



DESCRIBING CONNECTIONS

RI.2.3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

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STUDENT FEEDBACK GUIDE	A feedback tool for students to complete following the lesson set.

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DESCRIBING CONNECTIONS

TEACHER NOTES

RI.2.3, Lessons 1–3

UNIT OVERVIEW

In this unit, students learn how to identify and describe the connections an author uses in informational text. Reading informational text requires students to understand the sequence of when or how something occurs. According to research, however, many students struggle with informational text. To develop their ability to comprehend expository text, students need explicit text structure instruction.

In these lessons, you lead collaborative conversations to introduce three different types of informational text structure: procedural, scientific concept, and historical timeline. You then introduce students to the signal words associated with sequential and causal text types and graphic organizers that represent each structure. As you gradually release responsibility to students, they complete step maps and timelines, which help them focus on the sequential structure in a text, understand, and describe the connections in this structure.

Lesson 1: In this lesson, students identify the steps of a procedural text. You guide students in a collaborative discussion on procedural text structure and model identifying signal words that indicate the procedure's individual steps. Then students complete a graphic organizer to model the connections between steps.

Lesson 2: In this lesson, students describe the sequential or causal relationships within a scientific cycle. You lead students through a discussion of cycles, a review of signal words, and a text read-aloud. Then students complete a graphic organizer of the cycle in the text.

Lesson 3: In this lesson, students describe the chronological connections in a historical text. You lead a discussion about timelines and model how to identify signal words and recognize main events during a read-aloud. Then students construct a timeline of the events in the text.

Research Findings	Lesson Strategies, Approaches, or Activities
“Recognizing a text’s organization ultimately aids students in how they approach that text and understand its purpose in providing information.” (Sisson & Sisson, 2014)	Each lesson uses a graphic organizer that represents one type of sequential text structure. The handouts help students recognize how the lessons’ texts are organized.
One common text structure organizes ideas or events according to the order in which they occur. Sometimes one event causes another and there is a cause-effect relationship in addition to a sequential relationship between events. (Cunningham & Cunningham, 2015)	The unit’s graphic organizers are timelines and step maps, organizing frameworks that help students think about and describe chronological and cause-effect relationships.

<p>“By developing children’s domain knowledge at the elementary level, we help to ensure later success with the increasingly demanding texts found in content areas at the upper grade levels.”</p> <p>(Moss, 2005)</p>	<p>The unit uses science and social studies texts to expose students to complex text structures and help them develop the critical thinking skills needed to approach various text types.</p>
<p>Content knowledge in a variety of subjects can contribute to schema development that can be invaluable to children as they progress through school.</p> <p>(Moss, 2005)</p>	<p>The lessons guide students through identifying how authors structure academic content in multiple subjects; this understanding will help students make connections and identify chronological or sequential patterns in other content areas.</p>
<p>“There is evidence that through explicit instruction in text structure, low-achieving students can develop and refine their ability to comprehend expository text.”</p> <p>(Williams et al., 2007)</p>	<p>The lessons teach students to identify signal words, ask questions, and use graphic organizers to identify the sequence or time order relationships in texts.</p>

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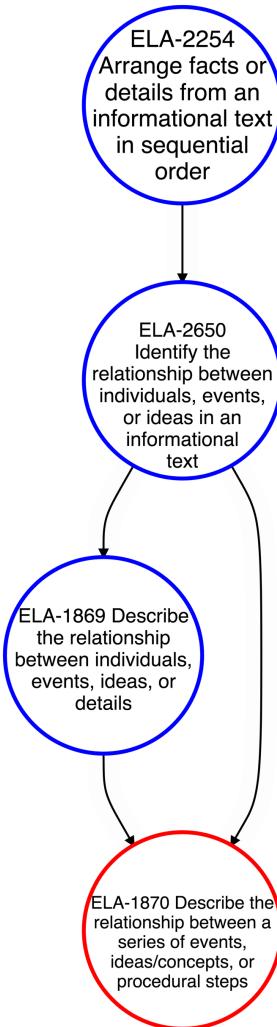
DESCRIBING CONNECTIONS

LEARNING MAP TOOL

RI.2.3

STANDARD

RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.



*Learning map model for RI.2.3.

Node ID	Node Name	Node Description
ELA-1869	DESCRIBE THE RELATIONSHIPS BETWEEN INDIVIDUALS, EVENTS, IDEAS, OR DETAILS	Describe the ways in which individuals, events, ideas or pieces of information are connected in an informational text.
ELA-1870	DESCRIBE THE RELATIONSHIP BETWEEN A SERIES OF EVENTS, IDEAS/CONCEPTS, OR PROCEDURAL STEPS	Describe the connection between a series of historical events, scientific ideas or concepts, or individual steps in a procedure in an informational text.
ELA-2254	ARRANGE FACTS OR DETAILS FROM AN INFORMATIONAL TEXT IN SEQUENTIAL ORDER	Arrange the facts and details mentioned in an informational text during a shared reading activity in the temporal order in which they occurred in the text. The facts and details should be on a smaller scale than events.
ELA-2650	IDENTIFY THE RELATIONSHIP BETWEEN INDIVIDUALS, EVENTS, OR IDEAS IN AN INFORMATIONAL TEXT	Identify the connection between two individuals, events, ideas, or pieces of information in an informational text. Signal words, such as conjunctions, connectors, or other temporal words, can help students to identify the relationship.

DESCRIBING STEPS INSTRUCTIONAL ACTIVITY

RI.2.3, Lesson 1

LEARNING GOAL

In this lesson, students describe the connections between steps in a how-to text.

STANDARD

RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

PREPARATION

Before the lesson, find a text that teaches how to do something in at least three steps and includes illustrations. This unit provides a text, [HOW TO MAKE A SUN PRINT](#), which you are free to copy. Follow all copyright restrictions and guidelines as they pertain to any other material you select for classroom use.

MATERIALS & HANDOUTS

- ▶ whiteboard or chart paper
 - ▶ teacher copy of a how-to text
 - ▶ [STUDENT HANDOUT: HOW-TO DIRECTIONS](#)
-

IMPLEMENTATION

As a class, turn the learning goal into an I Can statement: “I can tell the steps of how to do something.”

