

<p>Weekly Question: What is important about seeds?</p>			
<p>Texts</p>   	<p>Vocabulary and Language</p> <p>Days 1 & 2: Introduce Weekly Words: <i>become, contain, land, mineral, ripen, scatter, scorched, shoot</i></p> <p>Day 3: Root Words</p> <p>Day 4: Root Words</p> <p>Day 5: Making and Using New Words</p>		
	<p>Text Talk</p> <p>Day 1: <i>Cuckoo/Cucú</i>, Read 1</p> <p>Day 2: <i>Cuckoo/Cucú</i>, Read 2</p> <p>Day 3: Unit Introduction: “The Beauty of Pollination” (video)</p> <p>Day 4: <i>From Seed to Plant</i>, Read 1</p> <p>Day 5: <i>From Seed to Plant</i>, Read 2</p>		
	<p>Stations</p> <p>Guided Independent Reading</p> <hr/> <p>Listening & Speaking: Listen & Respond (<i>The Wakame Gatherers</i>)</p> <p>Science Literacy: What happens from seed to plant to new pepper? What do you want to find out more about?</p> <p>Vocabulary: Choose 3!, Talk About It</p> <p>Word Work: select from activities</p> <p>Writing: follows from Text Talk Week 1, Days 1 and 4</p>		
<p>Mentor texts</p>   	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Science and Engineering (3 days)</p> <p>Lesson 1: Gathering Ideas and Questions about Plants</p> <p>Lesson 2: Observing Seeds</p> <p>Lesson 3: Setting Up Germination Investigations</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Studios (2 days)</p> <p>Children interact with ideas about seeds and plants presented in the opening of the unit, drawing on their own experiences, emerging ideas, and academic vocabulary.</p> </td> </tr> </table>	<p>Science and Engineering (3 days)</p> <p>Lesson 1: Gathering Ideas and Questions about Plants</p> <p>Lesson 2: Observing Seeds</p> <p>Lesson 3: Setting Up Germination Investigations</p>	<p>Studios (2 days)</p> <p>Children interact with ideas about seeds and plants presented in the opening of the unit, drawing on their own experiences, emerging ideas, and academic vocabulary.</p>
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	<p>Writing: Report</p> <p>Day 1: Deconstruction: Report Purpose and Stages</p> <p>Day 2: Deconstruction: Report Stages</p> <p>Day 3: Joint Construction and Individual Construction: Research</p> <p>Day 4: Individual Construction: Research</p> <p>Day 5: Individual Construction: Research</p>		

Unit 4: The Power of Pollinators

WEEK 1 Days 1 & 2

Vocabulary & Language

Weekly Words

Weekly Question	What is important about seeds?
Language Objectives	I can talk with my classmates about words. (SL.1.2) I can define and use new words. (L.5) I can connect words to my own real-life experiences. (L.5.2.a)
Vocabulary	become: to begin to be contain: to hold within land (v): to arrive on the ground or other surface mineral: a substance in the earth that is not from an animal or a plant and that contains nutrients ripen: to become ripe or ready scatter: to disperse, to toss or go in different directions scorched: burned shoot: a new plant or branch
Materials and Preparation	Choose four words to teach each day, following the steps of the Weekly Words routine. <ul style="list-style-type: none">● Week 1 Weekly Words cards● Week 1 Weekly Words slides● chart paper Create the week's Weekly Words chart by writing out the Weekly Words and their definitions. Add icons, sketches, or images as needed.
Opening Day 1	<p><i>We are beginning a new study! This week's words are ones we can use to talk about what's at the very beginning of our study: seeds and plants. Today's words are: _____, _____, _____, and _____.</i></p> <p>As children rate their knowledge of each word, ask a few children to share their ideas about the word. Use this opportunity to highlight connections,</p>

Vocabulary & Language U4 W1 D1 & D2

	<p>similarities, and differences to other words used in the classroom, remarking on parts of speech and morphology and affirming children’s word knowledge.</p> <p>As children respond to the Think, Pair, Share prompts, encourage them to use the word as they speak. Offer sentence stems where it might be helpful.</p>
Day 2	<p><i>Let’s continue learning our words for this week. Today’s words are: _____, _____, _____, and _____.</i></p>
Teaching the words	<p>become (verb) Elaboration: <i>Many of us are amazed that a caterpillar can become a butterfly.</i></p> <p>Think, Pair, Share prompt: <i>Here’s a question many adults like to ask children: What would you like to become when you grow up? Think of and share as many possibilities as you can!</i></p> <hr/> <p>contain (verb) Elaboration: <i>The baby is contained in the sling. The papaya contains lots of small, dark seeds.</i></p> <p>Think, Pair, Share prompt: <i>Think about your lunch, your backpack, or your pockets right now. What do they contain?</i></p> <hr/> <p>land (verb) Elaboration: <i>We’ve studied land as a noun—an area of the earth’s surface. Here it’s a verb, an action. An airplane lands on the runway. This duck is ready to land on the water.</i></p> <p>Think, Pair, Share prompt: <i>Why might a butterfly land on a flower?</i></p> <hr/> <p>mineral (noun) Elaboration: <i>People often confuse minerals and rocks. A mineral is one substance in the earth, and a rock is made up of different minerals. This mineral in the photo is called citrine.</i></p> <p>Think, Pair, Share prompt:</p>

