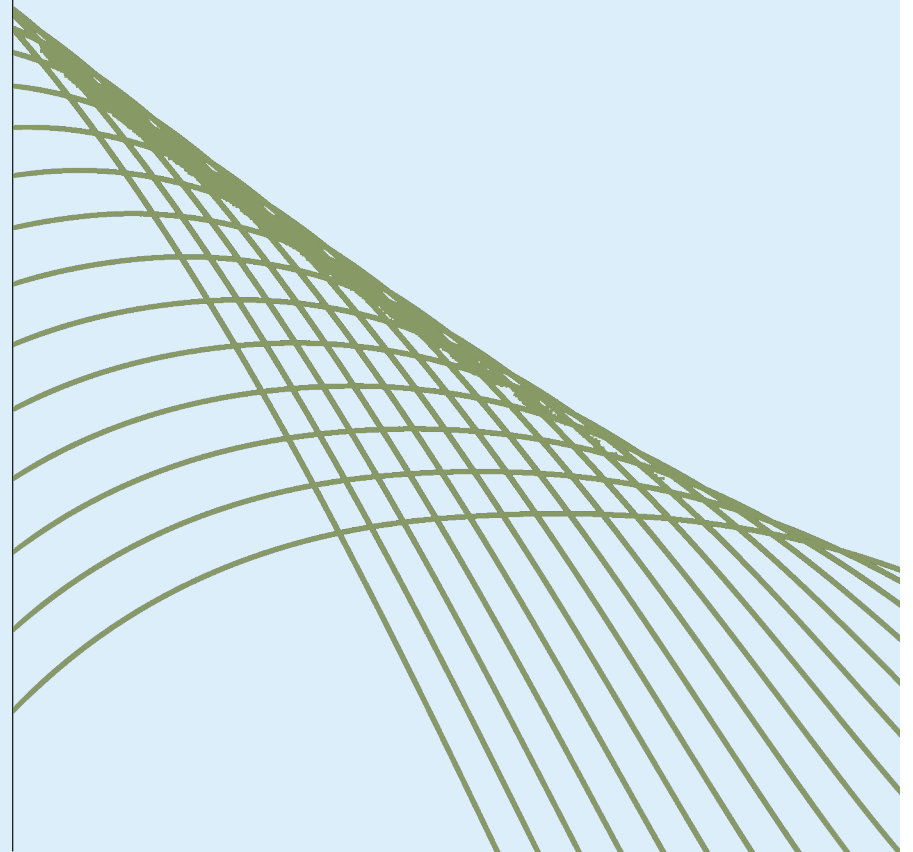


# LESSON 5

## Animals



## Skill-Building Objectives

- 1 Identify vocabulary: need, living, animals, plants.
- 2 Discriminate: human need/not a human need.
- 3 Identify multiple examples of plants and animals.

## Standards-Based Objectives

- 1 Students will be able to observe and conduct investigations relating to the life cycle of various living organisms.
- 2 Students will demonstrate the abilities and understanding necessary to do scientific inquiry.
- 3 Students will demonstrate the ability to think and act as scientists by engaging in active inquiries and investigations.
- 4 Students will observe and describe characteristics of organisms (e.g., living things need to eat).
- 5 Students will observe the similarities of humans to other animals, including basic needs.
- 6 Students will demonstrate the knowledge that plants and animals interact within an environment.

## Materials

### Early Science Kit

- Wonder Wally Storybook: The Garden Rabbit, pp. 94–97
- My Science Log, pp. 103–106
- Vocabulary Cards: 1–animals, 18–living, 21–need, 24–plants, 29–see
- Photo Cards: 51–53 (animals eating plants)
- Wonder Question Card: 23–Why did the rabbit eat the garden?
- Concept Statement Cards: 19–Plants and animals and live on the Earth; 20–Animals and plants grow and change; 21–Animals and

plants grow and change; 22–Plants and animals are living; 23–Animals \_\_\_\_ plants.

- Science Safety Rule Card: 4–Do wait for your teacher to say it's OK to touch the science materials.
- KWHL Chart
- Science Safety Rule Poster
- Butterfly Garden

### Materials You Supply

- Water-based marker
- Miniature plants and animals

### Prepare Ahead

- Preprogram AAC or organize AT for whatever Ss need to repeat the science question (Why did the rabbit eat the garden?) and respond with need, living, animals, plants, yes, no, eat, animal needs, and names of animals and plants.

### Repeated Lessons

- Emphasize different animals eating various plants in repeated lessons, and use real plants too.
- Use pictures of other needs/non-needs in repeated lessons for concept development of *need*.

## Lesson

### Engage

#### WONDER STORY

**TEACHER** Point out Wonder Wally on the cover of the Wonder Wally Storybook. Say, **Wonder Wally thinks about science in the world. He loves science and wants to learn more.**

He will help you learn more too. Let's keep reading stories with Wally and wondering with him. Read the story, The Garden Rabbit, to the Ss.

STUDENT Listens and observes.

### WONDER QUESTION

TEACHER At the end of the story, say, **Find the question in our story.** Give each S a turn to find the question, Why did the rabbit eat the garden? in the story.

STUDENT Finds the question.

FEEDBACK **That's right. That's the question. Now read it with me.**

PROMPT Wait for S to try. If needed, say, **Look for the question mark.** If needed, physically guide S's hand to the question in the story and say, **Here it is. This is the question.**

STUDENT Reads with you or points to the question text, moving left to right as you read it.

PROMPT If needed, physically guide the S to point left to right to the text while you read it.

TEACHER Hold up the Wonder Question Card and say, **Here is the question. Read this question with me.** Help Ss point to the text while you read the question again. Then, cover the word *eat* with a Post-It® note or your finger. Read the uncovered question text, **Why did the rabbit \_\_\_\_\_ the garden?** Wait for Ss to complete the question.

STUDENT Says the missing word *eat*.

TEACHER Give praise, **Nice work filling in the missing word!**

### WANT TO KNOW

TEACHER **We want to know, Why did the rabbit eat the garden? Let's put this question in the W row for what we want to know.** Have a S place the Wonder Question in the W column of the KWHL chart.

|   |  |
|---|--|
| K |  |
| W |  |
| H |  |
| L |  |

STUDENT Places the card on the chart.

### VOCABULARY

TEACHER Review the Vocabulary Cards for *need*, *living*, *animals*, and *plants* with the Ss. Place the 4 cards in front of the Ss and introduce them by naming what each is. Then use the time-delay procedure (Rounds 1 and 2) to have each S point to the card for *need*, *living*, *animals*, then *plants*. (Review the full script on p. 96 if needed.)