Tell the class that in today’s lesson they are going to learn about texts that give directions on how to do something. **Introduce** the text.

Ask students if they have made a print of an object before. (If you have selected your own text, ask students about the procedure in the text you will use.) **Ask** students what materials or ingredients are needed to complete the procedure.

Ask students, “What signal on a traffic light tells drivers to go?” Then ask, “What is the signal to stop?” **Tell** students that just like a traffic light uses colors to give directions, texts use words that direct readers to the next place in the text. These are called signal words. **Introduce** students to some signal words for procedural texts, such as *first, second, third, last, next, and finally*.

Tell students that you need action words as well as signal words when you tell someone how to do something. **Ask** students what actions are needed to complete the procedure in the text.

Tell students that now you will read the text. **Ask** students to pay attention to the signal words and action words they hear.

Read the text to the class. **Invite** students to share the signal words they heard. Then **ask** what action words the text used. **Collect** responses on the board or chart paper.

Reread the text. **Circle** the signal words on the board as you locate them in the text.

Pass out **STUDENT HANDOUT: HOW-TO DIRECTIONS**. **Tell** students that they will draw instructions for the procedure in the text. Each box on the handout represents one step. Students will draw a picture of the action that someone should do for each step in the procedure. Students will also write the signal word for the step under the picture.

While students work, **circulate** and **ask** the Checking for Understanding questions.

CHECKING FOR UNDERSTANDING

Determine if the student can **ARRANGE FACTS OR DETAILS FROM AN INFORMATIONAL TEXT IN SEQUENTIAL ORDER (ELA-2254)**:

- | | | |
|---|----------------------------------|---|
| ▶ What step is first?
Next? Last? How do you know? | ▶ What actions go with the step? | ▶ Why is that action important to the instructions? |
|---|----------------------------------|---|

Invite volunteers to share the steps they drew. Finally, **collect** the handouts and **display** them for a gallery walk.

For a discussion of the research that supports this instructional model, see the **TEACHER NOTES** for this lesson set.

HOW TO MAKE A SUN PRINT

by Brianna Lichtenauer

The Sun allows plants, animals, and people to live on Earth. Sunlight brightens our days, keeps us warm, and helps us grow. But that's not all. The Sun can also make art! You can help the Sun be an artist by making a sun print.

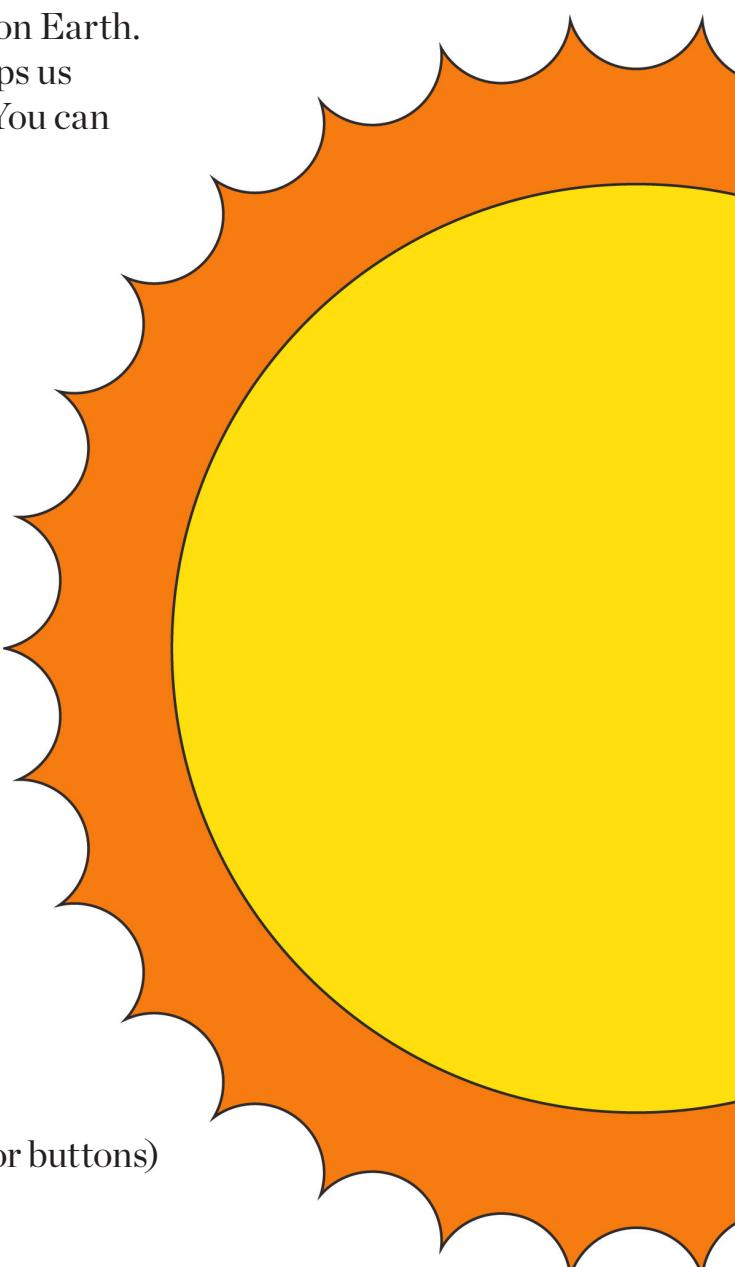
WHAT IS A SUN PRINT?

A sun print is a picture of an object's shape, made by the Sun's light. The shape of the object stays on a piece of paper even when the object is no longer there. Making a sun print is a bit like taking a photograph of an object's shadow using sunshine instead of a camera.

WHAT SUPPLIES DO I NEED TO MAKE A SUN PRINT?

