



Amplify.

TEXAS

ELEMENTARY LITERACY PROGRAM

Kindergarten

**KNOWLEDGE 4**

Plants: How Do They Grow

**TEACHER GUIDE**

Kindergarten

Knowledge 4

---

**Plants:**  
How Do They Grow?

---

**Teacher Guide**

**Notice and Disclaimer:** The agency has developed these learning resources as a contingency option for school districts. These are optional resources intended to assist in the delivery of instructional materials in this time of public health crisis. Feedback will be gathered from educators and organizations across the state and will inform the continuous improvement of subsequent units and editions. School districts and charter schools retain the responsibility to educate their students and should consult with their legal counsel regarding compliance with applicable legal and constitutional requirements and prohibitions.

Given the timeline for development, errors are to be expected. If you find an error, please email us at **[texashomelearning@tea.texas.gov](mailto:texashomelearning@tea.texas.gov)**.

ISBN 978-1-68391-909-4

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

You are free:

to Share—to copy, distribute, and transmit the work

to Remix—to adapt the work

Under the following conditions:

**Attribution**—You must attribute any adaptations of the work in the following manner:

This work is based on original works of Amplify Education, Inc. ([amplify.com](http://amplify.com)) and the Core Knowledge Foundation ([coreknowledge.org](http://coreknowledge.org)) made available under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. This does not in any way imply endorsement by those authors of this work.

**Noncommercial**—You may not use this work for commercial purposes.

**Share Alike**—If you alter, transform, or build upon this work, you may distribute the resulting work only under the same or similar license to this one.

With the understanding that:

For any reuse or distribution, you must make clear to others the license terms of this work. The best way to do this is with a link to this web page:

**<https://creativecommons.org/licenses/by-nc-sa/4.0/>**

© 2020 Amplify Education, Inc.  
**[amplify.com](http://amplify.com)**

Trademarks and trade names are shown in this book strictly for illustrative and educational purposes and are the property of their respective owners. References herein should not be regarded as affecting the validity of said trademarks and trade names.

Printed in Mexico  
01 Pilot 2020

# Contents

## PLANTS: HOW DO THEY GROW?

**Introduction** 1

**Lesson 1 Introduction to Plants** 5

**Introducing the Read-Aloud** (10 min)

- Domain Introduction/  
Core Connections

**Read-Aloud** (30 min)

- Purpose for Listening
- “Introduction to Plants”
- Comprehension Questions
- Word Work: *Soil*

**Application** (20 min)

- Plants and Their Environments
- Multiple Meaning Word Activity

**Lesson 2 Plant Parts** 16

**Introducing the Read-Aloud** (10 min)

- What Have We Already Learned?
- Essential Background Information or  
Terms

**Read-Aloud** (30 min)

- Purpose for Listening
- “Plant Parts”
- Comprehension Questions
- Word Work: *Survival*

**Application** (20 min)

- Plant Parts

**Lesson 3 The Life Cycle of a Plant** 27

**Introducing the Read-Aloud** (10 min)

- What Have We Already Learned?

**Read-Aloud** (30 min)

- Purpose for Listening
- “The Life Cycle of a Plant”
- Comprehension Questions
- Word Work: *Mature*

**Application** (20 min)

- Vocabulary Instructional Activity
- Drawing Activity

**Lesson 4 The Gigantic Turnip** 39

**Introducing the Read-Aloud** (10 min)

- Essential Background Information or  
Terms

**Read-Aloud** (30 min)

- Purpose for Listening
- “The Gigantic Turnip”
- Comprehension Questions
- Word Work: *Gigantic*

**Application** (20 min)

- A Turnip’s Life Cycle

## Pausing Point (2 days)

49

### Lesson 5 Polly the Honeybee's Flower Tour

53

#### Introducing the Read-Aloud (10 min)

- What Have We Already Learned?
- Essential Background Information or Terms

#### Read-Aloud (30 min)

- Purpose for Listening
- "Polly the Honeybee's Flower Tour"
- Comprehension Questions
- Word Work: *Pollination*

#### Application (20 min)

- Pollination Simulation

### Lesson 6 The Fruits of Polly's Labor

63

#### Introducing the Read-Aloud (10 min)

- What Have We Already Learned?
- Essential Background Information or Terms

#### Read-Aloud (30 min)

- Purpose for Listening
- "The Fruits of Polly's Labor"
- Comprehension Questions
- Word Work: *Produce*

#### Application (20 min)

- Multiple Meaning Word Activity
- Fruits and Seeds

### Lesson 7 Johnny Appleseed

74

#### Introducing the Read-Aloud (10 min)

- What Have We Already Learned?
- Essential Background Information or Terms

#### Read-Aloud (30 min)

- Purpose for Listening
- "Johnny Appleseed"
- Comprehension Questions
- Word Work: *Eventually*

#### Application (20 min)

- Image Review

### Lesson 8 Deciduous Trees

84

#### Introducing the Read-Aloud (10 min)

- Essential Background Information or Terms

#### Read-Aloud (30 min)

- Purpose for Listening
- "Deciduous Trees"
- Comprehension Questions
- Word Work: *Bare*

#### Application (20 min)

- Vocabulary Instructional Activity
- Drawing the Read-Aloud

### Lesson 9 Evergreen Trees

96

#### Introducing the Read-Aloud (10 min)

- What Have We Already Learned?

#### Read-Aloud (30 min)

- Purpose for Listening
- "Evergreen Trees"
- Comprehension Questions
- Word Work: *Deciduous* and *Evergreen*

#### Application (20 min)

- Drawing the Read-Aloud

## Lesson 10 Plants and People

106

### Introducing the Read-Aloud (10 min)

- What Have We Already Learned?
- Essential Background Information or Terms

### Read-Aloud (30 min)

- Purpose for Listening
- “Plants and People”
- Comprehension Questions
- Word Work: *Bouquet*

### Application (20 min)

- Plant Parts We Use

## Lesson 11 George Washington Carver

117

### Introducing the Read-Aloud (10 min)

- What Have We Already Learned?

### Read-Aloud (30 min)

- Purpose for Listening
- “George Washington Carver”
- Comprehension Questions
- Word Work: *Crops*

### Application (20 min)

- Sayings and Phrases: Great Oaks from Little Acorns Grow
- Domain-Related Trade Book or Student Choice

## Domain Review (1 day)

128

## Domain Assessment (1 day)

131

## Culminating Activities (2 days)

134

## Teacher Resources

137



# Introduction

This introduction includes the necessary background information to be used in teaching the *Plants: How Do They Grow?* domain. The Teacher Guide for *Plants: How Do They Grow?* contains eleven daily lessons, each of which is composed of two distinct parts, so that the lesson may be divided into smaller chunks of time and presented at different intervals during the day. Each entire lesson will require a total of sixty minutes.

This domain includes a Pausing Point following Lesson 4, after plant parts and the life cycle are introduced. At the end of the domain, a Domain Review, Domain Assessment, and Culminating Activities are included to allow time to review, reinforce, assess, and remediate content knowledge. You should spend no more than seventeen days total on this domain.

---

## INSTRUCTIONAL MATERIALS

Along with this Teacher Guide, you will need:

- Flip Book for *Plants* (which can also be found on the program's digital components site)
- Activity Book
- Image Cards for *Plants*

---

## ADDITIONAL RESOURCES

You should consider various times throughout the day when you might infuse the curriculum with authentic domain-related literature. In addition, if you recommend that families read aloud with their child each night, you may wish to suggest that they choose titles from this list to reinforce the concepts covered in this unit.

You might also consider creating a classroom lending library, allowing students to borrow domain-related books to read at home with their families.



---

## WHY PLANTS ARE IMPORTANT

There are millions of living things on Earth. Scientists classify these living things into groups called kingdoms. Plants make up one kingdom in this classification system. Over 350,000 species of highly diverse plants are found on almost every part of the earth. By listening to the read-alouds in this domain, students will acquire a fundamental understanding of the parts of plants and how they grow. They will learn what plants need in order to stay alive and will be introduced to the concepts of the life cycle of plants, pollination, and photosynthesis. This basic knowledge about plants will lay the foundation for a broader understanding of ecology and the interdependence of all living things, topics that will be addressed in other Kindergarten domains (*Farms and Taking Care of the Earth*), as well as in subsequent grades.

---

## CORE CONTENT OBJECTIVES FOR PLANTS

Students will:

- Identify plants as living things
- Explain that different kinds of plants grow in different environments
- Identify what plants need to live and grow: food, water, air, and light
- Identify the root, stem, branch, leaf, flower, fruit, and seed of a plant
- Explain basic facts about the root, stem, leaf, and seed of a plant
- Explain the basic life cycle of plants
- Explain that some plants produce fruit to hold seeds
- Compare and contrast the fruits and seeds of different plants
- Identify the parts of specific plants that are eaten by people
- Identify the petals on a flower
- Describe how bees collect nectar and pollen
- Describe how bees make and use honey
- Describe the important role bees play in plant pollination
- Demonstrate familiarity with the tall tale “Johnny Appleseed”
- Identify deciduous trees and recall basic facts about them
- Identify evergreen trees and recall basic facts about them

- Compare and contrast deciduous and evergreen trees
- Identify things that plants provide to people
- Describe the life and scientific achievements of George Washington Carver

## CORE VOCABULARY FOR PLANTS

The following list contains all of the core vocabulary words in *Plants* in the forms in which they appear in the read-alouds or, in some instances, in the “Introducing the Read-Aloud” section at the beginning of the lesson. Bold-faced words in the list have an associated Word Work activity. The inclusion of the words on this list does not mean that students are immediately expected to be able to use all of these words on their own. However, through repeated exposure throughout the lessons, they should acquire a good understanding of most of these words and begin to use some of them in conversation.

<b>Lesson 1</b> plants <b>soil</b>	<b>Lesson 5</b> honey nectar petals pollen <b>pollination</b>	<b>Lesson 9</b> cones conifers <b>evergreen (deciduous)</b> needles
<b>Lesson 2</b> leaves roots seeds stems <b>survival</b>	<b>Lesson 6</b> core <b>produce</b> scrumptious	<b>Lesson 10</b> <b>bouquet</b> medicines oxygen provide
<b>Lesson 3</b> germinate <b>mature</b> sapling seedlings	<b>Lesson 7</b> <b>eventually</b> hero orchards	<b>Lesson 11</b> botanist botany <b>crops</b>
<b>Lesson 4</b> budge <b>gigantic</b> stew	<b>Lesson 8</b> <b>bare</b> deciduous dormant habitat sheds	

---

## WRITING

In this domain, students will focus on oral communication, with the teacher acting as scribe. With teacher assistance and the use of graphic organizers, students will compare and contrast different types of plants, seeds, and how different plant parts are used by people. They will also draw pictures to communicate understanding of plant parts and the life cycle of plants.

The following activities may be added to students' writing portfolios to showcase student writing within and across domains:

- Drawing the Life Cycle (Lessons 3)
- Drawing the Read-Aloud (Lessons 8, 9)
- any additional writing completed during the Pausing Point, Domain Review, or Culminating Activities

## PLANTS

# Introduction to Plants

**PRIMARY FOCUS OF LESSON****Speaking and Listening**

Using images, students will differentiate between living and nonliving things.

 **TEKS K.1.A**

**Reading**

Students will use pictures to monitor their comprehension of a text, ask questions while they are reading to deepen their understanding, and then identify the basic needs of plants.

 **TEKS K.5.B; TEKS K.5.F; TEKS K.5.I; TEKS K.6.C**

**Language**

Students will demonstrate an understanding of the Tier 2 word *soil*.

 **TEKS K.6.F**


Students will demonstrate an understanding of the multiple meaning word *plant*.

 **TEKS K.6.F**

**FORMATIVE ASSESSMENT****Drawing Activity**

**What Do Plants Need?** Students will draw one of the things plants need to survive (food, water, or light).

 **TEKS K.6.F**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.5.B** Generate questions about a text before, during, and after reading to deepen understanding and gain information with adult assistance; **TEKS K.5.F** Make inferences and use evidence to support understanding with adult assistance; **TEKS K.5.I** Monitor comprehension and make adjustments such as re-reading, using background knowledge, checking for visual cues, and asking questions when understanding breaks down with adult assistance; **TEKS K.6.C** Use text evidence to support an appropriate response; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
Domain Introduction/Core Connections	Whole Group	10 min	
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	
“Introduction to Plants”			
Comprehension Questions			
Word Work: <i>Soil</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Plants and Their Environments	Whole Group	20 min	<input type="checkbox"/> pictures of plants <input type="checkbox"/> Poster 1M <input type="checkbox"/> paper <input type="checkbox"/> drawing tools
Multiple Meaning Word Activity			
<b>Take-Home Material</b>			
Family Letter			<input type="checkbox"/> Activity Page 1.1

## ADVANCE PREPARATION

### Application

- Prepare pictures of five to ten plants in different environments (e.g., a cactus in a desert or a palm tree on a beach). Alternatively, you may use Flip Book images 1A-3 through 1A-8.

### Universal Access

- Bring in different plants for students to look at, smell, and touch during the lesson.

## CORE VOCABULARY

**plants, n.** living things that have leaves and roots and make their own food

Example: The plants in our classroom need to be watered twice a week.

Variation(s): plant

**soil, n.** the top layer of dirt where seeds or plants can grow

Example: I used a shovel to dig into the soil to plant my flower.

Variation(s): soils

**Vocabulary Chart for “Introduction to Plants”**

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary			
Multiple Meaning		soil	plants
Sayings and Phrases	different kinds from the . . . to the . . .		

## Lesson 1: Introduction to Plants

# Introducing the Read-Aloud



**Speaking and Listening:** Using images, students will differentiate between living and nonliving things.



**TEKS K.1.A**

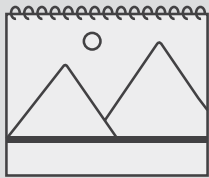
## DOMAIN INTRODUCTION/CORE CONNECTIONS

- Tell students they will be learning about plants for the next few weeks.
- Explain that plants are a type of living thing they see all around them.

### Show image 1A-1: Living things

- Explain to students that all living things have certain similarities, or things in common:
  - All living things need food, water, and air. People and animals are living things because they all need food, water, and air. In the same way, plants like trees and flowers are also living things that need food, water, and air.
  - Living things also reproduce or make babies that look like themselves. Since plants are living things, they also reproduce to make other plants that look like themselves.
- Help students name the living things in the image.
- Be sure to reinforce the fact that nonliving things, such as rocks or buildings, do not reproduce or have babies, and they do not need food, water, or air because they are not alive.
- Explain to students that you are going to read a list of things—some that are living and some that are nonliving. If what you name is alive, students should say, “\_\_\_\_\_ is living.” If what you name is not alive, students should say, “\_\_\_\_\_ is nonliving.”
  - dog (*A dog is living.*)
  - tree (*A tree is living.*)
  - rock (*A rock is nonliving.*)

### Flip Book 1A-1



### Support

If students answer incorrectly, provide feedback and correct their responses by helping them use and apply the criteria for living things described above.

### Challenge

If students answer correctly, have them explain why their answers are correct by using and applying the criteria for living things described above.



**TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses.

- cat (*A cat is living.*)
- chalkboard (*A chalkboard is nonliving.*)
- crayon (*A crayon is nonliving.*)
- person (*A person is living.*)
- table (*A table is nonliving.*)
- flower (*A flower is living.*)

## Lesson 1: Introduction to Plants

# Read-Aloud



**Reading:** Students will use pictures to monitor their comprehension of a text, will ask themselves questions while they are reading to deepen their understanding, and then will identify the basic needs of plants.


 **TEKS K.5.B; TEKS K.5.F; TEKS K.5.I; TEKS K.6.C**

**Language:** Students will demonstrate an understanding of the Tier 2 word *soil*.

 **TEKS K.6.F**

### PURPOSE FOR LISTENING

- Tell students to ask questions while they read to make sure they understand the text. **TEKS K.5.B**
- Tell students that another way to understand the text is to look at the pictures, which offer additional information. **TEKS K.5.I**
- Tell students to listen to find out what plants need to live.

 **TEKS K.5.B** Generate questions about a text before, during, and after reading to deepen understanding and gain information with adult assistance; **TEKS K.5.F** Make inferences and use evidence to support understanding with adult assistance; **TEKS K.5.I** Monitor comprehension and make adjustments such as re-reading, using background knowledge, checking for visual cues, and asking questions when understanding breaks down with adult assistance; **TEKS K.6.C** Use text evidence to support an appropriate response; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.



## Support

Explain that the word *plants* can have other meanings. The word *plants* also means puts seeds into the ground.

### “INTRODUCTION TO PLANTS” (15 MIN)

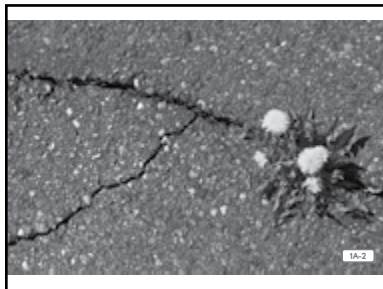
TEKS K.5.B; TEKS K.5.I



**Show image 1A-1: Living things** *What do you see in this picture?*

There are many different kinds of people, animals, and **plants** that live in our world. *The word plants means living things that have leaves and roots and make their own food.* You probably recognize many of the living things in this picture. In some ways, people, animals, and plants are alike—they

are all alive. They need food, water, and air to grow and stay alive. But plants, people, and animals are different in many other ways. *How do you think plants and animals are different?* Unlike animals and people, plants do not make sounds, and they cannot move from one place to another.



**Show image 1A-2: Dandelion in the sidewalk**

Plants need four basic things in order to live and grow: food, water, air, and light. If a plant has these things, then it can survive—even in a little crack in the sidewalk.

The yellow flowering plant in this picture is called a dandelion. A few weeks ago, a tiny dandelion seed floated through the air and landed in this crack, where there was just enough **soil** for it to begin to grow. *Soil is the top layer of dirt where plants can grow.* This dandelion gets plenty of sun here in the sidewalk, and it also gets plenty of air, water, and nutrients. *Nutrients are like the vitamins you get from your food.*



**Show image 1A-3: Hardwood forest**

This shady forest is home to many different types of plants, from the tallest tree to the tiniest flower. A forest is a large area of land where many trees grow close together. Animals that live in the forest depend on these plants for food and for their homes. This forest is just one environment—or place where living

things live—of many on this earth.

**TEKS K.5.B** Generate questions about a text before, during, and after reading to deepen understanding and gain information with adult assistance; **TEKS K.5.I** Monitor comprehension and make adjustments such as re-reading, using background knowledge, checking for visual cues, and asking questions when understanding breaks down with adult assistance.



### Show image 1A-4: Pine forest

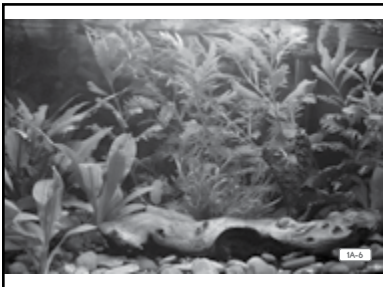
This is another type of forest. There are some major differences between the colors and shapes of the leaves on these trees and the leaves on the trees in the last picture. In a later lesson, you will learn about two different types of trees.



### Show image 1A-5: Desert cactus

This environment looks very different from the forests we saw in the last images. All plants need food, water, air, and light. But, not every place in the world has exactly the same amount of food, water, air, or light. This is a desert, where it is hot and dry all year round. Plants that grow here, such as this cactus, have adapted to a life in sandy soil

with very little rainfall beneath the blazing hot sun. That tough little dandelion and the trees you saw earlier would wither and die if you tried to plant them here. And the cactus in this desert would not be able to live in either the sidewalk crack or the forest! Different types of plants grow in different environments or places.



### Show image 1A-6: Underwater plants

This picture shows an underwater environment. Fish may be the first things that come to mind when you think about underwater life, but there are plants down there, too. Underwater plants need the same things other plants need, including food, water, air, and light.

*What questions do you have about underwater plants? How can the image help you answer these questions? Have you ever seen underwater plants?*

**TEKS K.5.B; TEKS K.5.I**



### Show image 1A-7: City park

This environment is not a forest, not a desert, and definitely not underwater. This is a city park, made when some people gathered seeds and planted them in the ground. People plant grass seeds on lawns and in parks so there are nice places to play and relax. People plant flowers and trees to make the world a prettier place.

## Support

Explain that when you plant something, you place seeds or plants in the ground to grow.

**TEKS K.5.B** Generate questions about a text before, during, and after reading to deepen understanding and gain information with adult assistance; **TEKS K.5.I** Monitor comprehension and make adjustments such as re-reading, using background knowledge, checking for visual cues, and asking questions when understanding breaks down with adult assistance.

## Challenge

Why do you think not all plants can grow in all the same places on Earth?



### Show image 1A-8: House plant

Some plants can be grown indoors. Maybe you even have one in your classroom. If so, someone needs to water it from time to time so it stays healthy and green.

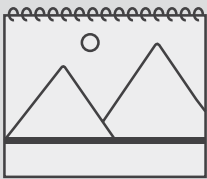
All plants have four basic needs—food, water, air, and light. But not all plants can grow in all the same places on Earth. A dandelion cannot grow in the desert, and a corn plant cannot grow underwater. Over the next several days, you will learn all about different types of plants and plant parts, and you will understand why plants are so important to animals and people.



### Check for Understanding

**Recall:** Name some different places where plants live. (*Some places where plants can live include the desert, underwater, and in parks.*)

Flip Book  
1A-1, 1A-5, 1A-8



## Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.

## COMPREHENSION QUESTIONS (10 MIN)

TEKS K.5.B; TEKS K.5.I

### Show image 1A-5: Desert cactus

### Show image 1A-8: House plant

- Inferential** How are these plants the same and how are they different? (*Both plants need food, water, air, and light to survive. The cactus and the house plant live in different places or environments.*)
- Inferential** What did you learn about plants in this read-aloud that makes you think plants are living things? (*Plants need food, water, air, and light to live, just like people.*)
  - Are plants living or nonliving? (*Plants are living things.*)
- Inferential** What do you think would happen if plants didn't have food, water, air, and light? (*If plants did not have food, water, air, and light, they would not be able to stay alive.*)

**TEKS K.5.B** Generate questions about a text before, during, and after reading to deepen understanding and gain information with adult assistance: **TEKS K.5.I** Monitor comprehension and make adjustments such as re-reading, using background knowledge, checking for visual cues, and asking questions when understanding breaks down with adult assistance.

## Show image 1A-1: Living things

4. **Evaluative** *Think Pair Share:* Name one way plants and animals are the same and one way that they are different. (*Answers may vary, but may include that both plants and animals need food, water, and air to live, and both reproduce; animals can move from one place to another, but plants cannot.*)
5. What questions do you still have about the differences between living things? How could you use the images to help answer your questions? (*Encourage students to ask questions, and provide images to help answer their questions.*)

### WORD WORK: SOIL (5 MIN)

1. In the read-aloud you heard, “A few weeks ago, a tiny dandelion seed floated through the air and landed in this crack, where there was just enough soil for it to begin to grow.”
2. Say the word *soil* with me.
3. *Soil* is the top layer of dirt where seeds or plants can grow.
4. The plant pushed its way through the soil as it grew.
5. What kinds of plants would you plant in soil? [Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “I would plant \_\_\_\_\_ in the soil.”]
6. What’s the word we’ve been talking about?

**Use a Sharing activity for follow-up.** Share with the class what you might plant in the soil. Be sure to begin your responses with, “I would plant \_\_\_ in the soil because . . .”



ENGLISH  
LANGUAGE  
LEARNERS

## Speaking and Listening

### Listening Actively

#### Beginning

Ask students simple yes/no questions (e.g., “Are plants and animals both living things?”).

#### Intermediate

Provide students with a specific sentence frame (e.g., “Plants and animals are the same because . . .”).

#### Advanced/Advanced High

Encourage students to use content-related words in complete sentences (e.g., “Plants and animals are the same because they are both living things that need food, water, and air to live.”).

**ELPS 2.G; ELPS 2.I**



Speaking and  
Listening

Exchanging Information  
and Ideas)

**Beginning**

Ask students yes/no questions about plants and their environments and encourage them to ask their own questions about plants and their environments.

**Intermediate**

Encourage students to build on what the previous student has said about plants and their environments.

**Advanced/Advanced High**

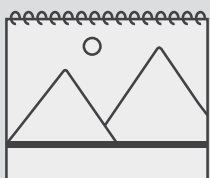
Challenge students to say something more about what the previous student has said about plants and their environments.

**ELPS 1.E; ELPS 2.C;**

**ELPS 2.D; ELPS 2.G;**

**ELPS 3.G**

Flip Book Poster 1M:  
Plants



Lesson 1: Introduction to Plants

# Application



**Language:** Students will demonstrate an understanding of the multiple meaning word *plant*.

**TEKS K.6.F**

## PLANTS AND THEIR ENVIRONMENTS (10 MIN)

- Show students the pictures of plants in different environments you prepared in advance.



### Check for Understanding

**Recall:** How do you know plants are living things? (*We know plants are living things because they need food, water, air, and light in order to live.*)

- Remind students that *environment* means a place where living things live. Explain that there are many different kinds of environments on this earth,
- Ask students why the plants look different. (*Answers may vary, but may include that the plants look different because they live in different places.*)
- Encourage students to think about why these environments may produce different kinds of plants. Also, make a connection between different kinds of habitats.

## MULTIPLE MEANING WORD ACTIVITY (10 MIN)

### Sentence in Context: Plants

#### Show Poster 1M: Plants

- Remind students that in the read-aloud they heard, "There are many different kinds of people, animals, and plants that live in our world."
- Explain that, here, *plants* means living things that have leaves and roots and make their own food.

**TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.

- Have students hold up one, two, or three fingers to indicate which image on this poster shows this meaning. (1)
- Explain that *plants* can also mean other things.
- Tell students that *plants* also means puts seeds into the ground. Have students hold up one, two, or three fingers to indicate which image on this poster shows this meaning. (2)
- Explain that *plants* can also mean manufacturing buildings or factories where people make things. Have students hold up one, two, or three fingers to indicate which image on this poster shows this meaning. (3)
- Have students turn to their neighbor and make a sentence for each meaning of *plants*. Remind students to use complete sentences.
- Call on some students to share their sentences aloud.



### Drawing Activity

Have students draw one of the things plants need to survive (food, water, or light).

End of Lesson

# Take-Home Material

## FAMILY LETTER

- Send home Activity Page 1.1.

### Activity Page 1.1



## 2

## PLANTS

## Plant Parts

## PRIMARY FOCUS OF LESSON

**Speaking and Listening**

Students will recall characteristics of living things.

 **TEKS K.1.A**

**Reading**

Students will set a purpose for reading and will explain the purposes of the different parts of a plant.

 **TEKS K.5.A; TEKS K.5.F; TEKS K.6.C; TEKS K.8.D.i**

**Language**

Students will use images to learn or clarify word meanings in the text and then will demonstrate an understanding of the Tier 2 word *survival*.

 **TEKS K.3.B; TEKS K.6.F**

**Reading**

Students will identify different parts of a plant and the function of each.


