



**EARTH SCIENCE**

# Elephant Guardians

## PAGES 4-7

**SEL:** This lesson plan contains social-emotional learning (SEL) support related to relationship skills.

**READING LEVELS:** Lexile 720 / Guided Reading Level R

**NEED A LOWER READING LEVEL?** To access this article at a lower reading level, go to [scholastic.com/superscience](http://scholastic.com/superscience).

### Objective

Design a water pipeline that will help reduce the effects of drought on living things in an area.

Practice

Crosscutting Concept

Core Idea

#### STANDARDS

##### NGSS:

**Core Idea:** ESS3.B: Natural hazards

**Practice:** Designing solutions

**Crosscutting Concept:** Cause and effect

##### COMMON CORE:

**Reading Informational Text:** 3.

Explain the relationships between two or more events in a text.

##### TEKS:

**Science:** 3.9C, 5.9A

**ELA:** 3.9D, 4.9D, 5.9D, 6.8D

independently, considering the essential question: “What happens when an area doesn’t get enough rain over a long period of time?” After reading, have students identify the causes and effects in the article by completing the “Tell Me Why” skills sheet available at [scholastic.com/superscience](http://scholastic.com/superscience).

Discuss answers as a class. Ask: How might the landscapes in the gallery and the article look if the areas were to receive more rain? (*Plants would begin to grow.*)

### TEACHING TOOLS

available at [scholastic.com/superscience](http://scholastic.com/superscience)

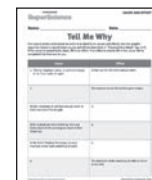
#### Skills sheets:



**Search and Rescue (T5):** Analyze a graph showing the reasons why the Reteti Elephant Sanctuary rescued elephant calves.



**Think It Through (T13):** Answer critical-thinking questions about the article.



**Tell Me Why (online only):** Identify cause-and-effect relationships in the article.

#### Video:



**Dry Times in Africa (online only):** Learn about how drought is affecting Kenya and the people and animals that live there.

#### Game:



**Where’s the Water? (online only):** Use basic coding concepts to move an elephant to a water source.

## Lesson Plan

### 1 Introduce the lesson with a gallery walk.

Print out pictures of different parts of the world during drought, including images of cracked earth. Tape the images around your room.

Tell students to walk around the room in groups of three or four. Each student should write observations or questions on sticky notes, placing one next to every picture. Share selected observations and questions.

### 2 Read the article and discuss the causes and effects of drought.

Have students read the article

### 3 Complete an engineering design challenge to move water.

Water pipelines can give people access to drinking water during a drought. Instruct students to turn to the engineering challenge “Running Water” on page 7 of their magazines. Tell them that they will work in groups of three or four to design water pipelines.

### 4 Reflect and share designs.

After the design challenge, allow students to write a reflection to this question: What changes could I suggest to make my group work better? How can I be a better group member? ♡ When students have completed their reflections, each group shares their designs.