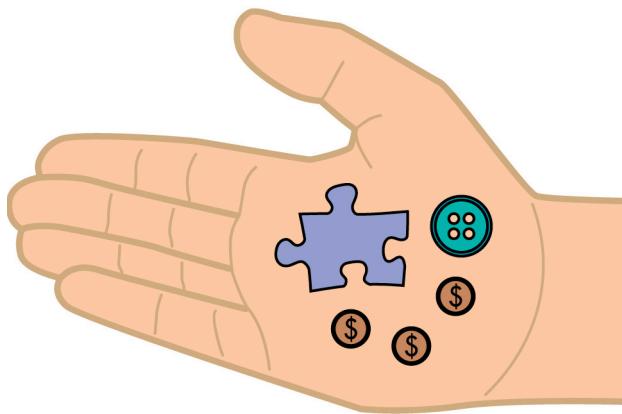
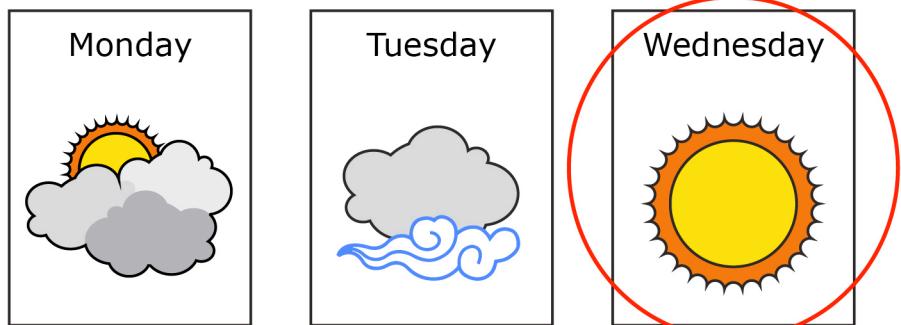
You need only a few things to make a sun print:

- a sunny day
- a piece of dark-colored paper
- small objects (for example, leaves, flowers, or buttons)
- coins or small stones



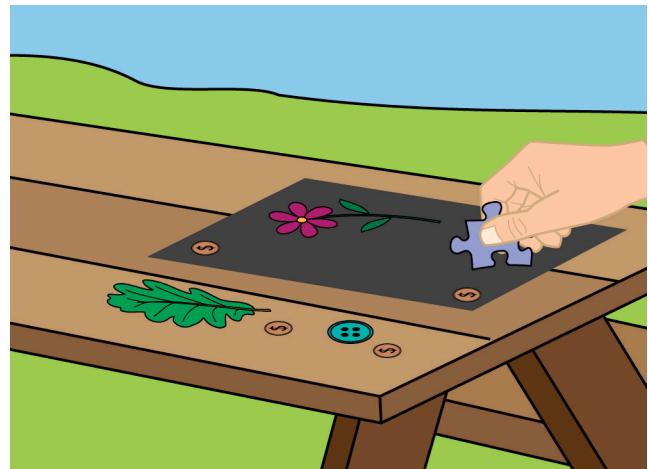
HOW DO I MAKE A SUN PRINT?

First, check the weather to make sure it is a sunny day. Then, find a spot outdoors that is in bright sunlight. Choose a place where your project can sit in the sunlight for at least four hours. If it is windy, wait for another day. Otherwise, the wind will blow your sun print away.



Second, gather your construction paper and small objects. Using a few different objects with interesting shapes works best. Leaves, flowers, and buttons work well, but many other things do too. You could try small toys or puzzle pieces, for example. Bring the construction paper and small objects to your sunny spot.

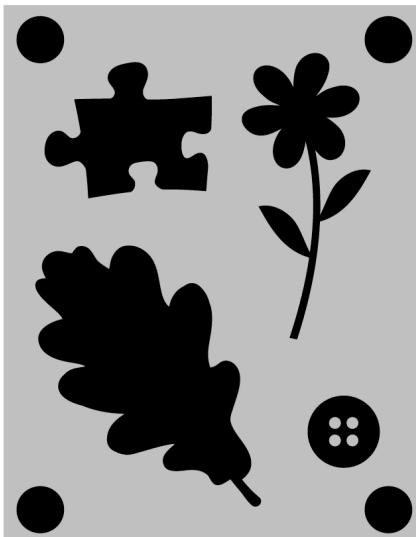
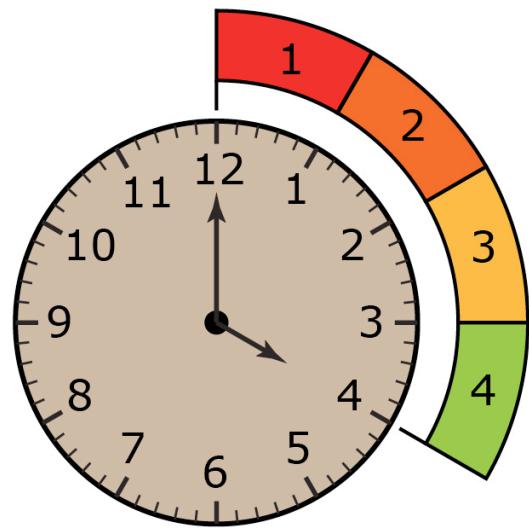
Third, place your objects on the construction paper. You can set them up any way you like. You might place them in neat rows, or in a circle, or scattered all around. Leave some space between the objects.





Next, make sure your sun print won't blow away if a breeze comes along. Place small stones or coins on top of lightweight objects, such as leaves or flowers. Place a stone or coin on each corner of the paper, too. This will help everything stay in place.

Finally, let the Sun do its work. Leave your project in the sunny spot for four or more hours. The longer your project stays in direct sunlight, the better your sun print will turn out. As the Sun shines on the paper, the color of the paper around your objects will fade. But the paper beneath your objects will stay the same dark color. When you remove the objects, their shapes will still be on the paper. That's a sun print!

