



Back to School

Science: Science Process – Lesson I: Science Process Sequencing

Science Category:

Science Foundations

Activity Goal:

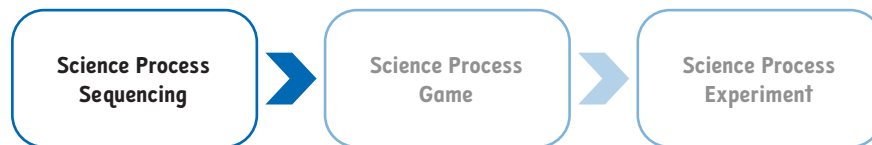
Students identify and sequence the steps of the science process.

Embedded Skill Targets:

Curricular Area	Learning Spectrum	
	Moderate support needs	Extended learning
Receptive and Expressive Language	Expressive/receptive verbs Identifying actions in pictures Picture sequencing	Descriptors Identifying first, next, and last Commenting using phrases
Academic Skills	Comprehension of picture books Cutting and pasting	Reading sight words Reading a simple book

Teaching Sequence:

This lesson is part of a three-lesson series, which is intended to be taught in the following order:



Materials:

Provided:

- "Using the Science Process" book
- Student storyboard pictures
- Student storyboards
- Group storyboard pictures
- Group storyboard icons

Needed:

- Chart paper
- Marker
- Hook and loop fastener (optional)
- Ring for binding purposes (optional)
- Scissors
- Glue
- Tape
- Stapler or hole punch

Preparation:

1. Print, laminate, and cut out:
 - a. "Using the Science Process" book
 - b. Group storyboard pictures
 - c. Group storyboard icons
2. Prepare the student storyboards:
 - a. Print a storyboard and a set of storyboard sequence pictures for each student.
 - b. Assemble the storyboards for students by cutting along the dashed lines, aligning the two sides, and taping the halves together to make one long board for each student.
3. Assemble the "Using the Science Process" book by stapling the pages together or by hole-punching the pages and securing them together with a ring.
4. Assemble a group storyboard to use as a model (see example below):
 - a. Tape a large piece of chart paper to the wall, oriented landscape.
 - b. Divide the chart into two rows and six columns to create twelve four-inch squares.
5. On the top row, glue the group storyboard icons in order from 1 to 6, left to right.

1	2	3	4	5	6
					

Group storyboard example

Helpful Learning Tools

- Use the corresponding digital REEL as an alternative or complement to the printable materials.
- Review the Learning Differentiation Guide to individualize this lesson for each student's learning level.

Instructions:

1. Pass out the student storyboard pictures and scissors to each student, instructing students to cut out the pictures.
2. After students cut out the student storyboard pictures, read the "Using the Science Process" story.
3. Distribute glue and a student storyboard to each student.
4. Demonstrate the activity using the group storyboard, explaining the concept of chronology to students using sequencer words (e.g., "First in the story, X [picture] happened. Second in the story, Y [picture] happened.").
5. Encourage students to retell the story once their storyboard is complete, using sequencer words or phrases as they describe each picture. Prompt students to take turns telling parts of the story represented on the storyboard. Students may respond using verbal language, pictures, and/or augmentative communication.
6. For students needing more support:
 - Teach sequencing using backward chaining. Place the majority of the steps in order, and have the student sequence the last step when given the cue "put in order." Repeat having the student sequence the last two steps, then three steps, etc. until the student is able to sequence all steps.
 - Have the student point to each picture on the storyboard as you use sequencer words such as first, second, etc.
7. To extend learning:
 - Ask the student questions regarding the sequence of events, and prompt the student to respond verbally, by pointing to the picture on their storyboard, or by using augmentative communication.
 - Challenge the student to use sequencer words to describe what happened in the story without using the storyboard as a visual support.



Using the Science Process



Sometimes, I have questions about the world around me. I can use the science process to answer my questions!



First, I start with a question.
“What color apple tastes the best?” is a question.