**Round 1:** Point to the correct answer while giving the directive (0-second delay). Say, **Show me need.** Shuffle the cards and repeat for *animals*, *plants*, and *living*.

Give each S a chance to find the Vocabulary Card for *need*, *living*, *animals*, and *plants*, mixing up cards as you go.

STUDENT Points to the correct word and says word aloud (or activates AAC device).

FEEDBACK If the S points to the correct word, give praise, **Great job finding need (living, animals, plants)!**

PROMPT If S does not point or points to an incorrect word, provide a prompt (see p. 96 for script).

TEACHER **Round 2:** With the 4 cards still in front of the Ss, say, **Show me need.** Wait 5 seconds for S to choose the correct answer independently. Shuffle the cards and repeat for *living*, *animals*, and *plants*.

STUDENT Points to the correct word and says word aloud (or activates AAC device).

FEEDBACK If the S points to the correct word, give praise, **Great job finding need (living, animals, plants)!**

PROMPT If S does not point or points to an incorrect word, provide a prompt (see p. 96 for script).

## Investigate

### PRIOR CONCEPT STATEMENT REVIEW

**TEACHER** Review and read the concept statement from the last lesson. Say, **Today we are going to talk more about living things. Remember, we know that we live on the Earth. We learned that plants and animals live on the Earth too. We also learned that plants and animals grow and change. Finally, we learned that plants and animals are living.**

Have Ss point to text while you read the concept statement: **Plants and animals are living.**

**STUDENT** Reads or points to the concept statement text.

**PROMPT** Physically prompt the S to point to the text left to right while you read it.

**TEACHER** **Help me put these cards on the KWHL chart in the K row for what we know.**

|   |  |
|---|--|
| K |  |
| W |  |
| H |  |
| L |  |

**STUDENT** Places the Concept Statement Cards on the chart.

**TEACHER** **Today we will learn more about living things.**

### SCIENCE SAFETY RULE

**TEACHER** Review the science safety rule for this lesson. Hold up the Science Safety Rule Card—**Do wait for your teacher to say it's OK to touch the science materials**—and read it to the Ss while pointing to the words. Then help different Ss point to the text and read with you.

**STUDENT** Reads with you, or points to the text.

**PROMPT** If needed, physically guide the S to point left to right to the text while you read it.

**TEACHER** Have a S add the rule to the blank Science Safety Rules Poster hanging in your classroom.

**STUDENT** Adds the rule to the poster.

### PREDICTION

**TEACHER** Have Ss open their My Science Log to the prediction page for this lesson.

Show Ss the picture of the rabbit eating the garden in the Wonder Story and say, **We read a story about a rabbit. Today we are going to talk more about living things.** Hold up miniature plants and animals and say, **Here are some plants and animals. Remember, in this story, the rabbit was eating the garden. What do you think animals need to live?** Wait for some Ss to generate a response. **Remember our question, Why did the rabbit eat the garden?**

**STUDENT** Generates a prediction response without options.

**FEEDBACK** Praise guessing; there is no single correct answer for prediction.

**TEACHER** Ask each S to complete this prediction sentence in his or her science log: I think animals need \_\_\_\_\_.

**STUDENT** Communicates or writes a prediction response (plants, food, music, to be held) on the line.

**FEEDBACK** Give praise: **Great job making a prediction!**

**PROMPT** If the S does not respond, say, **I'm not sure what you think. Let's fill in the prediction statement together. Let's predict *plants*.** Use LIP to guide S to respond in his or her science log.

### EXPERIMENT

**TEACHER** Pair the Vocabulary Cards (indicated in bold) to your discussion.

|   |  |
|---|--|
| K |  |
| W |  |
| H |  |
| L |  |

Say, **Today we are going to investigate some things that all **animals** need to survive. In our last lesson, we learned that there are 7 processes of life. One of these processes is that **living things** need food to eat. Let's find out what **plants** and **animals** need.**

We know that **plants** and **animals** are **living**. Let's look at some pictures of animals.

Hold up Photo Cards of various animals eating plants. **Today we are going to use our eyes and look at different things to identify what animals need. Let's fill in the H on our KWHL chart for how we will find out. We will use our eyes to look at different things.** Have a S add the Vocabulary Card for *see* to the KWHL Chart.

### Note

To give Ss a concrete picture of animals eating plants, refer to the Web (esp. YouTube) for videos (search for cow eating, bear eating berries, rabbit eating, butterfly eating, etc.).

**STUDENT** Places the Vocabulary Card for *see* on the KWHL Chart.

**FEEDBACK** Say, **Awesome! Now we are ready to investigate.**

**TEACHER** Point to a picture (e.g., giraffe). Ask, **Who knows what animal this is? Tell me its name.**

**STUDENT** Responds with the animal's name.

**TEACHER** **Great! This is a (giraffe). It is an animal. We need to investigate what this animal is doing. Look, the animal is eating! What is the (giraffe) eating?**

**STUDENT** Responds with "plant," or names the (grass).

**FEEDBACK** **Nice job! You are looking very closely at the picture of the animal. You are right. The animal is eating a tree's leaves. A tree is a plant. The (giraffe) needs food to eat. Animals need plants for food.**

**TEACHER** Review each Photo Card, asking Ss to identify what the animal is and what it is eating.

**STUDENT** Responds with "plant," or names the plant (grass, tree, bush, berries).

**FEEDBACK** **You are right. The animal is eating a plant. The (animal name) needs food. An animal needs plants for food.**

**TEACHER** Refer to the butterfly from the Butterfly Garden, **Let's investigate what our butterfly eats. What does a butterfly need to stay alive?** Draw attention to the flower and or plants that have been placed in the garden for the butterfly to eat. Remind Ss that flowers and leaves are plants.

### Repeated Lessons

Use any living plants, including vegetables, so Ss realize some food comes from plants. Also use more pictures of animals eating plants.

### CONCEPT DEVELOPMENT—NEED

**TEACHER** Review the concept of what humans need using the example/non-example procedure with a yes/no response. (See p. 101 for script.)



Place 3 things humans need (food, water, clothing) and 3 things humans do not need (e.g., video game, picture of car, iPod) in front of the Ss.



- 1. Frame.** Today we are going to learn about things that people—humans—need. Listen. Today we are going to learn about things that people or humans need to live. What are we going to learn about?
- 2. Model.** *Example:* Point to a human need and say, **Do humans need (food)? Yes.** *Non-example:* Point to an item that humans do not need and say, **Do humans need an (iPod)? No.** Repeat randomly with remaining objects.
- 3. Lead.** *Example:* Point to a human need and say, **Let's do it together. Do humans need (food)? Yes.** *Non-example:* Point to an item that humans do not need and say, **Do humans need a (video game)? No.** Repeat randomly with remaining objects.
- 4. Test.** Say, **Now it's your turn.** Point to a non-need item and say, **Do humans need this (TV)?** Point to a human need and say, **Do humans need this (food)?**

### Repeated Lessons

Use pictures of other needs/non-needs to generalize the concept.