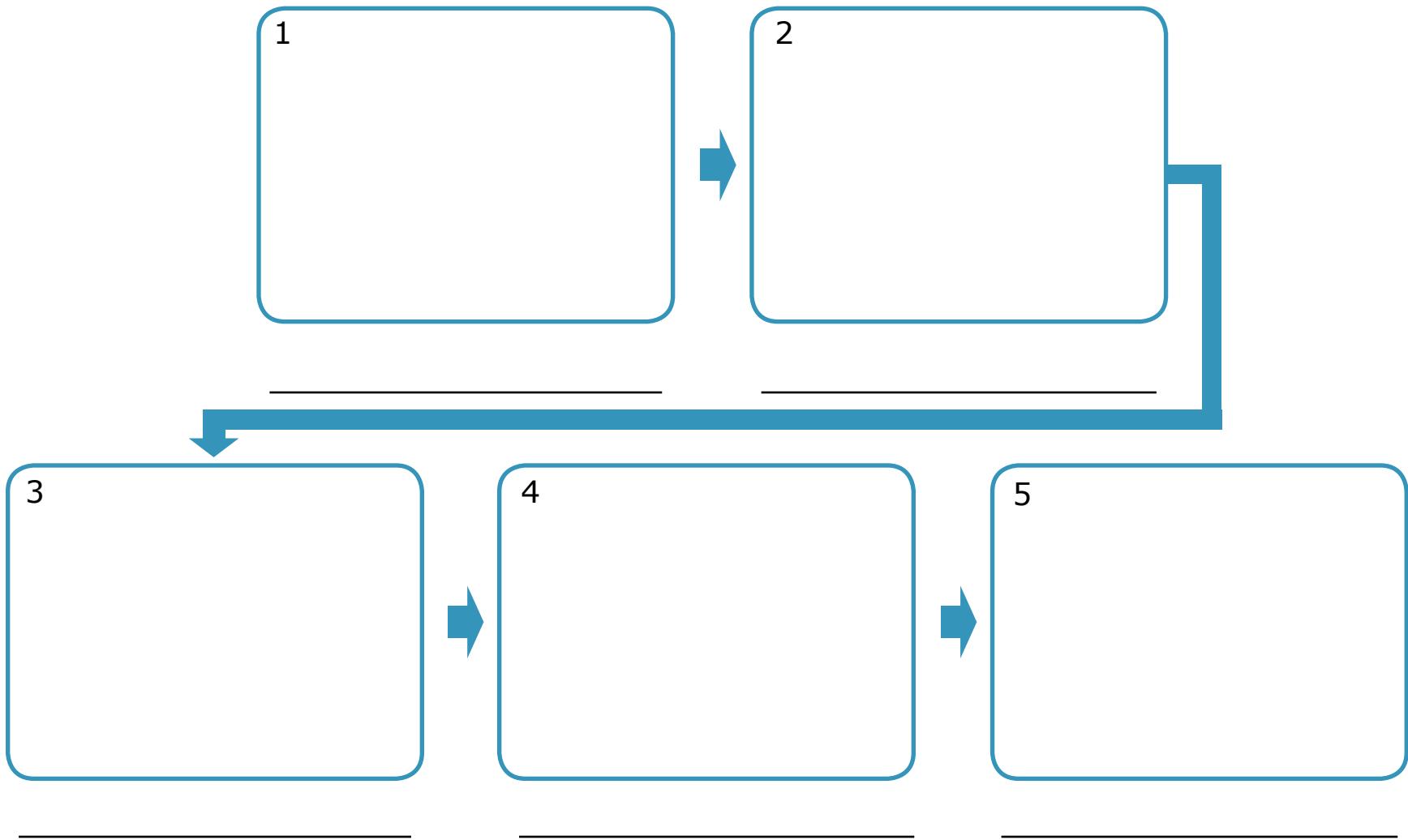


Now that you and the Sun have finished your artwork, put the small objects back where you found them. Then, you are ready to show off your sun print. Hang it up somewhere, or give it to someone as a gift. Maybe you'd even like to teach someone else how to help the Sun be an artist!

How-To DIRECTIONS

STUDENT HANDOUT

Lesson 1



DESCRIBING CONNECTIONS IN SCIENCE TEXTS

INSTRUCTIONAL ACTIVITY

RI.2.3, Lesson 2

LEARNING GOAL

In this lesson, students describe how ideas are connected in a science text about a cycle in nature.

STANDARD

RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

PREPARATION

Before the lesson, select a science text that describes a four-stage cycle and includes images. This unit provides a passage, [A PLANT'S LIFE](#), which you are free to copy. Follow all copyright restrictions and guidelines as they pertain to any other material you select for classroom use.

MATERIALS & HANDOUTS

- ▶ whiteboard or chart paper
 - ▶ science text that describes a cycle
 - ▶ [STUDENT HANDOUT: A CYCLE](#)
-

IMPLEMENTATION

As a class, turn the learning goal into an I Can statement: “I can describe how something grows or changes through a cycle in nature.”

Review the previous lesson on how-to texts, and ask students to define a step. Then **ask**, “What words told you what to do next?” **Collect** student responses on the board or chart paper.

Tell students that today they will learn about the steps of how something grows or changes in a cycle. Students will look for the same kind of signal words as in the previous lesson to determine the order of the steps.

Ask, “What is a cycle?” **Collect** responses, and then **give** the definition: A cycle is a series of events that happen in order and are repeated. *Repeat* means that the steps happen again and again.

Ask, “Can anyone think of a cycle that happens in everyday life?” If students have difficulty coming up with a cycle, ask, “What about school? How is school a cycle?” Or ask, “What about the seasons? Are they a cycle?” **Collect** responses. **Tell** students that today you are going to learn about a cycle from nature.

Tell students to listen for the words that tell when a different step is happening as you **read** the text.

Ask students what signal words they heard, and write responses on the board or chart paper. Ask students what steps happened. **Collect** responses.

Reread the text.

Pass out **STUDENT HANDOUT: A CYCLE**. **Tell** students that today they will draw the cycle, with one step in each shape. **Direct** students to look at the text’s pictures to help them decide how to draw the cycle. Students will also write the signal word, such as *first*, *next*, or *last*, for each step under the drawing. Remind students to draw the steps in the order they happen.

While students work, **walk around** and gather evidence about student thinking.

