

problem of practice: Students need more hands-on learning experiences in science instead of textbook, paper and pencil procedures.

Teaching science concepts to young children can be an overwhelming task.

Plan: Creating a brand new lesson

Form: A written narrative

Strategy: TIP approach

Why use TIP? Since the implementation of technology is evolving, I want to do science experiments with my students that involve its incorporation. Students will grow bean plants (hands-on learning experience) to learn about the life cycle of a plant using technology.

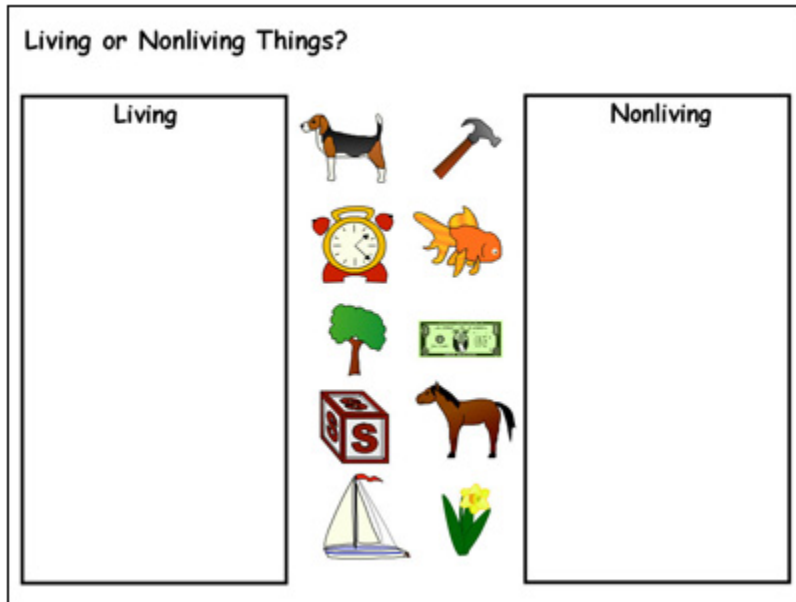
Technology can help primary students embrace the inquiry process while developing essential skills for learning science.

Lesson plan centered around the TIP strategy

Step #1: Access for Understanding

After teaching students about the differences between living and nonliving things, students can classify objects to evaluate their comprehension. I will

prompt them to explain their decisions, and to also share their decisions with the rest of their class.



Step #2: I will evaluate their comprehension by asking my students to tell stories that show what they know about the topic they are learning. For example: After learning that plants are living things, I will have students draw a plant (on *Wixie*) and label (using the textbox option or tools provided) what they know about plants. Students will share their finished work with the class. Each student will have a turn to share. Students are able to be creative and also showcase their work. We will use Book Creator (<https://bookcreator.com/>) to make a classroom book online (of their work) for our class. Students can view the created book online at any time.

Step #3: I will have my students fill out this chart knowing our topic "Plant Life Cycle" and subsequent steps of the lesson using the platform *PearDeck*. I will encourage them to create their own questions/responses.

Students will write one thing for each phrase (it can be a question or a sentence) and draw an illustration that goes with each question/ sentence. They will be able to answer their 'wonder' as they go down the column. For example:

- 1) I wonder.... What does a plant need to live?
- 2) I guess.... They need sun and water.
- 3) I can test by.... Plant a plant. Put it in an environment where there is sun and water. See if it grows.
- 4) I learned that... Plants need both sun and water to grow. I must water a plant every day if I want it to live. If I do not water the plant, it can die. (Students will answer box 4 of the template when we are finished with each step of the lesson.)

Students will share their templates with the class. We will use Book Creator (<https://bookcreator.com/>) to make a classroom book online (of their work) for our class. Students can view the created book online at any time.