 **TEKS K.6.E**

## FORMATIVE ASSESSMENT

## Activity Page 2.1

**Plant Parts** Students will demonstrate understanding of plants and their different parts.

 **TEKS K.6.E**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.F** Make inferences and use evidence to support understanding with adult assistance; **TEKS K.6.C** Use text evidence to support an appropriate response; **TEKS K.8.D.i** Recognize characteristics and structures of informational text, including the central idea and supporting evidence, with adult assistance; **TEKS K.3.B** Use illustrations and texts the student is able to read or hear to learn or clarify word meanings; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
What Have We Already Learned?	Whole Group	10 min	
Essential Background Information or Terms			
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	
“Plant Parts”			
Comprehension Questions			
Word Work: <i>Survival</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Plant Parts	Independent	20 min	<input type="checkbox"/> Activity Page 2.1 <input type="checkbox"/> scissors <input type="checkbox"/> glue <input type="checkbox"/> paper

## ADVANCE PREPARATION

### Universal Access

- Complete the following Stem Activity with students to demonstrate how water moves up through the stem of the plant over the course of two days.
  - Fill two cups with water.
  - Put red food coloring in one cup and blue food coloring in another cup.
  - Put a freshly cut carnation or a stalk of celery in each cup.
  - Have students talk about what happens to the flower or stalk of celery.



- At the end of the activity, explain that the celery or flower changed color because the stem of the plant moved the water (and the dye with it) through the stem of the plant all the way to the top. As a result, the dye changed the color of the plant.

### CORE VOCABULARY

**leaves, n.** the parts of the plant that make food for the plant

Example: My sister has a leaf collection with leaves of many different sizes, shapes, and colors.

Variation(s): leaf

**roots, n.** the parts of the plant that keep it in the ground and take up food and water

Example: I made sure the roots of the plant were covered with soil when I planted it.

Variation(s): root

**seeds, n.** the small, protected parts of a plant that are able to grow into a new plant

Example: Carlos saved sunflower seeds to plant in his garden.

Variation(s): seed

**stems, n.** the parts of the plant that support the plant and carry water and nutrients to the rest of the plant

Example: After Mrs. Bryant cut the stems of the flowers, she put the flowers in a vase of water.

Variation(s): stem

**survival, n.** the act of staying alive

Example: A plant needs food for its survival.

Variation(s): none

### Vocabulary Chart for “Plant Parts”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	roots seeds stems	survival	
Multiple Meaning	leaves		
Sayings and Phrases	take up the survival of		

## Lesson 2: Plant Parts

# Introducing the Read-Aloud



**Speaking and Listening:** Students will recall characteristics of living things.

**TEKS K.1.A**

## WHAT HAVE WE ALREADY LEARNED? (5 MIN)

- Remind students that in the last lesson, they learned that plants are living things.
- Ask students to recall what plants and all other living things need. (*food, water, air, and light*)
- Remind students that living things also reproduce, or create more of themselves.
- Explain to students that you are going to read them a list of things—some that are living and some that are not. If what you name is alive, students should say, “\_\_\_\_\_ is living.” If what you name is not alive, students should say, “\_\_\_\_\_ is nonliving.”
  - desk (*A desk is nonliving.*)
  - tree (*A tree is living.*)
  - pencil (*A pencil is nonliving.*)
  - rosebush (*A rosebush is living.*)
  - mouse (*A mouse is living.*)
  - paper (*Paper is nonliving.*)



### Check for Understanding

**Thumbs Up/Thumbs Down:** Plants, like other living things, reproduce, or make more of themselves. (*thumbs up*)

### Support

If students answer incorrectly, provide feedback and correct their responses by helping them use and apply the criteria for living things.

### Challenge

If students answer correctly, have them explain why their answers are correct by using and applying the criteria for living things.

**TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses.

## ESSENTIAL BACKGROUND INFORMATION OR TERMS (5 MIN)

- Tell students that there are many different plants.
- Explain that like people, plants come in different shapes and sizes, have different names, and live or grow in different places.
- Tell students that in the same way all people have similar features, all plants have similar parts.
- Reinforce that even though there are many different plants, all plants have similar parts.

## Lesson 2: Plant Parts

# Read-Aloud



**Reading:** Students will set a purpose for reading and will explain the purposes of the different parts of a plant.

**TEKS K.5.A; TEKS K.5.F; TEKS K.6.C; TEKS K.8.D.i**

**Language:** Students will use images to learn or clarify word meanings in the text and then will demonstrate an understanding of the Tier 2 word *survival*.

**TEKS K.3.B; TEKS K.6.F**

### PURPOSE FOR LISTENING

- Ask students to think about what they would like to learn from reading this section. Tell them that this is their purpose for reading the section. **TEKS K.5.A**
- Tell students that looking at the pictures in the text can help them understand the meanings of any words that are new to them. **TEKS K.3.B**
- Tell students that the main topic, or main idea, in this lesson is plant parts. **TEKS K.8.D.i**
- Tell students to listen carefully to the read-aloud to learn more about the different parts of plants and how these different parts use nutrients (or food), water, air, and light.

### “PLANT PARTS” (15 MIN)

**TEKS K.3.B; TEKS K.5.A**



#### Show image 2A-1: Sunflower

*What do you see in this picture?* Even though there are many, many different kinds of plants living in our world, all plants need nutrients (or food), water, air, and light. *[Point to the parts of the flower as you talk about them.]* And most plants also have similar basic parts—**roots, stems, leaves,** flowers, and **seeds.** *Leaves are*

*the parts of plants that make food for the plant.* **TEKS K.3.B**

**TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.F** Make inferences and use evidence to support understanding with adult assistance; **TEKS K.6.C** Use text evidence to support an appropriate response; **TEKS K.8.D.i** Recognize characteristics and structures of informational text, including the central idea and supporting evidence, with adult assistance; **TEKS K.3.B** Use illustrations and texts the student is able to read or hear to learn or clarify word meanings; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.

### Support

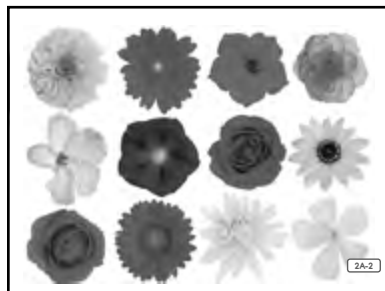
Explain that the word *leaves* can have other meanings. The word *leaves* also means goes away from a place.

Take a look at this sunflower. The parts of the plant you see down here at the bottom are the roots. The roots of the plant are covered with soil. So, when we see plants growing in nature, we usually aren't able to see the roots unless we take the plants out of the ground.

The plant's roots reach down into the soil and grow underground. They help to hold the plant in place in the soil. But most important, the roots take up water and nutrients that are in the soil. Nutrients help plants grow and stay healthy just like vitamins help you grow and stay healthy. The water and nutrients move through the roots up into the stem of the plant, which holds the plant up tall, toward the light. As the water and nutrients travel up the stem, they are able to reach other parts of the plant, like the leaves. The leaves are the parts of a plant that are attached to and grow out from the stem. The leaves are usually green, but they can be other colors as well.

Many plants have flowers which are also called blossoms. Look at the blossoms on this sunflower plant. Around the outside, it has many bright yellow petals. The flower petals of different plants come in every color you can imagine!

Now look in the center part of the sunflower blossom, the part that has many petals around it. This part of the plant is made up of many small seeds. One sunflower seed is only about the size of one of your fingernails! If the seeds of the sunflower plant are put into the soil, they will make a new sunflower plant! Sometimes people eat the seeds from some plants. You may have even tasted a sunflower seed yourself.



### **Show image 2A-2: Flowers**

Even though most plants have the same basic parts—roots, a stem, leaves, flowers, and seeds—these parts may look different on different kinds of plants. These beautiful flowers are from many different kinds of plants. Did you notice that, not only are the colors of the flowers different, but the flower

petals from different plants have different shapes, too?



### Show image 2A-3: Apple tree

*What do you see in this picture?*

This apple tree has the same parts as the other plants we have seen. We can't see any apples because this picture was taken in the spring, when the blossoms, or flowers, come out. The apples will start growing in the summer and will be ready for picking in

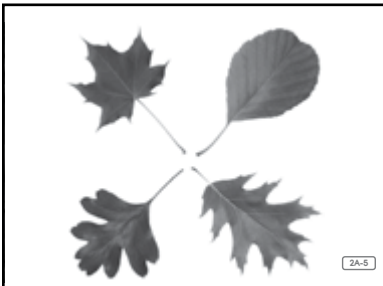
the fall. We can't see the roots of the apple tree because they are growing underground, but we can see several other parts. We can see many stems on the tree. The smaller stems are called branches. *[Point to the branches.]* Do you see the apple blossoms and the leaves? There are many, many leaves

attached to the branches on this apple tree. **TEKS K.3.B**



### Show image 2A-4: Bark

The largest part of the tree is called the trunk. The outside of the trunk is covered in bark. Bark is kind of like clothing for trees: it protects the inside of the tree. *What do you think this bark feels like?*



### Show image 2A-5: Leaves

Here are some leaves from different kinds of trees. Take a close look, and you will notice that the leaves have different shapes. In fact, one way to tell what kind of tree you are looking at is to look closely at its leaves. *[Point to the leaves as you name them.]* The leaf on the

top left is from a sugar maple tree. The leaf below that is from a white oak tree. The leaf on the top right is from a witch hazel tree, and the leaf below that is from a black oak tree. Remember, many plants—not just trees—have leaves. In fact, leaves are especially important to the **survival** of plants. *This means the leaves are especially important in making sure that plants stay alive.*

**TEKS K.3.B** Use illustrations and texts the student is able to read or hear to learn or clarify word meanings.



### Show image 2A-6: Leaves in sunlight

When light shines on the green leaves of any plant, the leaves absorb—or soak up—energy from the light. Through an amazing process called photosynthesis, the leaf uses the light to turn the water and air already in the plant into food for the rest of the plant!



### Show image 2A-7: Leaf close-up

Do you remember earlier that we said the roots and stem of a plant move water and nutrients from the soil to the other parts of a plant, such as the leaves? During photosynthesis, water, nutrients, air, and light come together in the plant's leaves. This is how plants make food for themselves. It's a good thing, too, because

plants can't move like animals or people, so they aren't able to go find food somewhere else. Plants have to make food for themselves. Once the water and nutrients are made into food through photosynthesis, parts of the leaves called the veins carry the food back to the stem. [Point to the veins in the picture.] From there, food is taken to the rest of the plant where it is needed. **TEKS K.3.B**



### Show image 2A-8: Boy watering plant

Now you have learned about most of the basic parts of many plants. Plants begin as seeds, which sprout and grow roots, stems, leaves, and then flowers. The roots, stems, and leaves work together with water, nutrients, air, and light to make food for the plant through photosynthesis. Say that word three times to

help you remember it: *photosynthesis, photosynthesis, photosynthesis.*

## Support



### Check for Understanding

**Point and Say It:** [Show image 2A-1: Sunflower. Point to the roots, then the stem, then the flower, then the leaves, and finally the seeds. Each time, ask students the name of each of the different parts of the plant.]

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.

**TEKS K.3.B** Use illustrations and texts the student is able to read or hear to learn or clarify word meanings.

## COMPREHENSION QUESTIONS (10 MIN)

- Inferential** What would happen if a plant didn't have roots? (*If a plant didn't have roots, it wouldn't be able to take in nutrients and water.*)
  - Literal** What do roots do? (*The roots keep a plant in the ground and take in water and nutrients for the plant.*)
- Inferential** What would happen if a plant didn't have a stem? (*If the plant didn't have a stem, it would fall over, and it wouldn't be able to move the water and nutrients from the roots to the rest of the plant.*)
  - Literal** What does the stem do? (*The stem supports the plant and moves water and nutrients to the rest of the plant.*)
- Inferential** What would happen if a plant didn't have leaves? (*If the plant didn't have leaves, it would not be able to make food for itself.*)
  - Literal** What do the leaves do? (*The plant makes its own food in its leaves.*)
- Evaluative** *Think Pair Share:* What does each part of the plant (particularly roots, stem, and leaves) do to help the plant survive? (*Answers may vary, but may include that the roots keep the plant in the ground and take in water and nutrients; the stem holds the plant up tall and carries water and nutrients to the other parts; the leaves are where the plant makes food for itself.*)

## WORD WORK: SURVIVAL (5 MIN)

- In the read-aloud you heard, "In fact, leaves are especially important to the survival of all plants."
- Say the word *survival* with me.
- Survival* is the act of staying alive.
- Food, water, air, and light are important to a plant's survival.
- What is important to a living thing's survival? Try to use the word *survival* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase the students' responses: "\_\_\_\_\_ is important to a living thing's survival."]
- What's the word we've been talking about?

**Use a Sharing activity for follow-up.** Share with the class why food, water, air, or light is important to a plant's survival. Be sure to begin your responses with "\_\_\_\_\_ is important to a plant's survival because . . ."



ENGLISH  
LANGUAGE  
LEARNERS

## Speaking and Listening

### Listening Actively

#### Beginning

Ask students simple yes/no questions (e.g., "If a plant didn't have roots, would it be able to take in nutrients and water?").

#### Intermediate

Provide students with a specific sentence frame (e.g., "If a plant didn't have roots, then . . .").

#### Advanced/Advanced High

Encourage students to use content-related words in complete sentences (e.g., "If a plant didn't have roots, then it would not be able to take in nutrients and water to feed itself.").

**ELPS 1.E; ELPS 2.D;**

**ELPS 2.G; ELPS 2.I;**

**ELPS 4.G**

## Challenge

Using image 2A-1, have a student volunteer to trace the upward path the water and nutrients take from the ground to the roots, through the stem, and finally to the leaves. As the student traces the path, help him or her use the core vocabulary to describe the plant parts.





### Challenge

Have students label the different parts of the plant.

**ENGLISH  
LANGUAGE  
LEARNERS**



### Writing

#### Writing

#### Beginning

Ask students to point to parts of their picture as you name them (e.g., “Point to the stem.”).

#### Intermediate

Provide students with a specific sentence frame (e.g., “The stem does . . .”).

#### Advanced/Advanced High

Encourage students to dictate a complete sentence using vocabulary words related to plants.

**ELPS 5.B**

## Lesson 2: Plant Parts

# Application



**Reading:** Students will identify different parts of a plant and the function of each.

**TEKS K.6.E**

### PLANT PARTS (20 MIN)

- Have students turn to Activity Page 2.1 and cut out the plant parts.
- Have students paste the plant parts onto a separate sheet of paper to make a whole plant.
- Circulate around the room, asking students to identify each plant part and its function. Encourage students to use core vocabulary when possible.

End of Lesson

**TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing.

## PLANTS

# The Life Cycle of a Plant

## PRIMARY FOCUS OF LESSON

### Speaking and Listening

Students will review the different parts of the plant and why each is important.

 **TEKS K.1.A**

### Reading

Students will explain the basic life cycle of a plant.

 **TEKS K.6.D; TEKS K.8.D.ii; TEKS K.9.C**

### Language

Students will demonstrate an understanding of the Tier 2 word *mature*.

 **TEKS K.6.F**

### Reading

Using illustrations, students will explain the life cycle of a plant.


 **TEKS K.6.D; TEKS K.6.E; TEKS K.8.D.ii**

## FORMATIVE ASSESSMENT

### Drawing Activity

**Life Cycle of a Plant** Students will draw the life cycle of a plant.

 **TEKS K.6.E**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.6.D** Retell texts in ways that maintain meaning; **TEKS K.8.D.ii** Recognize characteristics and structures of informational text, including: titles and simple graphics to gain information; **TEKS K.9.C** Discuss with adult assistance the author's use of print and graphic features to achieve specific purposes; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
What Have We Already Learned?	Whole Group	10 min	
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	<input type="checkbox"/> examples of seeds <input type="checkbox"/> ruler or yardstick
“The Life Cycle of a Plant”			
Comprehension Questions			
Word Work: <i>Mature</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Vocabulary Instructional Activity	Whole Group Independent	20 min	<input type="checkbox"/> folded paper <input type="checkbox"/> drawing tools
Drawing Activity			

## ADVANCE PREPARATION

### Read-Aloud

- Prepare different examples of seeds to share with students (e.g., sunflower seeds, apple seeds, watermelon seeds, and pumpkin seeds).
- Prepare to show students how tall one or two feet is, and how tall ten feet is with a ruler or yardstick.

### Application

- Fold a piece of paper into three sections for each student to use during the drawing activity.

### Universal Access

- Have students make their own “see-through” planter, or make one for the classroom that you keep on display. This way, students may watch a plant’s life cycle in action, beginning with the seed and watching it sprout and grow into a mature plant.

- Use a sealed package of bean seeds and paper towels.
- Wet the paper towels and “plant” beans in them.
- Place the paper towels and bean seeds in sealed, clear, plastic bags.
- Observe the roots as they form during the next few days.
- Help students keep a daily record of what goes on within the planter.

## CORE VOCABULARY

**germinate, v.** to start to grow

Example: The rain will help the seeds in the garden germinate.

Variation(s): germinates, germinated, germinating

**mature, v.** to develop fully; to grow into an adult or full-grown animal or plant

Example: It takes time for a seedling to mature into a full-grown, adult plant.

Variation(s): matures, matured, maturing

**sapling, n.** a young tree

Example: Every day I check the sapling we planted to see how much it has grown.

Variation(s): saplings

**seedlings, n.** baby plants that have grown from a seed

Example: At the apple orchard, we saw many small seedlings that will one day grow into apple trees.

Variation(s): seedling

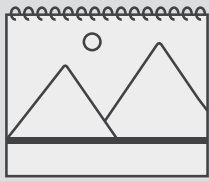
Vocabulary Chart for “The Life Cycle of a Plant”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	germinate ( <i>germinar</i> ) sapling seedlings	mature ( <i>maduro/a</i> )	
Multiple Meaning			
Sayings and Phrases			

## Lesson 3: The Life Cycle of A Plant

Introducing the  
Read-Aloud

Flip Book 3A-1

ENGLISH  
LANGUAGE  
LEARNERSSpeaking and  
Listening

Reading/Viewing Closely

**Beginning**

Prompt and support students to recall words and phrases that relate to parts of the plant.

**Intermediate**

Provide moderate support in eliciting phrases and ideas with greater detail that relate to the given part of the plant.

**Advanced/Advanced High**

Provide minimal support in eliciting key details relating to a given part of the plant.

ELPS 1.H; ELPS 2.D;

ELPS 3.D

**Speaking and Listening:** Students will review the different parts of the plant and why each is important.



TEKS K.1.A

**WHAT HAVE WE ALREADY LEARNED?****Show image 3A-1: Sunflower**

- Have students identify each part of the plant in the image. (*roots, stem, and leaves*)
- Review with students what each part of the plant does and why it is important. (*The roots keep a plant in the ground and take in water and nutrients for the plant. The stem supports the plant and moves water and nutrients to the rest of the plant. The plant makes its own food in its leaves.*)
- Reinforce the role that each part plays in the survival of the plant. (*The roots keep the plant in the ground and take in water and nutrients. The stem holds the plant up tall and carries water and nutrients to the other parts. The leaves are where the plant makes food for itself.*)

**Check for Understanding**

**Making Choices:** Does the stem or the roots keep a plant in the ground? (*roots*)

Does the stem or leaves hold the plant up tall? (*stem*)

Are the leaves or the roots the part where the plant makes food for itself? (*leaves*)

## Lesson 3: The Life Cycle of A Plant

# Read-Aloud



**Reading:** Students will explain the basic life cycle of a plant.

**TEKS K.6.D; TEKS K.8.D.ii; TEKS K.9.C**

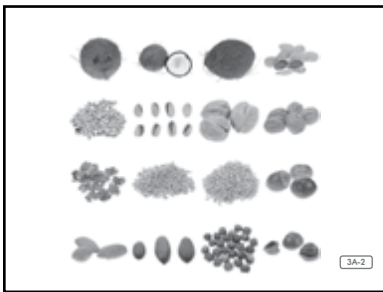
**Language:** Students will demonstrate an understanding of the Tier 2 word *mature*.

**TEKS K.6.F**

### PURPOSE FOR LISTENING

- Tell students that the main topic, or main idea, of today's lesson is the life cycle of a plant.
- Explain to students that when a plant first starts to grow, it does not have all of the parts they have learned about.
- Tell students to listen to find out more about how the plant grows and changes during its life.
- Tell students to look at the graphic features closely to see what information those graphics offer. **TEKS K.8.D.ii**
- Tell students that the author included graphic features, such as images and diagrams, in the text to make the stages of the plant's life clear. **TEKS K.9.C**

### “THE LIFE CYCLE OF A PLANT” (15 MIN)



#### Show image 3A-2: Seeds

You have already learned about the different parts of a plant. One of those parts is the seed. *Where can you find the seeds on a plant?* [The seeds are found in the center of the flower.] Many plants begin with a seed. Seeds come in all shapes and sizes and, as you might guess, the seeds from different plants look

different. [Show students the different examples of seeds you have prepared.]

Each seed is a plant waiting to sprout, or grow. If the seed is planted in the right place, then the seed will sprout and grow into a new plant. Only a sunflower plant can grow from a sunflower seed, and only an apple tree can grow from an apple seed. What type of plant do you think would grow if you planted a watermelon seed? How about a pumpkin seed?

**TEKS K.6.D** Retell texts in ways that maintain meaning; **TEKS K.8.D.ii** Recognize characteristics and structures of informational text, including: titles and simple graphics to gain information; **TEKS K.9.C** Discuss with adult assistance the author's use of print and graphic features to achieve specific purposes; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.

## Support

Ask students, “What are the four things a plant needs to survive?”



### Show image 3A-3: Phases of germination

Seeds are the beginnings of new plants. Like all living things, plants live according to a life cycle. A life cycle includes the stages and changes that happen in living things.

The life cycle of a plant starts with a seed. Most seeds have nutrients inside them that feed the new plants for just a little while. In

order to **germinate**—or begin growing into new plants—seeds must have water, light from the sun, and nutrients from the soil.

When a plant first starts to grow from a seed, it looks very different from a fully grown or mature plant. Baby plants are called **seedlings**. This image shows a plant's growth from germination to seedling. *What do you see in this picture?*

The very first picture shows a newly germinated seed that is just beginning to sprout. Germination begins when the seed gets just the right amount of light from the sun, water, and nutrients. This causes the seed to open and the seedling to poke up through the soil. If you look very carefully at this first picture, you can see that the new plant is just starting to grow its first root. *[Point to each part of the image as it is described in the read-aloud.]* The next pictures show the same plant over several days. As the plant grows, you can see thin roots branching off deeper into the soil. The roots absorb water and nutrients and push them up through the plant's stem, which grows above ground.



### Show image 3A-4: Seedling

It takes time for a seedling to grow into a full-grown, adult plant. The amount of time it takes depends on the type of plant. If you plant a sunflower seed, it will take about a month before the seedling begins to look more like a full-grown sunflower plant. If you plant an apple seed, it will take several years for the

seedling to grow into a full-grown tree!

When the plant dies, it decays and breaks down into little pieces and goes back into the ground to become nutrients in the soil. A new life cycle of a plant begins!

## Challenge

Ask students, “Why do you think it takes longer for a tree seedling to grow into a full-grown plant than for a sunflower seedling to grow into a full-grown plant?”



### Show image 3A-5: Acorn and oak

Now, let's explore the life cycle of this oak tree. This acorn contains the seed of an oak tree. *[Point to the acorn.]* You may have seen acorns before, on the ground outside next to full-grown trees, or being carried away by squirrels.



### Show image 3A-6: Squirrel eating an acorn

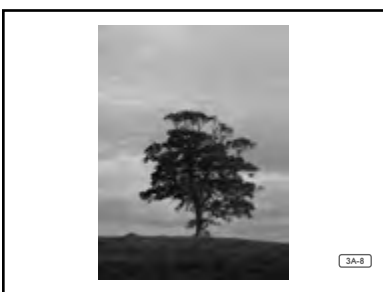
Squirrels spend all day running around looking for food and hiding food. They bury so many acorns they often forget where they put some of them. The acorn the squirrel forgets stays in the soil, giving the oak seed inside a better chance to germinate underground. *What does germinate mean?* *[Germinate means to begin*

*growing into new plants.]* Once the seed sprouts, it will quickly grow into a seedling, but the young tree will grow only a foot or two in its first year. *[Show students how tall one or two feet is with a ruler or yardstick.]*



### Show image 3A-7: Young oak

After a few years, the oak will grow to a height of ten or more feet, but it is still considered a young tree or **sapling**. *[Show students how tall ten feet is with a ruler or yardstick.]* This tree will still be called a sapling for several years to come.



### Show image 3A-8: Mature oak

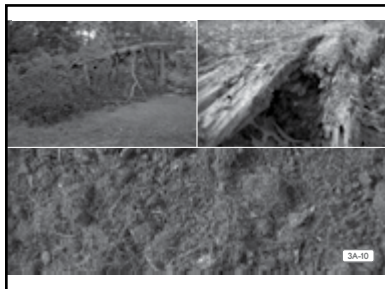
Oak trees take a long time to **mature** or *grow into an adult or full-grown tree*. In fact, it takes about fifty years for the average oak tree to mature so it can produce acorns. An oak tree can produce tens of thousands of acorns over the course of its lifetime. Only a few of those acorns will germinate and grow into new oak trees.





### Show image 3A-9: Dead tree

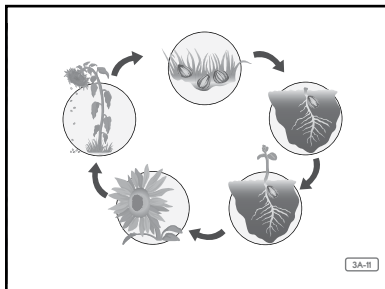
Some oak trees can live for over two hundred years. Eventually, like all living things, the oak tree will die. The oak tree will die slowly over the course of several years. It will produce fewer and fewer leaves each year, its branches will drop off one by one, and gradually its wood will become softer and softer.



### Show image 3A-10: Decomposition

Finally, the roots will die and the tree will fall down with a big crash on the forest floor. The tree's branches will be the first to rot and disappear into the soil, but the woody trunk will take many years to completely decay.

All of the nutrients in the wood will decay and become part of the soil once again. The more decayed plants there are in the soil, the more nutrients the soil will have. And, the more nutrients there are, the easier it will be for new seeds, like the acorn seeds, to germinate and grow.



### Show image 3A-11: Life cycle of a sunflower

As we have seen, all plants live according to a life cycle. This diagram shows you the life cycle of a sunflower. *[Point to each part of the life cycle as it is reviewed.]* A new plant begins when the sunflower seed germinates and sprouts to become a seedling. If the seedling receives the right amount of water,

nutrients, and light, then the plant will continue to grow. Eventually, the plant will become mature and make more seeds from which new plants will grow. When the sunflower dies and decays, it becomes the nutrients in the soil so that seeds can germinate and grow into new plants. And a new life cycle of a plant begins! **TEKS K.8.D.ii; TEKS K.9.C**

### Challenge

Reread the passage about the life cycle of a sunflower, and have students point to each part of the life cycle as you say it.

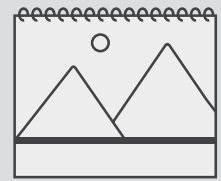
**TEKS K.8.D.ii** Recognize characteristics and structures of informational text, including: titles and simple graphics to gain information; **TEKS K.9.C** Discuss with adult assistance the author's use of print and graphic features to achieve specific purposes.