### CONCEPT STATEMENT—TRIAL 1

**TEACHER** Hold the Concept Statement Card against the Photo Cards of animals eating. Then read the statement, **Animals need \_\_\_\_\_**, completing it with the word *plants*.



Hand the Concept Statement Card to Ss and have them also say it and hold it near the Photo Cards of animals eating.

**STUDENT** Says and matches the concept statement to the Photo Cards.

**TEACHER** Place the concept statement on the table along with 4 Vocabulary Card options for completing the statement.

Use the time-delay procedure to have Ss choose a card to fill in the blank in the concept statement, **Animals need \_\_\_\_\_**.

Give each S a chance to find the card for plants, shuffling the cards each time.

**Round 1** (0-second delay): Point to the correct answer while saying, **Which one? Animals need \_\_\_\_\_**.

**STUDENT** Chooses the card for *plants*.

**FEEDBACK** **Yes, animals need plants.**

**PROMPT** If S does not point, or points to an incorrect word, provide a prompt (see p. 96 for script).

**TEACHER** **Round 2** (5-second delay): Restate the question. Wait up to 5 seconds for S to independently find the correct answers.

**STUDENT** Chooses the cards for *plants*.

**FEEDBACK** **Great job finding plants!**

**PROMPT** If S does not point, or points to an incorrect choice, revert back to a 0-second time delay. Provide additional prompts as needed (see p. 96 for script).

## Describe

### EXPERIMENT REVIEW

**TEACHER** Pair the Vocabulary Cards (indicated in bold) to your discussion.

**Let's review what we did today during our experiment. We looked at pictures of different animals eating. They were all eating plants, all different kinds of plants! One animal was eating the leaves off of trees, one was eating grass, and one was eating berries. Leaves, grass, trees, vegetables, and berries are all kinds of plants that animals eat. All animals**



need to eat in order to live. Did all the animals we investigated eat plants?

STUDENT Answers, “Yes.”

TEACHER Help Ss share their discovery, **Today, we learned that animals eat plants. Animals need plants for food. We learned that a giraffe eats trees, and trees are plants. We also learned that a goat eats grass. Grass is a plant. We learned that the bird eats berries. Berries come from a plant. Animals need plants.**

TEACHER Review the wonder story question, by asking, **Why did the rabbit eat the garden?** (Ask about a different animal in repeated lessons.)

STUDENT Responds that animals need plants to live.

TEACHER **Yes, animals eat plants! Animals need plants in order to live. Remember, we learned that all living things need to eat. The animals in our pictures ate different types of plants, like trees, grass, and vegetables. Our butterfly likes to eat plants too. The butterfly ate the flowers and leaves we put in their cage? Animals need plants.**

### Challenge?

What are some types of plants that animals eat? (trees, flowers, vegetables, grass)

### CONCEPT STATEMENT—TRIAL 2

TEACHER Hold the Concept Statement Card against the Photo Cards of animals eating. Then read the statement, **Animals need \_\_\_\_\_**, completing it with the word *plants*.



Hand the Concept Statement Card to Ss and have them also say it and hold it near the Photo Cards of animals eating.

STUDENT Says and matches the concept statement to the Photo Cards.

TEACHER Place the concept statement on the table along with 4 Vocabulary Card options for completing the statement. Use the time-delay procedure to have Ss choose a card to fill in the blank in the concept statement, **Animals need \_\_\_\_\_**.

Give each S a chance to find the card for *plants*, shuffling the cards each time. If Ss are ready, begin with Round 2.

**Round 2** (5-second delay): Restate the question. Wait up to 5 seconds for S to independently find the correct answer.

STUDENT Chooses the card for *plants*.

FEEDBACK **Great job finding plants!**

PROMPT If S does not point, or points to an incorrect choice, revert back to a 0-second time delay. Provide additional prompts as needed (see p. 96 for script).

## Explain

### PREDICTION REVIEW

TEACHER Have Ss open their My Science Log to the prediction page for this lesson.

Show the Photo Cards of the animals eating plants. Say, **Let's think back to your prediction about what animals need. Some of you thought they need music. Some of you thought animals need to be held. Some of you also said you think animals need plants.** Review any other predictions. **What do you think now?** Wait for Ss to answer.

STUDENT Identifies his or her own prediction.

TEACHER After each S answers, explain, **Very good! Animals need plants! Animals need plants to eat and to live.**

**We know that animals and plants grow and change.  
And they need plants to eat so they grow and change.**

### PREDICTION CHECK

**TEACHER** Have Ss check their My Science Log to see whether their prediction was correct. If not, say, **Make your answer say plants. Animals need plants.**


**STUDENT** Checks if prediction says *needs plants*.

**PROMPT** Use LIP to help the S change his or her prediction. Help the S use an AAC device to say *needs plants*. Model completing the prediction review statement.

## Report

**TEACHER** While pointing to the Photo Cards, say, **Now let's see what we have to report from today's work. We looked at pictures of animals eating. All of the animals were eating plants because animals need plants to grow and live.**

### CONCEPT STATEMENT—TRIAL 3

**TEACHER**  Hold the Concept Statement Card against the Photo Card of animals eating. Then read the statement, **Animals need \_\_\_\_\_**, completing it with the word *plants*.

Hand the Concept Statement Card to Ss and have them also say it and hold it near the Photo Card of animals eating.

**STUDENT** Says and matches the concept statement to the Photo Cards.

**TEACHER** Place the concept statement on the table along with 4 Vocabulary Card options for completing the statement. Use the time-delay procedure to have Ss choose a card

to fill in the blank in the concept statement, Animals need \_\_\_\_\_.

Give each S a chance to find the card for *plants*, shuffling the cards each time. If Ss are ready, begin with Round 2.

**Round 2** (5-second delay): Say, **Which one? Animals need \_\_\_\_\_**. Wait up to 5 seconds for S to independently find the correct answers.

**STUDENT** Chooses the card for *plants*.

**FEEDBACK** **Great job finding plants!**

**PROMPT** If S does not point, or points to an incorrect choice, revert back to a 0-second time delay. Provide additional prompts as needed (see p. 96 for script).