2



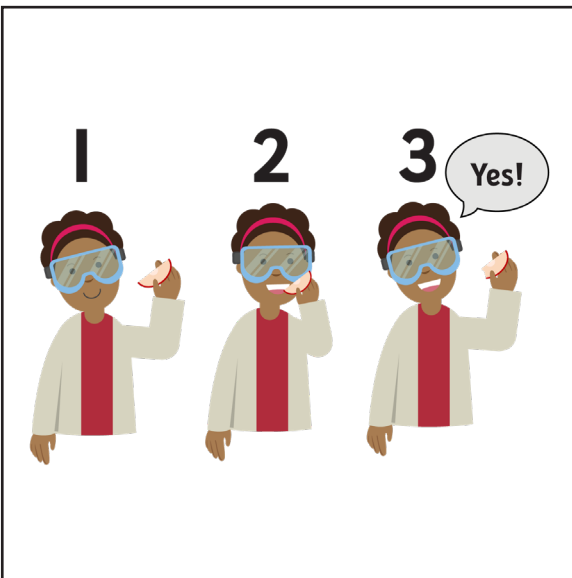
Next, I make a prediction, or a guess about the answer.
“I think I will like red apples the best” is a prediction.

3



Materials are things I need to test my prediction. To taste apples, I will need a green apple, a red apple, and a bowl to hold them.

4



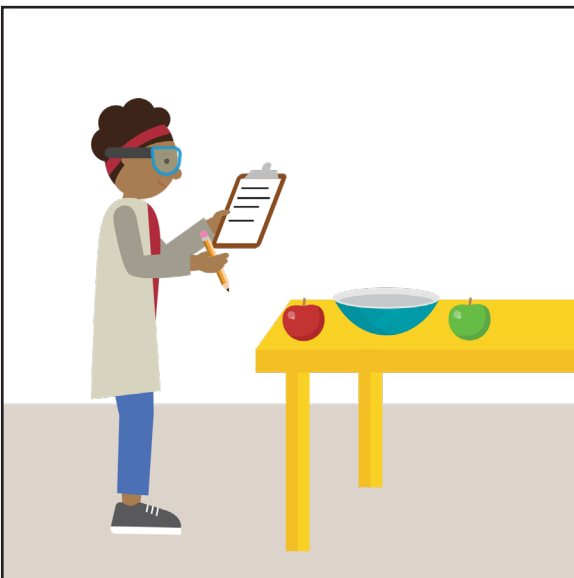
Once I have my materials, it is time to test my prediction. I can follow the steps I see or read. I can pick an apple, taste the apple, and decide if I like it.

5



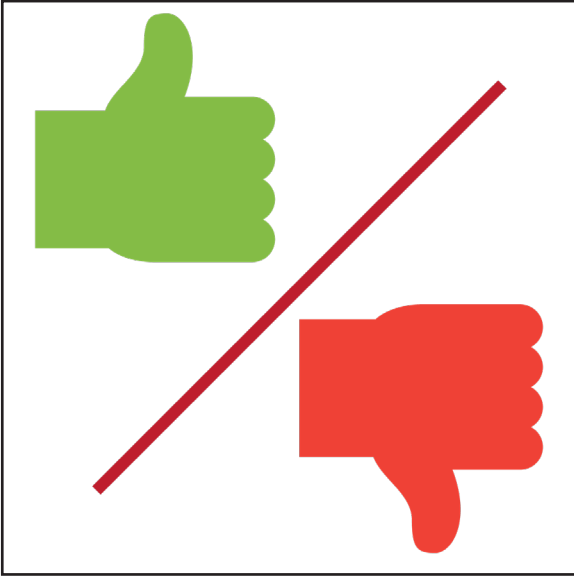
During the experiment, I will use my five senses to make observations. I can observe what apples taste like, how they look, how they feel, how they smell, and how they sound when I eat them.

