

Learning Objectives

Students will:

- ask and answer questions about the book.
- write a story about a seed.
- understand that seeds grow into plants.

Standards

- Reading: With prompting and support, ask and answer questions about key details in a text.
- **Writing:** Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.
- Content: Know that plants and animals need certain resources for energy and growth.
- Language: Communicate information, ideas, and concepts necessary for academic success in the content area of Science.

Lesson Timeline

Day |

Task

Introductory and Lab Activities (page 62)

Summary of Student Learning Activities

Experiment to see whether seeds need water to grow.

Day 2

Task

Before Reading (page 63)

Summary of Student Learning Activities

Ask questions about seeds.

Day 3

Task

During Reading (page 64)

Summary of Student Learning Activities

Look for the answers to questions and write a story about a seed.

Day 4

Task

After Reading (page 65)

Summary of Student Learning Activities

Identify and draw seeds.

Day 5

Task

Activity from the Book (page 65) and Assessments (pages 70–71)

Summary of Student Learning Activities

Observe a sunflower seed and complete the assessments.

- copies of the How the Seeds Grew activity sheet (page 66)
- alfafa sprouts
- sandwich bags
- paper towels

- paper cups
- water
- bean seeds
- masking tape
- marker



Experiment to see whether seeds need water to grow.

Introductory Activity

Engage

- Give each student a few alfalfa sprouts to observe. Have students brainstorm questions they have about this new object. Write students' questions on the board or on chart paper.
- **?** Tell students that they are looking at alfalfa sprouts and the sprouts come from alfalfa seeds. Tell students that they will learn more about seeds.

Lab Activity

Explore & Explain

- Create lab kits for small groups of students to use. Each kit should include two sandwich bags, two paper towels, a cup with about a tablespoon of water, and two bean seeds. You may need to soak the beans overnight before the lesson, depending on the variety you choose. Distribute lab kits to each group.
- Have students put a paper towel in each sandwich bag. Then, have students pour water into just one bag. Have them close the bag and hold it upside down so the water soaks into the paper towel.
- 3. Next, have students put one seed in each bag. Make sure the seed is visible and not wrapped in the paper towel.
- 4. Write students' names on their bags with a marker on a piece of masking tape. Then tape their bags onto the window in the class. For two weeks, have students check their beans and put more water in the wet bag if it is looking dry.

- **5** Distribute copies of the How the Seeds Grew activity sheet (page 66) to students. Read the directions aloud. Have students draw the seeds multiple times over a period of two weeks. You may need additional copies of the activity sheet. Ask students the following questions as they examine their seeds:
 - What happened to the seed that had water?
 - > What happened to the seed that did not have water?
 - ➤ Is this what you thought would happen?
 - > What do you think a seeds needs to grow?
- 6. At the end of two weeks, have student groups take their bags back to their desks. Guide students n a discussion about what happened to their seeds. Lead students to the conclusion that seeds need water to grow.



Before Reading

Elaborate

- Write the vocabulary words on the board. Explain that a plant is a living thing that uses sunlight to grow. Explain that a seed is a part of a plant that holds what is needed to start a new plant. Use each word in a sentence, and give examples of different plants and seeds with which students may be familiar.
- 2 For plants, you may mention flowers, trees, and fruits and vegetables that we eat. For seeds, you may mention the seeds that students have likely eaten, such as sunflower seeds, green beans, and peanuts. You may also mention seeds found in fruits that we tend not to eat, such as the seeds in the core of an apple, the pit of a peach, and watermelon seeds.
- 3. Distribute a sheet of paper to each student and instruct them to write seed on one side and plant on the other. Then, have students draw an example of each under the labels.

4. Display the Seeds book for the class. Read the title aloud and ask students to look at the cover. Put a KWL chart on the board. Ask students to share something they know about seeds. Write their ideas in the first column. Ask students what they want to know about seeds. Write their questions in the second column. Keep the chart to reference in the During Reading activity.

- Seeds books
- copies of the What I Learned and Seed Story activity sheets (pages 67–68)



Look for the answers to questions and write a story about a seed.

During Reading

- Distribute the Seeds books to students. For the first reading, read aloud as students follow along. Encourage them to track each word with their finger. Pause after the end of each spread to point out the pictures in the book and answer any questions students may have.
- Remind students to listen for answers to the questions they listed in the chart from the Before Reading activity.
 - You may choose to display the Interactiv-eBook for a more digitally enhanced reading experience.
- 3. Have students read in pairs for the second reading of the book. After students have finished reading, ask them whether they found answers to their questions. Have students share their answers.
 - For below-level learners and English language learners, you may choose to play the audio recording as students follow along to serve as a model of fluent reading. This may be done in small groups or at a listening station. The recordings will help struggling readers practice fluency and aid in comprehension.