CHECKING FOR UNDERSTANDING

Determine if the student can **DESCRIBE THE RELATIONSHIPS BETWEEN INDIVIDUALS, EVENTS, IDEAS, OR DETAILS (ELA-1869)**:

- | | | |
|--|---------------------------|--|
| ▶ What is the first step in the cycle? | ▶ What happens next? Why? | ▶ What is the last step in the cycle? Why? |
|--|---------------------------|--|

Invite students to share their pictures and explain the steps of the cycle. If students struggle to replicate the cycle, have them review the pictures to determine if they are missing a step.

For a discussion of the research that supports this instructional model, see the **TEACHER NOTES** for this lesson set.

A PLANT'S LIFE

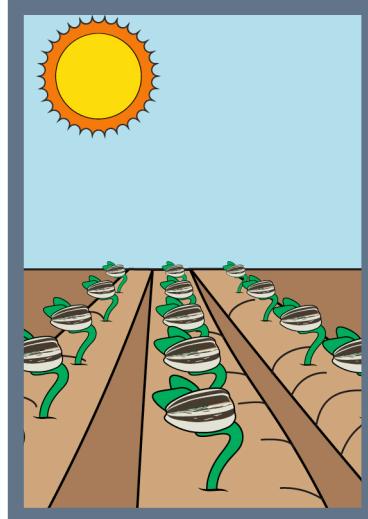
by Harmony Hanson

Most plants are born from seeds. Fully-grown plants make the seeds that grow into new plants, such as flowers or trees. There are four main stages in the life cycle of plants.

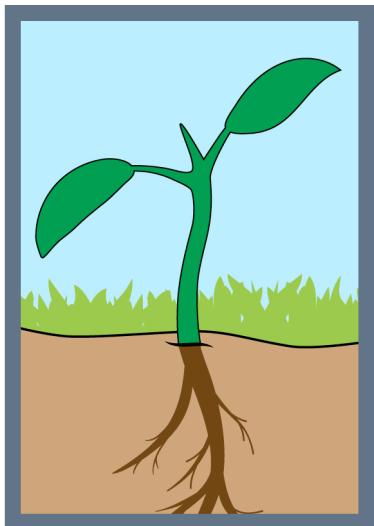




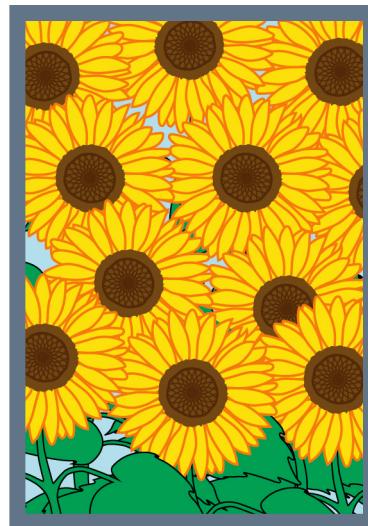
First, a fully-grown plant's seeds fall to the ground. There is a new plant waiting to grow inside each seed. Once a seed is beneath the soil, the new plant is ready to grow. Water helps the seed begin to grow the plant's stem and roots underground.



Second, the seed becomes a sprout. The new plant pushes its way up through the dirt. When the stem pops up from the soil, the plant is called a sprout.



In the third stage in the plant's life cycle, the sprout becomes a seedling. As the new plant grows above the soil, its roots keep growing down below. The seedling uses water, soil, sunlight, and air to grow bigger and stronger.



Finally, the seedling becomes a fully-grown plant. When it's ready, the fully-grown plant makes seeds. The seeds drop to the ground and the life cycle begins again with new plants.

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Osborne, Frank H., PhD. "Plant Life Cycle." *Kean.edu*. Kean University, n.d.

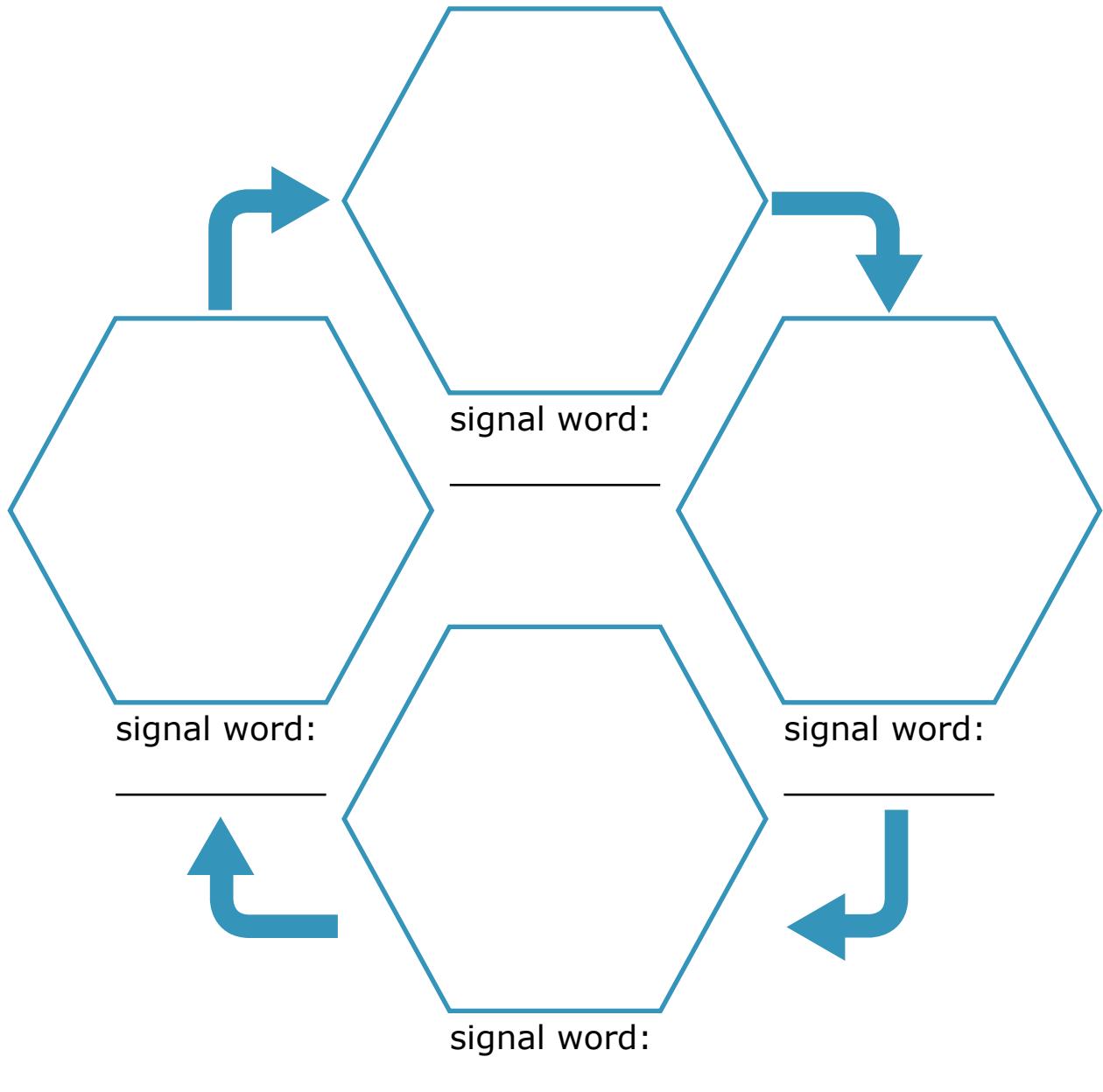
"Plant Life Cycle Background Information for Teachers and Parents." *BrainPOP Educators*. BrainPOP, n.d.