### Check for Understanding

**Recall:** What things does a seed need to germinate? (A seed needs water, warmth from the sun, and nutrients to germinate.)

### Flip Book 3A-4



### Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.



**ENGLISH LANGUAGE LEARNERS**

### Speaking and Listening

#### Offering Opinions

#### Beginning

Provide students sentence frames using a small set of learned phrases (e.g., "I think the life cycle of a plant and a human are similar because . . .").

#### Intermediate

Provide students sentence frames using an expanded set of learned phrases (e.g., "I think the life cycle of a plant is similar to the life cycle of a human because both . . .").

#### Advanced/Advanced High

Provide minimal support and guidance for open responses.

**ELPS 1.H; ELPS 2.C;**

**ELPS 3.G**

### COMPREHENSION QUESTIONS (10 MIN)

1. **Literal** A plant's life cycle begins with what part of the plant? (A plant's life cycle begins with the seed.)

#### Show image 3A-4: Seedling

2. **Literal** What parts of a plant does a seedling have? (A seedling has roots, a stem, and leaves.)

◦ **Literal** What is a seedling? (A seedling is a young plant.)

3. **Inferential** Explain the life cycle of a plant. (First, the seed germinates and sprouts into a seedling. Next, the seedling continues to grow until it is an adult plant. Then, the adult plant will make more seeds from which new plants will grow. Finally, the plant will decay and turn into nutrients in the soil.)

4. **Evaluative** Think Pair Share: Compare the life cycle of a plant to the life cycle of a human. How are they similar? How are they different? (Answers may vary, but may include that both plants and humans start off small and grow to be big; plants grow from seeds, whereas humans do not grow from seeds.)

### WORD WORK: MATURE (5 MIN)

1. In the read-aloud you heard, "Oak trees take a long time to mature. In fact, it takes about fifty years for the average oak tree to mature so that it can produce acorns."

2. Say the word *mature* with me.

3. *Mature* means to grow into an adult or full-grown animal or plant.

4. I can see beans on my bean plant, so it has started to mature.

5. Tell about plants or animals that mature. Try to use the word *mature* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase students' responses: "A baby \_\_\_\_\_ matures into an adult \_\_\_\_\_."]

6. What's the word we've been talking about?

**Use a Making Choices activity for follow-up.** I am going to list some things. If any of the things I say mature, give me a thumbs up. If they do not mature, give me a thumbs down.

- a kitten (*thumbs up*)
- a seed (*thumbs up*)
- a hat (*thumbs down*)
- a baby turtle (*thumbs up*)
- a table (*thumbs down*)

## Lesson 3: The Life Cycle of a Plant

# Application



**Reading:** Using illustrations, students will explain the life cycle of a plant.


 **TEKS K.6.D; TEKS K.6.E; TEKS K.8.D.ii**

### VOCABULARY INSTRUCTIONAL ACTIVITY (5 MIN)

#### Cycle

- Remind students that in the read-aloud they heard, “Like all living things, plants live according to a life cycle. A life cycle includes the stages and changes that happen in living things.”
- Have students say the word *cycle* aloud with you.
- Explain that a cycle is a repeated series of events, or things that happen over and over again in a particular order.
- Provide the following example sentence:
  - The life cycle of a chicken begins when it is an egg.
- Ask students what other living things have life cycles they can describe. Call on two or three students, reminding them to use the word *cycle* when they tell about it. If necessary, guide and/or rephrase students’ responses: “The life cycle of a \_\_\_\_\_ begins when . . .”]

### DRAWING ACTIVITY (15 MIN)

- Give each student a piece of paper that has been folded into three sections.
- Show Image 3A-11. Tell students that, before they begin to draw, they can look  at the graphics to help them in drawing a life cycle. **TEKS K.8.D.ii**



#### Check for Understanding

**Turn and Talk:** What does a life cycle include? (*A life cycle includes the stages and changes that happen in living things.*)

 **TEKS K.6.D** Retell texts in ways that maintain meaning; **TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing; **TEKS K.8.D.ii** Recognize characteristics and structures of informational text, including: titles and simple graphics to gain information.

## Support

Students may complete this activity in pairs for additional support and discussion.

**ENGLISH  
LANGUAGE  
LEARNERS**



## Writing

### Writing

#### Beginning

Have students use phrases and familiar vocabulary to describe their drawing.

#### Intermediate

Have students describe their drawing using short sentence(s).

#### Advanced/Advanced High

Have students describe their drawing using longer, more detailed sentence(s).

**ELPS 5.B; ELPS 5.G**

- Have students draw the life cycle of a plant.
- Explain that in the first panel, they should illustrate the first phase of a plant's life cycle. In the second panel, they should illustrate what happens when a plant matures. In the last panel, students should illustrate the end of a plant's life cycle.

Circulate around the room, discussing students' drawings and the different phases of the life cycle.

End of Lesson

## PLANTS

# The Gigantic Turnip

## PRIMARY FOCUS OF LESSON

### Speaking and Listening

Students will describe and discuss gardens.

 **TEKS K.1.A**

### Reading

Students will describe the life cycle of a make-believe turnip.

 **TEKS K.5.F; TEKS K.7.C**

### Language

Students will demonstrate an understanding of the Tier 2 word *gigantic*.

 **TEKS K.6.F**

### Reading

Students will sequence the life cycle of a turnip.


 **TEKS K.6.E; TEKS K.8.D.iii**

## FORMATIVE ASSESSMENT

### Activity Page 4.1

**A Turnip's Life Cycle** Students will sequence images illustrating the life cycle of a turnip and will orally describe the life cycle.

 **TEKS K.6.E; TEKS K.8.D.iii**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.5.F** Make inferences and use evidence to support understanding with adult assistance; **TEKS K.7.C** Identify the elements of plot development including the main events, the problem, and the resolution for texts read aloud with adult assistance; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing; **TEKS K.8.D.iii** Recognize characteristics and structures of informational text, including the steps in a sequence with adult assistance.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
Essential Background Information or Terms	Whole Group	10 min	<input type="checkbox"/> turnip (optional)
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	
“The Gigantic Turnip”			
Comprehension Questions			
Word Work: <i>Gigantic</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
A Turnip’s Life Cycle	Independent	20 min	<input type="checkbox"/> Activity Page 4.1 <input type="checkbox"/> scissors <input type="checkbox"/> glue <input type="checkbox"/> paper

## ADVANCE PREPARATION

### Introducing the Read-Aloud

- If possible, bring in a turnip to show students.

**Note:** Be sure to check your school’s policy regarding food distribution and allergies

## CORE VOCABULARY

**budge, v.** to move a little

Example: Tisha and I tried very hard to push the big rock out of the way, but it would not budge.

Variation(s): budges, budged, budging

**gigantic, adj.** very large

Example: By studying the bones of dinosaurs, scientists know that some were small and others were gigantic.

Variation(s): none

**stew, n.** a soup, usually with meat and vegetables, cooked a long time

Example: I am helping my mom cut vegetables for the beef stew she is making for dinner.

Variation(s): stews

**Vocabulary Chart for “The Gigantic Turnip”**

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary		budge gigantic stew	
Multiple Meaning			
Sayings and Phrases	took hold of a little bit of help can make a big difference		



## Lesson 4: The Gigantic Turnip

# Introducing the Read-Aloud



**Speaking and Listening:** Students will describe and discuss gardens.



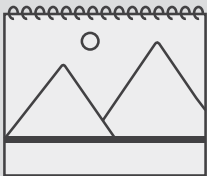
**TEKS K.1.A**

## ESSENTIAL BACKGROUND INFORMATION OR TERMS

### Show image 4A-1: Turnip

- Tell students they are about to hear a story called “The Gigantic Turnip.”
- Explain that a turnip is a plant that some people grow in their gardens, and show students a real turnip.
- Ask students what they already know about gardens.
  - What’s a garden? (*A garden is a place where a person grows plants, specifically vegetables.*)
  - What are some other plants that people grow in gardens? (*Answers may vary, but may include corn, squash, tomatoes, and pumpkins.*)
  - Why might people plant gardens? (*People might plant gardens so they can eat the vegetables they grow instead of buying them from a store.*)
- Explain that one reason people have gardens is to grow food, such as turnips, to eat.
- Tell students that some people like to eat the turnip leaves, or greens, that grow above ground.
- Tell students that another part of the turnip people like to eat grows underground and is actually the root of the plant.
- Explain that when a farmer wants to harvest a turnip, he has to dig it up or pull the root out of the ground.

Flip Book 4A-1



**TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses.

## Lesson 4: The Gigantic Turnip

# Read-Aloud



**Reading:** Students will describe the life cycle of a make-believe turnip.

**TEKS K.5.F; TEKS K.7.C**

**Language:** Students will demonstrate an understanding of the Tier 2 word *gigantic*.

**TEKS K.6.F**

### PURPOSE FOR LISTENING

- Tell students to listen carefully to find out about the life cycle of a very special turnip.

### “THE GIGANTIC TURNIP” (15 MIN)

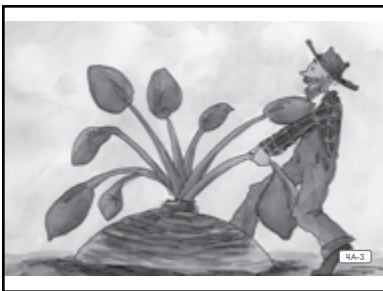


#### Show image 4A-2: Farmer planting a turnip seed

Once upon a time there was an old man who planted vegetable seeds every year, to grow vegetables for himself and his wife. One spring day, he planted turnip seeds in a field just over the hill from his house. He let the sun shine on them and the rain water them, and when he

thought they should be ready to eat, he went to have a look. As he came up over the hill, to his surprise he saw a strange bush growing in the middle of the field. When he drew nearer, he saw that it was not a bush, but the top of a **gigantic** turnip! *Gigantic means very large. What part of the turnip plant was the farmer looking at?*

“I’ve never seen a turnip as big as this one!” he said to himself. “I must show it to my wife.”



#### Show image 4A-3: Farmer pulling turnip

*[Point to the top of the turnip.]*

So he took hold of the turnip top, and with a great grunt, he pulled and pulled and pulled, but the turnip would not **budge**. *When something will not budge, that means it will not*

**TEKS K.5.F** Make inferences and use evidence to support understanding with adult assistance; **TEKS K.7.C** Identify the elements of plot development including the main events, the problem, and the resolution for texts read aloud with adult assistance; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.

**move.** So the old man shouted for his wife to come and help. "All right," said the old woman. "I'm coming."



**Show image 4A-4: Farmer and wife pulling turnip**

The old woman took hold of the old man, the old man took hold of the turnip, and they pulled and pulled. But they couldn't pull the turnip out of the ground. So the old woman called to their granddaughter.

"All right," said the granddaughter. "I'm coming."

The granddaughter took hold of the old woman, the old woman took hold of the old man, the old man took hold of the turnip, and they pulled and pulled, but they couldn't pull the turnip out. So the granddaughter called the grandson over.

"All right," said the grandson. "I'm coming."



**Show image 4A-5: Farmer, wife, granddaughter, and grandson pulling turnip**

The grandson took hold of the granddaughter, the granddaughter took hold of the old woman, the old woman took hold of the old man, the old man took hold of the turnip, and they pulled and pulled, but they couldn't pull the turnip out. So the grandson called the dog

over. *Why do you think the grandson called the dog over?*

The dog barked four times. If it could have spoken, it would have said, "All right. I'm coming."

The dog took hold of the grandson, the grandson took hold of the granddaughter, the granddaughter took hold of the old woman, the old woman took hold of the old man, the old man took hold of the turnip, and they pulled and pulled, but they couldn't pull the turnip out.

So the dog called the cat over.



**Show image 4A-6: Farmer, wife, granddaughter, grandson, dog, and cat pulling turnip**

The cat meowed loudly. If it could have spoken, it would have said, “All right. I’m coming.”

The cat took hold of the dog, the dog took hold of the grandson, the grandson took hold of the granddaughter, the granddaughter took hold of the old woman, the old woman took hold of the old man, the old man took hold of the turnip, and they pulled and pulled, but they couldn’t pull the turnip out. So the cat called the mouse over.

The mouse squeaked. If it could have spoken, it would have said, “All right. I’m coming.”

The mouse took hold of the cat, the cat took hold of the dog, the dog took hold of the grandson, the grandson took hold of the granddaughter, the granddaughter took hold of the old woman, the old woman took hold of the old man, the old man took hold of the turnip, and they pulled and pulled.



**Show image 4A-7: Whole group tumbling to the ground**

Finally, the turnip popped out, sending everybody tumbling along the ground.

That evening, the old woman peeled the turnip, sliced it up, and cooked a delicious turnip **stew**. *A stew is a type of soup.*



**Show image 4A-8: Turnip stew**

She invited the grandson, the granddaughter, the dog, the cat, and the mouse to eat the stew with them. She gave the mouse an extra helping, because he had shown that sometimes a little bit of help can make a big difference.

**Challenge**

Ask students what “a little bit of help can make a big difference” means.

## Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.

ENGLISH  
LANGUAGE  
LEARNERS



## Speaking and Listening

### Offering Opinions

#### Beginning

Provide students sentence frames using a small set of learned phrases (e.g., "I think this story is . . .").

#### Intermediate

Provide students sentence frames using an expanded set of learned phrases (e.g., "I think this story is fiction because . . .").

#### Advanced/Advanced High

Provide minimal support and guidance for open responses.

**ELPS 1.E; ELPS 3.G**



## Check for Understanding

**Recall:** What is the life cycle of the turnip in this story? (*The old man plants the turnip, it grows to be gigantic, it gets pulled out of the ground, and then it gets used to make turnip stew.*)

## COMPREHENSION QUESTIONS (10 MIN)

- 1. Literal** Who are the characters in this story? (*The characters in this story are the old man, the old woman, the granddaughter, the grandson, the dog, the cat, and the mouse.*)
- 2. Inferential** Why does the old man want to plant a turnip? (*The old man wants to plant a turnip so he and his wife can eat it.*)
  - **Literal** What does the old man plant? (*turnip seeds*)
  - **Literal** What grows out of the turnip seed? (*a turnip*)
- 3. Inferential** Why does the mouse get an extra serving of turnip stew? (*It was with his help that they were finally able to pull the turnip out of the ground. "A little help can make a big difference."*)
- 4. Evaluative** *Think Pair Share:* Why do you think the turnip plant grows to be gigantic in the story? Do you think this story is fiction, or make-believe, or do you think it could really happen? Why or why not? (*Answers may vary, but may include that the turnip grows that large because it gets lots of water and plenty of light; the story is make-believe because turnips do not grow that large in real life.*)

## WORD WORK: GIGANTIC (5 MIN)

1. In the read-aloud you heard, “When [the farmer] drew nearer, he saw that it was not a bush, but the top of a gigantic turnip!”
2. Say the word *gigantic* with me.
3. When someone says something is gigantic, it means that is very large.
4. That house is gigantic—it has twenty bedrooms!
5. Tell about something you have seen that is gigantic. Try to use the word *gigantic* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “I saw a gigantic \_\_\_\_.”]
6. What’s the word we’ve been talking about?

**Use a Making Choices activity for follow-up.** I am going to name some things. If the thing I name is gigantic, say, “That is gigantic!” If the thing I name is not gigantic, say, “That is not gigantic.” Remember to answer in complete sentences.

- a mouse the size of a shoebox (*A mouse the size of a shoebox is gigantic!*)
- a person the size of your hand (*A person the size of your hand is not gigantic.*)
- a pizza as big as a truck (*A pizza as big as a truck is gigantic!*)
- a book the size of a door (*A book the size of a door is gigantic!*)
- a tree the size of your thumb (*A tree the size of your thumb is not gigantic.*)

## Lesson 4: The Gigantic Turnip

# Application



**Reading:** Students will sequence the life cycle of a turnip.

**TEKS K.6.E; TEKS K.8.D.iii**

### Activity Page 4.1



ENGLISH  
LANGUAGE  
LEARNERS



### Writing

#### Writing

#### Beginning

Ask students to point to the different pictures as you name them (e.g., “Point to the picture that shows the beginning of the turnip’s life cycle.”).

#### Intermediate

Provide students with a specific sentence frame (e.g., “The beginning of the turnip’s life cycle is . . .”).

#### Advanced/Advanced High

Encourage students to dictate or write a complete sentence using vocabulary words related to the life cycle of a turnip.

**ELPS 4.G; ELPS 5.B;**

**ELPS 5.F**

### A TURNIP’S LIFE CYCLE

**TEKS K.8.D.iii**

- Have students turn to Activity Page 4.1.
- Explain that each illustration shows a turnip at a different stage in its life cycle.
- Remind students that a life cycle includes the stages and changes that happen in living things. A plant’s life cycle often begins with a seed, which then grows into a plant, and later dies at the end of its life cycle.
- Have students color the four images.
- Next, have them cut out each of the images of the turnip and put them in the correct order of the life cycle of the turnip.
- Circulate around the room, discussing the pictures with students and ensuring they sequence them in the correct order.
- Students should then glue the pictures in the correct sequence onto a separate sheet of paper.
- As time allows, have two or three students present their sequenced pictures to the class, describing the life cycle of a turnip plant.

End of Lesson

**TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing; **TEKS K.8.D.iii** Recognize characteristics and structures of informational text, including the steps in a sequence with adult assistance.

# Pausing Point

## NOTE TO TEACHER

You should pause here and spend two days reviewing, reinforcing, or extending the material taught so far.

You may have students do any combination of the activities listed below, but it is highly recommended that you use the Mid-Domain Assessment to assess students' knowledge of plants, their parts, and their life cycles. The other activities may be done in any order. You may also choose to do an activity with the whole class or with a small group of students who would benefit from the particular activity.

## CORE CONTENT OBJECTIVES UP TO THIS PAUSING POINT

Students will:

- Explain that different kinds of plants grow in different environments
- Identify plants as living things
- Describe what plants need to live and grow: food, water, air, and light
- Identify the root, stem, leaf, flower, and seed of a plant
- Explain basic facts about the root, stem, leaf, and seed of a plant
- Explain the basic life cycle of plants

## MID-DOMAIN ASSESSMENT

### Plant Parts (Activity Page PP.1)

- Using Activity Page PP.1, have students add to the drawing of the plant stem. Check to ensure they include roots, leaves, and flowers. Walk around and talk with students about each plant part as they complete the worksheet.

Activity Page PP.1





## ACTIVITIES

### Image Review

- Show the images from any read-aloud again and have students retell the read-aloud using the images.

### Image Card Review

#### Materials: Image Cards 15–19

- In your hand, hold Image Cards 15–19 fanned out like a deck of cards. Ask a student to choose a card but not show it to anyone else in the class. The student must then perform an action or give a clue about the picture s/he is holding. For example, for the image of seeds, a student may give the clue, “These are what plants grow from.” The rest of the class will guess what is being described. Proceed to another card when the correct answer has been given.

### Plant Parts Review

#### Materials: Various plants; drawing paper, drawing tools

- Bring in different plants and ask students to identify the parts. After talking about plants, have students design and illustrate their own plant on a piece of paper, instructing them to include all parts of a plant (root, stem, leaf, etc.). Instruct students to share their drawings and identify the parts of their plant while sharing. Their classmates may also want to guess where the parts of that particular plant are located on the drawing.

### Challenge: Humans vs. Plants

- Compare and contrast human beings and plants. What do we need to keep our bodies healthy that plants also need to stay healthy? Record student answers on a Venn diagram.

### “See-Through” Planter

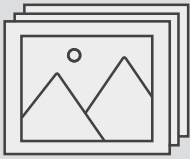
- Using a sealed package of bean seeds and paper towels, create a “see-through” planter. Wet the paper towels and “plant” beans in them. Place the paper towels and bean seeds in sealed, clear, plastic bags. Observe the roots as they form during the next few days.

### Class Book: Plants

#### Materials: Drawing paper, drawing tools

- Tell the class or a group of students that they are going to make a class book to help them remember what they have learned thus far in this domain. Have students brainstorm important information about plants, plant parts, and the life cycle of plants. Have each student choose one idea to draw a picture of and then have him or her write a caption for the picture. Bind the pages to

## Image Cards 15–19



make a book to put in the class library for students to read again and again. You may choose to add more pages upon completion of the entire domain before binding the book.

### **Domain-Related Trade Book or Student Choice**

#### **Materials: Trade book**

- Read an additional trade book to review a particular concept. You may also choose to have students select a read-aloud to be heard again.

### **Nature Walk**

**Note:** This activity requires additional adult support. If you are not able to take your students outside, you may wish to bring some different plants into the classroom for students to observe.

- Go on a nature walk to observe plants. Divide the class into three groups. The first group should take note of the specific places plants live. The second group should take note of the different sizes of the plants. (You may wish to give these students a nonstandard unit of measurement to help them differentiate among the sizes of the plants.) The third group should take note of the different colors of the plants.
- Back in the classroom, record students' observations on a chart with three columns, one for each group (places, sizes, colors).
- Explain to students that you are going to write down what they say, but they are not expected to be able to read what you write because they are still learning all the rules for decoding. Emphasize that you are writing what they say so you don't forget, and also tell them you will read the words to them.

### **Plant Dramatization**

- Have students crouch down and pretend they are a seed. Have students use their bodies to stretch upward and "grow" into a plant. Make sure students talk about what they are doing as they are doing it. Encourage students to use key words like seed, seedling, roots, flowers, leaves, and stems. Ensure that as students become full-grown plants, they use their body parts to identify each part of the plant.

## Plant Experiment

**Materials:** Four packets of seeds; four containers; soil; water; sunlight

- Plant seeds in four different containers. With the first group of seeds, provide no water or sun. With the second group of seeds, provide water but no sunlight. With the third group of seeds, provide sunlight, but no water. With the fourth group of seeds, provide water and sun. Be sure to explain to students what you are doing.
- Have students make predictions about which of the seeds will sprout and grow the best. Observe each of the containers every couple of days. Discuss with your class the changes that have occurred, if any. After a week or two, revisit the predictions and discuss with students whether their predictions were correct, and why or why not.

**Note:** If students completed this experiment at home with their families, ask them to share the results.

## PLANTS

# Polly the Honeybee's Flower Tour

## PRIMARY FOCUS OF LESSON

### Speaking and Listening

Students will recall facts about different plant parts.

 **TEKS K.1.A**

### Reading

Students will listen carefully for words that the author uses to help readers visualize scenes from the story and then will describe the basic process of pollination.

 **TEKS K.5.A; TEKS K.5.D; TEKS K.6.D; TEKS K.9.D**

### Language

Students will demonstrate an understanding of the Tier 3 word *pollination*.

 **TEKS K.6.F**

### Reading

Students will work together, taking turns to act out the basic process of pollination.


 **TEKS K.1.D; TEKS K.5.G**

## FORMATIVE ASSESSMENT

### Exit Pass

**Oral** Students will provide one fact they learned about the process of pollination.

 **TEKS K.5.G**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.D** Create mental images to deepen understanding with adult assistance; **TEKS K.6.D** Retell texts in ways that maintain meaning; **TEKS K.9.D** Discuss with adult assistance how the author uses words that help the reader visualize; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.1.D** Work collaboratively with others by following agreed-upon rules for discussion, including taking turns; **TEKS K.5.G** Evaluate details to determine what is most important with adult assistance.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
What Have We Already Learned?	Whole Group	10 min	<input type="checkbox"/> different types of flowers (optional) <input type="checkbox"/> picture of a honeybee
Essential Background Information or Terms			
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	<input type="checkbox"/> Image Card 1
“Polly the Honeybee’s Flower Tour”			
Comprehension Questions			
Word Work: <i>Pollination</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Pollination Simulation	Independent	20 min	<input type="checkbox"/> scraps of paper <input type="checkbox"/> cotton balls

## ADVANCE PREPARATION

### Introducing the Read-Aloud

- Bring in different types of flowers to show students.
- Bring in a picture of a honeybee to show students.

### Application

- Assign roles to students for the pollination simulation, with some students playing the roles of flowers and some playing the roles of bees.
- Bring in scraps of paper, cotton balls, or other appropriate props for students to use to represent pollen.

## Universal Access

- Find a brief, student-appropriate video that demonstrates the process of pollination to support today’s lesson.

### CORE VOCABULARY

**honey, n.** a sweet, sticky food made by bees from the nectar of flowers

Example: Elana often puts honey in her tea to make it taste sweeter.

Variation(s): none

**nectar, n.** a sweet liquid found in flowers that bees and some birds collect

Example: The bee collected the nectar from the lilac flower.

Variation(s): nectars

**petals, n.** the colored, outer parts of a flower

Example: Some roses have red petals.

Variation(s): petal

**pollen, n.** a fine, yellowish powder found in the center of flowers

Example: Bees keep pollen in special pouches on their legs.

Variation(s): none

**pollination, n.** when pollen from one flower lands on another flower and the second flower makes seeds

Example: Bees help with pollination by carrying pollen from one flower to another.

Variation(s): none

**Vocabulary Chart for “Polly the Honeybee’s Flower Tour”**

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	honey nectar ( <i>néctar</i> ) petals pollen pollination		
Multiple Meaning			
Sayings and Phrases	the most important		

## Lesson 5: Polly the Honeybee's Flower Tour



# Introducing the Read-Aloud

**Speaking and Listening:** Students will recall facts about different plant parts.

**TEKS K.1.A**

## WHAT HAVE WE ALREADY LEARNED? (5 MIN)

- Remind students that plants have many different parts.
- Ask students to name some of the important parts of a plant. (*roots, stems, branches, leaves, flowers, and seeds*)

## ESSENTIAL BACKGROUND INFORMATION OR TERMS (5 MIN)

- Explain that today, students are going to learn more about flowers.
- If possible, show students examples of different kinds of flowers, and help them name each kind.
- Tell students that many animals like flowers, just like people do.
- Tell students that they will get a chance to listen to a special guest, Polly the Honeybee. Polly loves flowers!
- Show students a picture of a real honeybee.



### Check for Understanding

**Recall:** What are flowers? (*a part of a plant*)

**TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses.

## Lesson 5: Polly the Honeybee's Flower Tour

# Read-Aloud



**Reading:** Students will listen carefully for words that the author uses to help readers visualize scenes from the story and then will describe the basic process of pollination.

**TEKS K.5.A; TEKS K.5.D; TEKS K.6.D; TEKS K.9.D**

**Language:** Students will demonstrate an understanding of the Tier 3 word *pollination*.

**TEKS K.6.F**

### PURPOSE FOR LISTENING

- Tell students to listen carefully to learn about how Polly and her honeybee friends help flowers.
- Tell students that the author uses particular words to help the reader see, or visualize, pictures in his or her mind. **TEKS K.5.D; TEKS K.9.D**

### “POLLY THE HONEYBEE’S FLOWER TOUR” (15 MIN)



#### Show image 5A-1: Polly in meadow

Hello, my name is Polly and I'm a honeybee. I live in a beehive in a meadow not too far from here. A meadow is a flat area of land that is usually covered with grass and flowers. Your teacher asked me to come here today to tell you more about flowers, my favorite part of plants. As you have learned, flowers contain seeds and seeds can grow into new plants.

I am delighted to come and tell you about flowers, because flowers are one of my favorite things in the whole world. The meadow near my beehive is full of all different kinds of flowers that come in many different colors.



