Calgary Board of Education

Grade 7 Science | CBE Scope and Sequence September 2020 – June 2021

This scope and sequence has been created to ensure alignment between Hub Learning and in-class programming, and smooth transitions following potential staff/student absence. It is intended to support teachers and teams in engaging in collaborative planning for instruction.

Each reporting period has been divided into two segments, defining four quarters across the school year. Each quarter lists the outcomes to be addressed in that approximate time period. Outcomes within a quarter are identified for concentrated teaching and learning, though it is acknowledged that providing opportunities for students to make connections across topics and engage in explorations that span the school year for scientific phenomena that change over time allow students to deepen their understanding. Although there is a suggested order shown within each quarter, teachers will design teaching and learning according to their context. Please note that this resource identifies only the bolded specific outcomes and must be used in conjunction with the questions and issues identified within the Program of Studies.

First Reporting Period		Second Reporting Period	
Skill Outcomes: Initiating and Planning; Performing and Recording; Analyzing and Interpreting; Communication and Teamwork **Attitude Outcomes**: Interest in Science; Mutual Respect; Scientific Inquiry; Collaboration; Stewardship; Safety			
Unit A: Interactions and Ecosystems 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	**Unit B: Plants for Food and Fibre** 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	**Unit C: Heat and Temperature** 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 **Unit D: Structures and Forces** 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	**Unit D: Structures and Forces** 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 **Unit E: Planet Earth** 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 the fossil record