	<p><i>Salt is a mineral, also called sodium. It is a nutrient for our bodies. When do you use this mineral?</i></p>
	<p>ripen (verb) Elaboration: <i>People have lots of tricks for how to ripen bananas. One thing you can always do is just wait!</i></p> <p>Think, Pair, Share prompt: <i>If you have ever eaten something that did not have time to ripen, how did it taste?</i></p>
	<p>scatter (verb) Elaboration: <i>Have you ever done this—blown on a dandelion head so the seeds scatter in the wind? The seeds go everywhere; you can't control where they land. Crayons scatter when we drop a box of them. You children scatter when we go out to the playground.</i></p> <p>Think, Pair, Share prompt: <i>How is scattering seeds different from planting them?</i></p>
	<p>scorched (adjective) Elaboration: <i>Oh, no. It looks like the cook forgot this pan on the stove. It's scorched. It's going to take a lot of scrubbing to clean this scorched pan.</i></p> <p>Think, Pair, Share prompt: <i>Sometimes there are fires in forests. If you found a scorched tree, what would you think? What would you want to do?</i></p>
	<p>shoot (noun) Elaboration: <i>This is a word with lots of meanings. We often think of shoot as a verb—shoot a picture with a camera, shoot a basketball at a hoop. This shoot is a noun, a thing that is a new plant or part of a plant. Here we see a shoot of a fern plant—a new plant coming up through the ground in the springtime—and a tiny new branch coming out of a tree trunk.</i></p> <p>Think, Pair, Share prompt: <i>If you find a plant shoot at the edge of the sidewalk, what can you do to protect it so the plant can thrive?</i></p>

Closing	<i>This week we are beginning to learn about seeds and plants. The words we're studying this week will help us to talk about this, our texts, and other experiences we're having together.</i>
Standards	<p>SL.1.2 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>L.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings sufficient for reading, writing, speaking, and listening.</p> <p>L.5.2.a Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).</p>
Ongoing assessment	<p>Use information gathered from each lesson to plan for embedded opportunities for teaching and reinforcing words.</p> <p>How do children interact with new and familiar words? Are they playful, curious, perplexed, disengaged? Do children connect words to personal experiences? What connections do children make between words they are learning and familiar words? How do children integrate learning from phonics lessons and other developing morphological knowledge? How do children respond when they discover an error in their understanding or use of a word? How flexible are they when confronted with new definitions? How do children talk with peers about new words—do they use gestures, substitute familiar words, dig for descriptions, tell stories?</p> <p>Keep a list to follow each child's vocabulary growth over time.</p>

Notes



become

verb

<https://greattransitionstories.org/patterns-of-change/the-metaphor-of-metamorphosis/>



contain

verb

<http://tehelka.com/papaya-seeds-are-magical/>, https://en.wikipedia.org/wiki/Baby_sling

Weekly Words U4 W1

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land

verb

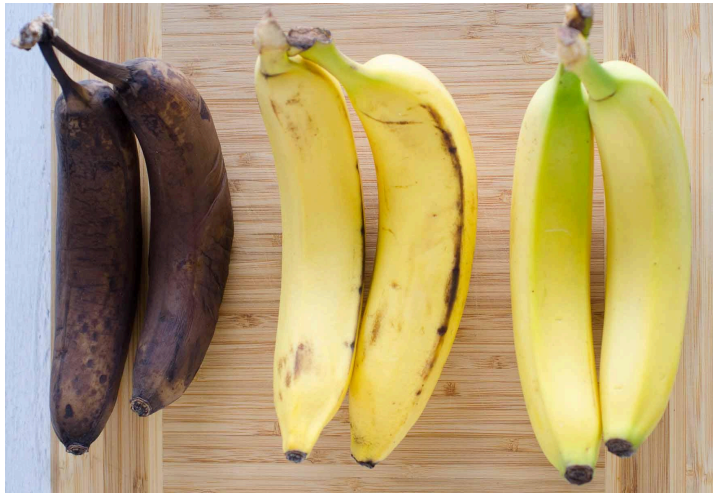
https://commons.wikimedia.org/wiki/File:Landing_mallard.jpg



mineral

noun

<https://sciencestruck.com/rocks-minerals-facts>



ripen

verb

<https://www.seededatthetable.com/how-to-ripen-bananas/>



scatter

verb

<https://wonderopolis.org/wonder/why-do-people-wish-on-dandelions>

Weekly Words U4 W1

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/

Maine Department of Education



scorched

adjective

<https://www.apartmenttherapy.com/how-to-clean-burnt-pots-scorched-pans-140547>



shoot

noun

<https://backyardforager.com/matteuccia-species-delicious-fiddlehead-ferns/>,
<https://www.pikist.com/free-photo-xyizf>