#### Show image 5A-2: Polly and yellow flower

Earlier today, I visited a particularly delicious yellow flower. Come along, and I'll show it to you. Why might Polly describe a flower as delicious?

**TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.D** Create mental images to deepen understanding with adult assistance; **TEKS K.6.D** Retell texts in ways that maintain meaning; **TEKS K.9.D** Discuss with adult assistance how the author uses words that help the reader visualize; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.



Here's the flower I was telling you about. Do you see this ring of bright yellow parts around the flower? Those are called **petals**. [Point to the petals in the picture.] The petals look like brightly colored leaves. The petals are the parts of the flower that grab my attention when I am out buzzing around. Once I see a pretty flower, my favorite thing to do is crawl inside the petals, into the center of the flower.



### Show image 5A-3: Polly and interior of flower

What's it like to crawl inside a flower like this? [Have students close their eyes and imagine what is described.] Imagine for a minute that you are crawling under the bright yellow blankets of a very comfortable bed. Bright yellow is all around you. Now imagine that you stay under the blankets drinking the

world's tastiest drink through a straw. You are so happy that you wriggle around and get covered with a yellow powder that smells great and feels good against your skin. That's what it's like for me when I visit a flower. How

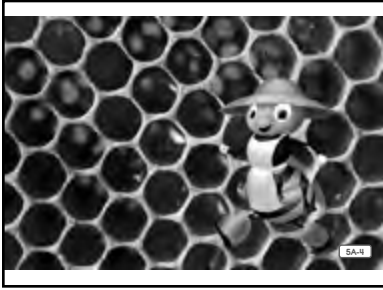
✿ does Polly feel when she visits a flower? **TEKS K.5.D; TEKS K.9.D**

As far as I'm concerned, the world's tastiest drink is called **nectar**, which is a sweet juice that plants make, and the yellow powder that I like to rub up against is called **pollen**. [Have students repeat the words nectar and pollen after you.] I find both nectar and pollen inside flowers, and, frankly, I'm not sure which one I like better!

I visit more than fifty flowers in one outing—sometimes as many as a hundred. I visit these flowers because we bees get our food from flowers. My job is to fly around and find nectar and pollen, which I gather up and take back to my hive. I have a special pouch inside my body that holds nectar, and there are special hairs on my back legs that form a little basket that I brush pollen into. When it's time to go back to my hive, sometimes my load of pollen and nectar weighs half as much as I do! Do you think it is easy or difficult for a bee to take nectar and pollen to its hive? Why? [Pause for students' responses.]

When I get back to the hive, I turn the nectar and pollen over to the worker bees in the hive. They mix the pollen with a little bit of nectar and feed it to the baby bees. Then they fan the rest of the nectar with their wings until most of the water is gone. Nectar with most of the water gone turns into something that both bees and people love.

✿ **TEKS K.5.D** Create mental images to deepen understanding with adult assistance; **TEKS K.9.D** Discuss with adult assistance how the author uses words that help the reader visualize.



**Show image 5A-4: Polly with honey in hive**

Nectar with most of the water removed is called **honey**. Here's the honey in my hive. People use honey to sweeten their food, but we bees use honey for food. We keep it in a bunch of little cubbies that we call the honeycomb.



**Show image 5A-5: Polly and cornfield**

I visit flowers to get food, and that's reason enough for me. But it turns out that I am also doing something else besides finding food for myself and the other bees. I am helping the plants reproduce, or make more plants! In order to make a seed that can develop into a new plant, most plants need to mix pollen

from their own flowers with pollen from other plants that are like them. For example, a corn plant needs pollen from another corn plant to allow it to make seeds. When pollen from one corn plant lands on another corn plant, something called **pollination** takes place. *Pollination is when pollen from one flower mixes with the pollen of another flower so the plant can make seeds.* Pollination is really important because, if it doesn't happen, the plant won't be able to make any seeds. If there are no seeds, then there will be no new plants.



**Show image 5A-6: Polly and pollen**

How do plants get pollen from other plants? Plants can't walk around like human beings. And they can't flap their wings and fly like us bees, either. Luckily, the pollen grains themselves are very small. They can be blown from one plant to another by the wind. *[Imitate the wind for your students by blowing*

*something small and light off of a desk.]* So the wind helps pollinate plants so they can make new plants.

But bees, like me, also help pollinate plants! How do my trips from one plant to another help pollinate plants? When I visit a flower and roll around inside, I pick up a lot of pollen. When I fly on to the next flower, I carry some pollen from other flowers with me, and some of it rubs off on the next flower I visit.

**Support**

Remind students that pollen is the yellow powder bees find inside flowers.

## Challenge

Ask students which they think pollinates more plants—the wind or bees.

## Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.

ENGLISH  
LANGUAGE  
LEARNERS



## Speaking and Listening

### Offering Opinions

#### Beginning

Provide students sentence frames using a small set of learned phrases (e.g., “I think pollination is important because . . .”).

#### Intermediate

Provide students sentence frames using an expanded set of learned phrases (e.g., “I think pollination is important because if it did not occur . . .”).

#### Advanced/Advanced High

Provide minimal support and guidance for open responses.

ELPS 2.G; ELPS 2.I;

ELPS 3.G

That’s why I am an excellent pollinator of plants, and that is why they call me Polly the Pollinator!

I don’t like to brag, but we bees are the most important pollinators in the world! Oh, sure, the wind helps pollinate, and some other insects also carry grains of pollen from one plant to another as they feed. Butterflies do it. So do moths, beetles, and wasps. Some birds, like hummingbirds, are also good pollinators. Bats are good pollinators, too! But no other creature pollinates as many flowers as bees do.

## COMPREHENSION QUESTIONS (10 MIN)

### Show Image Card 1 (Polly and interior of flower)

- 1. Literal** Where are the petals in this picture? (*Students should identify the petals on the flower.*)
- 2. Inferential** Why do bees visit flowers? (*Bees visit flowers because they use nectar and pollen from flowers for food.*)
  - **Literal** What is nectar? (*Nectar is the sweet juice made by plants.*)
  - **Literal** What is pollen? (*Pollen is the yellow powder made by plants.*)
- 3. Inferential** How do bees help a plant pollinate, or mix its pollen with the pollen of another plant? (*When bees visit another plant, some of the pollen bees carry from the first plant rubs off onto the second plant.*)
- 4. Evaluative** Why is pollination important? What would happen if pollination did not occur? (*Pollination is important because plants need pollen from other plants in order to make seeds. If there are no new seeds, then no new plants can grow.*)



### Check for Understanding

**Turn and Talk:** Explain the process of pollination. (*Pollen moves from one plant to another plant. It is carried by the wind, bees, other insects, or some types of birds.*)

---

**WORD WORK: POLLINATION (5 MIN)**

1. In the read-aloud you heard, “When pollen from one corn plant lands on another corn plant, something called pollination takes place.”
2. Say the word *pollination* with me.
3. Pollination happens when the pollen from two flowers mix and seeds are made.
4. Honeybees help a lot with the pollination of plants.
5. What other ways could pollination happen? (*Answers may include the wind, moths, beetles, wasps, butterflies, birds, and bats, among others.*) Try to use the word *pollination* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase students’ responses: “Pollination could also happen when . . .”]
6. What’s the word we’ve been talking about?

**Use a Discussion activity for follow-up.** What are the steps involved in pollination? Be sure to use *pollination*, *pollen*, *first*, and *last* in your responses.

## Challenge

Have students take turns narrating the pollination simulation individually. In the same way that some students are “bees” or “flowers,” designate one student or a pair of students to take on the role of narrator.

ENGLISH  
LANGUAGE  
LEARNERS



## Speaking and Listening

### Exchanging Information and Ideas

#### Beginning

Ask students yes/no questions about the pollination process and encourage them to ask their own questions about the pollination process.

#### Intermediate

Encourage students to build on what the previous student has said about the pollination process.

#### Advanced/Advanced High

Challenge students to say something more about what the previous student has said about the pollination process.

ELPS 1.E; ELPS 3.G

## Lesson 5: Polly the Honeybee’s Flower Tour

# Application



**Reading:** Students will work together, taking turns to act out the basic process of pollination.

TEKS K.1.D; TEKS K.5.G

### POLLINATION SIMULATION (20 MIN) TEKS K.1.D

- Split students into groups based on two roles: flowers or bees.
- Have the “flower” students stand in a circle, holding scraps of paper or cotton balls to represent pollen.
- Have the “bee” students move around the “flower” students in the circle, pretending to drink nectar and picking up a few scraps of paper or cotton balls from each.
- Then, have the “bee” students give a few scraps of paper or cotton balls to different “flower” students, simulating pollination.
- Repeat this exercise so that every student has an opportunity to play both roles.
- As students take turns completing this role-playing exercise, narrate the pollination simulation with help from students.
  - Discuss and reinforce the process of pollination, using words such as *pollen*, *nectar*, *flower*, and *pollination* in discussion.



### Exit Pass

Have students individually provide one fact they learned about the process of pollination.

End of Lesson

TEKS K.1.D Work collaboratively with others by following agreed-upon rules for discussion, including taking turns;  
TEKS K.5.G Evaluate details to determine what is most important with adult assistance.

## PLANTS

# The Fruits of Polly's Labor

## PRIMARY FOCUS OF LESSON

### Speaking and Listening

Students will review plant parts and the pollination process.

 **TEKS K.1.A**

### Reading

Students will recognize that they can gain information about a text from its title and then will explain the importance of seeds.

 **TEKS K.5.A; TEKS K.8.D.ii**

### Language

Students will demonstrate an understanding of the Tier 2 word *produce*.

 **TEKS K.6.F**

Students will demonstrate an understanding of the multiple meaning word *pit*.

 **TEKS K.6.F**

### Speaking and Listening

Students will compare and contrast seeds from various fruits.


 **TEKS K.1.A; TEKS K.5.G**

## FORMATIVE ASSESSMENT

### Exit Pass

**Oral** Students will provide a statement explaining why seeds are important.

 **TEKS K.5.G**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.8.D.ii** Recognize characteristics and structures of informational text, including: titles and simple graphics to gain information; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.5.G** Evaluate details to determine what is most important with adult assistance.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
What Have We Already Learned?	Whole Group	10 min	<input type="checkbox"/> different types of fruits (optional)
Essential Background Information or Terms			
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	<input type="checkbox"/> Image Cards 2–4
“The Fruits of Polly’s Labor”			
Comprehension Questions			
Word Work: <i>Produce</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Multiple Meaning Word Activity	Whole Group	20 min	<input type="checkbox"/> Poster 3M <input type="checkbox"/> Image Cards 5–12 <input type="checkbox"/> paper <input type="checkbox"/> drawing tools
Fruits and Seeds			
<b>Take-Home Material</b>			
Family Letter			<input type="checkbox"/> Activity Page 6.1

## ADVANCE PREPARATION

### Introducing the Read-Aloud

- Bring in different types of fruits to show students.

**Note:** Be sure to check your school’s policy regarding food distribution and allergies

**CORE VOCABULARY**

**core, n.** the center or middle part of something  
 Example: Juan ate his apple all the way to the core.  
 Variation(s): cores

**produce, v.** to make  
 Example: Apple trees produce apples.  
 Variation(s): produces, produced, producing

**scrumptious, adj.** delicious  
 Example: Dinner last night was so scrumptious that I wish we could eat it every night.  
 Variation(s): none

Vocabulary Chart for “The Fruits of Polly’s Labor”			
Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary		core ( <i>corazón</i> ) produce ( <i>producir</i> ) scrumptious	
Multiple Meaning			
Sayings and Phrases	have you ever . . . ? the other way around the fruits of ___’s labor		



## Lesson 6: The Fruits of Polly's Labor

# Introducing the Read-Aloud



**Speaking and Listening:** Students will review plant parts and the pollination process.


 **TEKS K.1.A**

## WHAT HAVE WE ALREADY LEARNED? (5 MIN)

- Remind students that plants have different parts.
- Ask students to name the important parts of plants. (*roots, stems, branches, leaves, flowers, and seeds*)
- Ask students how the pollination process helps plants make seeds. (*The pollination process is the process that allows plants to make seeds. The process is where the pollen from one flower mixes with the pollen of another flower. Without this process, a plant cannot make seeds.*)

## ESSENTIAL BACKGROUND INFORMATION OR TERMS (5 MIN)

- Explain that today, students are going to learn more about another plant part, the fruit.
- Ask students what the fruit contains. (*The fruit is the part of the plant that contains the seed.*)
- If possible, show examples of different kinds of fruit, and help students name each kind.

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses.

## Lesson 6: The Fruits of Polly's Labor

# Read-Aloud



**Reading:** Students will recognize that they can gain information about a text from its title and then will explain the importance of seeds.

 **TEKS K.5.A; TEKS K.8.D.ii**

**Language:** Students will demonstrate an understanding of the Tier 2 word *produce*.

 **TEKS K.6.F**

### PURPOSE FOR LISTENING

- Tell students that the title of today's read-aloud is "The Fruits of Polly's Labor." Tell students that a title can offer information about what the text is about. Ask students to think about this title and what it might tell them about the text. **TEKS K.8.D.ii**
- Explain to students that the fruits of someone's labor are the results of, or what happened because of, someone's hard work.
- Tell students to listen carefully to find out more about the fruits of Polly's labor and this delicious plant part.

### "THE FRUITS OF POLLY'S LABOR" (15 MIN) **TEKS K.8.D.ii**


Buzz, buzz! It's Polly the Honeybee again. Last time I told you that I visit flowers to collect nectar and pollen for food. I also told you that I help to pollinate flowers by carrying pollen from one flower to another. *What else carries pollen from one flower to another? [The wind, other insects, birds, and some animals can carry pollen from one flower to another.]* Today I want to show you some of the results of my hard work. You see, after I pollinate a flower, the plant begins to **produce** seeds. *produce means to make.* Lots of plants also produce a special part to hold the seeds called the fruit.

Come along and I will show you some different kinds of fruit I helped create.



#### Show image 6A-1: Apple tree

Here's an apple tree. Earlier this year, this tree put out blossoms, which is another word for flowers. Apple blossoms are full of delicious nectar, which makes me especially love to buzz over and roll around in those blossoms. The nectar was **scrumptious!** *Scrumptious is another word for delicious.*

 **TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.8.D.ii** Recognize characteristics and structures of informational text, including: titles and simple graphics to gain information; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.

## Support

Remind students that when pollen is carried from one flower to another, the process is called pollination.

But, look! It was good for the tree, too. Remember that when bees visit the flowers of plants, they carry pollen from one flower to another. This apple tree is now full of apples because my honeybee friends and I did such a good job pollinating the blossoms. The apples are fruit, and inside each apple are seeds that can grow into new apple trees.

The apples took weeks to grow. They were small at first, but then they got bigger and bigger. Now they are almost ripe. When the apples are ripe, they will drop off the tree so the seeds can fall to the ground and start growing into a new apple tree. Or, a person may come and pick the apple and eat it.



### Show image 6A-2: Sliced apple

This is an image of an apple that has been sliced, or cut, in half. Here's an image of an apple that has been picked off the tree and sliced open. You can see the seeds. The seeds are the dark brown things in the center part, called the **core**. Some people like to cut the seeds out of the apple before they eat it. Some

people also cut off the peel on the outside of the apple.



### Show image 6A-3: Cherry tree branch with cherries

Here's another tree I pollinated. It's called a cherry tree. Some time ago, this tree produced lovely pink blossoms, or flowers. Let me tell you—there's almost nothing more beautiful than a cherry tree in full bloom. My bee buddies and I spent a lot of time visiting this

tree when the blossoms were out, and look what's happened since then! The flowers are all gone now, but that's okay because they did what they were supposed to do. Now the tree has begun to make seeds and fruit.



### Show image 6A-4: Cherries

Have you ever bitten into a fresh cherry? If you have, your teeth have probably bumped into a cherry seed. Inside a cherry is a big, hard thing called a cherry **pit**. The word **pit** means the hard part in the middle of some fruits that

## Support

Explain that the word *pit* can have other meanings. The word *pit* also means a hole.

contains the seed. The seed of the cherry is actually inside the cherry pit. The tasty part of the cherry that people eat is the soft fruit around the pit. To people, that seems like the important part of a cherry. But, to the plant, the most important part is the seed that can grow into a new plant. *Why do you think the seed is the most important part of the plant?*



**Show image 6A-5: Strawberry plant**

Now here's a different kind of plant. This is a strawberry plant. It put out flowers a while ago, and my honey-making pals and I visited those flowers as well. *Who are Polly's honey-making pals?* Now you can see that the plant is making seeds and fruit. We must have pollinated it! The fruits on this plant are called

strawberries. You saw how the seeds of the apple and the cherry tree grow inside the fruit. With the strawberry it's the other way around. The other way around means the opposite. *What is the opposite of inside the fruit? [Outside the fruit!]*



**Show image 6A-6: Strawberry**

Look at this ripe strawberry. You can see the seeds all over the outside of the strawberry. The seeds on this strawberry are so small that people can eat them along with the fruit.



**Show image 6A-7: Watermelon**

Here's one last plant. It's a watermelon plant. This watermelon plant bloomed a few weeks ago. I visited its flowers and found the nectar to be quite delicious. I brought some back to my hive, where the worker bees made it into honey. But, look! The watermelon plant has been busy making something, too! This big

green thing is the fruit of the watermelon plant. It's called a watermelon.

**Challenge**

Why do you think Polly says that the strawberry plant is a "different kind of plant"?



### Show image 6A-8: Watermelon slice

The green part on the outside of the watermelon is called the rind. The seeds of the watermelon are on the inside of the rind, along with some red, juicy fruit that people like to eat. Here's a watermelon that's been sliced open. Can you see the black and white seeds inside? People spit out the seeds when they

are eating the red, squishy part of the watermelon.

Well, that about concludes my little tour. I'm very proud of the pollinating work I did this year, and hope you will think of me as you are munching on the fruits of my labor! *Delicious fruit is truly the result of Polly's hard work carrying pollen from flower to flower!*

### Challenge

Ask students what they think the phrase *the fruit of \_\_\_\_\_'s labor* means.



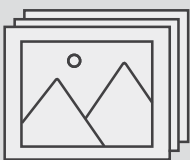
### Check for Understanding

**Recall:** What is the seed? (*The seed is the part of the plant that can grow into a new plant.*)

### Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.

### Image Cards 2–4



## COMPREHENSION QUESTIONS (10 MIN)

1. **Literal** What happens after pollination occurs? (*After pollination, a plant begins to produce seeds. Lots of plants also produce a special part to hold the seeds called fruit.*)
2. **Literal** What is the fruit? (*The special part of a plant that holds seeds is the fruit.*)

### Show Image Cards 3 (apple/apple seeds) and 4 (cherry/cherry pits)

3. **Evaluative** How are cherries and their seeds the same as or different from apples and their seeds? (*Cherry seeds are inside cherry pits, while apple seeds are in the center, or the core, of the apple. Both cherries and apples have seeds that are inside the fruit.*)

### Show Image Cards 2 (strawberry/strawberry seeds) and 3 (apple/apple seeds)

4. **Evaluative** *Think Pair Share:* How are strawberry seeds different from apple seeds? (*Strawberry seeds are smaller and lighter in color than apple seeds.*)

Strawberry seeds are on the outside of the fruit and apple seeds are on the inside of the fruit.)

### WORD WORK: PRODUCE (5 MIN)

1. In the read-aloud you heard, “You see, after I pollinate a flower, the plant begins to produce seeds.”
2. Say the word *produce* with me.
3. *Produce* means to make.
4. After several hours in the kitchen, we were able to produce a delicious pie.
5. What are other things that can be produced or that produce something? Try to use the word *produce* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase students’ responses: “\_\_\_\_\_ can produce ...”]
6. What’s the word we’ve been talking about?

**Use a Sharing activity for follow-up.** Share with the class what different plants might produce. Be sure to begin your responses with, “A \_\_\_\_\_ would produce ...”



ENGLISH  
LANGUAGE  
LEARNERS

### Speaking and Listening

#### Offering Opinions

##### **Beginning**

Provide students sentence frames using a small set of learned phrases (e.g., “I think strawberry seeds are different from apple seeds because ...”).

##### **Intermediate**

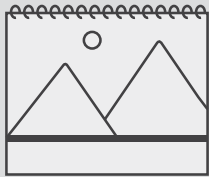
Provide students sentence frames using an expanded set of learned phrases (e.g., “Strawberry seeds are different from apple seeds because strawberry seeds are smaller in size ...”).

##### **Advanced/Advanced High**

Provide minimal support and guidance for open responses.

**ELPS 1.E; ELPS 3.G**

Flip Book Poster 3M



ENGLISH LANGUAGE LEARNERS



Speaking and Listening

Analyzing Language

Beginning

Ask questions that students can answer by pointing to the correct image on Poster 3M (e.g., "Which image shows the hard part in the middle of a fruit that contains seeds?").

Intermediate

Ask students to provide examples of items related to each meaning of *pit* (e.g., "What are examples of fruits that have pits?").

Advanced/Advanced High

Have students use each meaning correctly in context.

ELPS 1.E; ELPS 2.I;

ELPS 4.F

Lesson 6: The Fruits of Polly's Labor

# Application



**Language:** Students will demonstrate an understanding of the multiple meaning word *pit*.

TEKS K.6.F

**Speaking and Listening:** Students will compare and contrast seeds from various fruits.

TEKS K.1.A; TEKS K.5.G

## MULTIPLE MEANING WORD ACTIVITY (5 MIN)

### Definition Detective: Pit

- Remind students that in the read-aloud they heard, "Inside a cherry is a big hard thing called a cherry pit."
- Tell students to work with their neighbor to think of as many meanings for *pit* or ways you can use the word *pit*.

### Refer to Poster 3M

- Ask students which picture on the poster shows how the word *pit* is used in the lesson.
- Have students hold up one, two, or three fingers to indicate which image on the poster shows this meaning.
- Explain that *pit* can also mean other things. *Pit* can mean a hole in the ground.
- Have students hold up one, two, or three fingers to indicate which image on the poster shows this meaning. (2)
- Explain that *pit* can also mean to compete against each other, like in a race.
- Have students hold up one, two, or three fingers to indicate which image on the poster shows this meaning. (3)
- Now have students quiz their neighbors on the different meanings of *pit*. For example, a student could say, "I ate my peach all the way down to the pit." Then, the neighbor should hold up one finger to show that his/her partner meant that kind of pit.

TEKS K.6.F Respond using newly acquired vocabulary as appropriate; TEKS K.1.A Listen actively and ask questions to understand information and answer questions using multi-word responses; TEKS K.5.G Evaluate details to determine what is most important with adult assistance.

## FRUITS AND SEEDS (15 MIN)

### Show Image Cards 5–12 (various fruits and seeds)

- Using the Image Cards, ask students to match the fruits with their seeds.
- As students match the fruits with their seeds, discuss how the fruits are similar and different from one another, and how the seeds are similar and different from one another.
- Ask questions to promote discussion:
  - Does this fruit have multiple seeds or just one seed?
  - Are the seeds on the inside or the outside of the fruit?
  - Are all of the fruits the same color?
- Record students' answers on the board/chart paper.



#### Exit Pass

Have students provide a statement answering the question: Why are seeds important?

End of Lesson

# Take-Home Material

## FAMILY LETTER

- Send home Activity Page 6.1.

## Image Cards 5–12



## Activity Page 6.1





## 7

## PLANTS

## Johnny Appleseed

## PRIMARY FOCUS OF LESSON

## Speaking and Listening

Students will identify a tall tale.

 **TEKS K.1.A; TEKS K.8.A**

## Reading

Students will identify the main idea of Johnny Appleseed's story.

 **TEKS K.3.B; TEKS K.5.A; TEKS K.5.B; TEKS K.7.B; TEKS K.7.C**

## Language

Students will demonstrate an understanding of the Tier 2 word *eventually*.


 **TEKS K.6.F**

## Reading

Students will retell the story of Johnny Appleseed.

 **TEKS K.6.D**

## Language


 Students will use words that name sequence. **TEKS K.3.C**

## FORMATIVE ASSESSMENT

## Exit Pass

**Drawing** Students will draw pictures illustrating the events of Johnny Appleseed's story.

 **TEKS K.6.D**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.8.A** Demonstrate knowledge of distinguishing characteristics of well-known children's literature, such as folktales, fables, fairy tales, and nursery rhymes; **TEKS K.3.B** Use illustrations and texts the student is able to read or hear to learn or clarify word meanings; **TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.B** Generate questions about a text before, during, and after reading to deepen understanding and gain information with adult assistance; **TEKS K.7.B** Identify and describe the main character(s); **TEKS K.7.C** Identify the elements of plot development including the main events, the problem, and the resolution for texts read aloud with adult assistance; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.6.D** Retell texts in ways that maintain meaning; **TEKS K.3.C** Identify and use words that name actions; directions; positions; sequences; categories such as colors, shapes, and textures; and locations.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
What Have We Already Learned?	Whole Group	10 min	
Essential Background Information or Terms			
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	<input type="checkbox"/> U.S. map (optional)
“Johnny Appleseed”			
Comprehension Questions			
Word Work: <i>Eventually</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Image Review	Whole Group	20 min	<input type="checkbox"/> paper folded into four sections <input type="checkbox"/> drawing tools

## ADVANCE PREPARATION

### Read-Aloud

- You may want to prepare a U.S. map to trace Johnny Appleseed’s path for students.

### Application

- Fold students’ paper so they have four sections in which to draw different pictures.

## CORE VOCABULARY

**eventually, adv.** at some later time; in the end

Example: After weeks of practice, the boy eventually mastered his piano piece.

Variation(s): none

**hero, n.** a very brave person

Example: The fireman who saved the cat stuck in the tree was a hero.

Variation(s): heroes

**orchards, n.** areas of land where fruit trees are grown

Example: They were picking apples in the orchards.

Variation(s): orchard

Vocabulary Chart for “Johnny Appleseed”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	orchards	eventually ( <i>eventualmente</i> ) hero ( <i>héroe</i> )	
Multiple Meaning			
Sayings and Phrases	across the country grew up walked around barefoot prosperous future cared about		

## Lesson 7: Johnny Appleseed

# Introducing the Read-Aloud



**Speaking and Listening:** Students will identify a tall tale.

**TEKS K.1.A; TEKS K.8.A**

## WHAT HAVE WE ALREADY LEARNED? (5 MIN)

- Discuss with students what they remember about seeds, blossoms or flowers, and fruits. You may wish to prompt them with the following questions:
  - The life cycle of a plant begins with what part of the plant? (*seed*)
  - What is another word for blossom? (*flower*)
  - What do we call the special plant part that holds seeds? (*the fruit*)
  - What are some of the fruits that Polly talked about? (*apples, cherries, strawberries, and watermelons*)

## ESSENTIAL BACKGROUND INFORMATION OR TERMS (5 MIN)

- Tell students they are about to hear a tall tale about a famous man named Johnny Appleseed, who lived long ago.
- Explain that a tall tale is a story that stretches the truth.
- Ask students if they can guess, from his name, what Johnny Appleseed's favorite fruit was.

## Support

Explain that if something “stretches the truth,” then it is not completely true, but it’s also not completely fiction. It exaggerates real events.



### Check for Understanding

**Recall:** What is a humorous story that stretches the truth called? (*a tall tale*)

**TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses;  
**TEKS K.8.A** Demonstrate knowledge of distinguishing characteristics of well-known children’s literature, such as folktales, fables, fairy tales, and nursery rhymes.