6



Last, I use my observations to answer my question. These are the results. I might like red apples, green apples, or both!

7



I write down my results to see if my prediction was right. Sometimes, my prediction will be right and sometimes it won't. That's okay because I'm learning!

8



The science process helps me answer questions about the world around me. I can follow the process to learn about what color apple tastes the best.

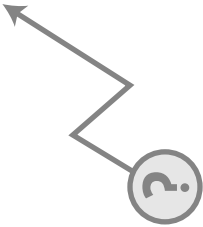
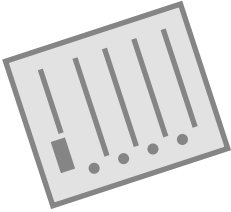
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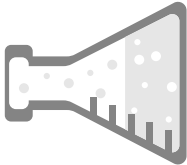
What other questions can I answer with science?

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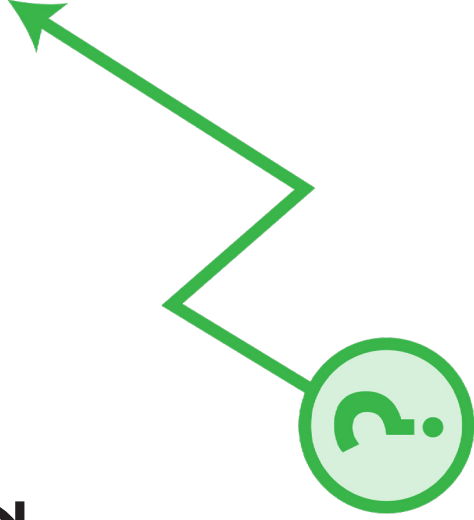
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1



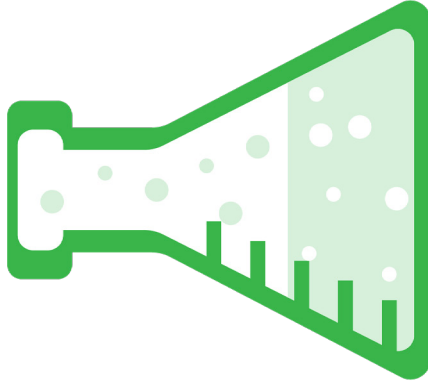
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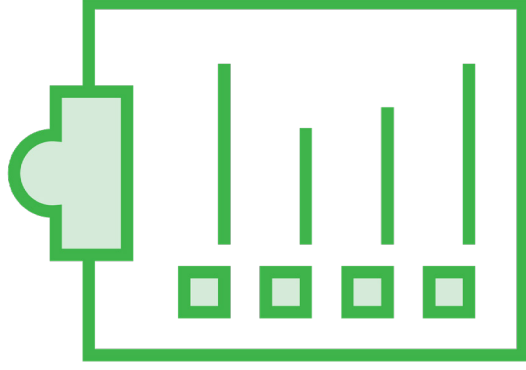
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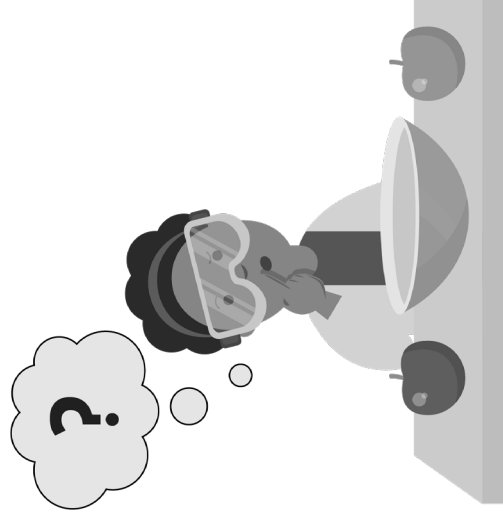