Weekly Words U4 W1

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/

Maine Department of Education

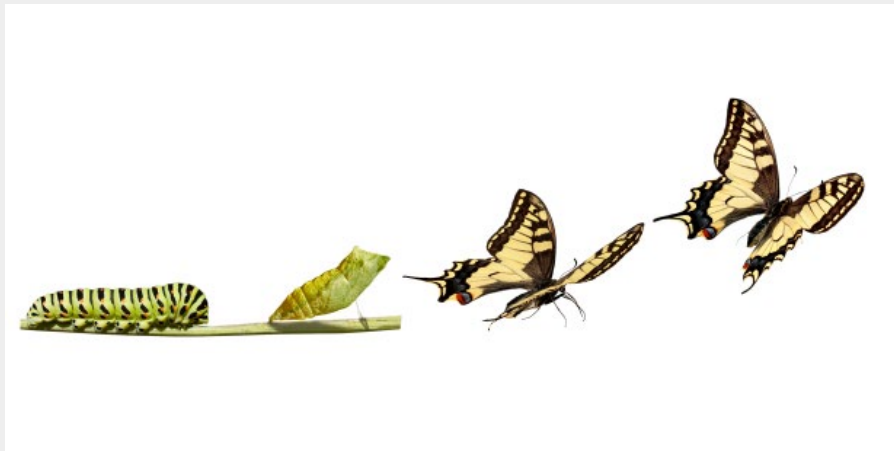
Weekly Words

Unit 4, Week 1

become

verb

to begin to be



contain

verb

to hold within



land

verb

to arrive on the ground or other
surface



mineral

noun

a substance in the earth that is not from an animal or a plant and that contains nutrients



ripen

verb

to become ripe or ready



scatter

verb

to disperse, to toss or go in
different directions



scorched

adjective

burned



shoot

noun

a new plant or branch



Unit 4: The Power of Pollinators

WEEK 1 Day 3

Vocabulary & Language
Root Words

Weekly Question	What is important about seeds?
Language Objective	I can use what I know about root words to determine the meaning of new words. (L.4.2.c)
Materials and Preparation	<ul style="list-style-type: none"> Root Words slides Note: This lesson uses slides 1-7.
Opening	<i>When we read, we can use what we know about words to understand the meanings of new words. Today we are going to practice determining the meaning of new words by looking closely at their root words.</i>
Discussion slide 2	<i>Take a look at this word. Let's read it together. "Container" might be a new word to you. But, the root word, "contain," is one of our Weekly Words. Let's review the meaning of the word "contain."</i>
slide 3	Review the meaning of "contain."
slide 4	<p><i>We know what the root word "contain" means, so let's figure out what "container" means. What do you think it means?</i></p> <p>Note that children might not exactly define the new word. Instead of looking for exact definitions, pay attention to the extent to which they make educated guesses about the meaning based on their knowledge of the root word.</p> <p>Facilitate a discussion of the meaning of the word, based on the meaning of the root word. Discuss how adding the suffix changes the word from a verb to a noun. Make connections to the inferences children have made during Text Talk.</p>
slide 5	<i>Let's try another word. Let's read this word together.</i>

	<i>“Landing” might be a new word to you. But, the root word, “land,” is one of our Weekly Words. Let’s review the meaning of the word “land.”</i>
slide 6	Review the meaning of “land.”
slide 7	<i>We know what the root word “land” means, so let’s figure out what “landing” means. What do you think it means?</i> Facilitate a discussion of the meaning of the word, based on the meaning of the root word. Discuss how adding the suffix changes the word from a verb to a noun.
Closing	<i>Today we used known root words to determine the meaning of unknown new words. Tomorrow we will continue this work.</i>
Standards	L.4.2.c Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).
Ongoing assessment	Reflect on the lesson. Do children accurately identify the meaning of new words? To what extent do they apply their knowledge of the meaning of the root word to determine the meaning of the new word?

Notes

Root Words

Vocabulary & Language Week 1, Days 3-4

container

contain

verb

to hold within



container

landing

land

verb

to arrive on the ground or other
surface



landing

Right now my thoughts are
scattered.

scatter

verb

to disperse, to toss or go in
different directions



Right now my thoughts are
scattered.

I don't understand that
language. I need a **translation.**

translate

verb

to change into the words of
another language



I don't understand that
language. I need a **translation**.

Unit 4: The Power of Pollinators

WEEK 1 Day 4

Vocabulary & Language
Root Words

Weekly Question	What is important about seeds?
Language Objective	I can use sentence context and what I know about root words to determine the meaning of new words. (L.4.2.a, L.4.2.b)
Vocabulary	<p>adjective: a word or phrase used to describe a person, place, thing, or idea</p> <p>noun: a word that names a person, place, thing, or idea</p> <p>verb: a word that expresses a physical action, mental action, or state of being</p>
Materials and Preparation	<ul style="list-style-type: none"> • Root Words slides, from Day 3
Opening	<i>Yesterday we learned that we can use root words we know to determine the meaning of new words. Today we are going to continue that work as we look closely at new words in sentences.</i>
Discussion slide 8	<p><i>Let’s read this sentence together.</i></p> <p><i>The new word here is “scattered.” If you already know what it means, don’t say it yet!</i></p> <p><i>Let’s look at the word “scattered” in this sentence. What part of speech is it? Is it a noun that names something, a verb that shows action, or an adjective that describes a noun?</i></p> <p><i>It’s an adjective! Which noun does it describe? [thoughts]</i></p> <p><i>Now let’s think more about the word. What root word sounds like “scattered,” that could help us figure out what “scattered” means?</i></p> <p><i>One of our Weekly Words this week is “scatter.” Let’s review the definition of “scatter” before we come back to the sentence to determine the meaning of “scattered.”</i></p>
slide 9	Review the definition of “scatter.”

