

Newfoundland Curriculum Outcomes That Align with SucSeed

Grade 3

Grade 3 Science

GCO 1 & GCO 3

Exploring Soils

- 3.0 - Investigate a variety of soils and find similarities and differences among them
- 5.0 - Investigate and describe soil components
- 7.0 - Describe the effect of moisture on the characteristics of soil
- 9.0 - Compare the absorption of water by different soils
- 13.0 - investigate and describe how living things affect and are affected by soils
- 15.0 - investigate the effects of moving water on different soils
- 18.0 - Demonstrate and describe ways humans use soils to make useful objects

Plant Growth and Changes

- 45.0 - Identify and describe parts of plants and their general function
- 46.0 - Identify and investigate life needs of plants and describe how plants are affected by the conditions in which they grow
- 48.0 Observe and describe changes that occur through the life cycle of a flowering plant
- 49.0 Describe ways in which plants are important to living things and the environment
- 50.0 Identify parts of different plants that provide humans with useful products and describe the preparation that is required to obtain these products and how our supply of useful plants is replenished

GCO 2

- 1.0 - pose questions that lead to exploration and investigation
- 2.0 - communicate using scientific terminology
- 4.0 - communicate while exploring and investigating
- 6.0 - use appropriate tools
- 8.0 - sequence or group materials and objects
- 10.0 - make and record observations and measurements
- 11.0 - construct and label concrete-object graphs, pictographs or bar graphs
- 12.0 - use a variety of sources of science information and ideas
- 14.0 - propose an answer to an initial question or problem and draw a simple conclusion
- 16.0 - predict based on an observed pattern
- 17.0 - communicate procedures and results

GCO 4

- Recognize the role and contribution of science in their understanding of the world
- Show interest in and curiosity about objects and events within their immediate environment
- Willingly observe, question and explore
- Consider their own observations and ideas when drawing a conclusion
- Appreciate the importance of accuracy
- Be open-minded in their explorations and investigations
- Work with others in exploring and investigating
- Be sensitive to the needs of other people, other living things, and the local environment

Grade 3 Mathematics

- Events and experiments generate statistical data that can be used to make predictions. It is important to recognize that these predictions (interpolations and extrapolations) are based upon patterns that have a degree of uncertainty.
- Use direct and indirect measurement to solve problems
- Use patterns to describe the world and to solve problems. (possibly)
- Analysis: Collect, display and analyze data to solve problems.
- GCO: Collect, display and analyze data to solve problems
- SCO 3SP1: Collect first-hand data and organize it using:
 - • tally marks
 - • line plots
 - • charts
 - • lists to answer questions.
- 3SP1.1 Record the number of objects in a given set, using tally marks
- 3SP1.2 Answer questions using collected data.
- At the end of the plant's growth cycle - 3SP2. Construct, label and interpret bar graphs to solve problems to improve communication, problem-solving, reasoning, and visualization!
- (3SP1.2, 3SP1.5) - Ask students to keep track of plants' growth rate over the period of one month and to design a method to present the information in an organized way. Ask students to provide three conclusions about their data.
- Suggested Assessment Strategies: (3SP1.4) Present students with two different line plots consisting of data from two plant types. Ask them to write about how they are similar and how they are different.
- (3SP1.6) - Provide a line plot to students comparing data on SucSeeds Hydroponic Grow Gardens. Ask students to generate a question that could be answered by analyzing the

data in the graph. Ask students to exchange questions with a classmate and answer their classmate's question.

