



Ms. Smarty-Plants™

CA State Standards,
NGSS Aligned & STEAM

Lesson- Changing Environments

Plant Adaptations

Grade Level

3rd and 4th

Duration

40 minutes (Pre-Recorded video and live, virtual instruction)

CA Standards

Grade 3- Life Sciences

Grade 4- Life Sciences

NGSS Aligned

3-LS4 Biological Evolution: Unity and Diversity

4-LS1 From Molecules to Organisms: Structures and Processes

Lesson Overview

In this lesson students will understand plant adaptations and how they help plants survive in San Diego's semi-arid Mediterranean climate. Students will observe local neighborhood plants and record notes and sketches in their "plant journal", based on the various characteristics of the plants they see. They will be able to explain how plants survive in different climates.

Objective

At the end of the lesson students should be able to:

- Associate the adaptations observed in plants and animals, including humans, as characteristics that help them survive in their environment.
- Acknowledge different plants as having varying types of adaptations that serve many purposes.
- Recognize that plants appropriate to San Diego's climate are adapted to our semi-arid environment.

Materials

- Ms. Smarty-Plants™ virtual field trip video
- Ms. Smarty-Plants™ documents (printed or Google Docs Form):
 1. Plant journal document
 2. Vocabulary List
 3. Power Point or Google Slides Activity: “Create Your Own Plant”
 4. Google Quiz Review document
- Virtual Classroom meeting platform (ex: Google Classroom, ZOOM, Seesaw, etc.)

Lesson Procedures

1. Pre-Activity- The “Minute with Ms. Smarty-Plants™” video is played by the teacher one week prior to the virtual fieldtrip. Students will watch this brief, fun video introducing them to The Water Conservation Garden! Through the video students first meet Ms. Smarty-Plants™ and are given a task to complete prior to the field trip. In the task, students are encouraged to observe plants in their neighborhood and document different plant characteristics into their “Plant Journal”. The “Minute with Ms. Smarty-Plants™” video will be shared in your confirmation email.
2. During Class -Ms. Smarty-Plants™ visits your class! The day of the fieldtrip starts with a short video of Ms. Smarty-Plants™ in The Garden followed by live virtual instruction. MSP will review material learned in the video including three types of plant adaptations, including these leaf adaptations: (1) hair-like, or fuzzy leaves (2) small leaves (3) curled-up leaves, and (4) wax-coated leaves. Students will also become familiar with the term “drought tolerant”.
3. Post Activity- “Create Your Own Plant” Google Slides Activity or Power Point. Students will create their own unique plant by first selecting from an assortment of plant adaptations, then sketching their fictitious plant, and uploading their drawings. To further enhance your child’s experience, a free Ms. Smarty-Plants™ seed packet will be available for pickup at The Water Conservation Garden.

Stay positive & make a difference!

We encourage each student to create their own Earth Hero moment.

(see document [“Which Earth Hero are You?”](#))