slide 10	<p><i>The root word “scatter” is a verb.</i></p> <p><i>Now that we’ve reviewed the definition of “scatter,” let’s think about the meaning of the adjective “scattered.” What could it mean?</i></p> <p>Facilitate a discussion of the meaning of the word, based on the meaning of the root word and the sentence context.</p>
slide 11	<p><i>Let’s read a set of sentences together.</i></p> <p><i>The new word here is “translation.” If you already know what it means, don’t say it yet!</i></p> <p><i>Let’s look at the word “translation” in this sentence. What part of speech is it? Is it a noun that names something, a verb that shows action, or an adjective that describes a noun?</i></p> <p><i>It’s a noun! Now let’s think more about the word. What root word sounds like “translation,” that could help us figure out what “translation” means?</i></p> <p><i>One of our Weekly Words from the last unit was “translate.” Let’s review the definition of “translate” before we come back to the sentence to determine the meaning of “translation.”</i></p>
slide 12	Review the definition of “translate.”
slide 13	<p><i>The root word “translate” is a verb.</i></p> <p><i>Now that we’ve reviewed the definition of “translate,” let’s think about the meaning of the noun “translation.” What could it mean?</i></p> <p>Facilitate a discussion of the meaning of the word, based on the meaning of the root word and the sentence context.</p>
Closing	<p><i>Today we used sentence context and root words to determine the meaning of new words.</i></p>
Standards	<p>L.4.2.a Use sentence-level context as a clue to the meaning of a word or phrase.</p> <p>L.4.2.b Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).</p>
Ongoing assessment	<p>Reflect on the lesson.</p> <p>Do children accurately identify the part of speech of the word in the sentence context?</p> <p>Do children accurately identify the meaning of new words?</p> <p>To what extent do they apply their knowledge of the meaning of the root word to determine the meaning of the new word? (Children might not exactly define the new word, but to what extent are they able to make educated guesses about the meaning based on their knowledge of the root word?)</p>

Unit 4: The Power of Pollinators

WEEK 1 Day 5

Vocabulary & Language

Making and Using New Words

Weekly Question	What is important about seeds?
Language Objective	I can work with my classmates to make new words by identifying root words and changing or adding parts. I can use the words we make in a sentence. (SL.1.2, L.4.2.c)
Vocabulary	become: to begin to be contain: to hold within land (v): to arrive on the ground or other surface ripen: to become ripe or ready scatter: to disperse, to toss or go in different directions scorched: burned
Materials and Preparation	<ul style="list-style-type: none">• Week 1 Making and Using New Words sheets, one for each small group• pencils, one or two for each small group• Week 1 Weekly Words cards, those listed above• chart paper and markers (2 different colors)
Opening	<p><i>This week we are using the Making and Using New Words routine, using both suffixes and prefixes.</i></p> <p>Recall that suffixes change the end of a word, and prefixes change the beginning of a word.</p>
Key Activity	Facilitate the Making and Using New Words routine, as established in odd weeks since Unit 1.
Closing	<p><i>We can see that changing a word's beginning or ending changes its meaning and how it's used.</i></p>
Standards	SL.1.2 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.

	<p>L.4.2.c Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).</p>
<p>Ongoing assessment</p>	<p>Listen to children’s conversations as they work. What knowledge do children demonstrate about parts of words? What contributions do they make to the construction of a response to a specific question?</p> <p>Observe children’s interactions. How effectively do children work in their groups? What roles do they take on?</p> <p>Reflect on the whole group sharing of one group’s response. What more was revealed about children’s understanding of how words’ meanings change according to their parts?</p> <p>Review each sheet. Use children’s answers to inform planning for successive lessons, revisiting words, prefixes, and suffixes, and informal conversations with individual children.</p>

Notes

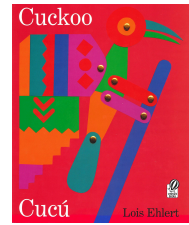
Names: _____

Choose one Weekly Word. Underline the base word. Make new words by adding or changing prefixes or suffixes. Write the words. Check to make sure they make sense. What do the new words mean?

Weekly Words	Prefixes	Suffixes		New Words
become contain land ripen scatter scorched	un - re - mis - dis - trans - non -	- s - ed - ing - es - er - est	- ful - ment - ness - less	 <hr/> <hr/> <hr/> <hr/>

Write a sentence with one of the new words.