- 4 Distribute copies of the What I Learned activity sheet (page 67) to students. Read the directions aloud. Have students write or draw at least one thing they learned from the book. Instruct students to draw, write words, or write sentences based on their abilities.
- Have students share what they learned.

 Add it to the KWL chart that was used in the Before Reading activity.
- 6. Distribute copies of the Seed Story activity sheet (page 68) to students. Read the directions aloud. Have students write or draw a story about a seed.
 - Have below-level learners and English language learners dictate their stories to you as you write them.
 - Have above-level learners write several sentences to tell their story.

- Seeds books
- copies of the Find the Seeds, Seeds Quiz, and How Tall? activity sheets (pages 69–71)



Identify and draw seeds.
Observe a sunflower
seed and complete the
assessments.

After Reading

Elaborate & Evaluate

- To review the vocabulary words, seeds and plant,s have the whole class act out the process of a seed growing. Have students sit on the floor and condense their body into a "seed." When they are fully compacted, have them call out, "Seed!" Have students slowly start to change into a plant by unfurling their bodies and very gradually standing up. At the very end, have them extend their arms upward and extend their fingertips. When they are fully extended, have students call out, "Plant!"
- 2. Distribute copies of the Find the Seeds activity sheet (page 69) and the Seeds books to students. Read the directions aloud. Show students how to neatly circle the seeds on the page. Assist as needed while students work independently to complete the activity. Encourage students to refer to the book if they need help.

Activity from the Book

Read the Your Turn! prompt aloud from page 22 of the Seeds book. Distribute sunflower seeds to students and have them open the seeds. Have students draw their observations. Be careful to not let students eat the seeds, in case anyone has an allergy.

- A short posttest, Seeds Quiz (page 70), is provided to assess student learning from the book.
- 2. A data analysis activity, How Tall? (page 71), is provided to assess students' understanding of how to analyze scientific data. Read the directions aloud. Point to the chart and read the labels beside each bar. Explain to students that the boy measured how tall the plants were.

STEAM

- Read each question aloud. Provide time for students to complete the assessment. You may wish to have students dictate their answers to you as needed. **Note:** You may need to preteach the skill of reading bar graphs before giving this assessment.
- 4. The Interactiv-eBook activities may be used as a form of assessment (optional).



Name:	Date:

How the Seeds Grew

Directions: Draw pictures to show how the seeds grew.

Water
No Water
No water



Name:	Date:
W	hat I Learned
Directions: Write or draw	to show what you learned about seeds.



Name:	Date:
	Seed Story
Directions: Write or draw of How did it change?	a story about a seed that grew into a tree.



Name:	Date:
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Find the Seeds

Directions: Circle the seeds. Then, draw a picture of a seed and a plant.



Seed	Plant

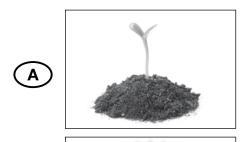


Name:	Date:
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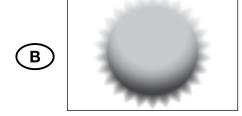
Seeds Quiz

Directions: Listen as the teacher reads each question and the answer choices. Fill in the bubble for the right answer.

- **1** Which picture shows a seed?
- 2 Which picture shows a plant?













3 Draw a seed on the left. Draw a plant on the right.

Plant

How Tall? STEAM

Directions: Juan planted three seeds outside. After two weeks, he measured how tall the plants were. Use his chart to answer the questions.



1 How tall is plant A? _____ units

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

2 Which plant is 1 unit tall? _____

Which is taller, plant A or plant B? How do you know?



Here Comes the Sun



Learning Objectives

Students will:

- identify how the images in the book helped them understand the text.
- write a story about a sunny day.
- identify ways that the sun helps us.

Standards

- **Reading:** With prompting and support, describe the relationship between illustrations and the text in which they appear.
- **Writing:** Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.
- Content: Make observations to determine the effect of sunlight on Earth's surface.
- Language: Communicate information, ideas, and concepts necessary for academic success in the content area of Science.