## Lesson 7: Johnny Appleseed

# Read-Aloud



**Reading:** Students will identify the main idea of Johnny Appleseed's story.

**TEKS K.3.B; TEKS K.5.A; TEKS K.5.B; TEKS K.7.B; TEKS K.7.C**

**Language:** Students will demonstrate an understanding of the Tier 2 word *eventually*.

**TEKS K.6.F**

### PURPOSE FOR LISTENING

- Tell students to listen carefully to find out why Johnny Appleseed is important.
- Ask students if, before they start to read, they have any questions about Johnny Appleseed. Tell them that they may find answers to those questions in the reading, and they may have more questions after they finish reading. Remind students that asking questions and finding answers helps readers understand what they read. **TEKS K.5.B**

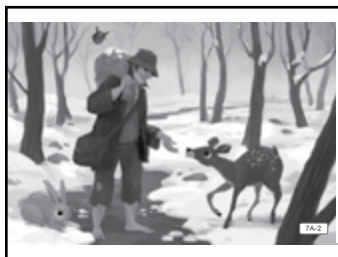
### “JOHNNY APPLESEED” (15 MIN)



#### Show image 7A-1: Johnny Appleseed

A long time ago in the rolling hills, there lived a man called Johnny Appleseed. Johnny Appleseed did not have a home, but instead wandered across the country from Massachusetts to Pennsylvania to Ohio to Indiana to Illinois. *Wander means to travel from place to place without knowing exactly where you are going next.* Johnny wasn't born with

the name Johnny Appleseed, but he got that name as he moved from one small town to the next. Listen to hear how Johnny got that name and why he became a **hero** to many people. *A hero is a very brave person.*



#### Show image 7A-2: Johnny Appleseed in the woods

Johnny was born in Massachusetts with the name John Chapman. When Johnny grew up, he decided to travel across the country. People could tell from Johnny's clothing that he was really very poor. His clothes were shabby, and he walked around

### Support

Have students trace on a map the path Johnny Appleseed wandered.

**TEKS K.3.B** Use illustrations and texts the student is able to read or hear to learn or clarify word meanings; **TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.B** Generate questions about a text before, during, and after reading to deepen understanding and gain information with adult assistance; **TEKS K.7.B** Identify and describe the main character(s); **TEKS K.7.C** Identify the elements of plot development including the main events, the problem, and the resolution for texts read aloud with adult assistance; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.

barefoot—even in the winter. *When something is shabby, it is very old and torn.* To walk around barefoot *means to walk around wearing nothing on your feet.* His hat was so threadbare that you could see his hair beneath it. But despite his loneliness and poverty, Johnny had a brave heart. *Even though Johnny was usually alone and very poor, he was happy and brave.* He believed in the power of love. He loved all the people and all the animals he met along the way. In fact, Johnny often thought to himself that he loved all the people and all the animals in the world even though he had never met them.



**Show image 7A-3: Johnny Appleseed playing violin**

The people Johnny met along the way enjoyed his company. They would often invite him to share in a simple meal. Johnny would accept the invitation with a smile. After the meal he would take out the one possession he owned that was worth anything—his violin. *[Point to the violin in the image.]* Then he would play for the people who had been kind to him. Sometimes his music was happy, and sometimes it was sad. People loved to hear Johnny play. Whether his music was happy or sad, they said it soothed the soul and made them feel happier.



**Show image 7A-4: Johnny Appleseed planting apple seeds**

Johnny lived most of his adult life this way. He wandered from place to place and survived as best he could. You might think that Johnny left no mark upon the land, or no great memory of his existence once he had passed away. *This means that you might think Johnny was not an important person and that people might forget about him.* After all, how could he have, as he was just a poor old man who wandered from place to place? But Johnny did indeed leave something of himself behind: something quite extraordinary *or amazing* and something that would give him the name Johnny Appleseed.

You see, as he traveled across the country from town to town, and from farm to farm, he collected apple seeds. The apple seeds came from the apples kind strangers gave him to eat along the way. Johnny saved the seeds and planted them in the rich earth. He planted them here, there, and everywhere. *What happens when you plant seeds?*

**Support**

*To soothe the soul means to comfort.*



### Show image 7A-5: Apple trees dotting the landscape

When wintertime came and the earth was frozen, he saved the seeds in his pockets as if they were precious diamonds. Then, when springtime came again, he planted the seeds as he moved from place to place. Johnny hoped that one day **orchards**, or places where fruit trees grow, would **eventually** grow up from the rich soil and feed all the people and animals he loved so much. *When something happens eventually, it does not happen right away, but happens after some time has passed.* Johnny did this until his tired old body could plant no more.

However, what Johnny hoped for came to pass. The apple seeds took root and young saplings began to grow. As the years went by, beautiful apple trees dotted the landscape. Apple orchards appeared like an oasis on the wide-open prairies. *An oasis is a nice and comfortable place to be. The apple trees made the land look very good and pleasant.*



### Show image 7A-6: Farmhouses dotting the landscape

Eventually, more and more people began to move West. Wagons full of hopeful people rolled across the land. Later, the railroad brought even more hopeful people. All of these people were searching for new places to make a home.

Incredibly, many people chose to build their homes near the apple trees and orchards that Johnny had planted. The sight of the trees gave people hope of a fruitful and prosperous future. *Prosperous means successful.* Farm houses, and then towns, were built near the trees that Johnny had planted. He became a hero to all those who loved the apple trees as much as Johnny did, and they began to call John Chapman “Johnny Appleseed”.



### Show image 7A-7: Kids playing around an apple tree

As the years went by, people harvested the apples from the trees Johnny had planted, and stored them away for the winter months. They made pies, apple butter, and jam. Children played beneath the branches of the apple trees or sat in the cooling shade. These things

happened because Johnny Appleseed had cared about all the people of the world, whether he knew them or not.

## COMPREHENSION QUESTIONS (10 MIN)

1. **Literal** Where did Johnny Appleseed get apple seeds for planting? (*The apple seeds came from the apples kind people gave him to eat.*)
2. **Inferential** How did John Chapman get the nickname Johnny Appleseed? (*John Chapman was called Johnny Appleseed because he loved apple trees and planted apple seeds.*)
3. **Literal** What was the beginning of the life cycle of the trees planted by Johnny Appleseed? (*The beginning of the life cycle of the trees planted by Johnny Appleseed was the apple seed.*)
4. **Inferential** How did the apple seeds that Johnny planted help people? (*Answers may vary, but may include that the seeds grew into trees that gave people hope for a fruitful and prosperous future; the trees also gave them food to eat, a cool place to rest, a place to play, etc.*)



### Check for Understanding

**Turn and Talk:** Why is the story of Johnny Appleseed important? (*Answers may vary, but may include that the story of Johnny Appleseed is important because he planted apple seeds to help other people even though he didn't know them; he did something small that ended up helping many people.*)

## Challenge

Why might people call Johnny a hero? How did planting apple seeds help people?

## Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.



ENGLISH  
LANGUAGE  
LEARNERS

## Speaking and Listening

### Offering Opinions

#### Beginning

Provide students sentence frames using a small set of learned phrases (e.g., "I think these apple seeds helped people by . . .").

#### Intermediate

Provide students sentence frames using an expanded set of learned phrases (e.g., "I think the apple seeds that Johnny Appleseed planted helped people by . . .").

#### Advanced/Advanced High

Provide minimal support and guidance for open responses.

**ELPS 1.E; ELPS 2.G;**

**ELPS 3.G**

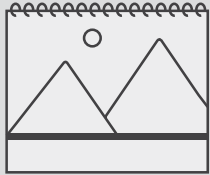


## WORD WORK: EVENTUALLY (5 MIN)

1. In the read-aloud you heard, “Johnny hoped that one day orchards, or places where fruit trees grow, would eventually grow up from the rich soil and feed all the people and animals he loved so much.”
2. Say the word *eventually* with me.
3. When something happens eventually, it does not happen right away; it happens after some time has passed.
4. Chance asked his grandfather when they were going to get to the park, and his grandfather said that they would get there eventually.
5. What are some things that might not happen right away but might happen eventually? Try to use the word *eventually* when you tell about them. [Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “\_\_\_\_\_ might happen eventually . . .”]
6. What’s the word we’ve been talking about?

**Use a Making Choices activity for follow-up.** I am going to say several sentences. If the sentences use *eventually* correctly, give me a thumbs up. If they do not use *eventually* correctly, give me a thumbs down.

- We got lost on the way to the museum, but we will get there eventually. (*thumbs up*)
- It snowed last week, so we eventually didn’t have school. (*thumbs down*)
- I couldn’t have my birthday party because I was sick, but I’ll have it eventually. (*thumbs up*)
- Yesterday, we received a package in the mail eventually. (*thumbs down*)
- River’s mom said dinner was ready, so we should eat it eventually while it’s hot. (*thumbs down*)



ENGLISH  
LANGUAGE  
LEARNERS

Speaking and  
Listening

Exchanging Information  
and Ideas

**Beginning**

Ask students yes/no questions about the story of Johnny Appleseed and encourage them to ask their own questions about the story.

**Intermediate**

Encourage students to build on what the previous student about the story of Johnny Appleseed.

**Advanced/Advanced High**

Challenge students to say something more about what the previous student has said about the story of Johnny Appleseed. Provide guidance for open responses.

**ELPS 3.C; ELPS 3.G**

Challenge

Have students record significant words or phrases on the board/chart paper.

Lesson 7: Johnny Appleseed

# Application



**Reading:** Students will retell the story of Johnny Appleseed.

**TEKS K.6.D**

**Language:** Students will use words that name sequence. **TEKS K.3.C**

**IMAGE REVIEW**

**Show images 7A-1 through 7A-7**

- Ask students to explain what is happening in each picture.
- Help students create a continuous retelling of the narrative that follows the life and adventures of Johnny Appleseed.
- As students discuss each image, remember to repeat and expand upon each response using richer and more complex language, including, if possible, any read-aloud vocabulary.
- Also encourage the use of temporal vocabulary to help in introducing and sequencing events and ideas: *first, then, next, later, finally*, etc. **TEKS K.3.C**
- As students dictate the events of the narrative, you may want to record the students' story on the board/chart paper so that you can reread their version to them.



**Exit Pass**

Have students draw—in order—four different events from the story. Each event should be depicted in its own section on the four-sectioned paper.

End of Lesson

**TEKS K.6.D** Retell texts in ways that maintain meaning; **TEKS K.3.C** Identify and use words that name actions; directions; positions; sequences; categories such as colors, shapes, and textures; and locations.

## 8

## PLANTS

## Deciduous Trees

## PRIMARY FOCUS OF LESSON

## Reading

Students will identify deciduous trees and evergreen trees.

 **TEKS K.8.D.ii**

Students will describe seasonal (yearly) changes to deciduous trees.

 **TEKS K.5.A; TEKS K.5.F; TEKS K.8.D.iii**

## Language

Students will demonstrate an understanding of the Tier 2 word *bare*.

 **TEKS K.6.F**

## Writing

Students will illustrate the seasonal (yearly) changes to deciduous trees.


 **TEKS K.6.E; TEKS K.11.B**

## FORMATIVE ASSESSMENT

## Activity Page 8.1

**Drawing the Read-Aloud** Students will illustrate the seasonal (yearly) changes to deciduous trees.

 **TEKS K.6.E; TEKS K.11.B**

 **TEKS K.8.D.ii** Recognize characteristics and structures of informational text, including: titles and simple graphics to gain information; **TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.F** Make inferences and use evidence to support understanding with adult assistance; **TEKS K.8.D.iii** Recognize characteristics and structures of informational text, including the steps in a sequence with adult assistance; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing; **TEKS K.11.B** Dictate or compose informational texts.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
Essential Background Information or Terms	Whole Group	10 min	
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	
“Deciduous Trees”			
Comprehension Questions			
Word Work: <i>Bare</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Vocabulary Instructional Activity	Independent	20 min	<input type="checkbox"/> Activity Page 8.1 <input type="checkbox"/> drawing tools
Drawing the Read-Aloud			

## ADVANCE PREPARATION

### Universal Access

- Bring in pictures of different kinds of deciduous and evergreen trees so that students can see the differences between them.
- Bring in leaves or small branches of deciduous and evergreen trees.
- Take students on a walk outdoors and have them identify deciduous and evergreen trees.

## CORE VOCABULARY

**bare, adj.** without any covering

Example: He walked around the house in bare feet.

Variation(s): barer, barest

**deciduous, adj.** losing leaves every year

Example: A deciduous tree starts losing its leaves in autumn.

Variation(s): none

**dormant, adj.** not active; asleep

Example: The tree was dormant during the long winter.

Variation(s): none

**habitat, n.** a place where an animal or plant lives that has food, water, and shelter

Example: A plant that needs a lot of water lives in a habitat where there is a lot of rain.

Variation(s): habitats

**sheds, v.** drops, loses, or separates from something

Example: Our dog sheds hair from his coat wherever he lies down.

Variation(s): shed, shedding

Vocabulary Chart for “Deciduous Trees”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	deciduous dormant habitat ( <i>hábitat</i> )	bare	
Multiple Meaning	sheds		
Sayings and Phrases	either ... or		

## Lesson 8: Deciduous Trees

# Introducing the Read-Aloud



**Reading:** Students will identify deciduous trees and evergreen trees.

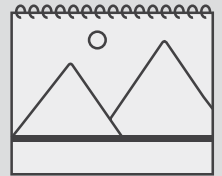
**TEKS K.8.D.ii**

## ESSENTIAL BACKGROUND INFORMATION OR TERMS

### Show image 8A-1: Winter forest

- Ask students to describe what they see in the picture.
- Tell students this is a picture of a forest.
- Explain that forests are made up of many trees and other plants.
- Ask students to describe the trees in the picture. You may wish to prompt discussion with the following questions:
  - What time of year is it?
  - What living things do you see?
  - How are these trees different from one another?
- Explain that there are two types of trees in this picture: deciduous [dis\*ij\*ə\*w əs] and evergreen. Point to each type of tree as you describe it.
- Tell students that the evergreen trees in this picture still have their leaves, even in the winter.
  - Explain that a good way to remember these trees is by the word *ever* in their name. *Ever* means always. So an evergreen tree is always green.
  - Ask students if they can see the green in the picture.
- Explain that deciduous trees do not keep their leaves in the winter. *Deciduous* means that the trees lose, or shed, their leaves in the fall and grow them again in the spring.

Flip Book 8A-1



**TEKS K.8.D.ii** Recognize characteristics and structures of informational text, including: titles and simple graphics to gain information.



### Check for Understanding

---

**Point and Say It:** Point to different trees in the picture and have students identify each tree as deciduous or evergreen.

---

## Lesson 8: Deciduous Trees

# Read-Aloud



**Reading:** Students will describe seasonal (yearly) changes to deciduous trees.

**TEKS K.5.A; TEKS K.5.F; TEKS K.8.D.iii**

**Language:** Students will demonstrate an understanding of the Tier 2 word *bare*.

**TEKS K.6.F**

### PURPOSE FOR LISTENING

- Tell students the main topic, or main idea, of today's lesson is deciduous trees.
- Tell them to listen carefully to find out what happens to deciduous trees throughout the year.

### “DECIDUOUS TREES” (15 MIN)



#### Show image 8A-1: Winter forest

There are many different kinds of plants in the world. Although each is unique and special in its own way, most plants found on land are either **deciduous** [dis\*ij\*ə\*w əs] or evergreen. [Point again to each type of tree in the picture.] Remember, a deciduous plant is one that loses its leaves; an evergreen plant is

one that does not lose its leaves and is always green.



#### Show image 8A-2: Apple tree in winter

This is a picture of an apple tree in the winter. An apple tree **sheds** its leaves every fall, so it is a deciduous tree. *The word sheds means loses.* *Deciduous* is a tricky word to say because it has four parts. Let's say the word together. [Clap out the four syllables of deciduous as you say them. Have students clap as they say the

word with you.] The four parts of the word *deciduous* can actually help you remember that deciduous trees change in each of the four seasons. Seasons happen in a cycle, or circle, over and over again: spring, summer, fall, and winter. Let's start with spring, when new things start growing.

**TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.F** Make inferences and use evidence to support understanding with adult assistance; **TEKS K.8.D.iii** Recognize characteristics and structures of informational text, including the steps in a sequence with adult assistance; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.

### Support

Explain that the word *sheds* can have other meanings. The word *sheds* also means small buildings used to store things.



## Support

Remind students that the pollination process is when pollen is spread from flower to flower.



### Show image 8A-3: Apple tree in spring

In the spring, the apple tree produces new leaves and apple blossoms, or flowers. Remember Polly the Honeybee? This is the time of year when she starts taking nectar from the inside of flowers. When she flies from flower to flower, she helps spread the pollen that is going to help the apples grow.



### Show image 8A-4: Apple tree in summer

In the summer, the apple tree grows many more green leaves. Apples begin to grow out of the blossoms.



### Show image 8A-5: Apple tree in fall

In the fall, the apples of the apple tree are fully grown and ready to pick. The leaves on the apple tree start to change to red and yellow, and then they fall off onto the ground. Over time, the leaves on the ground will break down into tiny pieces and become nutrients in the soil. *What are nutrients?*



### Show image 8A-6: Apple tree in winter

Here is the apple tree again in winter. Remember, the seasons repeat in a cycle, or circle, over and over again, every year. This apple tree has **bare** branches again, meaning they are empty and without covering or leaves. That is because plants do not get as much sunlight during the winter as they do during

the spring and summer. In the apple tree's **habitat**, the weather becomes cold, and there is less light from the sun. *A habitat is a place where an animal or plant lives.* With less light from the sun, the tree's leaves cannot make food through photosynthesis. Because the apple tree cannot make food during the winter, it must conserve, or save, its energy. It does this by becoming **dormant**. *To become dormant means to be asleep and not active. [Have*

students act like they are sleeping. Explain that when they sleep, they are not able to do anything.] When the apple tree goes dormant, it stops making leaves, blossoms, and apples, and its branches become bare.



### Show image 8A-7: Apple tree in the four seasons

[Point to each season as you review.]

This image shows an apple tree in all four seasons. Remember, the apple tree is a deciduous tree because it loses its leaves every year. In the spring, an apple tree is nice to look at with its white blossoms. In the summer, you can climb its branches, sit under the shade of its large green leaves, and admire the apples as they grow out of the blossoms. In the fall, you can pick the apple tree's fruit and watch its leaves change colors before falling off. In the winter, you can play in the snow under its bare branches.

Although trees are special to us in many ways, it is important to remember that trees are also very important in nature. Trees—more than any other plants—help keep the air clean and safe to breathe, which you will learn more about later. They also provide food and homes for countless animals. So, next time you see a big tree, wrap your arms around it and give it a big hug, just to show you understand how important it is.



### Check for Understanding

**One-Word Answer:** Read the following statements and have students answer with the correct season:

- A deciduous tree produces new leaves and blossoms. (*spring*)
- An apple tree begin to produce apples. (*summer*)
- A deciduous tree's leaves fall off. (*fall*)
- A deciduous tree has bare branches. (*winter*)

## Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.

ENGLISH  
LANGUAGE  
LEARNERS



### Speaking and Listening

#### Exchanging Information and Ideas

##### Beginning

Ask students yes/no questions about deciduous plants and encourage them to ask their own questions about them.

##### Intermediate

Encourage students to build on what the previous student said about deciduous plants.

##### Advanced/Advanced High

Challenge students to say something more about what the previous student has said about deciduous plants.

ELPS 1.E; ELPS 2.G;

ELPS 3.G

## COMPREHENSION QUESTIONS (10 MIN)

1. **Literal** What are deciduous plants? (*Deciduous plants are plants that lose their leaves.*)
2. **Inferential** How do deciduous plants change throughout the year? For example, how does an apple tree change throughout the year? (*A deciduous plant, such as an apple tree, produces new leaves and blossoms in the spring; an apple tree begins to produce apples in the summer; the leaves change and fall off in the fall; it has bare branches and becomes dormant in the winter.*)
  - **Literal** When do deciduous plants start to lose their leaves? (*Deciduous plants start to lose their leaves in the fall.*)
3. **Inferential** Why are deciduous plants bare in the winter? (*Deciduous plants are bare in the winter because they do not get enough sunlight to make food.*)
4. **Evaluative** *Think Pair Share:* How can people enjoy apple trees during the different seasons? (*Answers may vary, but should reflect an understanding of the different seasons of the apple tree.*)

## WORD WORK: BARE (5 MIN)

1. In the read-aloud you heard, "This apple tree has bare branches again, meaning that they are empty and without covering or leaves."
2. Say the word *bare* with me.
3. If something is bare, it is not covered.
4. We might talk about parts of our body being bare, such as going barefoot. We might also talk about objects being bare, such as cupboards that don't have anything in them.
5. Can you think of some things that you might describe as being bare? Try to use the word *bare* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase the students' responses: "The \_\_\_\_\_ is bare."]
6. What's the word we've been talking about?

**Use a Making Choices activity for follow-up.** I am going to read some sentences. If I say something that is bare, say, "\_\_\_\_\_ is bare." If I say something that is not bare, say, "\_\_\_\_\_ is not bare." Remember to answer in complete sentences.

- The branches of the tree are covered with leaves. (*The branches of the tree are not bare.*)

- My hands are cold because they are not covered. (*My hands are bare.*)
- There is nothing on my desk. (*My desk is bare.*)
- The ground is covered with acorns. (*The ground is not bare.*)
- My grandfather has no hat on his head. (*My grandfather's head is bare.*)

## Lesson 8: Deciduous Trees

# Application



**Writing:** Students will illustrate the seasonal (yearly) changes to deciduous trees.

**TEKS K.6.E; TEKS K.11.B**

Activity Page 8.1



ENGLISH  
LANGUAGE  
LEARNERS



Writing

Writing

### Beginning

Ask students to point to parts of their picture as you name them (e.g., “Point to the apple tree in the fall.”).

### Intermediate

Provide students with a specific sentence frame (e.g., “The apple tree in the fall looks like . . .”).

### Advanced/Advanced High

Encourage students to dictate a complete sentence using vocabulary words related to deciduous trees and the seasons.

**ELPS 5.G**

## VOCABULARY INSTRUCTIONAL ACTIVITY (5 MIN)

### Year

- Remind students that in the read-aloud they heard, “An apple tree sheds, or loses, its leaves every year, so it is a deciduous tree.”
- Have students say the word *year* aloud with you.
- Explain that a year is one way we measure time. There are four seasons in a year: spring, summer, fall, and winter.
- Provide an example sentence using *year*:
  - On my birthday, I am one year older. This year, I will turn six years old.
- Ask students if there is something they do every year. Have them try to use the word *year* when they tell about it. Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “Every year, I . . .”
- Ask students to repeat the word you’ve been talking about aloud.
- Have students share with their neighbor something that has happened to them so far this school year. Make sure they begin their responses with, “So far this school year, I have . . .”

## DRAWING THE READ-ALOUD (15 MIN)

**TEKS K.11.B**

- Ask students to think about how a deciduous apple tree looks in each season: spring, summer, fall, and winter.
- Ask students to think about how they can show this in a picture with the parts of the tree and with different colors.
- Have students turn to Activity Page 8.1.
- Have students color the trees and backgrounds to show the seasons.
- As students complete their drawings, circulate around the room and ask students which of their drawings corresponds to each season.

**TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing; **TEKS K.11.B** Dictate or compose informational texts.

- As students dictate to you which of their drawings corresponds to each season, record on each student's drawing: *spring*, *summer*, *fall*, and *winter*.

~~~~~  
End of Lesson  
~~~~~

## Challenge

---

Have students label their drawings independently: *spring*, *summer*, *fall*, and *winter*.

## 9

## PLANTS

## Evergreen Trees

## PRIMARY FOCUS OF LESSON

**Speaking and Listening**

Students will recall facts about deciduous trees.

 **TEKS K.1.A**

**Reading**

Students will compare and contrast deciduous and evergreen trees.

 **TEKS K.5.A; TEKS K.5.G; TEKS K.5.H**

**Language**

Students will demonstrate an understanding of the Tier 3 words *deciduous* and *evergreen*.

 **TEKS K.6.F**

**Writing**

Students will illustrate an evergreen tree using details from an informational text.


 **TEKS K.6.E; TEKS K.11.B**

## FORMATIVE ASSESSMENT

**Drawing Activity**

**Drawing the Read-Aloud** Students will draw an evergreen tree, illustrating understanding of its characteristics.

 **TEKS K.11.B**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.G** Evaluate details to determine what is most important with adult assistance; **TEKS K.5.H** Synthesize information to create new understanding with adult assistance; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing; **TEKS K.11.B** Dictate or compose informational texts.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
What Have We Already Learned?	Whole Group	10 min	
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	
“Evergreen Trees”			
Comprehension Questions			
Word Work: <i>Deciduous</i> and <i>Evergreen</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Drawing the Read-Aloud	Independent	20 min	<input type="checkbox"/> paper <input type="checkbox"/> drawing tools

## ADVANCE PREPARATION

### Universal Access

- Bring in pictures of different kinds of deciduous and evergreen trees so students can see the differences between them.
- Bring in leaves or small branches of deciduous and evergreen trees.
- Take students on a walk outdoors and have them identify deciduous and evergreen trees.



## CORE VOCABULARY

**cones, n.** the parts of some evergreen trees that contain the seeds

Example: Evan picked up the cones from under the evergreen tree.

Variation(s): cone

**conifers, n.** evergreen trees that have needle-like leaves and make cones

Example: Luciana tried not to prick her finger on the sharp needles of the conifers.

Variation(s): conifer

**evergreen, adj.** having green leaves all year round

Example: The evergreen tree still looked green in the winter.

Variation(s): none

**needles, n.** very thin leaves

Example: The needles on the pine tree were prickly.

Variation(s): needle

**Vocabulary Chart for “Evergreen Trees”**

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	conifers evergreen		
Multiple Meaning	cones needles		
Sayings and Phrases	all year long		

## Lesson 9: Evergreen Trees

# Introducing the Read-Aloud



**Speaking and Listening:** Students will recall facts about deciduous trees.

**TEKS K.1.A**

## WHAT HAVE WE ALREADY LEARNED?

### Show image 9A-1: Winter forest

- Review with students what they have learned about deciduous trees. Prompt discussion with the image and the following questions:
  - What are the two main types of trees? (*evergreen and deciduous*)
  - How are they different? (*Evergreen trees stay green all year; deciduous trees lose their leaves in the fall.*)
  - What happens to the leaves of deciduous trees in the fall or autumn? (*The leaves of deciduous trees are shed in autumn.*)
  - Why do deciduous trees lose their leaves in the fall? (*Deciduous trees lose their leaves because they become dormant and stop making leaves to conserve energy during the winter.*)
  - When do deciduous trees begin to grow new leaves? (*Deciduous trees grow new leaves in the spring.*)

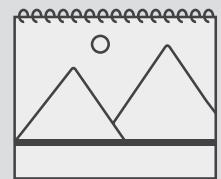


### Check for Understanding

**Thumbs Up/Thumbs Down:** Evergreen trees lose their leaves in the fall. (*thumbs down*)

Deciduous trees lose their leaves in the fall. (*thumbs up*)

## Flip Book 9A-1



**ENGLISH  
LANGUAGE  
LEARNERS**

## Speaking and Listening

### Exchanging Information and Ideas

#### Beginning

Reframe questions as simple yes/no questions (e.g., “Do deciduous trees lose their leaves in the fall?”).