Unit 4: The Power of Pollinators



WEEK 1 Day 1

Text Talk
Cuckoo/Cucú
 Read 1 of 2

Big Idea	Organisms in an ecosystem are interdependent.
Weekly Question	What is important about seeds?
Content Objective	I can retell key events in a folktale. (R.4.2, R.8.2.a)
Language Objective	With a partner, I can recount and write about key events in a folktale. (SL.2.2.a)
Vocabulary	<p>caw: harsh grating sound of the crow</p> <p>coo: make the soft murmuring sound of doves</p> <p>dip: fly to a lower branch</p> <p>flashy: showy</p> <p>flicker: move in and out, quiver</p> <p>gasp: to breathe in quickly due to shock or surprise</p> <p>licking: passing lightly over</p> <p>mole: a type of small, furry animal</p> <p>mutter: to talk in a low tone</p> <p>raspy: grating</p> <p>* scorched: burned</p> <p>sour: unpleasant</p>
Materials and Preparation	<ul style="list-style-type: none"> ● <i>Cuckoo/Cucú</i>, Lois Ehlert Pre-mark the pages in the book. Page 1 begins, “Cuckoo was beautiful.” ● <i>Fin M’Coul, the Giant of Knockmany Hill</i>, Tomie DePaola, for quick

reference

- *Cuckoo/Cucú* slides
Note: slide 3 corresponds to page 1.
- projector and screen
- Elements of a Folktale: *Cuckoo* sheet, one copy for each child
- writing tools
- writing surfaces, one for each child
- marker
- chart paper, 2 pieces

Prepare the following Elements of a Folktale chart. Note that this chart will be used with each folktale in the unit, keeping the comparison of folktales in one place.

Elements of a Folktale					
Title	Beginning Setting, Characters, and Events	Middle Problem, Responses to Problem	End Solution	Presence of Magical or Mystical Beings?	Central Message, Lesson, or Explanation of Phenomena
<i>Cuckoo</i>					

Prepare the Weekly Question Chart.

- Writing Station Response: *Cuckoo/Cucú*, 1 copy
On the whiteboard, write the Writing Station prompt.

Assign pairs of children to sit and work together.

Opening
5 minutes

Introduce the unit, the book, and the purpose for reading.

We are beginning a new unit of study today, "The Power of Pollinators." Do you have any ideas about what that might mean?

Harvest a few ideas, encouraging children to use the "Me, too" and other non-verbal signals to acknowledge and connect with each other's ideas. Affirm accurate information, acknowledge uncertainty, and reframe misconceptions as questions.

Over the coming weeks, we'll have lots of time to ask questions and form ideas about what pollinators are and how they are powerful.

*First, we'll start learning about plants and their seeds. Today we will read a book called *Cuckoo*, adapted by Lois Ehlert. This book is*

	<p><i>an adaptation of a Mayan Indian folktale from Mexico, written in both English and Spanish. The illustrations were inspired by various Mexican crafts and folk art.</i></p> <p><i>During this unit, we will read a few folktales. Folktales are like a lot of stories we have read, with a beginning, middle, and end. But folktales are passed along through generations, and they often include special, magical beings, like the giants in Fin M’Coul: the Giant of Knockmany Hill. Also, a folktale is often trying to tell us something—a central message, a lesson, or an explanation of how something came to be.</i></p> <p><i>Today we will read to find out the key elements in the folktale as well as if the story has any magical beings. We will collect our thoughts in the Elements of a Folktale chart and on your own sheets.</i></p> <p>Distribute Elements of a Folktale sheets, writing tools, and clipboards.</p>
<p>Text and Discussion 18 minutes</p> <p>page 1</p>	<p>Read the first page.</p> <p><i>The book has an interesting start. I wonder why it might be a problem that Cuckoo knows she’s beautiful.</i></p>
<p>slide 8 (page 12)</p>	<p>Read through page 12. Project this page.</p> <p>Identify key story elements.</p> <p><i>Who are the main characters in the story? What is the setting? Though the setting is not directly stated, we can infer the setting from the text and the illustrations.</i></p> <p><i>Turn and talk. Identify the setting, and also think about what is happening at the beginning of the story. Then, complete the “Beginning” section.</i></p>
<p>slide 14 (page 24)</p>	<p>Continue reading. Project slide 14.</p> <p><i>What’s the problem in this story? How does Cuckoo respond? How do other characters, like Mole and the Doves, respond?</i></p> <p><i>Talk with your partner. Then, complete the “Middle” section.</i></p>
<p>slide 17 (page 30)</p>	<p>Read through page 30. Project the page.</p> <p><i>How is the problem solved? Based on the text and the illustrations, what has happened to Cuckoo?</i></p> <p><i>Talk with your partner and complete the “End” section.</i></p>
<p>Key Discussion 12 minutes</p>	<p>Finish reading the book.</p> <p><i>Turn to a partner: Practice retelling the folktale, each person taking turns to add on. Use your sheets as a guide.</i></p>