Lesson Timeline



Task

Introductory and Lab Activities (page 139)

Summary of Student Learning Activities

Observe how sunlight changes the temperature of a jar of water.

Day 2

Task

Before Reading (page 140)

Summary of Student Learning Activities

Predict a picture that will be used to complement the text.

Day 3

Task

During Reading (page 141)

Summary of Student Learning Activities

Identify text and image connections and write a story about a sunny day.

Day 4

Task

After Reading (page 142)

Summary of Student Learning Activities

Identify things that need the sun.

Day 5

Task

Activity from the Book

(page 142) and **Assessments**

(pages 147-148)

Summary of Student Learning Activities

Identify how the sun helps them and take the assessments.



- copies of the In the Sun activity sheet (page 143)
- jars full of water
- · masking tape
- marker
- thermometer



Observe how sunlight changes the temperature of a jar of water.

Introductory Activity

Engage

- Draw a sun on the board and ask students what they think about when they think of the words sun and sunny. Write student ideas inside the drawing of the sun.
- **?** Tell students they will learn more about what the sun is and what it does for us.

Lab Activity Explore & Explain

- Place students in groups of three or four. Distribute two jars filled with water to each group. Write students' names on masking tape to label their jars.
- 2. Instruct students to place one jar in the sun and one jar in the shade. If there is nowhere in the classroom that has direct sunlight, put the jars outside. Note: It is best to do this activity on a warm sunny day.
- 3. After two hours, help students use a thermometer to find the temperature of the water in both jars. Have students record the two temperatures. You may wish to have students feel the water with their fingers to provide additional context.

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4. Bring the class together and tell students that temperature is a measurement of heat. Explain that the higher the number, the warmer the water. Have students discuss what their temperatures mean in their groups.

- **5**. Ask students questions about their thinking as they discuss their results.
 - > Which jar was warmer?
 - What happened to the jar in the sun?
 - Why was the jar in the sun warmer?
- 6. Bring the class together and lead a discussion about what happened in the experiment. Explain that the sun heated up the water in the jar.
- Distribute copies of the In the Sun activity sheet (page 143) to students. Read the directions aloud. Have students draw what happened to the two jars and write the temperatures they recorded.
 - Challenge above-level learners to label their jars with descriptors such as warmer, cooler, hot, cold, or heated.



Here Comes the Sun (cont.)

Materials

- Here Comes the Sun books
- copies of the Sunny Picture activity sheet (page 144)



Predict a picture that will be used to complement the text.



Vocabulary Word Bank

- energy
- seasons
- sun

Before Reading

- Write the vocabulary words on the board. Explain to students that energy means "power," seasons are "the four parts of the year," and the sun is "the star that Earth rotates around." Put students in groups of three or four. Ask them to create a movement that represents each of the vocabulary words. After a few minutes, invite students from each group to show the class the movements they created for each vocabulary word.
- 2. Display the Here Comes the Sun book for students. Read the title aloud. Instruct students to close their eyes as you read the following sentence to them: The sun helps plants grow. Tell them to imagine what the picture in the book might look like. Ask students to describe the picture they think goes with that sentence. Emphasize the fact that the picture should go with the words in the book.

- 3. Distribute copies of the Sunny Picture activity sheet (page 144) to students. Read the directions aloud. Have students draw a picture to match the sentence from the book.
 - Brainstorm possible drawings with below-level learners and English language learners. Help them choose a logical drawing before they begin.
 - Challenge above-level learners to draw a picture for a more challenging sentence, such as The sun keeps us warm or The sun helps plants grow.



- Here Comes the Sun books
- copies of the One Sunny Day activity sheet (page 145)



Identify text and image connections and write a story about a sunny day.

During Reading

- Distribute the Here Comes the Sun books to students. For the first reading, read the book aloud as students follow along. Pause at page 8 and review how students visualized this page. As you read, discuss how other pictures in the book help them understand the text.
 - You may choose to display the Interactiv-eBook for a more digitally enhanced reading experience.
- 2. Have students read in pairs for the second reading. Instruct them to take turns reading pages aloud with their partners. Ask them to discuss which pictures in the book help them understand the text.
 - For below-level learners and English language learners, you may choose to play the audio recording as students follow along to serve as a model of fluent reading. This may be done in small groups or at a listening station. The recordings will help struggling readers practice fluency and aid in comprehension.
- 3. After students have finished reading, invite students to discuss whether the images were what they expected and how they helped them understand the book.