#### Intermediate

Provide students with a specific sentence frame (e.g., “Deciduous trees are . . .”).

#### Advanced/Advanced High

Encourage students to use key details in complete sentences (e.g., “Deciduous trees are trees that lose their leaves in the fall.”).

**ELPS 1.E; ELPS 2.G;**

**ELPS 3.G**

**TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses.

## Lesson 9: Evergreen Trees

# Read-Aloud



**Reading:** Students will compare and contrast deciduous and evergreen trees.

**TEKS K.5.A; TEKS K.5.G; TEKS K.5.H**

**Language:** Students will demonstrate an understanding of the Tier 3 words *deciduous* and *evergreen*.

**TEKS K.6.F**

### PURPOSE FOR LISTENING

- Tell students the main topic, or main idea, of today's lesson is evergreen trees.
- Tell students to listen carefully to learn about evergreen trees and to find out how they are different from deciduous trees.

### "EVERGREEN TREES" (15 MIN)

#### Challenge

Ask students to look at the picture of evergreen trees and discuss how evergreen and deciduous trees might be different based on their appearance.



#### Show image 9A-2: Evergreen trees

The trees in this picture are all **evergreen** trees. Evergreen trees are similar and different to the deciduous trees you learned about earlier.

We use the word *evergreen* to describe plants that have leaves and stay green year-round. Evergreens come in a variety of shapes and sizes, but they all have at least one obvious thing in common: they are always green. *Do you remember what word is inside the word evergreen that helps us to know they are always green?* Are there any evergreen trees like these near your home?



#### Show image 9A-3: Christmas tree

One type of evergreen tree is called a pine tree. Pine trees have a pleasant smell, which many people like to have in their homes during the winter months.

**TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.5.G** Evaluate details to determine what is most important with adult assistance; **TEKS K.5.H** Synthesize information to create new understanding with adult assistance; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.



#### Show image 9A-4: Pine needles

The leaves of most evergreen trees are called **needles**. *Needles are very thin leaves.* This picture shows the needles of a pine tree.

Evergreen trees, like deciduous trees, make food through photosynthesis, which occurs in these tiny, needle leaves. *Do you remember what photosynthesis is? [Photosynthesis is*

*how plants use light to turn water and air into food.]* Photosynthesis slows down during the winter in evergreen trees, but it does not stop altogether as it does in deciduous trees. Because the needles of an evergreen tree are much smaller than the leaves of a deciduous tree, it is easier for the evergreen tree to make enough food to keep most of its leaves alive and on the tree all year long.



#### Show image 9A-5: Pine cones on ground

Wherever you find evergreen trees, you are also likely to find these things scattered around on the ground. If you look up while standing under an evergreen tree, you might see some of these growing on the tree's branches. They are called **cones**. *Cones are the parts of some evergreen trees that contain the seeds.*

Most evergreen trees are called **conifers**, which is another word for trees that have needle-like leaves and make cones. The cones in this picture are called pine cones. Unlike deciduous trees, which have flowers and fruit, conifer trees do not have flowers and they do not grow fruit. Instead, conifer trees make cones, and seeds grow inside their cones. When a cone opens on the ground, the seeds fall out and are spread by the wind. *Why are the seeds important?* If a seed falls into the soil and has the right amount of food, water, air, and light, it might grow into a seedling and then a sapling. *Do you remember what a sapling is? [A sapling is a baby tree.]*

#### Support

Explain that the word *needle* has other meanings. A needle is also a tool used for sewing..

#### Support

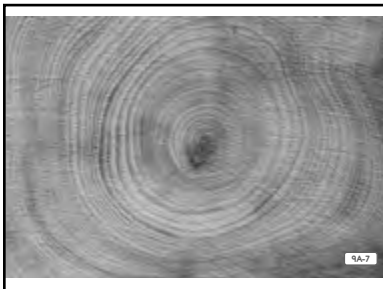
Explain that the word *cones* can have other meanings. The word *cones* also means shapes like ice-cream cones.



### Show image 9A-6: Pine sapling

The first plants you will notice in this picture are ferns, which are not evergreens or trees. Ferns are short plants that grow in the woods. If you have sharp eyes, though, you can see another type of plant in this picture. There is a little pine sapling—a baby tree—pushing its way through the ferns. *[Point to the pine*

*sapling in the picture.]* If the sapling is tough—as many pine trees are—it will continue growing until it stands high above the ferns. It may grow big enough to produce its own pine cones one day. Remember that the seeds to make new pine trees are inside the cones.



### Show image 9A-7: Tree rings

Did you know that a tree adds a new layer of wood each year? This new layer forms what is called a growth ring. When you cut down a tree, you can see the growth rings. You can tell exactly how old a tree is by counting the rings. *How old do you think this tree is?* This tree is a little more than fifty years old, which

is actually pretty young for a tree. If it hadn't been cut down, this tree might have lived to have a hundred or more growth rings!



### Show image 9A-8: Pine branch and oak branch

Remember, evergreen trees and deciduous trees are the two main types of trees found in the world. Next time you see a tree, try to figure out whether it is an evergreen or a deciduous tree. The leaves may give you your first clue.



## Check for Understanding

### **Making Choices:** Deciduous tree or evergreen tree?

- This tree has broad leaves. (*deciduous tree*)
- This tree has thin needles. (*evergreen tree*)
- This tree's leaves don't fall off in the fall. (*evergreen tree*)
- This tree's leaves fall off in the fall. (*deciduous tree*)

## COMPREHENSION QUESTIONS (10 MIN)

1. **Literal** What is an evergreen tree? (*An evergreen tree is a tree that stays green year-round.*)
2. **Literal** What important part of a plant is found in cones? (*Seeds are found in cones.*)
3. **Inferential** What are the leaves of an evergreen called? (*The leaves of an evergreen are called needles.*) Why are the needles of an evergreen important? (*The needles of an evergreen are important because that is where the plant's food is made during photosynthesis.*)
4. **Inferential** How can you tell how old a tree is? (*You can tell how old a tree is by counting its growth rings. Each ring equals one year.*)
5. **Evaluative** *Think Pair Share:* How are deciduous trees and evergreen trees alike? How are they different? (*They both need the same things and have some of the same parts. Deciduous trees have broad leaves that all fall to the ground in the fall, while evergreen trees have thin needles that do not fall.*)

## WORD WORK: DECIDUOUS AND EVERGREEN (5 MIN)

1. In the read-aloud you heard, "Evergreen trees are similar and different to the deciduous trees you learned about earlier."
2. Say the word *deciduous* with me. Now, say the word *evergreen*.
3. If a plant is deciduous, it loses all of its leaves in the fall. If a plant is evergreen, it keeps some green leaves or needles all year long.
4. We can look at most trees and identify them as deciduous or evergreen.

## Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.



ENGLISH  
LANGUAGE  
LEARNERS

## Speaking and Listening

### Offering Opinions

#### **Beginning**

Provide students sentence frames using a small set of learned phrases (e.g., "I think deciduous and evergreen plants are different because . . .").

#### **Intermediate**

Provide students sentence frames using an expanded set of learned phrases (e.g., "I think deciduous trees are different from evergreen trees because . . .").

#### **Advanced/Advanced High**

Provide minimal support and guidance for open responses.

**ELPS 1.E; ELPS 2.G;**

**ELPS 3.G**

5. Have you ever seen deciduous trees or evergreen trees? Try to use the words *deciduous* and/or *evergreen* when you tell about them and what they look like. [Ask two or three students. If necessary, guide and/or rephrase the students' responses: "I saw a deciduous tree . . . and an evergreen tree . . ."]
6. What are the words we've been talking about?

**Use a Making Choices activity for follow-up.** I am going to read a sentence. If the sentence I read describes a deciduous tree, say, "The sentence describes a deciduous tree." If the sentence I read describes an evergreen tree, say, "The sentence describes an evergreen tree." Remember to answer in complete sentences.

- The trees in the forest are beautiful in the autumn with their red and yellow leaves. (*The sentence describes a deciduous tree.*)
- The ground is covered with pine cones that have fallen from the tree. (*The sentence describes an evergreen tree.*)
- In winter, the branches of the tree are bare. (*The sentence describes a deciduous tree.*)
- The trees in our backyard stay green all year long. (*The sentence describes an evergreen tree.*)
- The tree makes its food in the thin leaves called needles. (*The sentence describes an evergreen tree.*)

## Lesson 9: Evergreen Trees

# Application



**Writing:** Students will illustrate an evergreen tree using details from an informational text.

**TEKS K.6.E; TEKS K.11.B**

### **DRAWING THE READ-ALOUD** **TEKS K.11.B**

- Ask students to describe an evergreen tree. (*An evergreen tree does not lose its leaves in the fall; an evergreen tree has thin needles; evergreen trees have cones that hold seeds.*)
- On a blank piece of paper, have students draw a picture of an evergreen tree and show as many details as possible.
- Remind students that although evergreen trees are always green, they can look different depending on the season or weather.
- Encourage students to draw a background to help show these differences.



### Check for Understanding

**Discuss:** As students complete their drawings, circulate around the room and ask them questions about their drawings.

- Remember to repeat and expand upon students' responses using richer and more complex language, including, if possible, any read-aloud vocabulary.

End of Lesson

### Support

As needed, show images of evergreen trees from the read-aloud.



**ENGLISH  
LANGUAGE  
LEARNERS**

### Writing

#### Writing

#### **Beginning**

Ask students to point to parts of their drawing as you name them (e.g., "Point to the needles.").

#### **Intermediate**

Provide students with a specific sentence frame (e.g., "The evergreen tree has needles . . .").

#### **Advanced/Advanced High**

Encourage students to dictate or write a complete sentence using vocabulary words related to evergreen trees.

**ELPS 5.G**

**TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing; **TEKS K.11.B** Dictate or compose informational texts.



## 10

## PLANTS

## Plants and People

## PRIMARY FOCUS OF LESSON

**Speaking and Listening**

Students will review key information about plants.

 **TEKS K.1.A**

**Reading**

Students will describe ways that plants are helpful to people.

 **TEKS K.5.E; TEKS K.6.C**

**Language**

Students will demonstrate an understanding of the Tier 2 word *bouquet*.

 **TEKS K.6.F**

**Reading**

With assistance, students will match plant parts to the everyday items people can make from themselves.


 **TEKS K.5.H; TEKS K.6.C**

## FORMATIVE ASSESSMENT

**Activity Page 10.1**

**Plant Parts We Use** Students will demonstrate an understanding of how people use plant parts to help themselves.

 **TEKS K.5.H; TEKS K.6.C**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.5.E** Make connections to personal experiences, to ideas in other texts, and society with adult assistance; **TEKS K.6.C** Use text evidence to support an appropriate response; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.5.H** Synthesize information to create new understanding with adult assistance.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
What Have We Already Learned?	Whole Group	10 min	
Essential Background Information or Terms			
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	
“Plants and People”			
Comprehension Questions			
Word Work: <i>Bouquet</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Plant Parts We Use	Independent	20 min	<input type="checkbox"/> Activity Page 10.1 <input type="checkbox"/> paper <input type="checkbox"/> drawing tools

## ADVANCE PREPARATION

### Application

- Prepare to divide students into pairs to complete the activity.

### Universal Access

- Bring in plant parts and the items that people can make from them (e.g., a cotton ball and a piece of cloth; an ear of corn and a can of corn; wheat and a loaf of bread).
- Bring in a bouquet of flowers

## CORE VOCABULARY

**bouquet, n.** a bunch of flowers that has been arranged and wrapped

Example: I gave my mom a bouquet of roses on Mother’s Day.

Variation(s): bouquets

**medicines, n.** substances given to a sick person to help them feel better

Example: The doctor gave Javier two different medicines to help him feel better.

Variation(s): medicine

**oxygen, n.** a gas found in air and water

Example: We breathe in oxygen and breathe out carbon dioxide.

Variation(s): none

**provide, v.** to supply or give something

Example: Your teacher will provide the paper, but you must bring a pencil.

Variation(s): provides, provided, providing

**Vocabulary Chart for “Plants and People”**

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	oxygen ( <i>oxígeno</i> )	bouquet provide medicines	
Multiple Meaning			
Sayings and Phrases	have you . . . lately?		

## Lesson 10: Plants and People

# Introducing the Read-Aloud



**Speaking and Listening:** Students will review key information about plants.

**TEKS K.1.A**

## WHAT HAVE WE ALREADY LEARNED? (5 MIN)

- Remind students they have already learned several different ways people make use of different parts of plants.
- Ask students to name a couple of the fruits they have learned about.
- As needed, guide them in remembering the different fruits and the parts of those fruits that people eat.
- Remind students about the gigantic turnip they heard about, and review with them the parts of a turnip that people eat. (*both the tops, or greens, and the roots*)

## ESSENTIAL BACKGROUND INFORMATION OR TERMS (5 MIN)

- Tell students that in today's lesson, they will learn that plants provide two very important things for animals and humans to survive: oxygen and food.
- Have students take a deep breath.
- Tell students that when you breathe in, oxygen goes into your body.
- Explain that just like we must eat every day, we must also breathe oxygen in order to survive.

**TEKS K.1.A** Listen actively and ask questions to understanding information and answer questions using multi-word responses.



**ENGLISH  
LANGUAGE  
LEARNERS**

### Speaking and Listening

#### Exchanging Information and Ideas

##### Beginning

Ask students yes/no questions about how people use different plant parts and encourage them to ask their own questions about this subject.

##### Intermediate

Encourage students to build on what the previous student has said about how people use different plant parts.

##### Advanced/Advanced High

Challenge students to say something more about what the previous student has said about how people use different plant parts.

**ELPS 1.E; ELPS 2.G;**

**ELPS 3.G**

## Lesson 10: Plants and People

# Read-Aloud



**Reading:** Students will describe ways that plants are helpful to people.

**TEKS K.5.E; TEKS K.6.C**

**Language:** Students will demonstrate an understanding of the Tier 2 word *bouquet*.

**TEKS K.6.F**

### PURPOSE FOR LISTENING

- Tell students that eating and breathing are only two of the many ways that people use plants.
- Tell students to listen carefully to find out how plants provide oxygen as well as some other ways people use plants.

### “PLANTS AND PEOPLE” (15 MIN)

#### Challenge

Ask students to look at the picture and discuss why life would be impossible for us if it weren't for plants.



#### Show image 10A-1: Woman eating lettuce

Where would we be without plants? The truth is that life for animals, insects, and human beings would be impossible if it weren't for plants.

The most obvious reason plants are important is that they **provide** food. *Provide means to give or supply something.* People, including you, eat plants or parts of plants every day. What does the woman in this picture have in her mouth? It's lettuce! Of course, you don't see too many people chomping on lettuce in this way, but you will find lettuce in salads and on sandwiches. Lettuce is good for you. It is a healthy vegetable that comes from a plant.



#### Show image 10A-2: Fruits and vegetables collage

*What fruits and vegetables do you see in this picture?* Just like fruit, all vegetables are parts of plants, including potatoes, beans, peas, carrots, peppers, cucumbers, and squash. Each comes from different plants—and from different parts

**TEKS K.5.E** Make connections to personal experiences, to ideas in other texts, and society with adult assistance; **TEKS 5.6.C** Use text evidence to support an appropriate response; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.

of plants—but they all come from plants nonetheless. Many fruits and vegetables are healthy and tasty, so you should try to eat some every day.

## Support

Briefly review the different parts of the plant.



### Show image 10A-3: Corn

This is a picture of an ear of corn and a cornfield. Believe it or not, corn comes from a special type of grass. Do you like to eat corn on the cob?



### Show image 10A-4: Wheat and wheat products

Have you eaten any bread lately? It is likely, then, that you have eaten wheat. Wheat also comes from a type of grass. Its seeds are ground up and used to make wheat flour, and wheat flour is used in many kinds of breads, cereals, and cakes.



### Show image 10A-5: Rice

This is a picture of a bowl of rice and a rice paddy, or field. People all over the world eat rice. It is used to feed billions of people every day!

You have just learned about three important grains: corn, wheat, and rice. Grains are seeds that come from different types of grasses.



### Show image 10A-6: Cotton crop

Plants and plant products can also be used to make fabric, or cloth. Fabrics are used to make clothing, blankets, and other everyday things. This picture shows cotton plants. Fluffy, white cotton is often dyed, or colored, to make colorful clothing and blankets.



### Show image 10A-7: Flowers

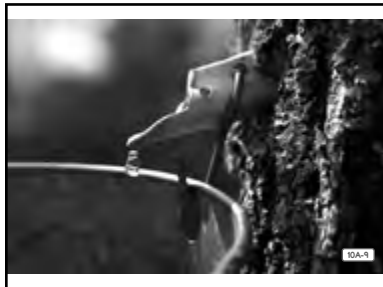
When people are feeling sick or sad, it is nice to give them a **bouquet** of flowers. *A bouquet is a bunch of flowers arranged together.*

Flowers can cheer people up and let them know they are loved. Have you ever received or given flowers?



### Show image 10A-8: Rubber tree and tire

There are many things that you would not guess have anything at all to do with plants, such as the tires on a car, which are made of rubber. In fact, much of the rubber we use—for everything from tires to rubber bands to basketballs—comes from the sap of rubber trees. *[Explain to students that the white liquid coming out of this rubber tree is sap, which is turned into rubber.]*



### Show image 10A-9: Sap of a maple tree

*[Point to the different parts as you talk about them.]*

Another type of sap we use comes from maple trees. This type of sap is clear and gives us something much better-tasting than rubber: maple syrup! In early spring, people drill small holes into the trunks of maple trees and insert

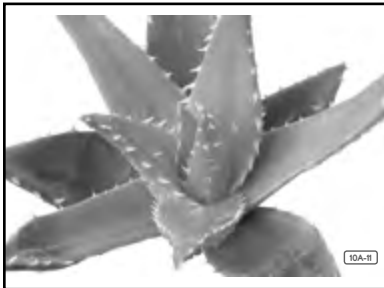
spouts, which allow the sap to drip out into buckets or holding tanks. When the sap is boiled, it turns into maple syrup. Don't worry—the holes don't hurt the trees! They heal during the summer and fall, and people pick a different spot on the trunk to drill the next spring.



### Show image 10A-10: Using plants as medicines

Some plants and plant parts can be used to make **medicines** for curing diseases or healing wounds. Using plants to make medicine requires a great deal of knowledge. A person must know how to find the right kind of plant, and he or she must know exactly which part of

the plant to use and how to use it. In some parts of the world, knowledge of medicinal plants has been passed down from generation to generation—from parents to their children—for thousands of years.



**Show image 10A-11: Aloe vera plant**

One very common medicinal plant is the aloe vera plant. Inside its thick green leaves is a clear gel, which many people use to help heal small cuts and to soothe sunburns. Some doctors and scientists think that eating or drinking parts of the aloe plant is good for your stomach, and can help prevent many diseases.



**Show image 10A-12: Lumberjack**

People use the wood from trees to build houses and to make many other things. This lumberjack, a person who cuts down trees, is using a powerful chain saw to cut down a great big pine. *Why do you think this lumberjack is wearing ear plugs?* After he chops this tree down, the lumberjack will saw off all the

branches. The bare trunk will be loaded onto a truck and taken to a lumber mill, where it will be turned into boards.



**Show image 10A-13: Uses for wood**

People also use the wood from trees to make fires when it is cold outside. This person is splitting logs to burn in the fireplace. Wood is also used to make tool handles, instruments, and other objects. Baseball bats are often made of wood from the ash tree, one of the strongest trees in the forest. It is very

important to plant a new tree for every old tree that is cut down, so that there will be plenty of trees for other people to use in the future.



## Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.

ENGLISH  
LANGUAGE  
LEARNERS



## Speaking and Listening

### Offering Opinions

#### Beginning

Provide students sentence frames using a small set of learned phrases (e.g., “\_\_\_\_\_ surprised me the most because . . .”).

#### Intermediate

Provide students sentence frames using an expanded set of learned phrases (e.g., “I think the way people use plants for \_\_\_\_\_ surprised me the most because . . .”).

#### Advanced/Advanced High

Provide minimal support and guidance for open responses.

ELPS 1.E; ELPS 2.G;

ELPS 3.G



### Show image 10A-14: Child and trees

Here is another important thing to know about plants: they help keep the air clean and fresh. When plants make their own food, they release **oxygen** into the air. *What is this process called? [Photosynthesis.]* When you breathe in, that same oxygen travels to your lungs. Oxygen keeps you alive; you need oxygen all

day, every day. *Take a deep breath. You just breathed in oxygen.*

Did you have any idea how important plants are to people?



## Check for Understanding

**Recall:** What are some of the ways people use plants? [List students' responses on the board/chart paper.]

## COMPREHENSION QUESTIONS (10 MIN)

1. **Literal** What are some foods that plants provide? (*Plants provide corn, wheat, rice, vegetables, and maple syrup.*)
2. **Literal** What can people make from cotton plants? (*People can make clothes and blankets from cotton plants.*)
3. **Literal** Many plants are used for medicine. Which plant is used for cuts and burns? (*The aloe vera plant is used to heal cuts and burns.*)
4. **Literal** What is lumber, or wood from trees, used for? (*Lumber is used for building houses and making things, like baseball bats.*)
5. **Evaluative** *Think Pair Share:* Which of the ways that people use plants surprised you the most? Why? (*Answers may vary, but should include support from the read-aloud.*)

## WORD WORK: BOUQUET (5 MIN)

1. In the read-aloud you heard, “When people are feeling sick or sad, it is nice to give them a bouquet of flowers.”
2. Say the word *bouquet* with me.
3. A bouquet is a bunch of flowers, sometimes tied together with a string or placed in a vase.
4. Ava gave her mother a bouquet of flowers for her birthday.
5. Tell me who you would like to give a bouquet of flowers to and why. Try to use the word *bouquet* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “I would give a bouquet to \_\_\_\_\_, because . . .”]
6. What’s the word we’ve been talking about?

**Use a Sharing activity for follow-up.** Share which favorite flowers you would use to make a bouquet (e.g., roses, tulips, irises, daisies, etc.). What other kinds of decorations would you add to the bouquet (toys, balloons, etc.)? Whom would you give this bouquet to? Be sure to begin your responses with, “I would use \_\_\_\_\_ to make a bouquet because . . .”



### Support

You may wish to complete this activity as a whole group.

### Challenge

You may wish to have students complete this activity individually.

**ENGLISH  
LANGUAGE  
LEARNERS**



### Speaking and Listening

**Exchanging Information  
and Ideas)**

#### Beginning

Reframe questions as simple yes/no questions (e.g., “Do people use cotton to make clothes?”).

#### Intermediate

Provide students with a specific sentence frame (e.g., “People use cotton to . . .”).

#### Advanced/Advanced High

Encourage students to use key details in complete sentences (e.g., “People use cotton from cotton plants to make fabric and cloth.”).

**ELPS 1.E; ELPS 2.G;**

**ELPS 3.G**

## Lesson 10: Plants and People Application



**Reading:** With assistance, students will match plant parts to the everyday items people can make from them.

**TEKS K.5.H; TEKS K.6.C**

### PLANT PARTS WE USE

- Remind students that people can make different items from plants.
- Ask students to recall what different items people can make from plants. (*Answers may vary, but may include food, clothing, instruments, medicine, or tires.*)
- Have students turn to Activity Page 10.1.
- Have students work in pairs to match each item on the left with the plant that it comes from on the right.
- As needed, discuss and/or refer back to specific passages in the read-aloud to assist students with completing the activity page.
- As students complete the activity page, circulate around the room, and discuss students’ answers.
- Remember to repeat and expand upon students’ responses, using richer and more complex vocabulary, including, if possible, any read-aloud vocabulary.

End of Lesson

**TEKS K.5.H** Synthesize information to create new understanding with adult assistance; **TEKS K.6.C** Use text evidence to support an appropriate response.

## PLANTS

# George Washington Carver

## PRIMARY FOCUS OF LESSON

### Speaking and Listening

Students will discuss the story of Johnny Appleseed.

 **TEKS K.1.A**

### Reading

After listening to a story about George Washington Carver written in third-person voice, students will explain his achievements.

 **TEKS K.5.A; TEKS K.9.E**

### Language

Students will demonstrate an understanding of the Tier 3 word *crops*.

 **TEKS K.6.F**

Students will demonstrate an understanding of the saying *great oaks from little acorns grow*.


 **TEKS K.3.B; TEKS K.6.E; TEKS K.11.B**

## FORMATIVE ASSESSMENT

### Exit Pass

**Drawing** Students will draw a picture illustrating the saying “great oaks from little acorns grow.”

 **TEKS K.3.B; TEKS K.6.E; TEKS K.11.B**

 **TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses; **TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.9.E** Listen to and experience first- and third-person texts; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate; **TEKS K.3.B** Use illustrations and texts the student is able to read or hear to learn or clarify word meanings; **TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing; **TEKS K.11.B** Dictate or compose informational texts.

## LESSON AT A GLANCE

	Grouping	Time	Materials
<b>Introducing the Read-Aloud</b>			
What Have We Already Learned?	Whole Group	10 min	
<b>Read-Aloud</b>			
Purpose for Listening	Whole Group	30 min	<input type="checkbox"/> U.S. map
“George Washington Carver”			
Comprehension Questions			
Word Work: <i>Crops</i>			
<b>This is a good opportunity to take a break.</b>			
<b>Application</b>			
Sayings and Phrases	Whole Group	20 min	<input type="checkbox"/> paper <input type="checkbox"/> drawing tools <input type="checkbox"/> trade book of your choice (optional)
Domain-Related Trade Book or Student Choice			

## ADVANCE PREPARATION

### Read-Aloud

- Prepare a U.S. map to locate Missouri and Alabama for students.

## CORE VOCABULARY

**botanist, n.** a scientist who studies plants

Example: The botanist studied poisonous plants.

Variation(s): botanists

**botany, n.** the study of plants

Example: Jan wants to study botany when she grows up.

Variation(s): none

**crops, n.** plants that are grown in large numbers for people to use

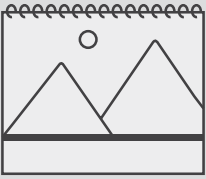
Example: The farmer planted three different crops: corn, soybeans, and wheat.

Variation(s): crop

Vocabulary Chart for “George Washington Carver”

Type	Tier 3 Domain-Specific Words	Tier 2 General Academic Words	Tier 1 Everyday Speech Words
Vocabulary	botanist ( <i>botánico/a</i> ) botany ( <i>botánica</i> ) crops		
Multiple Meaning			
Sayings and Phrases	caught his eye		

## Flip Book 11A-1



ENGLISH  
LANGUAGE  
LEARNERS



Speaking and  
Listening

Exchanging Information  
and Ideas

**Beginning**

Ask students yes/no questions about Johnny Appleseed and encourage them to ask their own questions about him.

**Intermediate**

Encourage students to build on what the previous student has said about Johnny Appleseed.

**Advanced/Advanced  
High**

Challenge students to say something more about what the previous student has said about Johnny Appleseed.