### LEARN STATEMENT

**TEACHER** Say, **Awesome! We learned something new today. We learned that animals need plants. We can use our KWHL chart to record what we learned.**

|   |  |
|---|--|
| K |  |
| W |  |
| H |  |
| L |  |

Write the word *plants* on the line on the Concept Statement Card using a water-based marker. **Help me put this card in the L row on our KWHL Chart to show what we have learned.** Have a S place the learned statement on the KWHL Chart in the L row.

**STUDENT** Places the card on the chart.

**TEACHER** **You just told me that animals need plants. How do you know this? How do you know that animals need plants?** Wait for some Ss to generate a response.

**STUDENT** Gives some justification without options, if possible.

**TEACHER** Have Ss open their My Science Log and help them write a response on the blank line: I know because \_\_\_\_\_.

**PROMPT** Give Ss 1 correct option (I saw animals eat plants, the rabbit ate the garden) and 1 or 2 implausible options (e.g., green is my favorite color).



**FEEDBACK** Praise the Ss, **You are such good thinkers!**

### **STUDENT REPORT**

**TEACHER** Refer Ss to their My Science Log. Have them complete their Student Report by circling, pointing to, or eye gazing to a response for each item. Adapt the tasks as needed for individual Ss.

**STUDENT** Completes the pages of the Student Report for this lesson.

**FEEDBACK** **You are all amazing scientists! You have learned so much!**

**PROMPT** Use LIP to help the S complete the Student Report in his or her science log.

## Special Accommodations

### Engage

#### WONDER STORY

For Ss who are building symbolic understanding, use objects to represent the story content. For example, present the S with a small stuffed rabbit and a carrot to hold while you read the story.



#### KWHL CHART

See Lesson 1 for suggestions using tubs.

#### VOCABULARY

For a S who is building symbolic understanding, representing the word *need* will be a challenge. However, designate a symbol to mean *need* and present it to the S to use consistently.

#### CONCEPT DEVELOPMENT—NEED

Teach the word *need* using a yes/no response but use real objects. For example, point to the computer or TV in your classroom and ask, **Do humans need a TV?** Point to a water bottle and ask, **Do humans need water?** etc.

#### PREDICTION

Preprogram an AAC device with response choices (e.g., for I think animals need \_\_\_\_\_ (have choices: pencils, socks, plants, shoes); or provide yes or no options and ask, Does an animal need socks? Does an animal need plants? etc.

### Investigate

#### EXPERIMENT

Have the S help feed plants to an animal (e.g., the butterfly).

### Report

#### LEARN STATEMENT

For a S who is unable to access paper/pencil tasks, have him or her finish the concept statement using an AAC device. For example, when you read, Animals need \_\_\_\_\_, have the S activate the AAC device to complete the statement with the word *plants*. Or provide object choices for an eye gaze response.

## Unit Four/Lesson 5 Task Analysis

|                    | Teaching Step  | Student Response   | Specific to This Lesson   |
|--------------------|--|--|---|
| <b>Engage</b>      | <b>1</b> Read the Wonder Story.  | Listens and engages with story.  | The Garden Rabbit   |
|                    | <b>2</b> Have Ss find the question.  | Finds question.  | Why did the rabbit eat the garden?  |
|                    | <b>3</b> Help place Question Card on KWHL Chart in W row.                            | Places the card on the chart.  |   |
|                    | <b>4</b> Teach/review vocabulary using time-delay procedure.                         | Points to vocabulary at 0-second delay; at 5-second delay (from array of 4 choices). | need, living, animals, plants   |
| <b>Investigate</b> | <b>5</b> Review prior concept statements and help place them on KWHL Chart in K row. | Helps read prior Concept Statement Cards and places them on chart.                   | Plants and animals live on the Earth. Animals and plants grow and <u>change</u> . Animals and plants <u>grow</u> and <u>change</u> . Plants and animals are <u>living</u> . |
|                    | <b>6</b> Review science safety rule.   | Observes and places rule on poster.  | Do wait for your teacher to say it's OK to touch the science materials.   |
|                    | <b>7</b> Ask for prediction.   | Makes prediction.  | What do you think animals need to live? I think animals need _____.   |
|                    | <b>8</b> Fill in H of KWHL Chart.  | Places the card on the chart.  | Eyes to see   |
|                    | <b>9</b> Conduct experiment.   | Engages with materials.  | Identifying what animals eat  |
|                    | <b>10</b> Develop concepts using example/non-example.                                | Points to objects as directed.   | need (with a yes/no response)   |
| <b>Describe</b>    | <b>11</b> Present concept statement using time delay (Trial 1).                      | Chooses vocabulary to complete statement (given 4 options).                          | Animals need _____.   |
|                    | <b>12</b> Review what happened.  | Listens.   |   |
|                    | <b>13</b> Present concept statement using time delay (Trial 2) at 5-second delay.    | Chooses vocabulary to complete statement (given 4 options).                          | Animals need _____.   |

