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| **Unit –Time** | **BC Big Ideas (Understand)** | **BC Curricular Competencies (Do)** | **BC Content (Know)** | **Instructional Strategies/ Learning Activities** | **Materials & Resources** | **Assessment Methods/Assessment Date** | **Key Vocabulary****(should be indicated on word wall)** |
| Biology: The Human BodySept 2nd. -Nov.1st | Multicellular organisms have organ systems that enable them to survive and interact within their environment. | Key questions about systems:How do the systems of the human body work together?How can you observe the concept of interconnectedness within ecosystems in your local area?**Processing and analyzing data and information**-Experience and interpret the local environmentIdentify First Peoples perspectives and knowledge as sources of information- Demonstrate an openness to new ideas and consideration of alternatives**Applying and innovating**-Contribute to care for self, others, and community through personal or collaborative approaches**Communicating**Communicate ideas, explanations, and processes in a variety of ways | Basic structures and functions of body systems:- digestive:mouth, stomach, intestines, etc. -musculo-skeletal: muscles and skeleton - respiratory:trachea, lungs and diaphragm -circulatory:heart, blood, blood vessels | What is a body system.Digestive system: Organs and how they work as a system.Respiratory system: Organs and how they work as a system.Circulatory system: Organs and how they work as a system.Musculo-skeletal system: Organs and how they work as system. | Nelson: Science 5BC Science Probe 4Unit B: Chapters 4,5, 6Online resources:[www.studyladder.com](http://www.studyladder.com) (free) [www.superteacherworksheets.com](http://www.superteacherworksheets.com) (subscription) - optional worksheet resource<https://kids.nationalgeographic.com>  | Class Work:-Design your own experiment: Does exercise affect your heart rate.-Make a good health poster (digestive system)Project/ Experiment:Design and build a leg model - October 11thAssessments (guidelines only):-Quiz 1: Digestive system September 20th- Quiz 2 Respiratory system October 4th-Quiz 3: Musculo-skeletal system October 18th-Quiz 4: Circulatory system. October 24th -Unit Test November 1st |  cellsorganssystemtissuedigestionnutrientsesophagusstomachlarge intestinesmall intestinecolonliverchemicaloxygencarbon dioxidetrachealungsrib cagediaphragmheartpulseblood vesselsarteriesveinscapillariesmembranered blood cellswhite blood cellsbonesspinal columncartilagemusclestendon |
| Chemistry: Solutions and solubility Nov. 4 - Jan 17 | Solutions are homogeneous. | **Planning and conducting**With support, plan appropriate investigations to answer their questions or solve problems they have identifiedDecide which variable should be changed and measured for a fair testChoose appropriate data to collect to answer their questionsObserve, measure, and record data, using appropriate tools, including digital technologiesUse equipment and materials safely, identifying potential risks | Solutions are homogeneous:What are homogeneous solution/mixtures.Solutions can be separated.Solubility of solids, liquids and gases.Properties of solutions.Dissolving of substances.  | Mixtures, solutions and solubility.Solutions (e.g., apple juice, coffee) that can be separated through distillation, evaporation, and crystallizationSolubility of solids, liquids, and gases (e.g., salt [solid], honey [liquid], carbon dioxide [gas in water makes pop])Properties of solutions: concentration, pH, etc.Dissolving: process of forming a solution |  file:///C:/Users/1 23/Downloads/MixturesSolutionsMiniUnitforUpperGrades.pdf - see google driveSolutions -binderOnline resources:[www.studyladder.com](http://www.studyladder.com) (free) [www.superteacherworksheets.com](http://www.superteacherworksheets.com) (subscription) - optional worksheet resource  | Class Work:-mixture and solutions mini-unit-homogeneous mixtures-separating mixtures.Project/Experiment:-Experiment - Properties of substances affect their solubility. -Nov 28Assessments:-Quiz Dec 13th-Unit Test Jan 17th | liquidsolidgasmixturesolutionsolubilityhomogeneoussubstancepredictionhypothesisdistillationcrystallization |
| Physics: Simple machinesJan 20. - March 28 | Machines are devices that transfer force and energy. |   **Questioning and**  **predicting**Make observations in familiar or unfamiliar contextsIdentify questions to answer or problems to solve through scientific inquiry**Processing and analyzing data and information**Experience and interpret the local environment | Properties of simple machines and their forces.Effects ofmachines:-constructed-found in naturePower - the rate at which energy is transferred. | Forces around us affect the movement of objects.Machines uses forces to do work: levers, wheels and axles, pulleys, inclined planes and wedges, screws.We use simple machines to do work for us.  | Nelson: Science 5 Forces and MachinesUnit A: Chapters 1, 2 and 3.Simple machines kit - libraryOnline resources:[www.studyladder.com](http://www.studyladder.com) (free) [www.superteacherworksheets.com](http://www.superteacherworksheets.com) (subscription) - optional worksheet resource | Class Work:-How does surface texture affect force. Project/ Experiment:-How do slope and load affect how far a can rolls. March 14th (Science fair)Assessments:-Quiz Feb 21st-Unit Test March 28th | Forceweightfrictionsurface texturerampslopeloadbalanced forcesworksimple machinesleverpulleywedgewheel and axleinclined planescrewfulcrumeffort forcefirst class leversecond class leverthird class lever |
| Earth/Space: Rock cycleApril 1st - May 29th  | Earth materials change as they move through the rock cycle and can be used as natural resources. | **Processing and analyzing data and information**-Experience and interpret the local environment. -Identify First Peoples perspectives and knowledge as sources of information.  | The rock cycle.Local types of earth materials.First Peoples concepts of interconnectedness in the environment.The nature of sustainable practices around BC’s resourcesFirst Peoples knowledge of sustainable practices. | Depending on earth’s resources for survival.Renewable resources: How does pollution affect living things.Non renewable resources and how to protect them. | Nelson: Science 5 Physics and Earth Unit CChapters 8, 9, 10Online resources:[www.studyladder.com](http://www.studyladder.com) (free) [www.superteacherworksheets.com](http://www.superteacherworksheets.com) (subscription) - optional worksheet resource | Class Work:-Research the rock cycle-design a conservation plan.Project:-Research a local non-renewable resource. May 29thAssessments:-Quiz May 2nd -Unit Test May 16th | natural resourcesenvironmental impactecosystemconservationrecyclingbiodegradablerenewableharvestingmineralrockclaybouldersand soil |