- 4 Distribute copies of the One Sunny Day activity sheet (page 145) to students. Read the directions aloud. Have students write a story that takes place on a sunny day.
 - Write a sentence frame for below-level learners and English language learners to complete, such as One sunny day, I ______.
 - Challenge above-level learners to use descriptive words to make their stories more interesting.



Here Comes the Sun (cont.)

Materials

- Here Comes the Sun books
- copies of the We Need the Sun, Here Comes the Sun Quiz, and Sunny Days activity sheets (pages 146–148)



Identify things that need the sun. Identify how the sun helps them and take the assessments.

After Reading

Elaborate & Evaluate

- Create a mind map for each of the vocabulary words on the board. Write the words energy, seasons, and sun on the board and have students discuss with partners words that they associate with each vocabulary word. They can be synonyms, adjectives, or words that are in any way associated with the vocabulary word. After about a minute, invite students to help you build the mind map. Draw connections between the words, as well. For instance, the sun gives us energy.
- 2. Distribute the Here Comes the Sun books and copies of the We Need the Sun activity sheet (page 146) to students. Read the directions aloud. Have students draw a scene showing the sun and things that need the sun.

Activity from the Book

Read the Your Turn! prompt aloud from page 22 of the Here Comes the Sun book. Have students identify how the sun helps them.

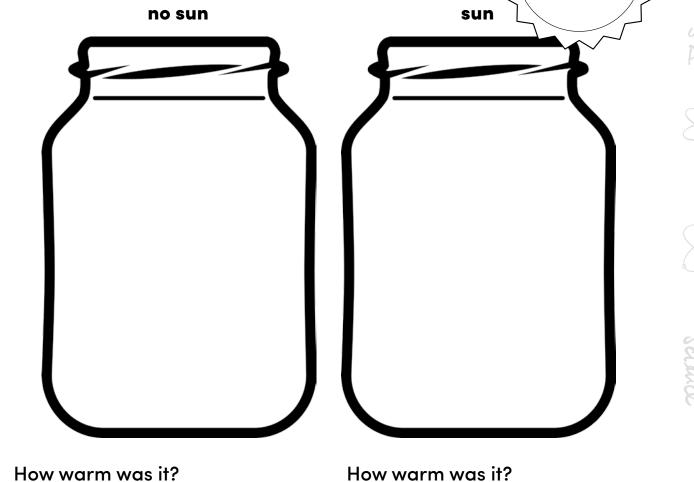
- A short posttest, Here Comes the Sun Quiz (page 147), is provided to assess student learning from the book.
- 2. A data analysis activity, Sunny Days (page 148), is provided to assess students' understanding of how to analyze scientific data. Read the directions aloud. Point to the chart and read the labels beside each bar. Explain to students that the chart shows how many sunny days there were at different times of the year.
- Read each question aloud. Provide time for students to complete the assessment. You may wish to have students dictate their answers to you as needed. **Note:** You may need to preteach the skill of reading bar graphs before giving this assessment.
- 4. The Interactiv-eBook activities may be used as a form of assessment (optional).



Name: _____ Date: _____

In the Sun

Directions: Draw what happened to the jars. Then, write the temperature of the water in each jar.





Name:	Date:
Mairie.	_ Duic

Sunny Picture

Directions: Read the sentence. Then, draw a picture for the sentence.

The sun helps plants grow.



Name:	Date:
One	Sunny Day
Directions: Write a story about with it.	t a sunny day. Draw a picture to go



Name:	Date:
We Ne	ed the Sun
Directions: Draw the sun in the the sun.	sky. Then, draw things that need



Name:	Date:

Here Comes the Sun Quiz

Directions: Listen as the teacher reads each question and the answer choices. Fill in the bubble for the right answer.

- 1 Which of these needs the sun?
 - (A) a tree
 - B a cup
 - © a pencil

Which of these collects energy from the sun?







3 Draw a picture of something that the sun does.

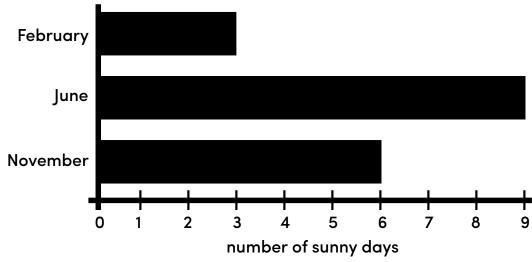




Name: _____ Date:____

Sunny Days STEM

Directions: Iris counted the number of sunny days in February, June, and November. Use her chart to answer the questions.