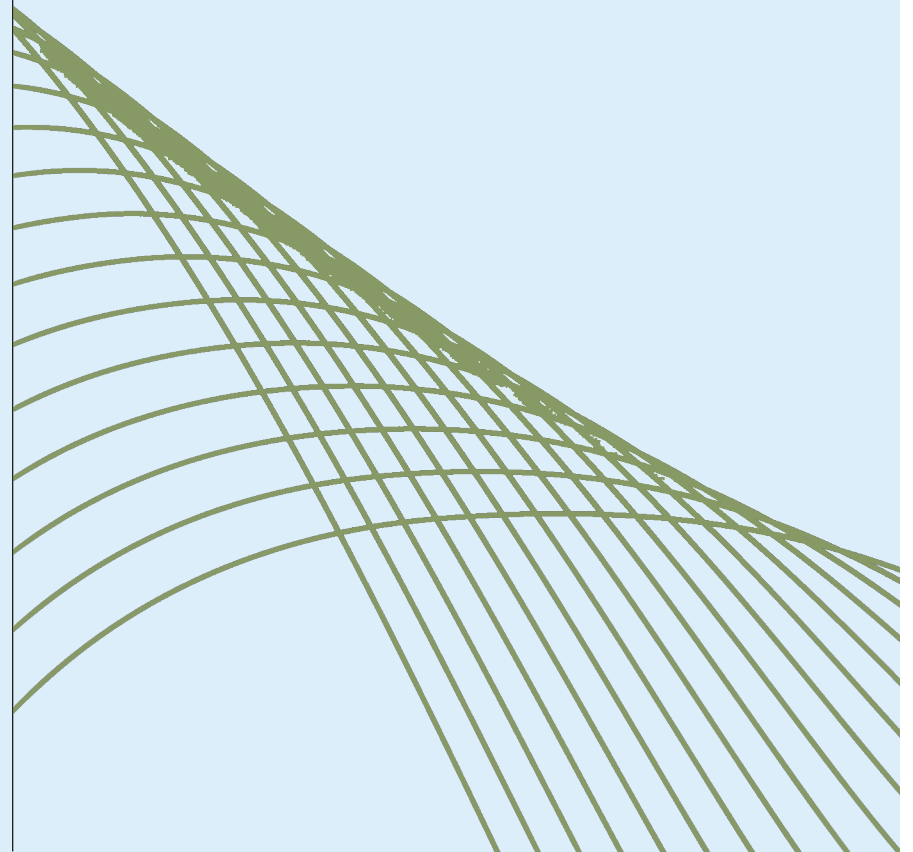
*(Table continues)*

## Unit Four/Lesson 5 Task Analysis *(Continued)*

|         | Teaching Step   | Student Response  | Specific to This Lesson      |
|---------|---|---|------------------------------|
| Explain | <b>14</b> Review predictions.   | Reviews predictions.  | Animals need (plants).       |
|         | <b>15</b> Suggest change to prediction if needed.                                 | Makes change if necessary.                                  |                              |
| Report  | <b>16</b> Present concept statement using time delay (Trial 3) at 5-second delay. | Chooses vocabulary to complete statement (given 4 options). | Animals need _____.          |
|         | <b>17</b> Help place completed concept statement on KWHL Chart in L row.          | Places the card on the chart.                               | Animals need <u>plants</u> . |
|         | <b>18</b> Present student report.   | Completes Student Report.                                   | My Science Log               |

# LESSON 6

## Decaying Matter



## Skill-Building Objectives

- 1 Identify vocabulary: dead, decay, living, change.
- 2 Discriminate: living/not living, dead/not dead.

## Standards-Based Objectives

- 1 Students will be able to observe and conduct investigations relating to the life cycle of various living organisms.
- 2 Students will demonstrate the abilities and understanding necessary to do scientific inquiry.
- 3 Students will demonstrate the ability to think and act as scientists by engaging in active inquiries and investigations.
- 4 Students will observe and describe the life cycle of living things: death.
- 5 Students will observe and identify the stages of decomposition.

## Materials

### Early Science Kit

- Wonder Wally Storybook: The Circle of Life, pp. 98–102
- My Science Log, pp. 107–110
- Vocabulary Cards: 2–change, 5–dead, 6–decay, 18–living, 29–see, 33–smell, distractors (e.g., 1–animals, 24–plants)
- Photo Cards: 4–6, 33–35 (living animal); 36–38 (dead animal); 39–41 (living plant); 42–43 (dead plant)
- Wonder Question Card: 24–Do plants and animals stop living?
- Concept Statement Cards: 19–Plants and animals live on the Earth; 20–Animals and plants grow and change; 21–Animals and plants grow and change; 22–Plants and animals are living; 23–Animals need plants; 24–When animals and plants are \_\_\_\_\_, they decay.
- Science Safety Rule Card: 4–Do wait for your teacher to say it's OK to touch the science materials.

- KWHL Chart
- Science Safety Rule Poster
- Living or Dead T-Chart (Appendix K)

### Materials You Supply

- Water-based marker
- A variety of plants, some live, some freshly picked flowers, some dried up and brown, some near decay (see below)
- Some dead bugs (e.g., a dead butterfly, spider)

### Prepare Ahead

#### Note

Death is a difficult topic yet everyone experiences the death of living things. Some experiences may have little impact (e.g., a plant dies); other experiences can be very sad (e.g., a pet dies; a family member dies). Students with disabilities also experience death, sometimes of pets, and sometimes of family members. This unit introduces the concept of *death* and *decay* from a scientific perspective by focusing on losses, such as the death of a wild animal or the decay of a flower, that would not be close to a student. However, be sensitive to students who have had recent losses.

- Preprogram AAC devices or organize AT for whatever students need to repeat the science question (Do plants and animals stop living?) and respond with living, dead, decay, change, yes, no.
- To demonstrate *decay*, put a fresh flower in water and leave it for a week without changing the water, so the water has an odor and the flower is dead and decaying.

### Repeated Lessons

- Alternate the concept of *dead/not dead* with *living/not living* in repeated lessons.



## Lesson

### Engage

#### WONDER STORY

**TEACHER** Point out Wonder Wally on the cover of the Wonder Wally Storybook. Say, **Wonder Wally thinks about science in the world. He loves science and wants to learn more. He will help you learn more too. Let's keep reading stories with Wally and wondering with him.** Read the story, The Circle of Life, to the Ss.

**STUDENT** Listens and observes.

#### WONDER QUESTION

**TEACHER** At the end of the story, say, **Find the question in our story.** Give each S a turn to find the question, Do plants and animals stop living? in the story.

**STUDENT** Finds the question.

**FEEDBACK** **That's right. That's the question. Now read it with me.**

**PROMPT** Wait for S to try. If needed, say, **Look for the question mark.** If needed, physically guide S's hand to the question in the story and say, **Here it is. This is the question.**

**STUDENT** Reads with you or points to the question text, moving left to right as you read it.

**PROMPT** If needed, physically guide the S to point left to right to the text while you read it.

**TEACHER** Hold up the Wonder Question Card and say, **Here is the question. Read this question with me again.** Help Ss point to the text while you read the question again. Then, cover the word *living* with a Post-It® note or your finger. Read the uncovered question text, **Do plants and animals stop \_\_\_\_\_?** Wait for Ss to complete the question.

**STUDENT** Says the missing word *living*.

**TEACHER** Give praise, **Nice work filling in the missing word!**

#### WANT TO KNOW

**TEACHER** **We want to know, Do plants and animals stop living? Let's put this question in the W row for what we want to know.** Have a S place the Wonder Question in the W column of the KWHL chart.

|   |  |
|---|--|
| K |  |
| W |  |
| H |  |
| L |  |

**STUDENT** Places the card on the chart.

#### VOCABULARY

**TEACHER** Review the Vocabulary Cards for *dead*, *decay*, *living*, and *change* with the Ss. Place the 4 cards in front of the Ss and introduce them by naming what each is. Then use the time-delay procedure (Rounds 1 and 2) to have each S point to the card for *dead*, *decay*, *living*, then *change*. (Review the full script on p. 96 if needed.)



**Round 1:** Point to the correct answer while giving the directive (0-second delay). Say, **Show me dead.** Shuffle the cards and repeat for *decay*, *living*, and *change*.

Give each S a chance to find the Vocabulary Card for *dead*, *decay*, *living*, and *change*, mixing up cards as you go.