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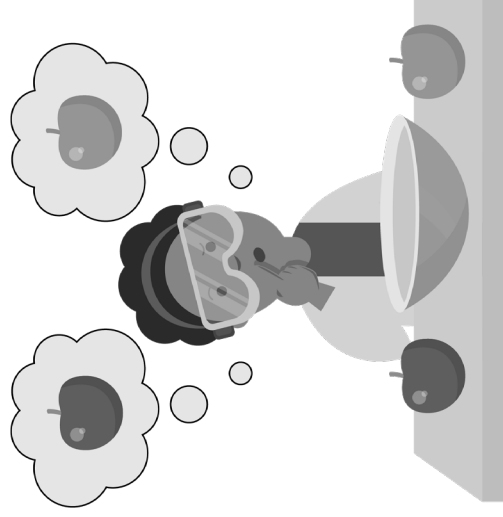


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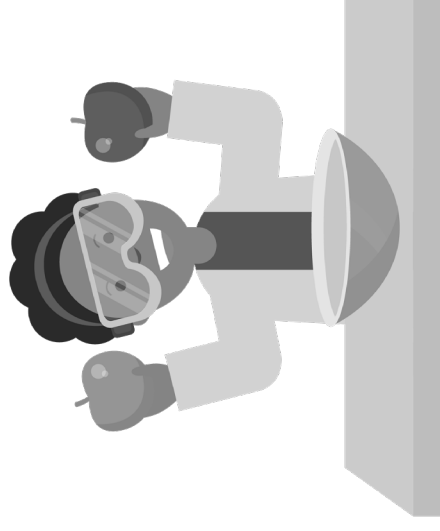