- 3SP2.1 Determine the common attributes, titles and axes of bar graphs by comparing bar graphs in a given set. (possibly)
- 3SP2.2 Draw conclusions from a given bar graph to solve problems. - Provide students with two bar graphs that have no titles or labels. Ask students to think about what the graphs might be representing and to explain their thinking.
- 3N4. Estimate quantities less than 1000, using referents.
- 3N5. Illustrate, concretely and pictorially, the meaning of place value for numerals to 1000.
- 3N3. Compare and order numbers to 1000. By comparing growth after a week to a month.
- (3N2.1) - a flower box containing 14 flowers (each with 20 petals) and 1 flower (with 10 petals).
- 3N2.4 Represent a given number as an expression; e.g., $300 - 44$ for 256 or $20 + 236$. To represent the number of days until harvest.
- 3N3.1 Place a given set of numbers in ascending or descending order, and verify the result by using a hundred chart - to determine which plants are to be harvested first!
- (3N3.1, 3N5.4) - Order the plants by weight from least to greatest. Ask students to choose one of the numbers above and represent it in three ways using base ten blocks.
- 3N4.3 Estimate a given quantity by comparing it to a referent.
- SCO 3PR1 Demonstrate an understanding of increasing patterns by:
 - describing
 - extending
 - comparing &
 - creating patterns using manipulatives, diagrams, sounds and actions (numbers to 1000).
- 3PR1.1 Describe a given increasing pattern by stating a pattern rule that includes the starting point and a description of how the pattern continues;
- 3PR1.8 Solve a given problem, using increasing patterns
- 3PR1.9 Identify and describe increasing patterns in the environment.
- SCO 3N6 Describe and apply mental mathematics strategies for adding two two-digit numerals.
- SCO 3N8 Apply estimation strategies to predict sums and differences of two two-digit numerals in a problem-solving context
- 3N7. Describe and apply mental mathematics strategies for subtracting two two-digit numerals.
- 3PR3. Solve one-step addition and subtraction equations involving symbols representing an unknown number
- 3N10.1 Explain or demonstrate the mental mathematics strategy that could be used to determine a basic fact

- 3N9.1 Model the addition of two or more given numbers, using concrete or visual representations, and record the process symbolically.
- 3N9.2 Create an addition or subtraction story problem for a given solution
- 3N9.6 Model the subtraction of two given numbers, using concrete or visual representations, and record the process symbolically.
- 3N11 Demonstrate an understanding of multiplication to 5×5 by:
 - modelling multiplication using concrete and visual representations, and recording the process symbolically
- 3N11.1 Identify events from experience that can be described as multiplication
- 3N11.2 Represent a given story problem, using manipulatives or diagrams, and record the problem in a number sentence.
- 3N11.5 Represent, concretely or pictorially, equal groups for a given number sentence.
- 3N11.7 Represent a given repeated addition as multiplication
- 3N12 Demonstrate an understanding of division (limited to division related to multiplication facts up to 5×5) by;
 - modelling equal sharing and equal grouping using concrete and visual representations, and recording the process symbolically
- 3N12.2 Illustrate, using SucSeed's products or a diagram, a given story problem, presented orally, that involves equal grouping; and solve the problem.
- 3N12.8 Represent a given division expression as repeated subtraction.
- 3N13.1 Describe everyday situations where fractions are used.
 - The proportion of a harvest which is used on a monthly, weekly, daily or per meal basis.
- 3N13.4 Represent a given fraction concretely or pictorially.
- 3SS1.1 Select and use a non- standard unit of measure, such as number of leaves per stem or calories per harvest, to measure the passage of time, and explain the choice
- 3SS1.2 Identify activities that can or cannot be accomplished in minutes, hours, days, weeks, months and years.
- 3SS3.2 Estimate the length of an object, using personal referents.
- 3SS3.5 Provide a personal referent for one metre, and explain the choice
- 3SS3.9 Determine and record the length, width or height of a given 3-D object.
- 3SS5.1 Measure and record the perimeter of a given regular shape, and explain the strategy used.
- 3SS4.2 Estimate the mass of a given object, using personal referents.
- 3SS4.3 Provide a personal referent for one gram, and explain the choice.
- 3SS4.7 Provide examples of 3-D objects that have a mass of approximately 1 g, 100 g and 1kg.
- 3SS4.8 Determine the mass of two given similar objects with different masses, and explain the results.

- 3SS4.9 Determine the mass of an object, change its shape, re-measure its mass, and explain the results.