	<p>Return to the group.</p> <p><i>Are there any magical creatures in this folktale?</i></p> <p>Talk as a group, then invite children to complete the final column on their sheets.</p> <p><i>Today we identified the main events in the story and whether or not there are magical creatures. There's one more section we'll talk about tomorrow.</i></p> <p><i>Now let's talk as a group to complete these sections on our chart.</i></p> <p>Cull information from children's individual sheets to complete the class chart. Then collect the sheets.</p>
<p>Writing Station Prompt 2 minutes</p>	<p>Introduce the Writing Station prompt.</p> <p><i>This week at the Writing Station, you will refer to your Elements of a Folktale sheets and our class chart to respond to this prompt: Retell the story of Cuckoo, describing the characters, setting and main events. Add details where appropriate.</i></p>
<p>Closing 1 minute</p>	<p><i>Today we read to understand the elements of a folktale. We put our thinking into our own sheets and into a class chart. Tomorrow we will add to these as we think about the central message of the tale.</i></p>
<p>Weekly Question Chart 2 minutes</p>	<p>Introduce the Weekly Question Chart.</p> <p><i>Throughout this week, we will be asking and answering this question: Why are seeds important? We can record our ideas here. Today we considered how seeds are necessary for some animals' survival. Let's add this to our chart: Collecting seeds helps animals survive.</i></p>
<p>Standards</p>	<p>R.4.2 Ask and answer questions about who, what, when, where, how, and why.</p> <p>R.8.2.a Describe the overall structure of a text, including describing how the beginning introduces the story and the ending concludes the action.</p> <p>SL.2.2.a Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>
<p>Ongoing assessment</p>	<p>Collect and read children's Elements of a Folktale: <i>Cuckoo</i> sheets.</p> <p>How do children map out the folktale elements?</p> <p>Make copies to document each child's thinking.</p>

Name: _____ Date: _____

Elements of a Folktale: Cuckoo/Cucú

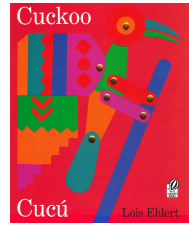
Beginning Setting, Characters, and Events	Middle Problem, Responses to the Problem	End Solution	Presence of Magical or Mystical Beings?
Central Message, Lesson, or Explanation of Phenomena			

Writing Station Response: *Cuckoo/Cucú*

Name: _____ Date: _____

Retell the story of *Cuckoo*. Describe the characters, setting, and main events. Use the Elements of a Folktale chart or sheet to help you.

Unit 4: The Power of Pollinators



WEEK 1 Day 2

Text Talk
Cuckoo/Cucú
Read 2 of 2

Big Idea	Organisms in an ecosystem are interdependent.
Weekly Question	What is important about seeds?
Content Objectives	I can describe how the main character responds to major events and the central message of the folktale. (R.5.2.a, R.2.a) I can articulate why it might be important for animals to gather seeds. (LSS2-3 (MA))
Language Objective	I can orally recount key events and describe character development to demonstrate my understanding of the story. (SL.2.2.a)
SEL Objective	I can effectively communicate my ideas using a discussion protocol. (Relationship Skills)
Vocabulary	caw: harsh grating sound of the crow coo: make the soft murmuring sound of doves dip: fly to a lower branch flashy: showy flicker: move in and out, quiver gasp: to breathe in quickly due to shock or surprise licking: passing lightly over mole: a type of small, furry animal mutter: to talk in a low tone raspy: grating * scorched: burned

	sour: unpleasant
Materials and Preparation	<ul style="list-style-type: none"> ● <i>Cuckoo</i>, Lois Ehlert ● Elements of a Folktale chart, from Day 1 ● children’s Elements of a Folktale sheets, from Day 1 ● writing tools ● writing surfaces, one for each child <p>On the whiteboard, write:</p> <p>What has Cuckoo done? Is it similar or different from how we expected her to act?</p> <p>How does the book end? What is the central message? What do you think of the ending?</p> <p>Review the Inner Circle Outer Circle routine (in Introduction, Part 1, Routines).</p>
Opening 1 minute	<p>Reintroduce the book and state the purpose for reading.</p> <p><i>In Cuckoo, the bird Cuckoo does an important task. Today, we will zoom in on how she responds to events in the story and what this tells us about the folktale’s central message.</i></p> <p>Refer to the Elements of a Folktale chart, final column.</p> <p><i>This is one characteristic of a folktale: it often gives a central message, a lesson, or an explanation of how something came to be. We can call that “an explanation of phenomena.”</i></p>
Text and Discussion 22 minutes	<p><i>Now that we have read through the whole story, what do you think this means: “Cuckoo was beautiful. Trouble was, she knew it.”</i></p> <p>Help children think about this by asking,</p> <p><i>How does she treat others at the start of the story?</i></p>
page 1	
page 9	<p>Think, Pair, Share.</p> <p><i>How do other animals and birds respond to Cuckoo?</i></p>
page 11	<p>Connect to unit content.</p> <p><i>What’s important to the birds as a group?</i></p> <p><i>Why is it important [to gather seeds]?</i></p>
pages 17-18	<p>Support comprehension.</p> <p><i>What is happening in this part of the folktale?</i></p>
pages 25-26	<p>Use the Inner Circle, Outer Circle routine to answer the first set of questions on the whiteboard. Before posing the questions, remind</p>