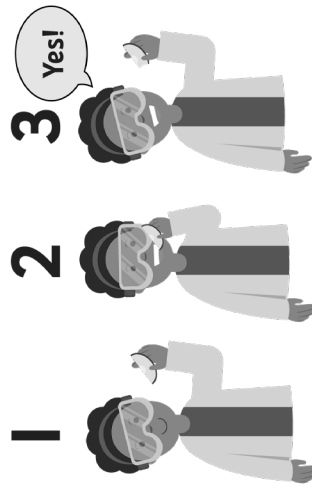
Ask a question



Make a prediction



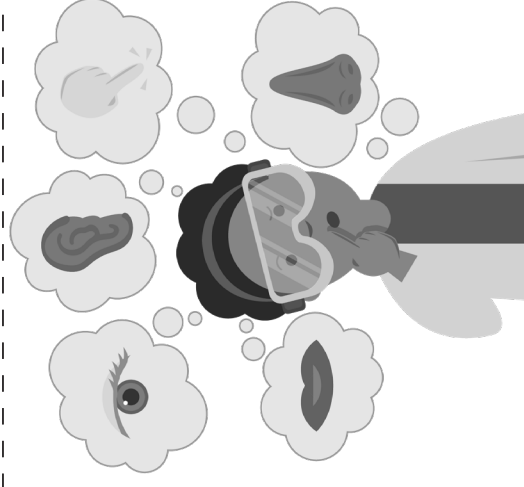
Gather materials



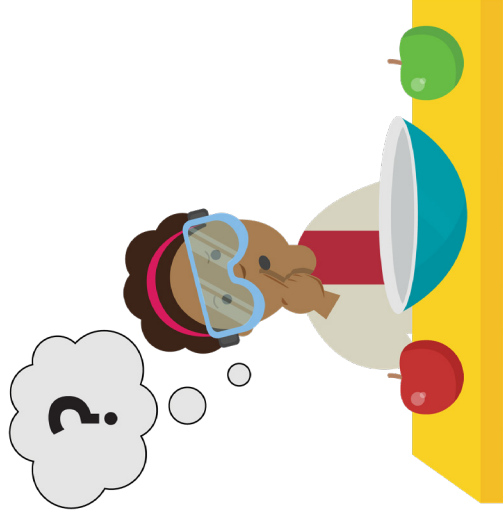
Test your prediction



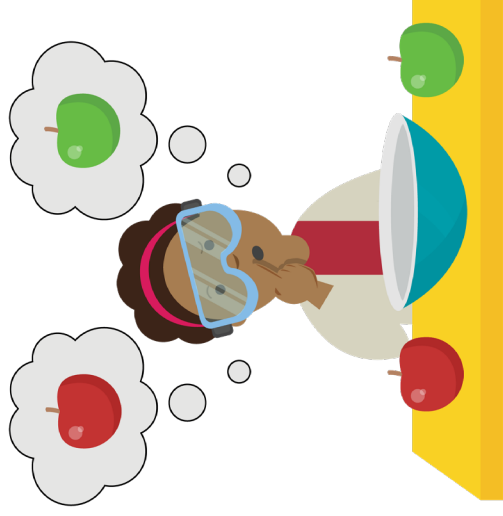
Write your results



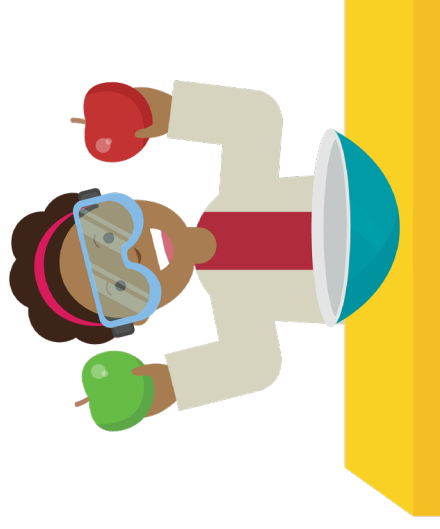
Make observations



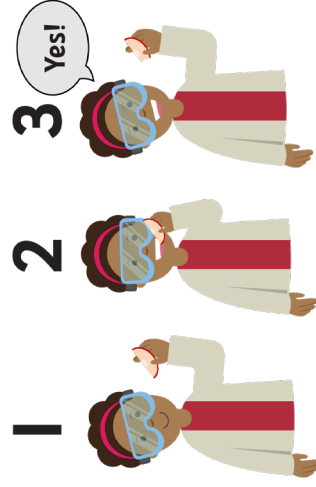
Ask a question



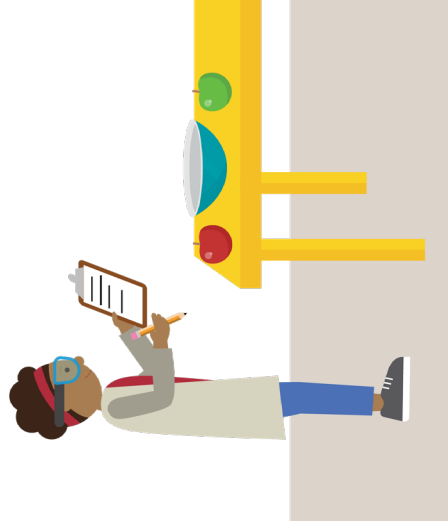
Make a prediction



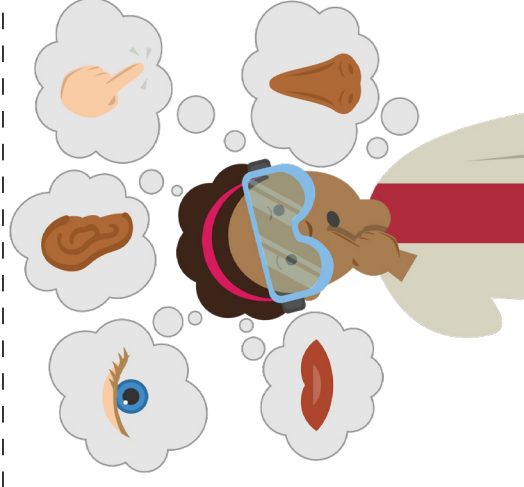
Gather materials



Test your prediction



Write your results



Make observations