**STUDENT** Points to the correct word and says word aloud (or activates AAC device).

**FEEDBACK** If the S points to the correct word, give praise, **Great job finding dead (living, decay, change)!**

**PROMPT** If S does not point or points to an incorrect word, provide a prompt (see p. 96 for script).

**TEACHER** **Round 2:** With the 4 cards still in front of the Ss, say, **Show me dead.** Wait 5 seconds for S to choose the correct answer independently. Shuffle the cards and repeat for *decay*, *living*, and *change*.

**STUDENT** Points to the correct word and says word aloud (or activates AAC device).

**FEEDBACK** If the S points to the correct word, give praise, **Great job finding dead (living, decay, change)!**

**PROMPT** If S does not point or points to an incorrect word, provide a prompt (see p. 96 for script).

## Investigate

### PRIOR CONCEPT STATEMENT REVIEW

**TEACHER** Review and read the concept statements from the last lessons. Place plants that are living and dead on the table in front of the Ss. Say, **Today we are going to talk more about living things. Remember, we live on the Earth. Plants and animals live on the Earth too. We also learned that animals and plants grow and change and we know that plants and animals are living. Finally, we learned that animals need plants.**

**STUDENT** Reads or points to the concept statement text.

**PROMPT** Physically prompt the S to point to the text left to right while you read it.

**TEACHER** **Help me put these cards on the KWHL chart in the K row for what we know.**

|   |  |
|---|--|
| K |  |
| W |  |
| H |  |
| L |  |

**STUDENT** Places the concept statements on the chart.

**TEACHER** **Today we will learn more about living things.**

### SCIENCE SAFETY RULE

**TEACHER** Review the science safety rule for this lesson. Hold up the Science Safety Rule Card—**Do wait for your teacher to say it's OK to touch the science materials**—and read it

to the Ss while pointing to the words. Then help different Ss point to the text and read with you.

**STUDENT** Reads with you, or points to the text.

**PROMPT** If needed, physically guide the S to point left to right to the text while you read it.

**TEACHER** Have a S add the rule to the blank Science Safety Rules Poster hanging in your classroom.

**STUDENT** Adds the rule to the poster.

### PREDICTION

**TEACHER** Have Ss open their My Science Log to the prediction page for this lesson.

Show Ss the plants that are living and dead. Show Ss the Photo Cards of animals that are living and dead and say, **Today we are going to talk more about living things.** Point to the animals and plants as you say, **Here are some plants and animals. I wonder if living things are always living? What do you think?** Wait for some Ss to generate a response. **Remember our question, Do plants and animals stop living?**

**STUDENT** Generates a prediction response without options.

**FEEDBACK** Praise guessing; there is no single correct answer for prediction.

**TEACHER** Ask each S to complete this prediction sentence in their science logs: I think plants and animals \_\_\_\_\_ always living.

**STUDENT** Communicates or writes a prediction response (*are/are not*) on the line.

**FEEDBACK** Give praise: **Great job making a prediction!**

**PROMPT** If the S does not respond, say, **I'm not sure what you think. Let's fill in the prediction statement together.**

Let's predict that plants and animals are not always **living**. Use LIP to guide S to respond in his or her science log.

## EXPERIMENT

### TEACHER

|   |  |
|---|--|
| K |  |
| W |  |
| H |  |
| L |  |

As you conduct the experiment, pair the Vocabulary Cards (indicated in bold) to the concrete objects while you are discussing them.

Have available a variety of plants—some freshly picked (living), the plants in the Butterfly Garden—and others brown, wilted, and dried up, and the decayed flower with smelly water you prepared. Also have ready the Photo Cards of living and dead plants and animals and the Living and Dead T-Chart.

Say, **Today I have a lot of plants. I found some of them outside. I also have made this chart that says living and dead. We are going to group our plants as living and dead. Let's fill in the H on our chart for how we will find out if the plant is living or dead. I think we will use our eyes to look at the plants and the pictures of plants and animals. We might use our noses to smell too.**

Have a S add the Vocabulary Cards for *see* and *smell* to the KWHL Chart.

### STUDENT

Places the Vocabulary Cards for *see* and *smell* on the KWHL Chart.

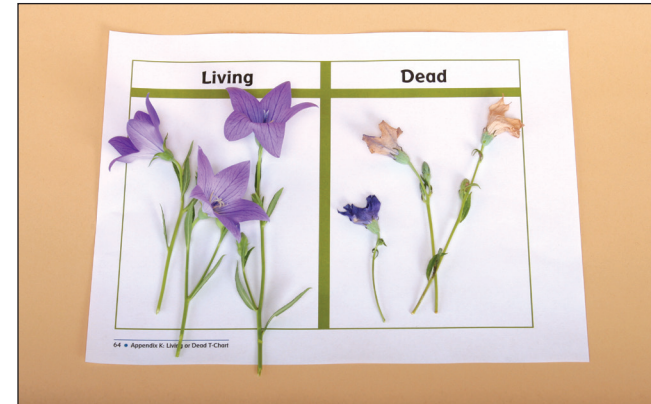
### TEACHER

Say, **Awesome! Now we are ready to work.**

Using the T-Chart, sort plants and animals with the Ss actively helping:

1. Put the Living or Dead T-Chart on the table in front of the Ss. Say, **Let's see which word describes each of**

**our plants. Let's use our eyes to observe the color of the plant. Let's use our noses to see if we smell any decay. I'll start. Here's a plant that's living. It's nice and green.**



2. Put the living plant on the T-Chart in the Living column.
3. **Here's a plant that's dead. It is brown and dried up.**
4. Put a dead plant on the T-Chart in the Dead column.
5. **Now you take a turn.** Give Ss turns picking up one of the plants and putting it in the correct column on the T-Chart.
6. Choose the plant that is in the smelly water. Say, **This plant has an odor. It is dead. Without food, plants die. Can you see and smell the decay? After plants die they decay. Do you see how the flowers droop and are brown? Do you smell the water? Yuck! It smells like decay.**



7. Remove the plants from the T-Chart and put the Photo Cards of the animals on the table.
8. **Now let's use our eyes to decide which animals are living or dead. A dead animal cannot move, and it does not breathe. I'll start. Here's a living animal.** Put the Photo Card of a living animal on the T-Chart in the Living column.
9. Using a dead bug or butterfly that you found, explain, **This butterfly used to be living. We watched a butterfly go through its life cycle. Remember, first we had a caterpillar. Then the caterpillar turned into a chrysalis. Then the butterfly came out of the chrysalis and flew around in the garden. The butterfly changed during its life cycle. Is this butterfly living or dead?**
10. **Here's another dead animal.** Put the Photo Card of the dead animal on the T-Chart in the Dead column.
11. **Now it is your turn. Find an animal that is living and put it on the T-Chart in the Living column.**
12. Repeat for other Photo Cards of dead animals.
13. Mix all Photo Cards for living and dead plants and animals and have Ss sort them on the T-Chart.

