SET▸BC

105 – 1750 West 75th Avenue, Vancouver, B.C., Canada V6P 6G2
Phone: 604.261.9450 Fax: 604.261.2256 www.setbc.org

SETdirect Make It Grow Kit

Implementation Idea #1

Title of Activity: The Life Cycle of a Plant

Objective:
Students will learn the observable features, survival needs of plants, and characteristics of life

Description:
Students will plant seeds in the root view kit, and use the watering tool and growing lights to grow their plants from seeds. Students will observe and document the growth of the plant, be able to identify their parts (root, stem, leaves) and observe the impact of light, water, and shelter on the plants.

Activities:
-documentation and measurement of growth and plant life cycle
-seed/root exploration (using science kit)
-seed/plant dissection & exploration using science kit
(https://www.scienceworld.ca/resources/activities/seed-dissection)
-plant part relay (https://www.scienceworld.ca/resources/activities/edible-plant-parts-relay)
- art - plant pressings/rubbings
-connect with local first nation to learn about local plants and traditional uses
-cooking/food preparation
-growing for production (selling at local market - financial literacy)

Technology Integration: Apps and Web-Based Tools

- Book Creator to label parts of plant & document growth, or create poems or digital story
- Explain Everything: interactive whiteboard to demonstrate learning of the life cycle and document growth, make predictions, compare results
- Chatterpix to personify plant and explain the life cycle
  *Task Cards included as support for the apps



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Accessibility Supports:

The accessibility features of the Make it Grow Kit enable all the members of a classroom to take part in a class project to plant seeds from the Planting Starter Kit and Root Vue Kit, care for them, and watch them grow. The Powerlink and Jelly Bean switch can be hooked up to the Waterpik to assist access-challenged students water the seeds themselves, while the GoTalk assists with communication.

The Jelly Bean twist switch can be connected to the watering tool to support physical access for students who may have fine motor difficulties. The switch could be used independently by a student, or in pairs with one student holding the Waterpik and their partner activating the switch to turn the water on. The switch can be used by a variety of students to teach them about universal access, and normalize the use of physical access devices in the school setting.

The GoTalk provides a visual and auditory support for all students, as well as a communication option for students. The GoTalk can be used to initiate conversations, tell personal anecdotes, practice speaking and articulation, give instructions, participate in small group instruction, and more.

The GoTalk can be programed with task-specific vocabulary (i.e. light on, water on) as well as curricular vocabulary (ie. seed, plant, cycle). Included overlays feature three core messages that remain the same (“help me,” “this is fun,” “all done”) and 9 message keys that contain activity-specific messages.

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Implementation Idea #2

Subject: Science

Grade Levels: K-3, 4-7, 8-10, 11/12

Core Competences:

- Thinking (demonstrate curiosity)
- Communication (share ideas, observations, findings, conclusions)
- Personal and Social (contribute to care for self, others, school, and neighbourhood)

Big Idea: Living Things and Their Environment

Curricular Competencies:

- Questioning and predicting (make predictions and observations)
- Planning and conducting (examine variables, measure and record data)
- Processing and analyzing data and information (experience local environment, collaborate with local elders, identify patterns/connections)
- Evaluating (examine social, ethical and environmental impacts)
- Applying and innovation (cooperatively design projects)
- Communicating (share ideas, information in a variety of ways)

Curricular Content:

Grade levels:

K-3

- parts and needs of plants
- local First Peoples' knowledge of plants

4-7

- biodiversity and biomes
- interconnectedness of environment and survival needs
- local First Peoples' knowledge of plants

8-10

- plant structure
- photosynthesis
- local First Peoples' knowledge of plants

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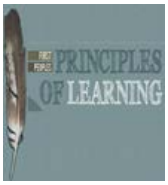
11/12

- local First Peoples' knowledge of plants
- Environmental Science: ecosystems, biodiversity, human interaction
- Life sciences: classification, cell structure
- Science for Citizens: scientific processes, adapting to changes

First Peoples Principles of Learning:



- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness on reciprocal relationships, and a sense of place)
- Learning recognizes the role of indigenous knowledge
- Learning involves patience and time

Cross-Curricular Opportunities:

- Applied Design, Skills, and Technologies (design thinking, examining tools/technologies, recipes)
- Arts Education (create related dance, drama, music, and/or visual art)
- English Language Arts (read related literature, journaling, creative thinking/writing)
- Languages (vocabulary, writing)
- Mathematics (measurement, reasoning and logic)
- Physical and Health Education (nutrition, making healthy choices)
- Social Studies (human-physical interaction)

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Additional Resources and Examples:

SET-BC Examples:
Classroom Technologies and First Peoples Principles of Learning
First Peoples Principles of Learning Medicinal Garden

PBL Examples:
Primary – www.hightechhigh.org, Diane Hawke, Jen Schultz
Intermediate - www.hightechhigh.org, Cady Staff
Secondary- www.hightechhigh.org, Chris Millow

Science World:
Plants All Around Us