

Bachelor of Education (Elementary) & Bachelor of Education (Secondary) STEM Lesson Plan

Lesson Title: Lifecycles – Pumpkin/cucumber Lesson # 1 Date: Sept 2024
 Name: Krystal Devick Subject: Language Arts/Science Grade(s): 1/2

Rationale:

This lesson provides visual and sensory stimulation to help students understand concepts and aids in generating deeper learning and comprehension. This lesson helps students visualize and understand plant lifecycles. It shows the lifecycle of plants (I chose pumpkin or cucumber, but you could choose any flora really) and helps students understand how the environment produces our food and sustains us. It is important for kids to understand that their food didn't magically appear in a grocery store. I grow a large garden every year and love sharing with my students this sustainable method of food production.

Core Competencies:

Communication	Thinking	Personal & Social
<p>Communicating encompasses the set of abilities that people use to impart and exchange information, experiences, and ideas; to explore the world around them; and to understand and effectively use communication forms, strategies, and technologies. Communicating provides a bridge between peoples' learning and the world in which they interact.</p> <p>People who communicate effectively use their skills and strategies intentionally to ensure understanding their audience. They communicate in an increasing variety of contexts, for a variety of purposes, and often with multiple audiences.</p>	<p>Creative Thinking involves the generation of ideas and concepts that are novel and innovative in the context in which they are generated, reflection on their value to the individual or others, and the development of chosen ideas and concepts from thought to reality.</p> <p>People who think creatively have a sense of wonder and joy in learning, demonstrate a willingness to think divergently, and are comfortable with complexity. A creative thinker reflects on existing ideas and concepts; uses imagination, inventiveness, and resourcefulness.</p>	<p>Social Awareness and Responsibility involves the awareness, understanding, and appreciation of connections among people, including between people and the natural environment. Social Awareness and Responsibility focuses on interacting with others and the natural world in respectful and caring ways.</p>

Big Ideas (Understand)

Living things have life cycles adapted to their environment.
 Language and story can be a source of creativity and joy.
 Curiosity and wonder lead us to new discoveries about ourselves and the world around us.

Learning Standards

(DO)

(KNOW)

Learning Standards - Curricular Competencies	Learning Standards - Content
<ul style="list-style-type: none"> ● Use developmentally appropriate reading, listening, and viewing strategies to make meaning ● Recognize the structure and elements of story ● Exchange ideas and perspectives to build shared understanding ● Plan and create a variety of communication forms for different purposes and audiences 	<ul style="list-style-type: none"> ● metamorphic and non-metamorphic life cycles of different organisms ● Story/text: elements of story ● Strategies and processes: reading strategies

Instructional Objectives & Assessment

Instructional Objectives (students will be able to...)	Assessment
<ul style="list-style-type: none"> ● Connect meaning to elements in the story ● Retain sequential information presented 	<ul style="list-style-type: none"> ● Students participate by engaging with items, exploring, touching, handling, looking or asking questions or comparing with their own stories with pumpkins/jack-o'-lanterns. ● Students complete the worksheet provided showing retention of the pumpkin life cycle shown both in the book and with the visual aids.

Prerequisite Concepts and Skills:

Experience using markers/pencil crayons/crayons, scissors, glue are expected.

Indigenous Connections/ First Peoples Principles of Learning:

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place). This lesson helps students understand their connection to the land through cultivation of pumpkins - they didn't just come from a grocery store bin. The learning is also experiential by being able to see and touch items in the story.

Universal Design for Learning (UDL):

Students can select where on the carpet they would like to sit and listen to the story. All students can listen to the story, handle the items, and work on the worksheet. Multiple methods of expression are used.

Differentiate Instruction (DI):

There is an additional worksheet on the jack-o'-lantern phase provided for early finishers. If a student has motor skill limitations, they could orally discuss the order of the life cycle. Can modify based on individual needs.

Materials and Resources

Pumpkin Pumpkin book QR cucumber plant time lapse (<https://www.youtube.com/watch?v=NgK-Z5Gs67E>)
 (*note that the book of the pumpkin life cycle and the time-lapse of the cucumber life cycle both serve the same purpose of showing the transformative process from seed to fruit*)

Scissors
 Pencil Crayons/Scissors/Crayons
 Glue
 Life Cycle Worksheet
 Plant items from TC's garden (seed, flower, vine, green pumpkin, pumpkin, jack-o'-lantern OR seed, flower, vine, small cucumber, large cucumber, and sliced cucumber for tasting)
 Wagon if needed to haul heavy pumpkin

Lesson Activities:

Teacher Activities	Student Activities	Time
Introduction (anticipatory set – "HOOK"): <ul style="list-style-type: none"> ● Show the items in the book box using the corresponding name of each item that they will see on the worksheet later 	look at items teacher shows, touching feeling, smelling	10
Body: <ul style="list-style-type: none"> ● Seating arrangement instructions to listen to Pumpkin Pumpkin/watch video ● Read the story ● provide students time to really explore the items. ● Provide Life Cycle worksheet to assess learning and additional jack-o'-lantern worksheet for early finishers or if students want to take it home 	<ul style="list-style-type: none"> ● Move to desired seating location ● Listen to the story/video ● Move around and interact with the items ● Color, cut, organize and paste parts of the worksheet. Draw faces and color jack-o'-lanterns 	2 5 5 20
Closure: Brief statement about how although it is a story we can connect it to the real world. Talk about how all the items in grocery stores have an origin story and come from the land. Engage students if they have any questions or insights (staying on topic). Discuss how we can harvest the fruit for our family consumption and save the seeds for the following season.	Complete worksheets and engage in closure discussion. Can ask any questions at this time or share any insights.	5

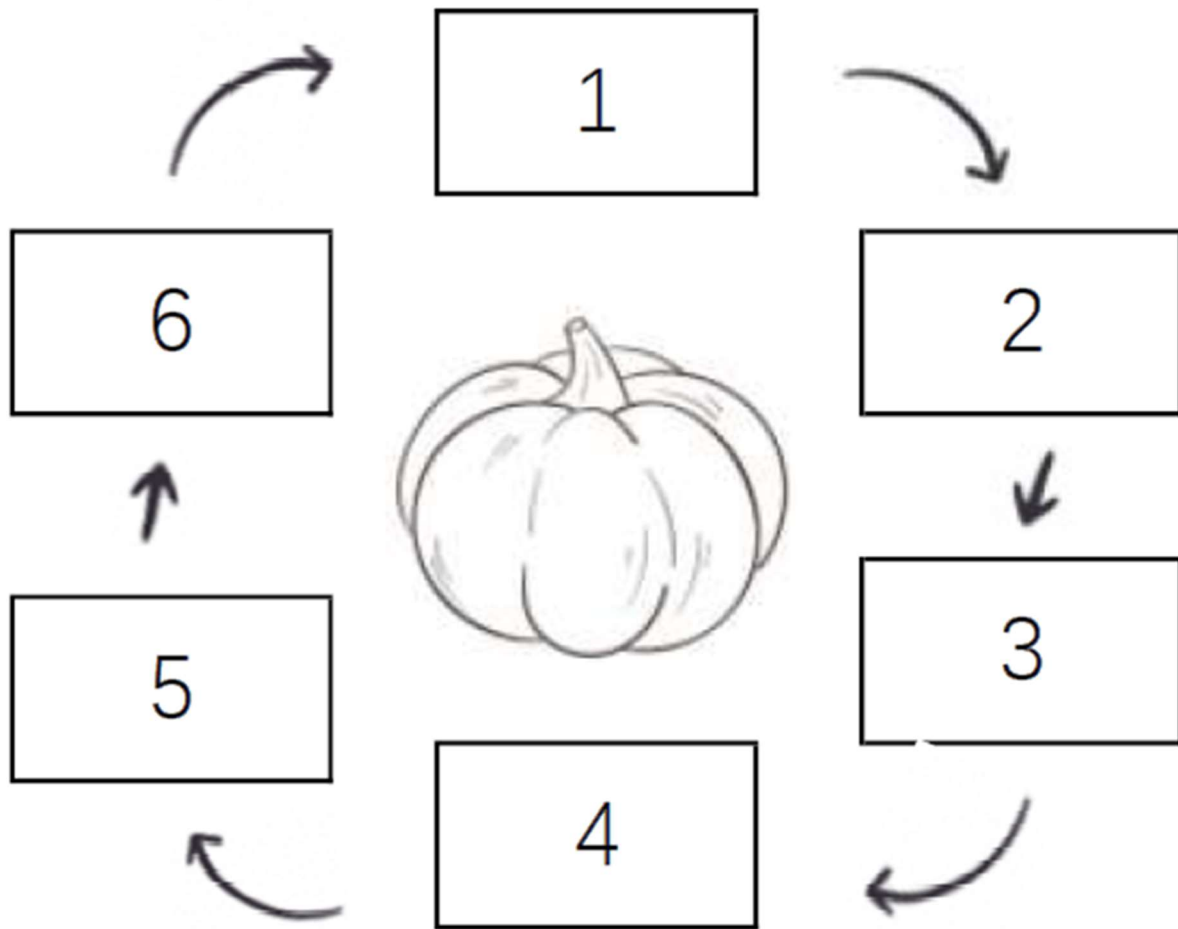
Organizational Strategies:


Clap pattern for attention. Have a busy bee volunteer hand out the worksheet while we explain the expectations for it. Remind students to put their name on the worksheet first. Students can hand in the Life Cycle worksheet when they are done at the front and take the jack-o'-lantern worksheet home to complete and decorate their house if they wish.

Proactive, Positive Classroom Learning Environment Strategies:

Communicate clearly to students how they are expected to move between spaces, when they will have opportunities to discuss/share, when they are expected to be quietly listening. Discuss with students how to respectfully handle items.

LIFE CYCLE OF A PUMPKIN



 SEEDS	 SPROUT	 VINE
 FLOWER	 GREEN PUMPKIN	 PUMPKIN

LIFE CYCLE OF A CUCUMBER