A CYCLE
STUDENT HANDOUT

Lesson 2

Directions: Draw pictures to show the steps in the cycle. Finish the title for the cycle, and write the signal word for each step.

The _____ Cycle



DESCRIBING CONNECTIONS IN HISTORY TEXTS

INSTRUCTIONAL ACTIVITY

RI.2.3, Lesson 3

LEARNING GOAL

In this lesson, students use a timeline to describe the connections between historical events.

STANDARD

RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

PREPARATION

Before the lesson, find a history text that includes at least three important dates with associated pictures. This unit includes a text, [MAKING MOUNT RUSHMORE](#), which you are free to copy. Follow all copyright restrictions and guidelines as they pertain to any other material you select for classroom use.

MATERIALS & HANDOUTS

- ▶ whiteboard or chart paper
 - ▶ history text
 - ▶ [STUDENT HANDOUT: A TIMELINE](#)
-

IMPLEMENTATION

As a class, turn the learning goal into an I Can statement: “I can describe the important dates of an event.”

Review signal words. Ask students what the words signal. One response may be that they tell what order something happened in. Ask for examples of signal words that show a sequence of events or steps. Some responses may be *first*, *next*, and *last*.

Tell the class that today they will learn about timelines. **Ask** students what a timeline is. **Say**, “What do you think a timeline is based on its title?” **Give** students the definition of a timeline: a line of events in the time order they happened.

Tell students you will read about a historical event and they will put the minor events in a timeline. **Explain** that you want students to listen for signal words and dates of events. **Read** the text.

Ask students to share signal words they heard or dates that are important. **Write** them on the board or chart paper.

Pass out **STUDENT HANDOUT: A TIMELINE**. **Tell** students that they will use the text to determine the order the events happened. **Explain** that they will draw a picture of each minor event and write its date (if applicable) and signal word. For example, if you are discussing space exploration and you read that Russia launched the first satellite in 1957, you would write “1957” on the timeline, draw a picture of the satellite, and write *first* underneath the picture.

Once students are clear on the directions, **release** them to work with a partner. **Tell** students to discuss the timeline order with their partner before they draw the pictures. **Remind** them that while they are working, you will walk around and ask them questions about their choices.

CHECKING FOR UNDERSTANDING

Determine if the student can **DESCRIBE THE RELATIONSHIP BETWEEN A SERIES OF EVENTS, IDEAS/CONCEPTS, OR PROCEDURAL STEPS (ELA-1870)**:

- | | | |
|---|--|--|
| <ul style="list-style-type: none">▶ What is the first event?▶ When did it happen?▶ Where do you place it on the timeline? | <ul style="list-style-type: none">▶ What is the next event?▶ When did it happen?▶ Where do you place it on the timeline? | <ul style="list-style-type: none">▶ What is the last event?▶ When did it happen?▶ Where do you place it on the timeline? |
|---|--|--|

Invite students to share their pictures and explain their placement on the timeline. If students are inconsistent with the event order, **reread** the text to the class and have them mark what happens first, second, third, etc. Students can also participate in a gallery walk of completed work to see other students’ thinking.