**ELPS 1.E; ELPS 2.G;**

**ELPS 3.G**

Lesson 11: George Washington Carver

# Introducing the Read-Aloud



**Speaking and Listening:** Students will discuss the story of Johnny Appleseed.

**TEKS K.1.A**

## WHAT HAVE WE ALREADY LEARNED?

### Show image 11A-1: Johnny Appleseed

- Have students identify the person in the illustration.
- Ask students what they remember about Johnny Appleseed.
  - As students respond, repeat, and expand upon each response using richer and more complex language, including, if possible, any read-aloud vocabulary.
  - If a student's response includes inaccurate information, refer back to earlier read-alouds and/or illustrations to correct any misunderstandings.
- Ask students why Johnny Appleseed became famous. (*Johnny Appleseed became famous because he traveled throughout the United States, planting apple seeds wherever he could, so that apple trees would grow everywhere.*)

**TEKS K.1.A** Listen actively and ask questions to understand information and answer questions using multi-word responses.

## Lesson 11: George Washington Carver

# Read-Aloud



**Reading:** After listening to a story about George Washington Carver written in third-person voice, students will explain his achievements.

**TEKS K.5.A; TEKS K.9.E**

**Language:** Students will demonstrate an understanding of the Tier 3 word *crops*.

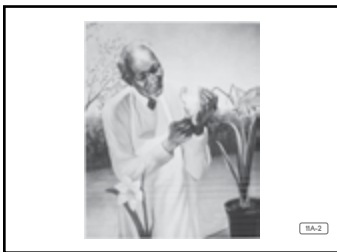
**TEKS K.6.F**

### PURPOSE FOR LISTENING

- Explain to students that today they are going to learn about another person who became famous because of his love for plants.
- Explain to students that this text was not written by George Washington Carver. It was written about him by someone else. **TEKS K.9.E**
- Tell students to listen carefully to find out what this person did because he loved plants and how he became famous.

### “GEORGE WASHINGTON CARVER” (15 MIN)

**TEKS K.9.E**



#### Show image 11A-2: George Washington Carver

Today you are going to hear about another man who, like Johnny Appleseed, became famous because of his love for plants. *Do you remember what Johnny Appleseed did that made him famous?* He, too, lived many years ago, though not quite as long ago as Johnny Appleseed. His name

was George Washington Carver. He became famous throughout the United States as a **botanist**—which is a scientist who studies plants. George first developed his interest in plants as a young boy.



#### Show image 11A-3: Young George

As a child, George used his free time to explore the forests surrounding his home on a farm in Missouri. *[On a map, point to the state you live in, then point to Missouri.]* He spent many hours roaming the woods discovering all sorts of wonderful things. George liked to collect things that caught his eye.

**TEKS K.5.A** Establish purpose for reading assigned and self-selected texts with adult assistance; **TEKS K.9.E** Listen to and experience first- and third-person texts; **TEKS K.6.F** Respond using newly acquired vocabulary as appropriate.





**Show image 11A-4: Young George planting a new plant in his garden**

George was especially curious about the different kinds of plants he noticed during his explorations. He wanted to study these plants further, but he knew that if he pulled them out of the ground and took them back to the cabin, they would die. *Why would the plants die? What*

*do plants need to survive?* So when George found an interesting plant, he would carefully dig it up and remove it from the place it was growing, roots and all, so he could plant it in a special garden close to the cabin. *A garden is a plot of land where plants are grown.*

George moved plant after plant to this special garden, where he looked after each and every plant, watering and caring for them all to make sure they continued to grow. As an adult, George later wrote, “I literally lived in the woods. I wanted to know every strange stone, flower, insect, bird, or beast. Day after day I spent time in the woods alone in order to collect my floral beauties and put them in my little garden I had hidden in the brush not far from the house . . .”



**Show image 11A-5: Plant doctor**

Fascinated by the plants in his garden, George spent hours tending, observing, and studying them. In time, he came to learn about the special needs of each plant—how much water each needed, whether it grew best in full sunlight or with some shade. George also took a special interest in caring for plants that were

not growing well. He became so skillful at caring for these sick plants that people throughout the neighborhood began to call him the “plant doctor.”



**Show image 11A-6: George painting**

George’s passion for plants led him to develop another talent, that of an artist. Of course, his favorite subjects to paint were his beloved plants! Though he did not have a proper canvas or paints, he improvised with what he could find. *A canvas is something you paint on. When you improvise, you make*

**Support**

Explain that the word *garden* can have other meanings. The word *garden* also means to take care of plants so they can grow.

**Challenge**

What are floral beauties?  
What did George do with the floral beauties?

or do something with whatever you have. George made his first paints from different plant parts. He mashed bark, roots, and wild berries, and used them to paint on old boards or even flat rocks. George continued to paint throughout his entire life.



**Show image 11A-7: Photo of George as an adult**

George was truly a remarkable and talented person. He was an excellent student who learned quickly. He went on to study at college, eventually becoming an expert in **botany**, the study of plants. After he finished college, George became a professor at a famous

university in Alabama. [On a map, point to the state you live in, then point to Alabama.]



**Show image 11A-8: Collage of products**

There, he spent the rest of his life continuing to study plants and experiment with ways to make them grow better. He discovered many ways to help farmers improve how they grew plants and **crops** on their farms. *Crops are plants that are grown in large numbers to be used by people.* George encouraged farmers

to grow crops other than cotton—especially peanuts and sweet potatoes. He also found many ways to use peanuts in all different types of products like dyes, oils, and makeup. He even came up with a number of recipes for foods that used peanuts. George Washington Carver is especially remembered today for these discoveries.

## Support

If students have difficulty responding to questions, reread pertinent lines of the read-aloud and/or refer to specific images.

### ENGLISH LANGUAGE LEARNERS



## Speaking and Listening

### Offering Opinions

#### Beginning

Provide students sentence frames using a small set of learned phrases (e.g., "I think \_\_\_\_\_ was the most extraordinary thing George Washington Carver did.").

#### Intermediate

Provide students sentence frames using an expanded set of learned phrases (e.g., "I think \_\_\_\_\_ was the most extraordinary thing George Washington Carver did because . . .").

#### Advanced/Advanced High

Provide minimal support and guidance for open responses.

**ELPS 1.E; ELPS 2.G;**

**ELPS 3.G**



## Check for Understanding

**Recall:** What two plants did George Washington Carver encourage farmers to plant? (*He encouraged farmers to plant peanuts and sweet potatoes.*)

How did George Washington Carver help farmers? (*George Washington Carver helped farmers by discovering ways to help them improve how they grew crops and encouraging them to use other crops.*)

## COMPREHENSION QUESTIONS (10 MIN)

1. **Inferential** How did George Washington Carver learn so much about plants? (*He learned so much about plants because he took care of plants, made his own garden when he was a child, and studied botany in college.*)
2. **Inferential** Why was George Washington Carver called the "plant doctor"? (*George Washington Carver was called the "plant doctor" because he was very good at caring for sick plants.*)
3. **Inferential** How did George Washington Carver make his paints? (*George Washington Carver made his paints from bark, roots, and mashed berries, which are all parts of plants.*)
4. **Evaluative** *Think Pair Share:* George Washington Carver was an extraordinary and special person in many ways, and he achieved many things. Of all the different things that George did or accomplished during his life, which one do you think was the most extraordinary? Why? (*Answers may vary, but should include support from the read-aloud.*)

## WORD WORK: CROPS (5 MIN)

1. In the read-aloud you heard, “[George Washington Carver] discovered many ways to help farmers improve how they grew plants and crops on their farms.”
2. Say the word *crops* with me.
3. Crops are plants that are grown in large numbers for people to use.
4. The farmer grew wheat and corn crops for people to eat.
5. What other types of plants do you think could be grown as crops? Think about some of the plants that people eat. Try to use the word *crops* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “\_\_\_\_\_ could be grown as crops.”]
6. What’s the word we’ve been talking about?

**Use a Sharing activity for follow-up.** Share what types of crops you would like to grow and why you would like to grow them. Be sure to begin your responses with, “I would like to grow \_\_\_\_\_ as crops because . . .”

## Lesson 11: George Washington Carver

# Application



**Language:** Students will demonstrate an understanding of the saying *great oaks from little acorns grow*.

**TEKS K.3.B; TEKS K.6.E; TEKS K.11.B**

### SAYINGS AND PHRASES (5 MIN)

#### Great Oaks from Little Acorns Grow

- Remind students of the saying *great oaks from little acorns grow*.
- Have students explain the meaning of the saying.
  - If students have trouble, remind them that this saying means that just as a small acorn can grow into a towering oak tree, something that starts out small or not really important can become big or really important.
- Ask students if they think George Washington Carver’s life was an example of the saying “great oaks from little acorns grow.” Why or why not?



#### Exit Pass

Have students draw a picture illustrating the saying *great oaks from little acorns grow*.

### DOMAIN-RELATED TRADE BOOK OR STUDENT CHOICE (15 MIN)

#### Domain-Related Trade Book

- Locate a domain-related trade book to read aloud to the class.
- As you read, use the same strategies that you have been using when reading the read-aloud selections in this Teacher Guide—pause and ask occasional questions, rapidly clarify critical vocabulary within the context of the read-aloud, etc.
- After you finish reading the trade book aloud, lead students in a discussion as to how the story or information in this book relates to the read-alouds they have heard in this domain.

**TEKS K.3.B** Use illustrations and texts the student is able to read or hear to learn or clarify word meanings; **TEKS K.6.E** Interact with sources in meaningful ways such as illustrating or writing; **TEKS K.11.B** Dictate or compose informational texts.

ENGLISH  
LANGUAGE  
LEARNERS



#### Speaking and Listening

##### Offering Opinions

##### All

Give students the sentence frame for offering their opinion: I think George Washington Carver’s life was/was not an example of the saying because . . .

##### Beginning

Help students complete the sentence frame.

##### Intermediate

Encourage students to respond to the opinion of their peers by using phrases (e.g., I agree/I disagree; I also think that . . .).

##### Advanced/Advanced High

Challenge students to respond to the opinion of their peers before they offer their own opinion.

**ELPS 3.G**

## Student Choice

- Ask students which read-aloud they have heard recently that they would like to hear again.
  - If necessary, reread the titles of recent read-alouds to refresh students' memories and/or show key illustrations from several read-alouds. You may also want to choose one yourself.
- Reread the selected text. Feel free to pause at different places, and talk about vocabulary and information that you did not discuss previously during the read-aloud.
- After the read-aloud, ask students if they noticed anything new or different during the second reading that they did not notice during the first reading.
- Ask them to try to express why they like this read-aloud.
- Remember to repeat and expand upon each response using richer and more complex language, including, if possible, any read-aloud vocabulary.

---

End of Lesson

# Domain Review

## NOTE TO TEACHER

You should spend one day reviewing and reinforcing the material in this domain. You may have students do any combination of the activities provided, in either whole-group or small-group settings.

## CORE CONTENT OBJECTIVES ADDRESSED IN THIS DOMAIN

Students will:

- Explain that different kinds of plants grow in different environments
- Identify plants as living things
- Identify what plants need to live and grow: food, water, air, and light
- Identify the root, stem, branch, leaf, flower, fruit, and seed of a plant
- Explain basic facts about the root, stem, leaf, and seed of a plant
- Explain the basic life cycle of plants
- Explain that some plants produce fruit to hold seeds
- Compare and contrast the fruits and seeds of different plants
- Identify the parts of specific plants that are eaten by people
- Identify the petals on a flower
- Describe how bees collect nectar and pollen
- Describe how bees make and use honey
- Describe the important role bees play in plant pollination
- Demonstrate familiarity with the tall tale “Johnny Appleseed”
- Identify deciduous trees and recall basic facts about them
- Identify evergreen trees and recall basic facts about them
- Compare and contrast deciduous and evergreen trees
- Identify things that plants provide to people
- Describe the life and scientific achievements of George Washington Carver

## REVIEW ACTIVITIES

### Image Review

- Show the images from any read-aloud again, and have students retell the read-aloud using the images.

### Image Card Review

#### Materials: Image Cards 1–14

- In your hand, hold Image Cards 1–14 fanned out like a deck of cards. Ask a student to choose a card but not show it to anyone else in the class. The student must then perform an action or give a clue about the picture s/he is holding. For example, for the evergreen plant, a student may give the clue, “This type of plant stays green all year long.” The rest of the class will guess what is being described. Proceed to another card when the correct answer has been given.

### Key Vocabulary Brainstorming

#### Materials: Chart paper, chalkboard, or whiteboard

- Give students a key domain concept or vocabulary word such as *fruit*. Have them brainstorm everything that comes to mind when they hear the word examples. Record their responses on chart paper, a chalkboard, or a whiteboard for reference.

### Plant Parts Review with Deciduous and Evergreen Trees

#### Materials: Various plants; drawing paper, drawing tools

- Show students images of deciduous and evergreen trees and ask them to identify the parts. After talking about plants, have students design and illustrate a deciduous tree and an evergreen tree on a piece of paper, instructing them to include all parts of a plant (root, stem, branch, and leaf). Have students share their drawings and identify the parts of their trees while sharing. Their classmates may also want to guess where the parts are located on the drawing.

### Deciduous vs. Evergreen

#### Materials: Chart paper, chalkboard, or whiteboard

- Compare and contrast deciduous trees and evergreen trees. What do these plants have in common? How are they different? Record student answers on a Venn diagram.

### Teacher Choice

- Reread a particular read-aloud to students in order to review important domain concepts.



## **On Stage: Johnny Appleseed**

### **Materials: Drawing paper, drawing tools**

- Have students draw a picture of what they think is the most important or most interesting thing they learned about Johnny Appleseed. Divide the class into groups and have students take turns acting out their drawings. Make sure students talk about what they are doing and encourage them to use key vocabulary words like *seed* or *fruit*.

# Domain Assessment

## NOTE TO TEACHER

This domain assessment evaluates each student's retention of domain and academic vocabulary words and the core content targeted in *Plants*. The results should guide review and remediation the following day.

There are four parts to this assessment. You may choose to do the parts in more than one sitting if you feel this is more appropriate for your students. Part I (Vocabulary Assessment) is divided into two sections: the first assesses domain-related vocabulary and the second assesses academic vocabulary. Parts II, III, and IV of the assessment address the core content targeted in *Plants*.

## PART I (ACTIVITY PAGE DA.1)

TEKS K.6.F; TEKS K.8.D.i

I am going to ask a question using a word you have heard in the read-alouds. If the answer to the question is yes, circle thumbs up. If the answer is no, circle thumbs down. I will ask each question two times. Let's do number one together.

1. **Plants:** Are plants living things that need food, water, air, and light to live? (*thumbs up*)
2. **Soil:** Is soil the part of the ground where plants are planted and grow? (*thumbs up*)
3. **Sapling:** Is a sapling a young tree? (*thumbs up*)
4. **Pollination:** Is pollination sprinkling water over a plant? (*thumbs down*)
5. **Seeds:** Are seeds the beginning of a new plant? (*thumbs up*)
6. **Evergreen:** Do the leaves of evergreen trees change colors? (*thumbs down*)
7. **Deciduous:** Do deciduous trees lose their leaves in the fall? (*thumbs up*)
8. **Roots:** Do the roots of a plant hold the plant in place in the soil? (*thumbs up*)
9. **Petals:** Do plants drink water through their petals? (*thumbs down*)
10. **Crops:** Are crops plants that people eat and use, like wheat and corn? (*thumbs up*)

I am going to ask more questions using other words you have heard in the read-alouds. If the answer is yes, circle thumbs up. If the answer is no, circle thumbs down. I will ask each question two times.

11. **Provide:** Do plants provide people with oxygen and food? (*thumbs up*)
12. **Gigantic:** If something is gigantic, does that mean it is very small? (*thumbs down*)
13. **Mature:** Does a root mature into a seed? (*thumbs down*)
14. **Survival:** Do plants need water and light for survival? (*thumbs up*)
15. **Bare:** Do the branches of deciduous trees become bare when they lose their leaves in the fall? (*thumbs up*)



## PART II (ACTIVITY PAGE DA.2)

TEKS K.6.F; TEKS K.8.D.i; TEKS K.8.D.ii

**Note:** Each student will need crayons in the following colors: dark brown, light brown, dark green, light green, red, blue, and yellow.

Color the part of the plant I describe with the color I tell you to use.

1. Color dark brown the part of the plant that keeps it in the ground and soaks up nutrients and water. (*roots*)
2. Color light brown the part of the plant that is sealed in a protective covering and will grow into a new plant. (*seed*)
3. Color dark green the part of the plant that supports it and carries water and nutrients to the other parts of the plant. (*stem*)
4. Color light green the part of the plant that makes food during photosynthesis. (*leaves*)
5. Color red the part of the plant that makes the seeds. (*flower*)
6. You learned that plants need three things to live. One is food. On the picture of your flower, draw the other two things that plants need. (*water, light*)



## PART III (ACTIVITY PAGE DA.3)

TEKS K.6.F; TEKS K.8.D.i

Listen carefully for the following things I would like you to circle.

1. Circle the things that we get from plants. (*apple, corn, bouquet*)

2. Look at the two pictures of trees on your activity page. Think about the differences between these trees. Draw a brown circle around the tree that is a deciduous tree. Draw a green circle around the tree that is an evergreen tree.

#### **PART IV (ACTIVITY PAGE DA.4)**

**TEKS K.6.F; TEKS K.8.D.i**

I am going to ask some questions. If the answer to the question is yes, circle thumbs up. If the answer is no, circle thumbs down. I will ask each question two times. Let's do number one together.

1. Are all plants exactly the same? (*thumbs down*)
2. Do plants make their own food? (*thumbs up*)
3. Do both deciduous and evergreen trees shed, or lose, all of their leaves in the fall? (*thumbs down*)
4. When Polly the Honeybee goes from flower to flower for food, is she also helping with pollination? (*thumbs up*)
5. Was George Washington Carver known as the "plant doctor"? (*thumbs up*)

# Culminating Activities

## NOTE TO TEACHER

Please use these two final days to address class results of the Domain Assessment. Based on the results of the Domain Assessment, you may wish to use this class time to provide remediation opportunities that target specific areas of weakness for individual students, small groups, or the whole class.

Alternatively, you may also choose to use this class time to extend or enrich students' experience with domain knowledge. A number of enrichment activities are provided below in order to provide students with opportunities to enliven their experiences with domain concepts.

## REMEDIATION

You may choose to regroup students according to particular areas of weakness, as indicated by Formative and Domain Assessment results.

Remediation opportunities include:

- targeting Review Activities
- revisiting lesson Applications
- rereading and discussing select read-alouds

## ENRICHMENT

### Class Book: Plants

#### Materials: Drawing paper, drawing tools

- Tell the class or a group of students they are going to make a class book to help them remember what they have learned in this domain. Have students brainstorm important information about pollination, as well as deciduous and evergreen plants. Have each student choose one idea to draw in a picture. Bind the pages to make a book to put in the class library for students to read again and again.

### Challenge: Captions

- You may choose to have some students write captions for their class book pictures.

## Grow a Potato Plant

**Materials:** Potato that is starting to sprout eyes; glass of water; toothpicks; potting soil; container

- Tell students that the potatoes we eat are used to store nutrients by the potato plant. Explain that you can grow a potato plant from a potato. Place the sprouted end of the potato into a glass of water, supported by toothpicks so that the potato is resting in the water. Place the supported potato in a full glass of water on a warm, sunny windowsill. Make sure the glass stays full of water. The class can watch the potato sprout roots and grow leaves. Once the potato has sprouted leaves, you may wish to transfer the plant into a container filled with potting soil.

## Edible Plant Parts Collage

**Materials:** Baby carrots, celery, spinach, strawberries, sunflower seeds, paper

**Note:** Be sure to check your school's policy regarding food distribution and allergies.

- Tell students they will be using these yummy foods to create an edible plant on their paper. Have students place three baby carrots at the bottom of the paper as the roots. The students should then place the celery as the stem, the spinach as the leaves, and the sunflower seeds as the seeds in the center of the strawberries. Have students talk about each plant part and what it does to help the plant survive before enjoying their creation.

## Domain-Related Trade Book or Student Choice

**Materials:** Trade book

- Read a trade book to review a particular concept; refer to the books listed in the Introduction. You may also choose to have students select a read-aloud to be heard again.

## On Stage: Johnny Appleseed

**Materials:** Drawing paper, drawing tools

- Have students draw a picture of what they think is the most important or most interesting thing they learned about Johnny Appleseed. Divide the class into groups and have students take turns acting out their drawings. Make sure students talk about what they are doing and encourage them to use key vocabulary words like *seed* or *fruit*.

## **Exploring Student Resources**

### **Materials: Domain-related student websites**

- Pick appropriate websites for further exploration of plants.

## **Videos of Plants**

### **Materials: Videos of plants**

- Use a web browser to carefully search for short (five minutes or fewer) videos related to the plant topics covered in the domain. Prepare some questions related to the videos. Discuss how watching a video is the same as and different from listening to a read-aloud.

# Teacher Resources

Kindergarten	Knowledge 4
--------------	-------------

**Teacher Guide**



# Teacher Resources

In this section you will find:

- Activity Book Answer Key
- Texas Essential Knowledge and Skills Correlation Chart
- English Language Proficiency Standards Correlation Chart

# ACTIVITY BOOK ANSWER KEY

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

2.1 **Activity Page**

Directions: The worksheet shows the parts of a plant. Cut out and paste the parts to make a whole plant.





Knowledge 4

75

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

4.1 **Activity Page**

Directions: Color the pictures of the turnip at various stages, then cut them out. Sequence the pictures, starting with the beginning of the turnip's life cycle and finishing with the picture that demonstrates the end of the turnip's life cycle. Last, glue the pictures in the correct order onto a separate sheet of paper.

- 1 
- 2 
- 3 
- 4 

Knowledge 4

77

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

PP.1 **Assessment**

Directions: The worksheet shows the stem of a plant growing out of the earth. Draw in and color the other parts of the plant.











Knowledge 4

79

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

10.1 **Activity Page**



Directions: With your teacher's help, match each item on the left with the plant that it comes from on the right.



1. 		
2. 		
3. 		
4. 		
5. 		



Knowledge 4



85



NAME: \_\_\_\_\_ DA.1 Assessment  
 DATE: \_\_\_\_\_



1.  



2.  



3.  



4.  



5.  

6.  

7.  



8.  



9.  



10.  



Directions: Listen to your teacher's instructions.



Knowledge 4 Plants 87

11.  

12.  

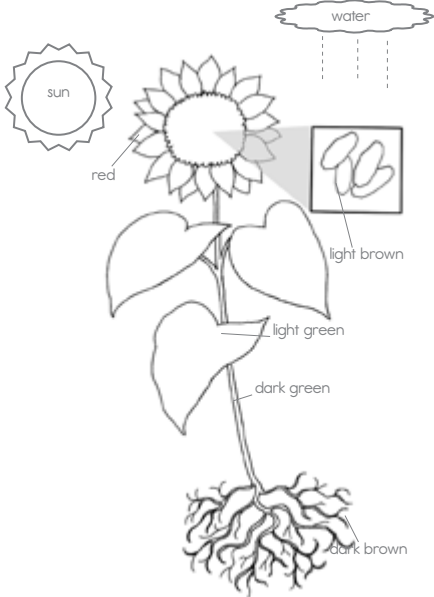
13.  

14.  

15.  

Knowledge 4 Plants 88





NAME: \_\_\_\_\_ DA.2 Assessment  
 DATE: \_\_\_\_\_





Directions: Listen to your teacher's instructions.

Knowledge 4 Plants 89

NAME: \_\_\_\_\_ DA.3 Assessment  
 DATE: \_\_\_\_\_

1.    

2.  









green (evergreen)  
 brown (deciduous)

Directions: Listen to your teacher's instructions.

Knowledge 4 Plants 91

NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_

DA.4 **Assessment**

1.    
2.    
3.    
4.    
5.    

Directions: Listen to your teacher's instructions.

Knowledge 4 Plants

Knowledge 4

93

## TEXAS ESSENTIAL KNOWLEDGE AND SKILLS - KINDERGARTEN

### Knowledge 4

### Correlation—Teacher’s Guide

### Power Hits

(1) Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking—oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:			
TEKS K.1.A	listen actively and ask questions to understand information and answer questions using multi-word responses	D4: p. 5; D4: p. 8; D4: p. 16; D4: p. 19; D4: p. 27; D4: p. 30; D4: p. 39; D4: p. 42; D4: p. 53; D4: p. 56; D4: p. 63; D4: p. 66; D4: p. 72; D4: p. 74; D4: p. 77; D4: p. 96; D4: p. 99; D4: p. 106; D4: p. 109; D4: p. 117; D4: p. 120	
TEKS K.1.B	restate and follow oral directions that involve a short, related sequence of actions		
TEKS K.1.C	share information and ideas by speaking audibly and clearly using the conventions of language;		
TEKS K.1.D	work collaboratively with others by following agreed-upon rules for discussion, including taking turns	D4: p. 53; D4: p. 62	D4: p. 62
TEKS K.1.E	develop social communication such as introducing himself/herself, using common greetings, and expressing needs and wants		
(2) Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:			
(A) demonstrate phonological awareness by:			
TEKS K.2.A.i	identifying and producing rhyming words		
TEKS K.2.A.ii	recognizing spoken alliteration or groups of words that begin with the same spoken onset or initial sound;		
TEKS K.2.A.iii	identifying the individual words in a spoken sentence;		
TEKS K.2.A.iv	identifying syllables in spoken words		
TEKS K.2.A.v	blending syllables to form multisyllabic words		
TEKS K.2.A.vi	segmenting multisyllabic words into syllables		
TEKS K.2.A.vii	blending spoken onsets and rimes to form simple words		
TEKS K.2.A.viii	blending spoken phonemes to form one-syllable words		
TEKS K.2.A.ix	manipulating syllables within a multisyllabic word		
TEKS K.2.A.x	segmenting spoken one-syllable words into individual phonemes		
(B) demonstrate and apply phonetic knowledge by:			
TEKS K.2.B.i	identifying and matching the common sounds that letters represent		
TEKS K.2.B.ii	using letter-sound relationships to decode, including VC, CVC, CCVC, and CVCC words		
TEKS K.2.B.iii	recognizing that new words are created when letters are changed, added or deleted such as <i>it – pit – tip – tap</i>		
TEKS K.2.B.iv	identifying and reading at least 25 high-frequency words from a research-based list.		

