technologies, products and impacts 2. Investigate life processes and structures of plants, and interpret related characteristics and needs of plants in a local environment 3. Analyze plant environments, and identify impacts of specific factors and controls 4. Identify and interpret relationships among human needs, technologies, environments, and the culture and use of living things as sources of food and fibre **Skill Outcome** Initiating and Planning ● Ask questions about the relationships between and among observable variables, and plan investigations to address those questions	**Initiating and Planning** 7.SCI.S.IP.1.1 7.SCI.S.IP.1.2 7.SCI.S.IP.1.3 7.SCI.S.IP.1.4 7.SCI.S.IP.1.7 **Performing and Recording** 7.SCI.S.PR.1.1 7.SCI.S.PR.1.2 7.SCI.S.PR.1.3 7.SCI.S.PR.1.5 **Analyzing and Interpreting** 7.SCI.S.AI.1.1 7.SCI.S.AI.1.2 7.SCI.S.AI.1.3 **Communication and Teamwork** 7.SCI.S.CT.1.1 7.SCI.S.CT.1.2 7.SCI.S.CT.1.3	**Cross-Curricular** English Language Arts ● Outcome 5.1-Respect Diversity and Strengthen Community **Indigenous** Powerpoint and Script- Plants as Food and Fibre- Indigenous Perspective Lesson Plan- Traditional Metis Medicine Derived from Plants
UNIT D Structure and Forces Suggested time frame: 26 classes	7.SCI.D.1 7.SCI.D.2 7.SCI.D.3 7.SCI.D.4 7.SCI.S.PR.1	**Science, Technology and Society (STS) and Knowledge Outcomes** 1. Describe and interpret different types of structures encountered in everyday objects, buildings, plants and animals; and identify materials from which they are made 2. Investigate and analyze forces within structures, and forces applied to them 3. Investigate and analyze the properties of materials used in structures 4. Demonstrate and describe processes used in developing, evaluating and improving structures that will meet human needs with a margin of safety **Skill Outcome** Performing and Recording ● Conducts investigations into the relationships between and among observations, and gathers and records qualitative and quantitative data	**Initiating and Planning** 7.SCI.S.IP.1.4 7.SCI.S.IP.1.7 7.SCI.S.IP.1.9 **Performing and Recording** 7.SCI.S.PR.1.2 7.SCI.S.PR.1.7 7.SCI.S.PR.1.8 7.SCI.S.PR.1.9 7.SCI.S.PR.1.10 **Analyzing and Interpreting** 7.SCI.S.AI.1.1 7.SCI.S.AI.1.2 7.SCI.S.AI.1.3 **Communication and Teamwork** 7.SCI.S.CT.1.1 7.SCI.S.CT.1.2 7.SCI.S.CT.1.3	**Cross-Curricular** Mathematics ● Statistics and Probability- Specific Outcome 1- Demonstrate an understanding of central tendency and range **Indigenous** Interactive video- Build a Tipi with a Variety of Materials
UNIT E Planet Earth Suggested time frame: 25 classes	7.SCI.E.1 7.SCI.E.2 7.SCI.E.3 7.SCI.E.4	**Science, Technology and Society (STS) and Knowledge Outcomes** 1. Describe and demonstrate methods used in the scientific study of Earth and in observing and interpreting its component materials 2. Identify evidence for the rock cycle, and use the rock cycle concept to interpret and explain the characteristics of particular rocks 3. Investigate and interpret evidence of major changes in landforms and the rock layers that underlie them 4. Describe, interpret and evaluate evidence from	**Initiating and Planning** 7.SCI.S.IP.1.3 7.SCI.S.IP.1.7 7.SCI.S.IP.1.10 **Performing and Recording** 7.SCI.S.PR.1.1 7.SCI.S.PR.1.2 7.SCI.S.PR.1.5 7.SCI.S.PR.1.9 7.SCI.S.PR.1.10 **Analyzing and Interpreting** 7.SCI.S.AI.1.4 7.SCI.S.AI.1.5 7.SCI.S.AI.1.6	

		the fossil record **End of Semester 1**	7.SCI.S.AI.1.11 7.SCI.S.AI.1.12 **Communication and Teamwork** 7.SCI.S.CT.1.2 7.SCI.S.CT.1.5	