### Note

If your butterfly died during this unit, use the dead butterfly as an example in this experiment.

### CONCEPT DEVELOPMENT—LIVING, DEAD

#### TEACHER

Place 3 living plants and 3 dead plants in front of the Ss. (See script on p. 97.)




1. **Frame.** Today we are going to learn about things that are living. Listen. Today we are going to learn about things that are living. What are we going to learn about?
2. **Model.** *Example:* Point to a living plant and say, **This is living.** *Non-example:* Point to a non-living plant and say, **This is not living.** Repeat randomly for remaining plants.
3. **Lead.** *Example:* Point to a living plant and say, **Now let's do it together. This is living.** *Non-example:* Point to a non-living plant and say, **This is not living.** Repeat randomly for remaining plants.
4. **Test.** Place 3 dead plants and 1 living on the table. Say, **Now it's your turn. Point to a plant that**

**is living.** Place 3 living plants and 1 dead on the table. Say, **Point to a plant that is not living.**

### Repeated Lessons

Develop the concept of *dead/not dead* using the same items. Also use Photo Cards of dead and living plants and animals.

### CONCEPT STATEMENT—TRIAL 1

**TEACHER**  Hold the Concept Statement Card against the Photo Cards of dead animals and plants. Then read the statement, **When animals and plants are \_\_\_\_\_, they decay**, completing it with the word *dead*.

Hand the Concept Statement Card to Ss and have them also say it and hold it near the Photo Cards of dead animals and plants.

**STUDENT** Says and matches the concept statement to the Photo Cards.

**TEACHER** Place the concept statement on the table along with 4 Vocabulary Card options for completing the statement. Use the time-delay procedure to have Ss choose a card to fill in the blank in the concept statement, When animals and plants are \_\_\_\_\_, they decay.

Give each S a chance to find the card for *dead*, shuffling the cards each time.

**Round 1** (0-second delay): Point to the correct answer while saying, **Which one? When animals and plants are \_\_\_\_\_, they decay.**

**STUDENT** Chooses the card for *dead*.

**FEEDBACK** **Yes, when animals and plants are dead, they decay.**

**PROMPT** If S does not point, or points to an incorrect word, provide a prompt (see p. 96 for script).

**TEACHER** **Round 2** (5-second delay): Restate the question. Wait up to 5 seconds for S to independently find the correct answers.

**STUDENT** Chooses the card for *dead*.

**FEEDBACK** **Great job finding dead!**

**PROMPT** If S does not point, or points to an incorrect choice, revert back to a 0-second time delay. Provide additional prompts as needed (see p. 96 for script).

## Describe

### EXPERIMENT REVIEW

**TEACHER** Pair the Vocabulary Cards (indicated in bold) to your discussion. Point to the T-Chart while you say, **Let's review what we did today during our experiment. We sorted plants and animals on the T-Chart according to whether they are living or dead. Were all the plants living?**

**STUDENT** Responds, "No."

**FEEDBACK** **That's right. Some plants were dead. We could see that the plants were dead, and sometimes we could smell that they were dead.**

**TEACHER** Help Ss share their discovery, **Today we learned that living things change and become dead. This process completes the plants' and animals' life cycles. We also learned that when things are dead, they change again and decay.**

**TEACHER** Review the wonder story question, by asking, **Do plants and animals stop living?** Show the dead animal Photo Cards.

**STUDENT** Responds, "Yes."

**TEACHER** **Yes, That's right. Plants and animals stop living. Some are dead. And dead things, like our smelly plant, decay. Animals and plants die, and then we**



say they are **dead**. Living things start to **decay** shortly after they die. The air and bugs help **living** things **decay** and break down. This is all part of the life cycle.

### Challenge?

What is *decay*? (when living things are dead and begin to break down)

### CONCEPT STATEMENT—TRIAL 2

**TEACHER** Hold the Concept Statement Card against the Photo Cards of dead animals and plants. Then read the statement, **When animals and plants are \_\_\_\_\_, they decay**, completing it with the word *dead*.



Hand the Concept Statement Card to Ss and have them also say it and hold it near the Photo Cards of dead animals and plants.

**STUDENT** Says and matches the concept statement to the Photo Cards.

**TEACHER** Place the concept statement on the table along with 4 Vocabulary Card options for completing the statement. Use the time-delay procedure to have Ss choose a card to fill in the blank in the concept statement, When animals and plants are \_\_\_\_\_, they decay.

Give each S a chance to find the card for *dead*, shuffling the cards each time. If Ss are ready, have them begin with Round 2.

**Round 2** (5-second delay): Restate the question. Wait up to 5 seconds for S to independently find the correct answers.

**STUDENT** Chooses the card for *dead*.

**FEEDBACK** **Great job finding dead!**

**PROMPT** If S does not point, or points to an incorrect choice, revert back to a 0-second time delay. Provide additional prompts as needed (see p. 96 for script).

## Explain

### PREDICTION REVIEW

**TEACHER** Have Ss open their My Science Log to the prediction page for this lesson.

Show the living and dead plants. Say, **Let's think back to your prediction about whether you think plants and animals are always living. Some of you said you think plants and animals are always living, and some of you said plants and animals are not always living.** Review any other predictions. **What do you think now?** Wait for Ss to answer.

**STUDENT** Identifies his or her own prediction.

**TEACHER** After each S answers, explain, **Very good! Animals and plants are not always living. When plants and animals die, they are dead. Dead plants and animals decay and break down.**

### PREDICTION CHECK

**TEACHER** Have Ss check their My Science Log to see whether their prediction was correct. If not, say, **Make your answer say are not.**

**STUDENT** Checks if prediction says *are not*.

**PROMPT** Use LIP to help the S change his or her prediction. Help the S use an AAC device to say *are not*. Model completing the prediction review.

## Report

**TEACHER** While pointing to some of the Photo Cards, say, **Now let's see what we have to report from today's work.**



We sorted plants and animals according to whether they are living or dead.

### CONCEPT STATEMENT—TRIAL 3

TEACHER



Hold the Concept Statement Card against the Photo Cards of dead animals and plants. Then read the statement, **When animals and plants are \_\_\_\_\_, they decay**, completing it with the word *dead*.

Hand the Concept Statement Card to Ss and have them also say it and hold it near the Photo Cards of dead animals and plants.