## TEXAS ESSENTIAL KNOWLEDGE AND SKILLS - KINDERGARTEN

<b>Knowledge 4</b>		<b>Correlation—Teacher’s Guide</b>	<b>Power Hits</b>
<b>(C) demonstrate and apply spelling knowledge by:</b>			
TEKS K.2.C.i	spelling words with VC, CVC, and CCVC		
TEKS K.2.C.ii	spelling words using sound-spelling patterns; and		
TEKS K.2.C.iii	spelling high-frequency words from a research-based list		
<b>(D) demonstrate print awareness by:</b>			
TEKS K.2.D.i	identifying the front cover, back cover, and title page of a book		
TEKS K.2.D.ii	holding a book right side up, turning pages correctly, and knowing that reading moves from top to bottom and left to right with return sweep		
TEKS K.2.D.iii	recognizing that sentences are comprised of words separated by spaces and recognizing word boundaries		
TEKS K.2.D.iv	recognizing the difference between a letter and a printed word		
TEKS K.2.D.v	identifying all uppercase and lowercase letters		
TEKS K.2.E	develop handwriting by accurately forming all uppercase and lowercase letters using appropriate directionality		
<b>(3) Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:</b>			
TEKS K.3.A	use a resource such as a picture dictionary or digital resource to find words		
TEKS K.3.B	use illustrations and texts the student is able to read or hear to learn or clarify word meanings	D4: p. 16; D4: p. 21; D4: p. 23; D4: p. 24; D4: p. 74; D4: p. 78; D4: p. 117; D4: p. 126	D4: p. 21, D4: p. 23, D4: p. 24
TEKS K.3.C	identify and use words that name actions; directions; positions; sequences; categories such as colors, shapes, and textures; and locations.	D4: p. 74; D4: p. 83	D4: p. 83
<b>(4) Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—self-sustained reading. The student reads grade-appropriate texts independently. The student is expected to self-select text and interact independently with text for increasing periods of time.</b>			
TEKS K.4	self-select text and interact independently with text for increasing periods of time		
<b>(5) Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:</b>			
TEKS K.5.A	establish purpose for reading assigned and self-selected texts with adult assistance	D4: p. 16; D4: p. 21; D4: p. 53; D4: p. 57; D4: p. 63; D4: p. 67; D4: p. 74; D4: p. 78; D4: p. 84; D4: p. 89; D4: p. 96; D4: p. 100; D4: p. 117; D4: p. 121	D4: p. 21
TEKS K.5.B	generate questions about a text before, during, and after reading to deepen understanding and gain information with adult assistance	D4: p. 5; D4: p. 10; D4: p. 12; D4: p. 13; D4: p. 74; D4: p. 78	D4: p. 10, D4: p. 12, D4: p. 13, D4: p. 78
TEKS K.5.C	make and confirm predictions using text features and structures with adult assistance		

## TEXAS ESSENTIAL KNOWLEDGE AND SKILLS - KINDERGARTEN

<b>Knowledge 4</b>		<b>Correlation—Teacher’s Guide</b>	<b>Power Hits</b>
TEKS K.5.D	create mental images to deepen understanding with adult assistance	D4: p. 53; D4: p. 57; D4: p. 58	D4: p. 58
TEKS K.5.E	make connections to personal experiences, to ideas in other texts, and society with adult assistance	D4: p. 106; D4: p. 110	
TEKS K.5.F	make inferences and use evidence to support understanding with adult assistance	D4: p. 5; D4: p. 10; D4: p. 16; D4: p. 21; D4: p. 39; D4: p. 43; D4: p. 84	
TEKS K.5.G	evaluate details to determine what is most important with adult assistance	D4: p. 53; D4: p. 62; D4: p. 63; D4: p. 72; D4: p. 96; D4: p. 100	
TEKS K.5.H	synthesize information to create new understanding with adult assistance	D4: p. 96; D4: p. 100; D4: p. 106; D4: p. 116	
TEKS K.5.I	monitor comprehension and make adjustments such as re-reading, using background knowledge, checking for visual cues, and asking questions when understanding breaks down with adult assistance	D4: p. 5; D4: p. 10; D4: p. 12; D4: p. 13	D4: p. 10, D4: p. 12, D4: p. 13
(6) Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:			
TEKS K.6.A	describe personal connections to a variety of sources		
TEKS K.6.B	provide an oral, pictorial, or written response to a text		
TEKS K.6.C	use text evidence to support an appropriate response	D4: p. 5; D4: p. 10; D4: p. 16; D4: p. 21; D4: p. 106; D4: p. 110; D4: p. 116	
TEKS K.6.D	retell texts in ways that maintain meaning	D4: p. 16; D4: p. 27; D4: p. 31; D4: p. 37; D4: p. 53; D4: p. 57; D4: p. 74; D4: p. 83	
TEKS K.6.E	interact with sources in meaningful ways such as illustrating or writing	D4: p. 26; D4: p. 27; D4: p. 37; D4: p. 39; D4: p. 48; D4: p. 84; D4: p. 94; D4: p. 96; D4: p. 105; D4: p. 117; D4: p. 126	
TEKS K.6.F	respond using newly acquired vocabulary as appropriate	D4: p. 5; D4: p. 10; D4: p. 14; D4: p. 16; D4: p. 21; D4: p. 27; D4: p. 31; D4: p. 39; D4: p. 43; D4: p. 53; D4: p. 57; D4: p. 63; D4: p. 67; D4: p. 72; D4: p. 74; D4: p. 78; D4: p. 84; D4: p. 89; D4: p. 96; D4: p. 100; D4: p. 106; D4: p. 110; D4: p. 117; D4: p. 121	
(7) Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts—literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:			
TEKS K.7.A	discuss topics and determine the basic theme using text evidence with adult assistance		
TEKS K.7.B	identify and describe the main character(s)	D4: p. 74; D4: p. 78	
TEKS K.7.C	identify the elements of plot development including the main events, the problem, and the resolution for texts read aloud with adult assistance	D4: p. 39; D4: p. 43; D4: p. 74; D4: p. 78	
TEKS K.7.D	describe the setting		
(8) Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts—genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:			

## TEXAS ESSENTIAL KNOWLEDGE AND SKILLS - KINDERGARTEN

<b>Knowledge 4</b>		<b>Correlation—Teacher’s Guide</b>	<b>Power Hits</b>
TEKS K.8.A	demonstrate knowledge of distinguishing characteristics of well-known children’s literature, such as folktales, fables, fairy tales, and nursery rhymes	D4: p. 74; D4: p. 77	
TEKS K.8.B	discuss rhyme and rhythm in nursery rhymes and a variety of poems		
TEKS K.8.C	discuss main characters in drama		
<b>(D) recognize characteristics and structures of informational text, including</b>			
TEKS K.8.D.i	the central idea and supporting evidence, with adult assistance	D4: p. 16; D4: p. 21	D4: p. 21
TEKS K.8.D.ii	titles and simple graphics to gain information	D4: p. 27; D4: p. 31; D4: p. 34; D4: p. 37; D4: p. 63; D4: p. 67; D4: p. 84; D4: p. 87	D4: p. 31, D4: p. 34, D4: p. 37, D4: p. 67
TEKS K.8.D.iii	the steps in a sequence with adult assistance.	D4: p. 39; D4: p. 48; D4: p. 53; D4: p. 84; D4: p. 89	D4: p. 48
TEKS K.8.E	recognize characteristics of persuasive text with adult assistance and state what the author is trying to persuade the reader to think or do		
TEKS K.8.F	recognize characteristics of multimodal and digital texts		
<b>(9) Author’s purpose and craft: listening, speaking, reading, writing, and thinking using multiple texts. The student uses critical inquiry to analyze the authors’ choices and how they influence and communicate meaning within a variety of texts. The student analyzes and applies author’s craft purposefully in order to develop his or her own products and performances. The student is expected to:</b>			
TEKS K.9.A	discuss with adult assistance the author’s purpose for writing text		
TEKS K.9.B	discuss with adult assistance how the use of text structure contributes to the author’s purpose		
TEKS K.9.C	discuss with adult assistance the author’s use of print and graphic features to achieve specific purposes	D4: p. 27; D4: p. 31; D4: p. 34	D4: p. 31, D4: p. 34
TEKS K.9.D	discuss with adult assistance how the author uses words that help the reader visualize	D4: p. 53; D4: p. 57; D4: p. 58	D4: p. 58
TEKS K.9.E	listen to and experience first- and third-person texts	D4: p. 117; D4: p. 121	D4: p. 121
<b>(10) Composition: listening, speaking, reading, writing, and thinking using multiple texts—writing process. The student uses the writing process recursively to compose multiple texts that are legible and uses appropriate conventions. The student is expected to:</b>			
TEKS K.10.A	plan by generating ideas for writing through class discussions and drawings		
TEKS K.10.B	develop drafts in oral, pictorial, or written form by organizing ideas		
TEKS K.10.C	revise drafts by adding details in pictures or words		
<b>(D) edit drafts with adult assistance using standard English conventions, including:</b>			
TEKS K.10.D.i	complete sentences		
TEKS K.10.D.ii	verbs		



## TEXAS ESSENTIAL KNOWLEDGE AND SKILLS - KINDERGARTEN

<b>Knowledge 4</b>		<b>Correlation—Teacher’s Guide</b>	<b>Power Hits</b>
TEKS K.10.D.iii	singular and plural nouns		
TEKS K.10.D.iv	adjectives, including articles		
TEKS K.10.D.v	prepositions		
TEKS K.10.D.vi	pronouns, including subjective, objective, and possessive cases		
TEKS K.10.D.vii	capitalization of the first letter in a sentence and name		
TEKS K.10.D.viii	punctuation marks at the end of declarative sentences		
TEKS K.10.D.ix	correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words		
TEKS K.10.E	share writing		
(11) Composition: listening, speaking, reading, writing, and thinking using multiple texts—genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:			
TEKS K.11.A	dictate or compose literary texts, including personal narratives		
TEKS K.11.B	dictate or compose informational texts	D4: p. 84; D4: p. 94; D4: p. 96; D4: p. 105; D4: p. 117; D4: p. 126	D4: p. 94, D4: p. 105
(12) Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:			
TEKS K.12.A	generate questions for formal and informal inquiry with adult assistance		
TEKS K.12.B	develop and follow a research plan with adult assistance		
TEKS K.12.C	gather information from a variety of sources with adult assistance		
TEKS K.12.D	demonstrate understanding of information gathered with adult assistance		
TEKS K.12.E	use an appropriate mode of delivery, whether written, oral, or multimodal, to present results		

## ENGLISH LANGUAGE PROFICIENCY STANDARDS - KINDERGARTEN

### Knowledge 4

### Correlation—Teacher’s Guide

### Power Hits

(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student’s level of English language proficiency. The student is expected to:			
ELPS 1.A	use prior knowledge and experiences to understand meanings in English		
ELPS 1.B	monitor oral and written language production and employ self-corrective techniques or other resources		
ELPS 1.C	use strategic learning techniques such as concept mapping, drawing, memorizing, comparing, contrasting, and reviewing to acquire basic and grade-level vocabulary		
ELPS 1.D	speak using learning strategies such as requesting assistance, employing non-verbal cues, and using synonyms and circumlocution (conveying ideas by defining or describing when exact English words are not known)		
ELPS 1.E	internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment	D4: p. 14, D4: p. 25, D4: p. 46, D4: p. 62, D4: p. 71, D4: p. 72, D4: p. 81, D4: p. 92, D4: p. 99, D4: p. 103, D4: p. 109, D4: p. 114, D4: p. 116, D4: p. 120, D4: p. 124	
ELPS 1.F	use accessible language and learn new and essential language in the process		
ELPS 1.G	demonstrate an increasing ability to distinguish between formal and informal English and an increasing knowledge of when to use each one commensurate with grade-level learning expectations		
ELPS 1.H	develop and expand repertoire of learning strategies such as reasoning inductively or deductively, looking for patterns in language, and analyzing sayings and expressions commensurate with grade-level learning expectations	D4: p. 30, D4: p. 35	
(2) Cross-curricular second language acquisition/listening. The ELL listens to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student’s level of English language proficiency. The student is expected to:			
ELPS 2.A	distinguish sounds and intonation patterns of English with increasing ease		
ELPS 2.B	recognize elements of the English sound system in newly acquired vocabulary such as long and short vowels, silent letters, and consonant clusters		

## ENGLISH LANGUAGE PROFICIENCY STANDARDS - KINDERGARTEN

<b>Knowledge 4</b>		<b>Correlation—Teacher’s Guide</b>	<b>Power Hits</b>
ELPS 2.C	learn new language structures, expressions, and basic and academic vocabulary heard during classroom instruction and interactions	D4: p. 14, D4: p. 35	D4: p. 14, D4: p. 35
ELPS 2.D	monitor understanding of spoken language during classroom instruction and interactions and seek clarification as needed	D4: p. 14, D4: p. 25, D4: p. 30	D4: p. 14, D4: p. 25, D4: p. 30
ELPS 2.E	use visual, contextual, and linguistic support to enhance and confirm understanding of increasingly complex and elaborated spoken language		
ELPS 2.F	listen to and derive meaning from a variety of media such as audio tape, video, DVD, and CD-ROM to build and reinforce concept and language attainment		
ELPS 2.G	understand the general meaning, main points, and important details of spoken language ranging from situations in which topics, language, and contexts are familiar to unfamiliar	D4: p. 13, D4: p. 14, D4: p. 25, D4: p. 60, D4: p. 81, D4: p. 92, D4: p. 99, D4: p. 103, D4: p. 109, D4: p. 114, D4: p. 116, D4: p. 120, D4: p. 124	
ELPS 2.H	understand implicit ideas and information in increasingly complex spoken language commensurate with grade-level learning expectations		
ELPS 2.I	demonstrate listening comprehension of increasingly complex spoken English by following directions, retelling or summarizing spoken messages, responding to questions and requests, collaborating with peers, and taking notes commensurate with content and grade-level needs	D4: p. 13, D4: p. 25, D4: p. 60, D4: p. 72	D4: p. 60
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student’s level of English language proficiency. The student is expected to:			
ELPS 3.A	practice producing sounds of newly acquired vocabulary such as long and short vowels, silent letters, and consonant clusters to pronounce English words in a manner that is increasingly comprehensible		
ELPS 3.B	expand and internalize initial English vocabulary by learning and using high-frequency English words necessary for identifying and describing people, places, and objects, by retelling simple stories and basic information represented or supported by pictures, and by learning and using routine language needed for classroom communication		

## ENGLISH LANGUAGE PROFICIENCY STANDARDS - KINDERGARTEN

<b>Knowledge 4</b>		<b>Correlation—Teacher’s Guide</b>	<b>Power Hits</b>
ELPS 3.C	speak using a variety of grammatical structures, sentence lengths, sentence types, and connecting words with increasing accuracy and ease as more English is acquired	D4: p. 83	D4: p. 83
ELPS 3.D	speak using grade-level content area vocabulary in context to internalize new English words and build academic language proficiency	D4: p. 30	
ELPS 3.E	share information in cooperative learning interactions		
ELPS 3.F	ask and give information ranging from using a very limited bank of high-frequency, high-need, concrete vocabulary, including key words and expressions needed for basic communication in academic and social contexts, to using abstract and content-based vocabulary during extended speaking assignments		
ELPS 3.G	express opinions, ideas, and feelings ranging from communicating single words and short phrases to participating in extended discussions on a variety of social and grade-appropriate academic topics	D4: p. 14, D4: p. 35, D4: p. 46, D4: p. 60, D4: p. 62, D4: p. 71, D4: p. 81, D4: p. 83, D1: p. 91, D4: p. 92, D4: p. 99, D4: p. 103, D4: p. 109, D4: p. 114, D4: p. 116, D4: p. 120, D4: p. 124, D4: p. 126	
ELPS 3.H	narrate, describe, and explain with increasing specificity and detail as more English is acquired		
ELPS 3.I	adapt spoken language appropriately for formal and informal purposes		
ELPS 3.J	respond orally to information presented in a wide variety of print, electronic, audio, and visual media to build and reinforce concept and language attainment		
<p>(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student’s level of English language proficiency. For kindergarten and grade 1, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:</p>			
ELPS 4.A	learn relationships between sounds and letters of the English language and decode (sound out) words using a combination of skills such as recognizing sound-letter relationships and identifying cognates, affixes, roots, and base words		
ELPS 4.B	recognize directionality of English reading such as left to right and top to bottom		

## ENGLISH LANGUAGE PROFICIENCY STANDARDS - KINDERGARTEN

Knowledge 4		Correlation—Teacher’s Guide	Power Hits
ELPS 4.C	develop basic sight vocabulary, derive meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials		
ELPS 4.D	use prereading supports such as graphic organizers, illustrations, and pretaught topic-related vocabulary and other prereading activities to enhance comprehension of written text		
ELPS 4.E	read linguistically accommodated content area material with a decreasing need for linguistic accommodations as more English is learned		
ELPS 4.F	use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language	D4: p. 72	D4: p. 72
ELPS 4.G	demonstrate comprehension of increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs	D4: p. 25, D4: p. 48	D4: p. 25, D4: p. 48
ELPS 4.H	read silently with increasing ease and comprehension for longer periods		
ELPS 4.I	demonstrate English comprehension and expand reading skills by employing basic reading skills such as demonstrating understanding of supporting ideas and details in text and graphic sources, summarizing text, and distinguishing main ideas from details commensurate with content area needs		
ELPS 4.J	demonstrate English comprehension and expand reading skills by employing inferential skills such as predicting, making connections between ideas, drawing inferences and conclusions from text and graphic sources, and finding supporting text evidence commensurate with content area needs		
ELPS 4.K	demonstrate English comprehension and expand reading skills by employing analytical skills such as evaluating written information and performing critical analyses commensurate with content area and grade-level needs		

## ENGLISH LANGUAGE PROFICIENCY STANDARDS - KINDERGARTEN

Knowledge 4		Correlation—Teacher’s Guide	Power Hits
ELPS 5.A	learn relationships between sounds and letters of the English language to represent sounds when writing in English		
ELPS 5.B	write using newly acquired basic vocabulary and content-based grade-level vocabulary	D4: p. 26, D4: p. 38, D4: p. 48	D4: p. 26, D4: p. 38 D4: p. 48
ELPS 5.C	spell familiar English words with increasing accuracy, and employ English spelling patterns and rules with increasing accuracy as more English is acquired		
ELPS 5.D	edit writing for standard grammar and usage, including subject-verb agreement, pronoun agreement, and appropriate verb tenses commensurate with grade-level expectations as more English is acquired		
ELPS 5.E	employ increasingly complex grammatical structures in content area writing commensurate with grade level expectations such as (i) using correct verbs, tenses, and pronouns/antecedents; (ii) using possessive case (apostrophe -s) correctly; and, (iii) using negatives and contractions correctly		
ELPS 5.F	write using a variety of grade-appropriate sentence lengths, patterns, and connecting words to combine phrases, clauses, and sentences in increasingly accurate ways as more English is acquired	D4: p. 48	
ELPS 5.G	narrate, describe, and explain with increasing specificity and detail to fulfill content area writing needs as more English is acquired	D4: p. 38, D4: p. 94, D4: p. 105	

**General Manager K-8 ELA and SVP, Product**

Alexandra Clarke

**Vice President, Elementary Literacy Instruction**

Susan Lambert

**Editorial**

Elizabeth Wade, PhD, Director, Elementary ELA Content  
Patricia Erno, Associate Director, Elementary ELA Instruction  
Kristen Kirchner, Content Writer  
Christina Cox, Copy Editor

**Product & Project Management**

Ayala Falk, Director, Business and Product Strategy, K-8 ELA  
Amber McWilliams, Senior Product Manager  
Leslie Johnson, Associate Director, K-8 ELA  
Zara Chaudhury, Associate Project Manager

**Design and Production**

Tory Novikova, Product Design Director  
Erin O'Donnell, Product Design Manager  
Paige Womack, Product Designer

**Contributors**

Bill Cheng  
Nicole Galuszka  
Ken Harney  
Molly Hensley  
David Herubin  
Ian Horst  
Sara Hunt  
James Mendez-Hodes  
Christopher Miller  
Sheri Pineault  
Diana Projansky  
Todd Rawson  
Jennifer Skelley  
Julia Sverchuk  
Elizabeth Thiers  
Jeanne Thornton  
Amanda Tolentino

**Series Editor-in-Chief**

E. D. Hirsch Jr.

**President**

Linda Bevilacqua

**Editorial Staff**

Mick Anderson  
Robin Blackshire  
Laura Drummond  
Emma Earnst  
Lucinda Ewing  
Sara Hunt  
Rosie McCormick  
Cynthia Peng  
Liz Pettit  
Tonya Ronayne  
Deborah Samley  
Kate Stephenson  
Elizabeth Wafler  
James Walsh  
Sarah Zelinke

**Design and Graphics Staff**

Kelsie Harman  
Liz Loewenstein  
Bridget Moriarty  
Lauren Pack

**Consulting Project Management Services**

ScribeConcepts.com

**Additional Consulting Services**

Erin Kist  
Carolyn Pinkerton  
Scott Ritchie  
Kelina Summers

**Acknowledgments**

These materials are the result of the work, advice, and encouragement of numerous individuals over many years. Some of those singled out here already know the depth of our gratitude; others may be surprised to find themselves thanked publicly for help they gave quietly and generously for the sake of the enterprise alone. To helpers named and unnamed we are deeply grateful.

**Contributors to Earlier Versions of These Materials**

Susan B. Albaugh, Kazuko Ashizawa, Kim Berrall, Ang Blanchette, Nancy Braier, Maggie Buchanan, Paula Coyner, Kathryn M. Cummings, Michelle De Groot, Michael Donegan, Diana Espinal, Mary E. Forbes, Michael L. Ford, Sue Fulton, Carolyn Gosse, Dorrit Green, Liza Greene, Ted Hirsch, Danielle Knecht, James K. Lee, Matt Leech, Diane Henry Leipzig, Robin Luecke, Martha G. Mack, Liana Mahoney, Isabel McLean, Steve Morrison, Juliane K. Munson, Elizabeth B. Rasmussen, Ellen Sadler, Rachael L. Shaw, Sivan B. Sherman, Diane Auger Smith, Laura Tortorelli, Khara Turnbull, Miriam E. Vidaver, Michelle L. Warner, Catherine S. Whittington, Jeannette A. Williams.

We would like to extend special recognition to Program Directors Matthew Davis and Souzanne Wright, who were instrumental in the early development of this program.

**Schools**

We are truly grateful to the teachers, students, and administrators of the following schools for their willingness to field-test these materials and for their invaluable advice: Capitol View Elementary, Challenge Foundation Academy (IN), Community Academy Public Charter School, Lake Lure Classical Academy, Lepanto Elementary School, New Holland Core Knowledge Academy, Paramount School of Excellence, Pioneer Challenge Foundation Academy, PS 26R (the Carteret School), PS 30X (Wilton School), PS 50X (Clara Barton School), PS 96Q, PS 102X (Joseph O. Loretan), PS 104Q (the Bays Water), PS 214K (Michael Friedsam), PS 223Q (Lyndon B. Johnson School), PS 308K (Clara Cardwell), PS 333Q (Goldie Maple Academy), Sequoyah Elementary School, South Shore Charter Public School, Spartanburg Charter School, Steed Elementary School, Thomas Jefferson Classical Academy, Three Oaks Elementary, West Manor Elementary.

And a special thanks to the Pilot Coordinators, Anita Henderson, Yasmin Lugo-Hernandez, and Susan Smith, whose suggestions and day-to-day support to teachers using these materials in their classrooms were critical.



## Credits

Every effort has been taken to trace and acknowledge copyrights. The editors tender their apologies for any accidental infringement where copyright has proved untraceable. They would be pleased to insert the appropriate acknowledgment in any subsequent edition of this publication. Trademarks and trade names are shown in this publication for illustrative purposes only and are the property of their respective owners. The references to trademarks and trade names given herein do not affect their validity.

All photographs are used under license from Shutterstock, Inc. unless otherwise noted.

## Writers

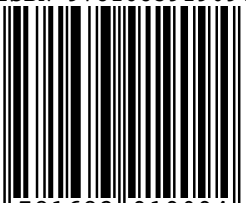
Michael L. Ford, Rosie McCormick, Becky Thomas

## Illustrators and Image Sources

1A-1: Shutterstock; 1A-2: Shutterstock; 1A-3: Shutterstock; 1A-4: Shutterstock; 1A-5: Shutterstock; 1A-6: Shutterstock; 1A-7: Shutterstock; 1A-8: Shutterstock; 2A-1: Steve Morrison; 2A-2: Shutterstock; 2A-3: Shutterstock; 2A-4: Shutterstock; 2A-5: Shutterstock; 2A-6: Shutterstock; 2A-7: Shutterstock; 2A-8: Kristin Kwan; 3A-1: Steve Morrison; 3A-2: Shutterstock; 3A-3: Shutterstock; 3A-4: Shutterstock; 3A-5: Shutterstock; 3A-6: Shutterstock; 3A-7: Shutterstock; 3A-8: Shutterstock; 3A-9: Shutterstock; 3A-10: Shutterstock; 3A-11: Core Knowledge Staff; 4A-1: Shutterstock; 4A-2: Rebecca Miller; 4A-3: Rebecca Miller; 4A-4: Rebecca Miller; 4A-5: Rebecca Miller; 4A-6: Rebecca Miller; 4A-7: Rebecca Miller; 4A-8: Rebecca Miller; 5A-1: Shutterstock, Jed Henry (bee); 5A-2: Shutterstock, Jed Henry (bee); 5A-3: Shutterstock, Jed Henry (bee); 5A-4: Shutterstock, Jed Henry (bee); 5A-5: Shutterstock, Jed Henry (bee); 5A-6: Shutterstock, Jed Henry (bee); 6A-1: Shutterstock, Jed Henry (bee); 6A-2: Shutterstock, Jed Henry (bee); 6A-3: Shutterstock, Jed Henry (bee); 6A-4: Shutterstock, Jed Henry (bee); 6A-5: Shutterstock, Jed Henry (bee); 6A-6: Shutterstock, Jed Henry (bee); 6A-7: Shutterstock, Jed Henry (bee); 6A-8: Shutterstock, Jed Henry (bee); 7A-1: Steve Morrison; 7A-2: Steve Morrison; 7A-3: Steve Morrison; 7A-4: Steve Morrison; 7A-5: Steve Morrison; 7A-6: Steve Morrison; 7A-7: Steve Morrison; 8A-1: Shutterstock; 8A-2: Shutterstock; 8A-3: Shutterstock; 8A-4: Shutterstock; 8A-5: Shutterstock; 8A-6: Shutterstock; 8A-7: Shutterstock; 9A-2: Shutterstock; 9A-3: Shutterstock; 9A-4: Shutterstock; 9A-5: Shutterstock; 9A-6: Shutterstock; 9A-7: Shutterstock; 9A-8: Shutterstock; 10A-1: Shutterstock; 10A-2: Shutterstock; 10A-3: Shutterstock; 10A-4: Shutterstock; 10A-5: Shutterstock; 10A-6: Shutterstock; 10A-7: Shutterstock; 10A-8: Shutterstock; 10A-9: Shutterstock; 10A-10: Shutterstock; 10A-11: Shutterstock; 10A-12: Shutterstock; 10A-13: Shutterstock; 10A-14: Shutterstock; 11A-2: George W. Carver, from "Portraits of Outstanding Americans of Negro Origin Painted by Two Women Artists", compiled ca. 1943–ca. 1963, documenting the period 1941–ca. 1963, Collection H: Harmon Foundation Collection, 1922–1967; 11A-3: Shari Griffiths; 11A-4: Shari Griffiths; 11A-5: Shari Griffiths; 11A-6: Shari Griffiths; 11A-7: Library of Congress, Prints and Photographs, LC-J601-302; 11A-8: Shutterstock; 2.1: Steve Morrison; 4.1: Steve Morrison; PP.1: Steve Morrison; 10.1: Shutterstock; DA.1: Shutterstock; DA.2: Steve Morrison; DA.3: Shutterstock; DA.4: Shutterstock

Regarding the Shutterstock items listed above, please note: "No person or entity shall falsely represent, expressly or by way of reasonable implication, that the content herein was created by that person or entity, or any person other than the copyright holder(s) of that content."

ISBN 9781683919094



9 781683 919094