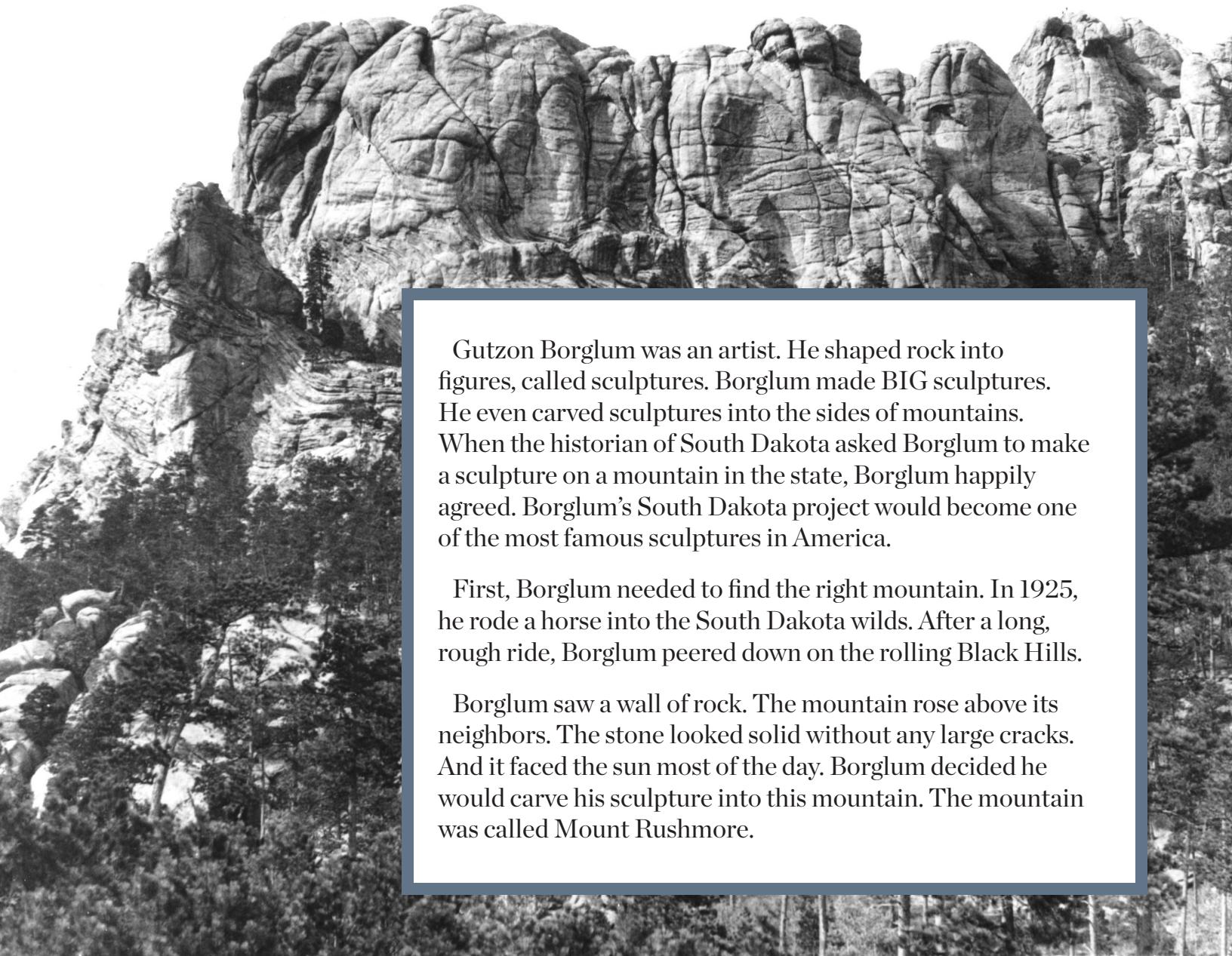
For a discussion of the research that supports this instructional model, see the **TEACHER NOTES** for this lesson set.

M A K I N G MOUNT RUSHMORE

by Laura Helweg

Mount Rushmore before carving.

IMAGE CREDIT: THE NATIONAL PARK SERVICE,
PHOTOGRAPHER RISE STUDIOS.



Gutzon Borglum was an artist. He shaped rock into figures, called sculptures. Borglum made BIG sculptures. He even carved sculptures into the sides of mountains. When the historian of South Dakota asked Borglum to make a sculpture on a mountain in the state, Borglum happily agreed. Borglum's South Dakota project would become one of the most famous sculptures in America.

First, Borglum needed to find the right mountain. In 1925, he rode a horse into the South Dakota wilds. After a long, rough ride, Borglum peered down on the rolling Black Hills.

Borglum saw a wall of rock. The mountain rose above its neighbors. The stone looked solid without any large cracks. And it faced the sun most of the day. Borglum decided he would carve his sculpture into this mountain. The mountain was called Mount Rushmore.

Borglum thought big art should show important people. He decided to carve four US presidents. George Washington was the country's first president. Thomas Jefferson wrote the Declaration of Independence. Abraham Lincoln saved the country in the Civil War. Theodore Roosevelt helped the United States grow more powerful.

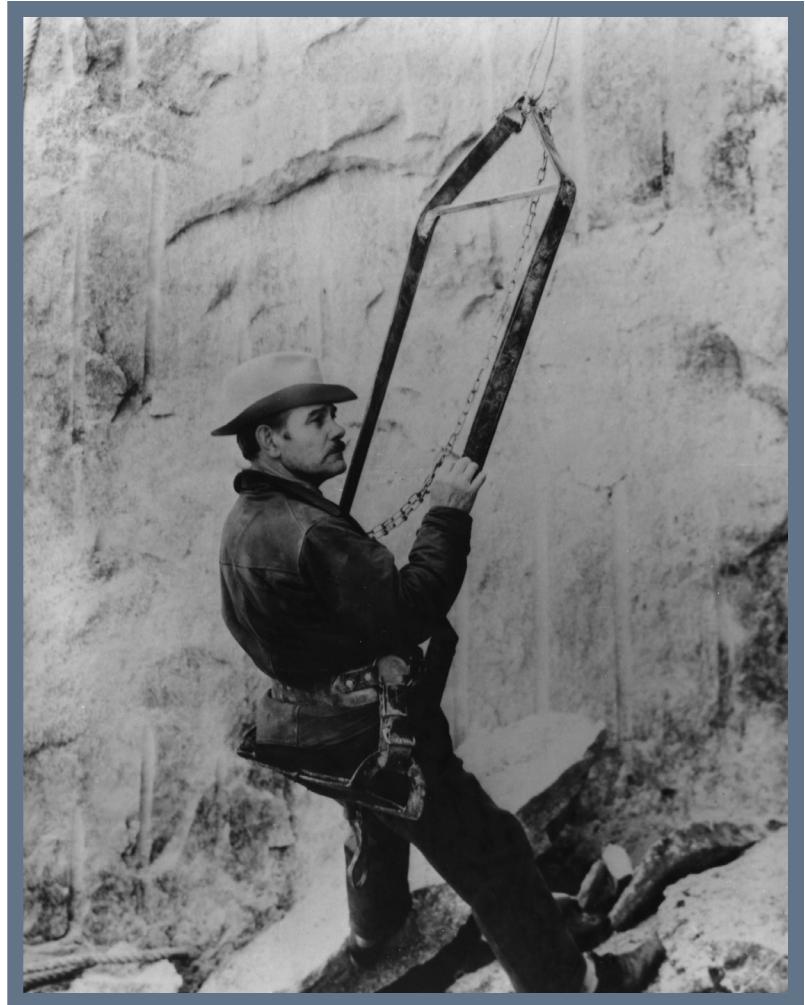
Next, Borglum planned how the presidents should look. He shaped each man's face out of clay. Then he created a large plaster model. Borglum stood on a ladder to work. The faces in the model were as tall as Borglum. Still, the faces on the mountain would be 12 times bigger than the model.