	<p>children how the routine works, and organize them into two circles, facing each other. Establish how they will rotate when the signal is given.</p> <p><i>What has Cuckoo done? Is it similar or different from how we expected her to act?</i></p> <p>If time allows, have children move twice, to share ideas with two different classmates.</p>
End	Bring the children back to sitting, and finish reading.
<p>Key Discussion and Activity 16 minutes</p>	<p>Take a Note Break. Refer to the second set of questions on the whiteboard.</p> <p><i>Describe the book’s ending. What is the central message? What do you think of the book’s ending?</i></p> <p>After a few minutes of writing, invite children to share their thoughts with the whole group. Encourage them to use the “Me, too” signal for similar ideas.</p> <p>Review and add on to the chart.</p> <p><i>Let’s add the central message to our chart and to your own sheets. Collaboratively, articulate and then record a central message of the folktale.</i></p> <p><i>Is there anything else we should add to our chart?</i> [If not surfaced, prompt the children to add more about Cuckoo’s responses to the problem.]</p>
<p>Closing 1 minute</p>	<p><i>Today we read to find out how the main character, Cuckoo, reacted to main events and a big problem and how this creates the central message. We added this to our chart. When you read stories on your own, you can track the major events and the main character’s response, and this might reveal the central message of the story. We’ll use this chart again when we read other folktales in this unit.</i></p>
<p>Standards</p>	<p>R.5.2.a Retell texts, including details about who, what, when, where, how, and why; demonstrate understanding of the theme.</p> <p>R.6.2.a Describe how characters in a story respond to major events and challenges.</p> <p>R.8.2.a Describe the overall structure of a text, including describing how the beginning introduces the story and the ending concludes the action.</p> <p>SL.2.2.a Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>

	<p>2-LSS2-3(MA). Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live. Clarification Statement: • Animals need food, water, air, shelter, and favorable temperature; plants need sufficient light, water, minerals, favorable temperature, and animals or other mechanisms to disperse seeds.</p> <p>SEL. Relationship Skills.</p>
<p>Ongoing assessment</p>	<p>During the Inner Circle, Outer Circle routine, observe the quality of conversation about the major events of the story and the main character’s response.</p> <p>Collect and make notes of children’s Note Breaks. Do they respond to the ending in order to synthesize their learning and describe the central message?</p>

Notes

Unit 4: The Power of Pollinators



WEEK 1 Day 3

Text Talk
Unit Introduction: “The Beauty of Pollination” (video)

Big Ideas	Organisms in an ecosystem are interdependent. Pollination is a result of animal behavior.
Weekly Question	What is important about seeds?
Content Objective	I can take notes and ask questions that set the stage for thinking about how plants and animals are interdependent. (R.4.2, LSS2-3(MA))
Language Objective	With a partner, I can identify important information and ask questions about a new topic. (SL.2.2.a, SL.2.2.b)
Vocabulary	ability: the skill to do something communicate: to give or receive information element: part inspire: to make someone want to do something
Materials and Preparation	<ul style="list-style-type: none">● video: The Beauty of Pollination (https://www.youtube.com/watch?v=MQiszdkOwuU&t=24s)● projector and screen● Collecting Notes and Questions: “The Beauty of Pollination” video sheet, one copy for each pair of children● writing tools● writing surfaces, one for each pair of children● chart paper and marker Prepare the following chart.

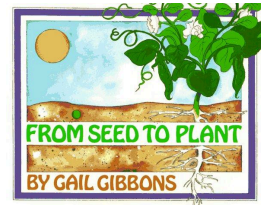
	<table border="1" data-bbox="607 205 1265 619"> <tr> <th colspan="2" data-bbox="607 205 1265 268">"The Beauty of Pollination" video</th> </tr> <tr> <th data-bbox="607 268 933 331">Notes</th> <th data-bbox="933 268 1265 331">Questions</th> </tr> <tr> <td data-bbox="607 331 933 619"></td> <td data-bbox="933 331 1265 619"></td> </tr> </table> <p data-bbox="444 661 1380 772">Identify pairs of children to work together. During the lesson, have children sit so that they can both watch the video and turn to take notes with their partner as the video is shown.</p>	"The Beauty of Pollination" video		Notes	Questions		
"The Beauty of Pollination" video							
Notes	Questions						
Opening	<p data-bbox="444 808 1096 844">Introduce the video and the purpose for watching.</p> <p data-bbox="539 884 1401 1108"><i>Today we'll watch a video. It's made by Louie Schwartzberg, who is known for his ability to capture the natural world up close. As we watch, we'll pause along the way to talk and take notes, as we did when we read Cuckoo yesterday. We are watching to be inspired, to identify what is important, and to ask questions about the topic of our new study: The Power of Pollinators.</i></p>						
Text and Discussion	<p data-bbox="539 1142 1377 1251"><i>This video is about four minutes long. We'll start by watching the video all the way through. Then, the second time we watch, we'll stop along the way to talk and collect our thoughts on paper.</i></p> <p data-bbox="444 1255 834 1291">Show the video once through.</p> <p data-bbox="444 1331 1406 1402">Distribute writing surfaces, writing tools, and sheets. Read the parts of the table together.</p> <p data-bbox="444 1444 1360 1516">During the second showing, play and stop the video as noted below. At each stop, ask the questions,</p> <p data-bbox="539 1520 1256 1556"><i>What seems important here? What are your questions?</i></p> <p data-bbox="444 1560 1377 1703">Give children time to talk together and write down their notes. Circulate to support note taking and conversation. Then, before picking the video back up, harvest a few notes and questions from pairs of children, and record them on the class chart.</p> <p data-bbox="539 1722 1159 1757">Stop at 1:13 (bee collecting and spraying pollen)</p> <p data-bbox="539 1774 948 1810">Stop at 1:18 (bee eating nectar)</p>						