STUDENT

Says and matches the concept statement to the Photo Cards.

TEACHER

Place the concept statement on the table along with 4 Vocabulary Card options for completing the statement. Use the time-delay procedure to have Ss choose a card to fill in the blank in the concept statement, When animals and plants are \_\_\_\_\_, they decay.

Give each S a chance to find the card for *dead*, shuffling the cards each time. If Ss are ready, have them begin with Round 2.

**Round 2** (5-second delay): Say, **Which one? When animals and plants are \_\_\_\_\_, they decay**. Wait up to 5 seconds for S to independently find the correct answer.

STUDENT

Chooses the card for *dead*.

FEEDBACK

**Great job finding dead!**

PROMPT

If S does not point, or points to an incorrect choice, revert back to a 0-second time delay. Provide additional prompts as needed (see p. 96 for script).

### LEARN STATEMENT

TEACHER

Say, **Awesome! We learned something new today. We learned that when animals and plants are dead**



they decay. We can use our KWHL chart to record what we learned.

Write the word *dead* on the line on the Concept Statement Card using a water-based marker. **Help me put this card in the L row on our KWHL Chart to show what we have learned.** Have a S place the learned statement on the KWHL Chart in the L row.

STUDENT

Places the card on the chart.

TEACHER

**You just told me that when animals and plants are dead, they decay. How do you know this? How do you know that when animals and plants are dead, they decay?** Wait for some Ss to generate a response.

STUDENT

Gives some justification without options, if possible.

TEACHER

Have Ss open their My Science Log and help them write a response on the blank line: I know because \_\_\_\_\_.

PROMPT

Give Ss 1 correct option (I saw it happen to a bug, I learned it during the experiment) and 1 or 2 implausible options (e.g., The colors of the rainbow are pretty).

FEEDBACK

Praise the Ss, **You are such good thinkers!**

### STUDENT REPORT

TEACHER

Refer Ss to their My Science Log. Have them complete their Student Report by circling, pointing to, or eye gazing to a response for each item. Adapt the tasks as needed for individual Ss.

STUDENT

Completes the pages of the Student Report for this lesson.

FEEDBACK

**You are all amazing scientists! You have learned so much!**

PROMPT

Use LIP to help the S complete the Student Report in his or her science log.

## Special Accommodations

### Engage

#### WONDER STORY

For Ss who are building symbolic understanding, use objects to represent the story content. For example, if appropriate, present the S with a real flower and a dead flower in smelly water.



#### KWHL CHART

See Lesson 1 for suggestions using tubs.

#### VOCABULARY

For a S who is building symbolic understanding, represent the vocabulary with real objects.

Represent the word *dead* with a dead insect (a dead bug) or a dead plant. Represent the word *decay* by putting a flower in a bit of water

in a zip lock bag and letting it decay a bit so the S can see and smell the decay.

#### CONCEPT DEVELOPMENT—LIVING

Teach/assess the word *living* using the real objects mentioned above.

#### PREDICTION

Preprogram the S's AAC device with response choices (e.g., for I think plants and animals \_\_\_\_\_ always living, provide choices *are* and *are not*).

### Investigate

#### EXPERIMENT

Use tubs to sort *dead* and *living*. Have the S place the objects in the correct tub once it has been explored and described.

### Report

#### STUDENT REPORT

For a S who is unable to access paper/pencil tasks, have him or her finish the concept statement using an AAC device, or provide object choices for an eye gaze response. For example, when you read, When animals and plants are \_\_\_\_\_, they decay, have the S activate the AAC device to complete the blank in the statement with the word *dead*.

## Unit Four/Lesson 6 Task Analysis

|                    | Teaching Step  | Student Response   | Specific to This Lesson  |
|--------------------|--|--|--|
| <b>Engage</b>      | <b>1</b> Read the Wonder Story.  | Listens and engages with story.  | The Circle of Life   |
|                    | <b>2</b> Have Ss find the question.  | Finds the question.  | Do plants and animals stop living?   |
|                    | <b>3</b> Help place Question Card on KWHL Chart in W row.                            | Places the card on the chart.  |  |
|                    | <b>4</b> Teach/review vocabulary using time-delay procedure.                         | Points to vocabulary at 0-second delay; at 5-second delay (from array of 4 choices). | dead, decay, living, change  |
| <b>Investigate</b> | <b>5</b> Review prior concept statements and help place them on KWHL Chart in K row. | Helps read prior Concept Statement Cards and places them on chart.                   | Plants and animals live on the Earth. Animals and plants grow and <u>change</u> . Animals and plants <u>grow</u> and <u>change</u> . Plants and animals are <u>living</u> . Animals need <u>plants</u> . |
|                    | <b>6</b> Review science safety rule.   | Observes and places rule on poster.  | Do wait for your teacher to say it's OK to touch the science materials.  |
|                    | <b>7</b> Ask for prediction.   | Makes prediction.  | Are living things always living? I think plants and animals _____ always living.   |
|                    | <b>8</b> Fill in H of KWHL Chart.  | Places the card on the chart.  | Eyes to see, nose to smell   |
|                    | <b>9</b> Conduct experiment.   | Engages with materials.  | Sorting living and dead items using a T-Chart  |
|                    | <b>10</b> Develop concepts using example/ non-example.                               | Points to objects as directed.   | living, dead (with a yes/no response)  |
| <b>Describe</b>    | <b>11</b> Present concept statement using time delay (Trial 1).                      | Chooses vocabulary to complete statement (given 4 options).                          | When animals and plants are _____, they decay.   |
|                    | <b>12</b> Review what happened.  | Listens.   |  |
|                    | <b>13</b> Present concept statement using time delay (Trial 2) at 5-second delay.    | Chooses vocabulary to complete statement (given 4 options).                          | When animals and plants are _____, they decay.   |

*(Table continues)*

## Unit Four/Lesson 6 Task Analysis *(Continued)*

|         | Teaching Step   | Student Response  | Specific to This Lesson                             |
|---------|---|---|---|
| Explain | <b>14</b> Review predictions.   | Reviews predictions.  | I think plants and animals (are not) always living. |
|         | <b>15</b> Suggest change to prediction if needed.                                 | Makes change if necessary.                                  |   |
| Report  | <b>16</b> Present concept statement using time delay (Trial 3) at 5-second delay. | Chooses vocabulary to complete statement (given 4 options). | When animals and plants are _____, they decay.      |
|         | <b>17</b> Help place completed concept statement on KWHL Chart in L row.          | Places the card on the chart.                               | When animals and plants are <u>dead</u> they decay. |
|         | <b>18</b> Present student report.   | Completes Student Report.                                   | My Science Log                                      |