

#### OVERVIEW

- Spark** 8 min Students reflect on what they learned in the previous lesson, and watch a video showing what plants need to grow.
- Investigate** 15 min Students learn how to preview a text, listen to a read-aloud about what seedlings need to grow, and observe a pea seedling uprooted by the teacher.
- Report** 5 min Students record data about the seedling roots in the class notebook.
- Connect** 7 min Students listen to a reading of a poem about a seed growing into a seedling.
- Reflect** 5 min Students complete the Pre-Exploration about plants and what they need to grow and survive.

#### STANDARDS

##### NGSS

- DCI** LS1.A Structure and Function  
LS1.B Growth and Development of Organisms  
LS3.A Inheritance of Traits
- SEP** SEP-3 Planning and Carrying Out Investigations  
SEP-4 Analyzing and Interpreting Data  
SEP-8 Obtaining, Evaluating, and Communicating Information
- CCC** CCC-6 Structure and Function

##### CROSS-CURRICULAR CONNECTIONS

- EPC** Principle III Natural Systems Change in Ways that People Benefit from and can Influence
- CCSS ELA** RI.1.1 Key Ideas and Details  
RI.1.3 Key Ideas and Details  
RI.1.7 Integration of Knowledge and Ideas  
W.1.7 Research to Build and Present Knowledge  
SL.1.2 Comprehension and Collaboration  
L.1.4 Vocabulary Acquisition and Use

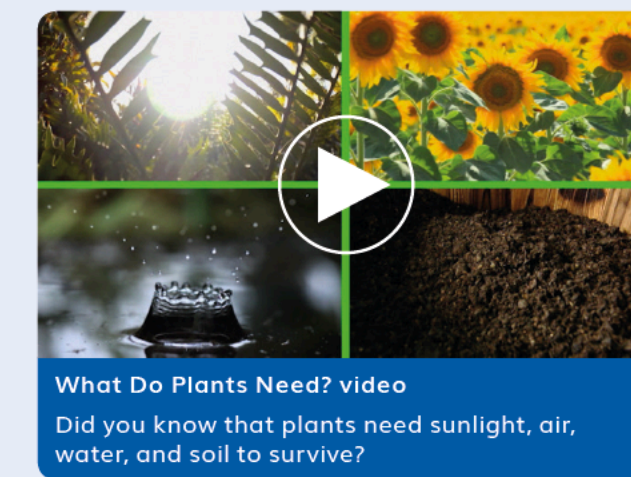
- CCSS MATH** 1.MD.A.2 Measure lengths indirectly and by iterating length units
- WIDA** **Standard 1:** Social and Instructional Language (Listening)  
**Standard 3:** The Language of Mathematics (Reading, Writing)  
**Standard 4:** The Language of Science (Listening)

#### 3-D LEARNING OBJECTIVES

- Students will:
- Make and record observations about roots
  - Obtain information about the function of seeds and how plants grow by listening to a story, watching a video, and class discussion
  - Record gathered information in a chart.

#### RESOURCES

- Digital
- Family Outreach Letter 2
  - What Do Plants Need? video
  - Plant a Seed Poem visual
  - Plant Parts Progress Tracker
- Teacher
- In kit: Magnifying glass (optional)
  - Pea seedlings planted in Driving Question 1, Lesson 1
- Additional Resources
- Use our recommended trade book, *How a Seed Grows* by Helene J. Jordan, illustrated by Loretta Krupinski, or replace with your own



#### LESSON PREPARATION

- ✓ Read through *How a Seed Grows* to preview the vocabulary and become familiar with the information about planting seeds. As you read, mark places for discussion and think about the suggestions for scaffolding. Alternatively, use our model with a book of your choice.
- ✓ Create a Root Observation Chart in the class notebook:
 

Root Observation Chart				
Age	Picture	Description	Root Length	Leaves
- ✓ Print the **Family Outreach Letter 2** (1 per student) and give to students at the beginning of class. You may also email a copy to parents or guardians. This letter suggests ways families can explore plants and plant parts with their students in their home and around their neighborhood. It also introduces the Daylight Data Study students will conduct throughout the year, and provides instructions for families to help students record data in the Daylight Data handout once a month.

##### Word Wall

- grow
- survive
- surviving
- sunlight
- air
- water
- soil
- roots
- stem
- leaves
- sprout