1 How many sunny days were there in February?

_____ days

_ _ _ _ _ _ _ _ _ _ _ _ _

- 2 Which month had 6 sunny days? _____
- Which month had the most sunny days? How do you know?

EARTH and SPACE Changing Weather



Learning Objectives

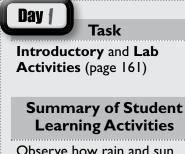
Students will:

- identify how the pictures relate to the text in the book.
- write about their favorite kind of weather.
- understand that there are patterns in weather.

Standards

- Reading: With prompting and support, describe the relationship between illustrations and the text in which they appear.
- Writing: Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book.
- Content: Use and share observations of local weather conditions to describe patterns
- Language: Communicate information, ideas, and concepts necessary for academic success in the content area of Science.

Lesson Timeline



Observe how rain and sun affect the land.

Day 2 **Task**

Before Reading (page 162)

Summary of Student Learning Activities

Take a picture walk of the book.

Day 3

Task

During Reading (page 163)

Summary of Student Learning Activities

Explain how the images help them understand the book and write about their favorite kind of weather.

Task

After Reading (page 164)

Summary of Student Learning Activities

Label types of weather.

Day 5

Task

Activity from the Book (page 164) and **Assessments**

(pages 169-170)

Summary of Student Learning Activities

Write and draw about a storm and take the assessments.

- copies of the When It Rains activity sheet (page 165)
- plastic shoeboxes filled with dirt
- paper cups
- paper cups with holes in the bottom
- water
- mats



Introductory Activity

Engage

- If possible, go outside and have students lay on a mat and stare at the sky. If it is not possible to go outside, simply look at the sky from the classroom window.
- 2. Instruct students to quietly observe the sky for about 30 seconds. Have them then share any observations they have about what the sky looks like that day. Tell students they will learn about the weather.

Lab Activity

Explore & Explain

- Put students in small groups. Distribute a plastic shoebox filled with dirt to each group. Instruct students to make hills and other features with the dirt.
- 2. Once students have made a terrain with their dirt, distribute cups with holes in the bottom and cups filled with water. Show students how to pour the water into the cup with holes so the water falls onto their landscapes. Instruct them to move the cup so that the water falls on different areas. Ask students to brainstorm the kind of weather they are modeling.
- 3. Have students place their boxes in a sunny location. After a day or two (or once the dirt has dried out), invite students to observe their shoeboxes to see how they have changed. Ask students to consider the new kind of weather they modeled.

- 4. Ask students questions about their thinking as they discuss what happened to their box.
 - What did the water do to your shoebox? What kind of weather was this?
 - > Does water do this in real life?
 - What did the sun do to your shoebox? What kind of weather was this?
 - ➤ How does the weather change the land?
- Bring the class together for instruction.

 Make a chart on the board to show the box before water, after water, and after sun. Ask students to direct you in drawing what happened. Explain that this happens to the land outside as well. Discuss these types of weather with students.
- 6. Distribute copies of the When It Rains activity sheet (page 165) to students. Read the directions aloud. Instruct students to draw their shoebox before it rained, after it rained, and after the sun.

ARTH and SPACE Changing Weather

Materials

- Changing Weather books
- copies of the Word Scramble activity sheet (page 166)
- pictures of hail, showers, and storm (optional)
- sticky notes (optional)



Vocabulary Word Bank

- hail
- showers
- storm

Before Reading

- Write the vocabulary words on the board. Explain to students that in this book hail means "rain that has turned to ice," showers means "light rain," and storm means "heavy rain with lightning and thunder." **Note:** You may wish to show students pictures of these weather conditions to provide additional context.
- 2. Use each word in a sentence. Some examples are:
 - Large chunks of hail landed on the car.
 - In the afternoon, there will be light showers.
 - > Stay inside because there is a storm coming.
- **3** Distribute copies of the Word Scramble activity sheet (page 166) to students. Have them work in pairs to unscramble the words.

- 4. Display the Changing Weather book for students. Read the title aloud. Ask students to share their observations about the title and the cover.
- 5. Take a picture walk of the book. Cover the text with your hand or with sticky notes. Invite students to explain what they think is happening on each page spread.

Xxx Changing Weather books

Xxxcopies of the Weather Changes activity sheet (page 167)



Explain how the images help them understand the book and write about their favorite kind of weather.