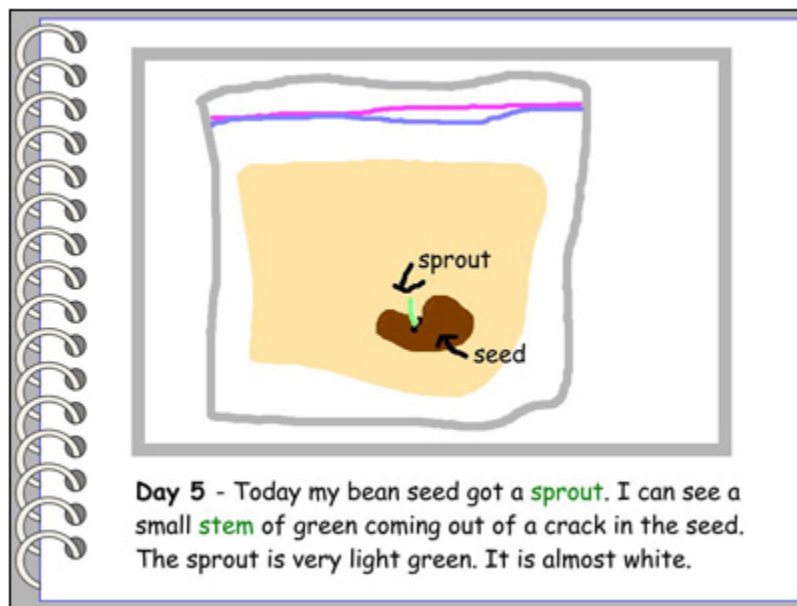
Step #4: Plant Observation

After learning about living and non-living things, students will complete a plant observation experiment (we will focus our attention on the fact that plants are living things). Within the experiment, they will need to:

- 1) Plant a bean seed in a plastic bag (I am having students plant a bean seed instead of a plant in dirt so that they can see the *process* easier

when documenting their observations within their observation notebook.

- 2) Write and draw daily observations within their observation notebook. Each observation (day) will be documented in sequential order (on its own page). Students will make observations every day until the plant has completed its life cycle (fully grown). Example:

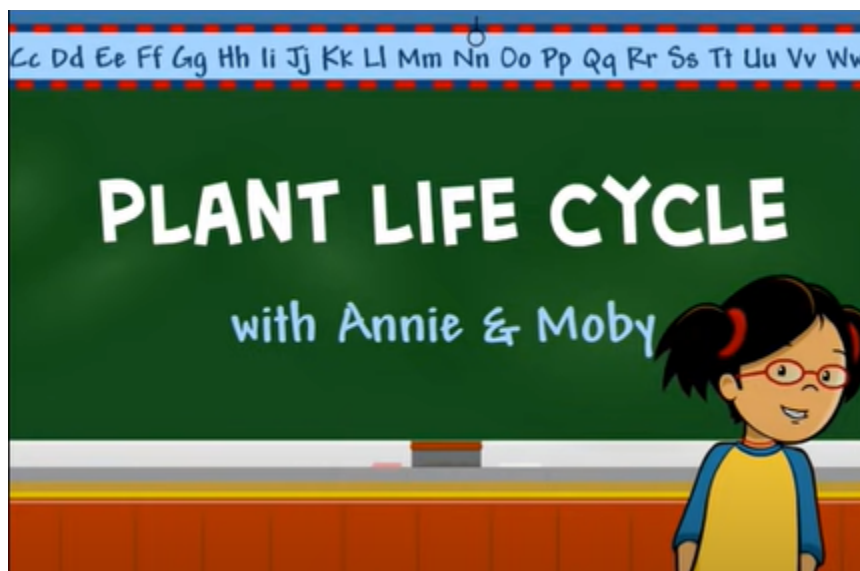


As students write about their observations, I will encourage them to ask questions about 'what is happening' and 'what they think will happen next'. This will help them begin to use observations as the basis for scientific inquiry. The scientific process isn't about finding the answer to someone else's questions, but learning to ask questions and develop ways they can experiment to find an answer. I will start with a simple inquiry process that leads them to ask a question, make a guess (hypothesis), and determine how they can test and draw conclusions. We will create a class blog where

students will showcase the progress of their experiment through pictures. This piece of the lesson will help students document a plant's phases in sequential order (great visual component). Students will notice that some observations will look different from their own. We will use a time lapse camera to capture a bunch of photos of the plant over a period of time. We can watch the images in a sequence. This is a fun way to give students a visual of what occurs even when they are not in the classroom.

Step #5: Extension:

Students will watch 'Plant Life Cycle' on *BrainPop*.



Step #6: Put Students in the Driver's Seat

Constructing their own models and diagrams requires higher-order thinking skills and helps students organize information. This type of project work also helps me assess their comprehension. For example: After

studying a plant's life cycle, I will have students create a 'plant life cycle' illustration using a platform of their choice. This step makes a great final assessment because the activity does not provide hints or clues. Students must have a thorough understanding of a plant's life cycle to complete this activity.

Reflection for Draft:

1. Provide an explanation of what kinds of plans/materials these are and your purposes for creating them. That will help those reviewing your drafted plans to provide meaningful input.
 - I am looking to solve the identified problem using technology (TIP method) and hands-on learning experiences. I wanted to engage my students in lessons that were fun and exciting! I would use this lesson during our plant unit.
2. Include in your post what areas you want feedback or ideas on from your colleagues in our course and the general public (potentially).
 - I want feedback on the ways I address my problem statement and also how I incorporate technology. Provide any feedback you have. Is there something that I need to add? Am I missing something? Please share.