After two years of preparation, Borglum was ready to start carving Mount Rushmore. On August 10, 1927, nearly two thousand people came to the opening ceremony. The crowd watched in silence when Borglum hung from a cable on the mountain's side. He drilled several holes into the rock. Work had begun.

Over the next 14 years, Borglum and his team carved the sculpture. For each president's face, they followed four steps. First, they formed the presidents' heads. Workers drilled holes into the rock, then placed dynamite inside. The explosions removed huge rock chunks. Blast by blast, four egg-shaped heads appeared. Second, workers used jackhammers to shape the chins, noses, and ears. Third, they drilled away chips to form the finer shapes of the eyes and hair. Last, they buffed the rock smooth.

As work continued, Borglum's team faced problems. Borglum had planned to put Jefferson to the left of Washington. But workers found a deep crack there. In 1934, Borglum ordered workers to blast off Jefferson's carved head. Borglum would have to crowd Jefferson in with Roosevelt and Lincoln to the right of Washington instead.

In 1936, the team faced more trouble. They could not find solid rock for Roosevelt. Each time workers took off chunks of stone, the rock below was still too weak. Finally, after blasting off 120 feet of the mountain, the team found solid stone.



Gutzon Borglum hangs on the mountain side.

IMAGE CREDIT: U.S. NATIONAL PARK SERVICE.

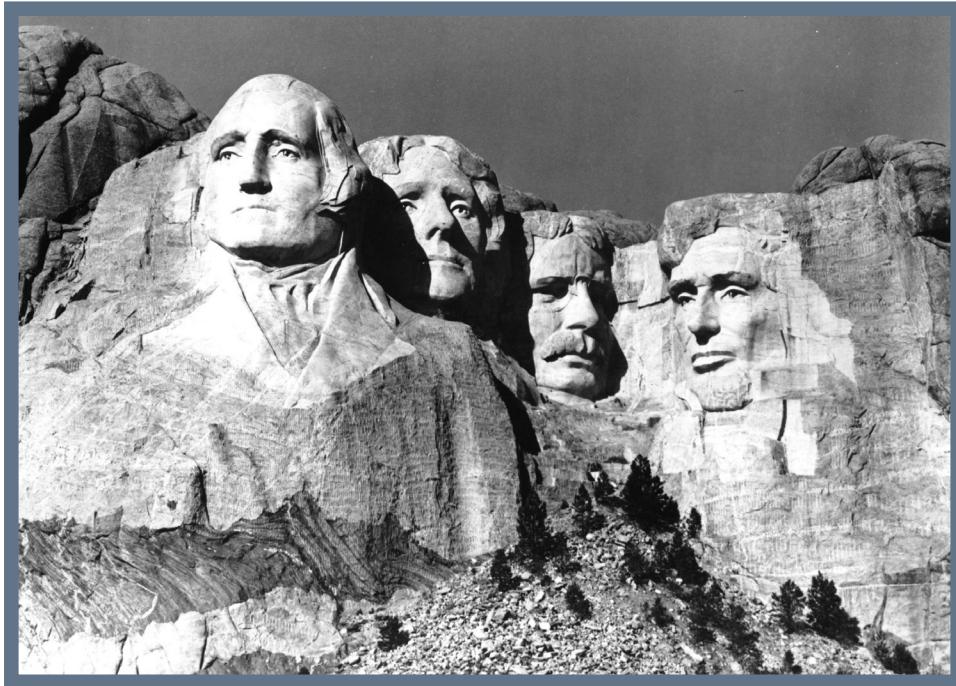
By 1941, the four presidents gazed from the mountain side. The sculpture was nearly done. And it was just as big as Borglum had imagined. The presidents' faces were each six stories tall!

But then, Borglum fell ill and died. His son, Lincoln, would have to finish his father's dream. Under Lincoln Borglum's leadership, work continued. The team finished the wrinkles of each president's hair and Abraham Lincoln's beard. They squared off Washington's jaw. Finally, on October 31, 1941, the workers packed up. Mount Rushmore was finished.



Workers carving Mount Rushmore.

IMAGE CREDIT: THE NATIONAL PARK SERVICE,
PHOTOGRAPHER RISE STUDIOS.



Mount Rushmore completed.

IMAGE CREDIT: U.S. NATIONAL PARK SERVICE.

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A TIMELINE

STUDENT HANDOUT

Lesson 3

Directions: Draw pictures to show the events in the text. Finish the title for the timeline, and write the date and signal word for each event.

A Timeline of _____

date: _____

date: _____

date: _____

An empty rectangular box with a blue border, designed for a student to draw a picture related to the first event on the timeline.

signal word: _____

An empty rectangular box with a blue border, designed for a student to draw a picture related to the second event on the timeline.

signal word: _____

An empty rectangular box with a blue border, designed for a student to draw a picture related to the third event on the timeline.

signal word: _____

DESCRIBING CONNECTIONS

STUDENT FEEDBACK GUIDE

RI.2.3

Directions: For each learning goal, circle the sentence that best matches what you can do.

Learning Goal	Level 1	Level 2	Level 3
Order steps from a text.	I can explain one step of how to do something.	I can explain two steps of how to do something.	I can explain three steps of how to do something.
Describe the connection between ideas in a text.	I can draw one of the ideas in a science text.	I can draw and show how two ideas are connected in a science text.	I can draw and show how three ideas are connected in a science text.
Describe the connection between events in a text.	I can tell about the first event in a timeline.	I can tell about two events in a timeline.	I can tell about three events in a timeline.