During Reading

- Distribute the Changing Weather books to students. For the first reading, read the book aloud as students follow along. Pause periodically to remind students about what they thought of each picture during the picture walk.
- 2. Explain to students that the book shows one storm from start to finish. Ask students if they have seen a similar storm. Review the page spreads and explain that storms are a kind of cycle. Explain that a cycle repeats, like the seasons in a year.
- 3. Have students create TPR movements to show the growing and then lessening intensity of the storm in the book. Have students practice their storm movements to reinforce the idea that the storm is a cycle.
 - You may choose to display the Interactiv-eBook for a more digitally enhanced reading experience.

- 4 Have students read in pairs for the second reading. Instruct students to take turns reading pages aloud with their partners.
 - For below-level learners and English language learners, you may choose to play the audio recording as students follow along to serve as a model of fluent reading. This may be done in small groups or at a listening station. The recordings will help struggling readers practice fluency and aid in comprehension.
- 5 After students have finished reading, invite them to share how the pictures helped them learn about changing weather.
- 6. Distribute copies of the Weather Changes activity sheet (page 167), to students. Read the directions aloud. Have students draw and write about their favorite kind of weather.
 - Help below-level learners and English language learners identify the beginning sounds of the words to help them write.
 - Challenge above-level learners to list at least two reasons they like the type of weather they have chosen.

ARTH and SPACE Changing Weather

Materials

- Changing Weather books
- copies of the How the Weather Changed, Changing Weather Quiz, and Sunny and Rainy activity sheets (pages 168-170)



Label types of weather. Write and draw about a storm and take the assessments.

After Reading

Elaborate & Evaluate

- Tell the class a riddle about one of the vocabulary words as students try to guess what the word is. Use the riddles below or create your own. Continue until all types of weather have been used at least once.
 - ➤ I fall when it is very cold. I am frozen. I am rain that has been turned to ice. What am I?
 - > I may fall when it is cold or warm. I may fall at the beginning or end of a storm. I am a light rain. What am I?
 - > I am loud and bright. I may wake you at night. I am heavy rain with thunder and lightning. What am I?
- 2. Distribute the Changing Weather books and copies of the How the Weather Changed activity sheet (page 168) to students. Read the directions aloud. Have students label the pictures independently. Encourage them to use the book if they need help. Once students have finished, review the activity sheet with the class.

Activity from the Book

Read the Your Turn! prompt aloud from page 22 of the Changing Weather book. Have students write and draw about a storm.

- A short posttest, Changing Weather Quiz (page 169), is provided to assess student learning from the book.
- 2. A data analysis activity, Sunny and Rainy (page 170), is provided to assess students' understanding of how to analyze scientific data. Read the directions aloud. Point to the tallies and read the labels. Explain to students that the tallies show how many rainy days there were for three months. STEAN
- 3. Read each question aloud. Provide time for students to complete the assessment. You may wish to have students dictate their answers to you as needed. **Note:** You may need to preteach the skill of reading tallies before giving this assessment.
- 4. The Interactiv-eBook activities may be used as a form of assessment (optional).



Name:	Date:
V	Vhen It Rains
Directions: Draw what ha	ppened to your shoebox.
	Before Rain
	After Rain
	After Sun



Name			Date:
	Wo	ord Scran	nble
	nscramble the nk to help you.		Write them on the
	hail	showers	storm
0		hesswro	
2		hlai	
3		omtsr	



Name:		Date:	
	Weather C	hanges	
Directions: What is tell about it.	your favorite kind	of weather? Write	and draw to
My favorite kind of v	weather is		
I like it because			





How the Weather Changed

Directions: Look at each picture. Write the name of the kind of weather you see.

1
2
3
4



Name:	
Changing Weathe	<i>r</i> Quiz
Directions: Listen as the teacher reads each cochoices. Fill in the bubble for the right answer	
1 Which of these is a cycle?	
(A) a storm	
B a game	
© a spoon	
2 What is rain that has turned to ice?	
(A) hail	
B clouds	
© rain	
3 Draw a storm.	



Mairie.		Date:
	S	unny and Rainy STEAN
		ote how many days it rained for three mont er the questions.
	Month	Number of Days It Rained
	May	THILL III
	June	1111
	July	II
	w many day	ys did it rain in July?
2 Ho		
	nen did it ra	in the most? How do you know?
	nen did it ra	in the most? How do you know?
	nen did it ra	in the most? How do you know?
	nen did it ra	in the most? How do you know?