UNIT C Heat and Temperature Suggested time frame: 27 classes	7.SCI.C.1 7.SCI.C.2 7.SCI.C.3 7.SCI.C.4 7.SCI.S.AI.1	**Science, Technology and Society (STS) and Knowledge Outcomes** 1. Illustrate and explain how human needs have led to technologies for obtaining and controlling thermal energy and to increased use of energy resources 2. Describe the nature of thermal energy and its effects on different forms of matter, using informal observations, experimental evidence and models 3. Apply an understanding of heat and temperature in interpreting natural phenomena and technological devices 4. Analyze issues related to the selection and use of thermal technologies, and explain decisions in terms of advantages and disadvantages for sustainability **Skill Outcome** Analyzing and Interpreting ● Analyze qualitative and quantitative data, and develop and assess possible explanations	**Initiating and Planning** 7.SCI.S.IP.1.3 7.SCI.S.IP.1.7 7.SCI.S.IP.1.10 **Performing and Recording** 7.SCI.S.PR.1.1 7.SCI.S.PR.1.2 7.SCI.S.PR.1.5 7.SCI.S.PR.1.9 7.SCI.S.PR.1.10 **Analyzing and Interpreting** 7.SCI.S.AI.1.4 7.SCI.S.AI.1.5 7.SCI.S.AI.1.6 7.SCI.S.AI.1.11 7.SCI.S.AI.1.12 **Communication and Teamwork** 7.SCI.S.CT.1.2 7.SCI.S.CT.1.5	**Cross-Curricular** Mathematics ● Patterns and Relations Specific Outcome 2- Create a table of values from a linear relation, graph the table of values, and analyze the graph to draw conclusions and solve problems ● Statistics and Probability- Specific Outcome 2- Determine the effect on the mean, median and mode when an outlier is included in a data set ● Statistics and Probability- Specific Outcome 3- Construct, label and interpret circle graphs to solve problems
UNIT A Interactions and Ecosystems Suggested time frame: 28 classes	7.SCI.A.1 7.SCI.A.2 7.SCI.A.3 7.SCI.A.4 7.SCI.S.CT.1 **End of Semester 2**	**Science, Technology and Society (STS) and Knowledge Outcomes** 1. Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions 2. Trace and interpret the flow of energy and materials within an ecosystem 3. Monitor a local environment, and assess the impacts of environmental factors on the growth, health and reproduction of organisms in that environment 4. Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments **Skill Outcome** Communication and Teamwork ● Works collaboratively on problems; and uses appropriate language and formats to communicate ideas	**Initiating and Planning** 7.SCI.S.IP.1.1 7.SCI.S.IP.1.2 7.SCI.S.IP.1.3 7.SCI.S.IP.1.4 **Performing and Recording** 7.SCI.S.PR.1.1 7.SCI.S.PR.1.2 7.SCI.S.PR.1.3 7.SCI.S.PR.1.5 **Analyzing and Interpreting** 7.SCI.S.AI.1.1 7.SCI.S.AI.1.2 7.SCI.S.AI.1.3 **Communication and Teamwork** 7.SCI.S.CT.1.1 7.SCI.S.CT.1.2 7.SCI.S.CT.1.3	**Cross-Curricular** Social Studies ● Decision making and problem solving- take appropriate action and initiative, when required, in decision-making and problem-solving scenarios ● Critical thinking and creative thinking- determine the validity of information based on context, bias, source, objectivity, evidence and/or reliability to broaden understanding of a topic or an issue. English Language Arts ● General Outcome 4- Students will listen, speak, read, write, view and represent to enhance clarity and artistry of communication ● General Outcome 5- students will listen, speak, write, view and represent to respect, support and collaborate with others

Review and Prepare for the Science 7 Common Summative Assessment