

Strand:

- **Science and Technology:** Understanding Life Systems - Growth and Changes in Plants
- **Language:** Oral Communication

Expectations:

- 2.2 observe and compare the parts of a variety of plants
- 2.6 use appropriate science and technology vocabulary, including stem, leaf, root, pistil, stamen, and flower, in oral and written communication
- 3.1 describe the basic needs of plants, including air, water, light, warmth, and space
- 1.2 demonstrate an understanding of appropriate listening behaviour by using active listening strategies in order to contribute meaningfully and work constructively in groups

Learning Goals (*student-friendly language that can be shared with students*):

- I will look closely and notice the different parts of plants
- I will label different parts of the plants using appropriate terminology/words
- I will describe the different basic needs of plants
- I will listen carefully to others and provide meaningful ideas to discussions

Materials and/or Resources:

- Chart paper and marker
- Student Observation Sheet
- Clipboards and pencils

Important Terminology / Word Wall:

- stem, leaf, root, pistil, stamen, flower, fruit, seed

BIG IDEAS:

- Plants have distinct characteristics.
- There are similarities and differences among various types of plants.

MINDS ON/ GETTING STARTED! Elicit and engage – *activate prior knowledge and ‘set the stage’ - game, whole class or small group activity, read aloud, simpler/section of problem...*

- 1) Ask students of the different parts of a plant that they know of.
 - a) Then ask them to share with the person next to them.
 - b) After that, take it up as a class. Have a plant on the board and start labeling the different parts as students share.
 - c) If some plant parts have not been mentioned, point to the different parts and ask if anyone knows what they are called. Good way to introduce new parts if students don't know them.
- 2) Ask students what the needs of plants are and record their answers on chart paper. This can be used as reference for when they begin to grow their own quick germinating seeds.

WORKING ON IT! The PROBLEM/ACTIVITY *that students work on – partner, small group or individual*)

Take students on a walk in the community:

- As they explore, have students use the Student Observation Sheet to draw and label 3 plants that they see, being careful not to harm them.
- Ask students to identify the root, stem, flower, stamen, pistil, leaf, seed, and fruit of the plants where possible.
- As they explore, have students consider different types of plants and think about what plants need in order to grow and develop.

Accommodations:

- If you have ELL learners then allow them to use google translate on their chrome books to translate the different parts of the plants and write the translation on their sheets before going on the walk.
- If some students are struggling to label all parts of the plants, while on the walk, then ask them to label the basic parts or the parts they know.
 - In class you can go back and make sure that all students can recognise and identify the different parts.
 - You can also visit the plant parts that they do not know or are struggling to learn in the next lesson, instead of overwhelming them with all the plant parts at once.

CONSOLIDATION/REFLECT AND CONNECT: Students Share Solutions and Teacher Annotates (*reflecting, presenting, sharing, growing, adapting*)

FORMAT FOR SHARING: Class discussion

KEY POINTS TO ADDRESS:

- Come back to class and talk about what everyone observed and what they learned about the different parts of plants:
- Ask if students know what the different parts of a plant helps the plant with.
 - Using the class discussion, explain what the different parts of plants do. Pull up the labeled plant on the board form earlier in the lesson to have a visual aid while explaining/discussing.
 - Ask if anyone looked at or explored different types of plants and what they noticed about them?
 - Ask if anyone noticed any plants that are dead, and why they think they were dead?
 - Connect this to what plants need in order to grow and develop. Refer back to the chart paper in the minds-on section.

INDEPENDENT PRACTICE:

Exit ticket:

- Give every student an image of a plant and ask them to label the parts of the plant. (a small piece of paper NOT A4)
- Ask students to place their paper in a plant pot at the front of the class once completed.

ASSESSMENT PURPOSE:

- This assessment is meant to help the teacher identify if students have grasped the different parts of a plant or if they need to review that in the next class before moving on to the next lesson.

Next Lessons:

- Review parts of a plant if they need reviewing
- Talk about how plants get nutrients and how nutrients move in plants
- Move on to talking about the plants and their importance to humans
- Talk about how humans can help plants grow
- Germinate seeds and observe/record their development
- Introduce new vocab adaptation and germination
- Research how their plants are used in various cultures
- Talk about how humans can help protect plants and ensure they are available for future generations
- Resources to use in future lessons:
 - Good for research:
 - Flowering Plant Life Cycles:
<https://www.sciencelearn.org.nz/resources/82-flowering-plant-life-cycles>
 - Fun Games:
 - Life Cycle of a Plant Online Activity:
<http://www.sciencekids.co.nz/gamesactivities/lifecycles.html>

- TVO mpower Community Garden game
- Good video for plant growth:
 - Seedling Time-lapse: https://www.youtube.com/watch?time_continue=8&v=26PeQDCMGrI
 - Plant Growing Time-lapse: <https://www.youtube.com/watch?v=W->

Integrating to other Curriculum areas in Future Lessons:

- *Language:*
 - **Oral Communication - 2.4** choose a variety of appropriate words and phrases, including descriptive words and some technical vocabulary, and a few elements of style, to communicate their meaning accurately and engage the interest of their audience (e.g., use appropriate technical terms when explaining a scientific investigation)
 - **Writing - 2.1** write short texts using a variety of forms (e.g., a personal or factual recount of events or experiences that includes photographs or drawings and captions)
 - **Writing - 3.4** use punctuation to help communicate their intended meaning, with a focus on the use of: quotation marks to indicate direct speech; commas to mark grammatical boundaries within sentences; capital letters and final punctuation to mark the beginning and end of sentences
- *Social Studies:*
 - **B2.2** gather and organize a variety of data and information on the environmental effects of different land and/or resource use and measures taken to reduce the negative impact of that use
 - **A1.1** describe some of the similarities and differences in various aspects of everyday life (e.g., housing, clothing, **food**, religious/spiritual practices, work, recreation, the role of children) of selected groups living in Canada between 1780 and 1850
- *Health and Physical Education:*
 - **D3.1** explain how local foods and foods from various cultures (e.g., berries, curries, chapatis, lychees, kale, lentils, corn, naan, wild game, fish, tourtière) can be used to expand their range of healthy eating choices