	<p>Show section 1:43 - 1:52 (ripening fruit & vegetables)</p> <p>Show section 2:04 - 2:49 (bats feeding on flowers)</p> <p>Facilitate a class discussion, drawing on the following question bank. Consider using two or three of each type of question. Add to the chart as important ideas and questions arise.</p> <p><u>Literal questions</u> What does this video show? What is it about? What different animals are included? What elements of environment does Louie Schwartzberg capture throughout the video?</p> <p><u>Structural questions</u> What are the different parts of the video? What impact does the music have on the viewers' experience? How does the video communicate about the topic?</p> <p><u>Inferential questions</u> Why, do you think, does Louie Schwartzberg choose to begin the video with a flower opening? Why do you think Louie Schwartzberg chose "The Beauty of Pollination" as the title for this video? Why has Louie Schwartzberg chosen to include these particular animals in this video, instead of others? What is the relationship between these flowers and animals?</p>
<p>Closing</p>	<p><i>Today we watched to be inspired, to identify what is important, and to ask questions about the topic of this study: The Power of Pollinators. We have recorded our ideas and some questions we want to investigate as this study continues, so we'll come back and look at the chart as we learn about pollinators and pollination.</i></p>
<p>Standards</p>	<p>R.4.2 Ask and answer questions about who, what, when, where, how, and why.</p> <p>SL.2.2.a Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p> <p>SL.2.2.b Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.</p> <p>2-LSS2-3(MA). Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live. <i>(not addressed, but introduced)</i></p>

Names: _____ Date: _____

Collecting Notes and Questions: "The Beauty of Pollination" video

Notes What seems important here? Why is it important?	Questions What would we like to find out?



WEEK 1 Day 4

Text Talk
From Seed to Plant
 Read 1 of 2

Big Ideas	Organisms in an ecosystem are interdependent. Living things grow and change over time. The parts of an organism have specific functions. Pollination is a result of animal behavior. Animals, including humans, benefit from and depend on pollination.
Weekly Question	What is important about seeds?
Content Objective	I can explain and describe the text’s big ideas. (R.4.2, R.6.2.b)
Language Objective	I can describe the early stages of how a plant grows and changes over time. (R.9.2.b, LSS2-3(MA))
Vocabulary	<p>bud: an undeveloped part of a plant</p> <p>fluff: a soft, light part</p> <p>germination: the process of beginning to develop into a plant</p> <p>hook: something that catches on to something else</p> <p>nectar: the juice of a plant that attracts pollinators</p> <p>nutrition: food</p> <p>petal: the colored pieces of the flower that surround the stamen and stigma</p> <p>pistil: female part of the flower; made up of style, stigma, ovary</p> <p>pollination: when pollen is moved from a stamen to a stigma in order for a plant to reproduce</p> <p>* ripen: to become ripe or ready</p>

	<p>* scatter: to disperse, to toss or go in different directions</p> <p>seed: the fertilized part of a mature plant</p> <p>seed coat: the outer covering of a seed</p> <p>* shoot: a new plant or branch</p> <p>sprout: begin to grow</p> <p>stamen: male part of the plant that makes pollen</p> <p>stigma: top part of the pistil that receives the pollen</p> <p>Note: there are many words in this lesson, as there are a lot of technical terms about plants in the text. Many of these vocabulary words will be revisited throughout the unit.</p>
<p>Materials and Preparation</p>	<ul style="list-style-type: none"> ● <i>From Seed to Plant</i>, Gail Gibbons Pre-mark the pages of the book. Page 1 begins, “Most plants make seeds.” ● Parts of a Flower poster ● Writing Station Response: <i>From Seed to Plant</i>, 1 copy <p>On the whiteboard, write the Writing Station prompt.</p> <p>Elsewhere on the whiteboard, write the following questions.</p> <p>What do we know so far about how a plant grows and changes over time?</p> <p>Describe how seeds and plants depend on other living things.</p> <p>Why do you think knowing about plants and how they grow matters to animals and people?</p> <p>Assign groups of four children for Numbered Heads Together.</p>
<p>Opening 1 minute</p>	<p><i>In this unit of study, The Power of Pollinators, we are learning about pollination of plants and about pollinators. Through reading and discussion—and through our Science investigations—we’ll look closely at how a plant grows and changes over time. Today we’ll read <i>From Seed to Plant</i> by Gail Gibbons, to better understand these changes. You might remember this book from kindergarten! As we read, we’ll think about how a seed and plant depend on, or need, other living things, and how this is important for people and other animals.</i></p> <p><i>Today we will focus on the first part of the book. We’ll finish reading this text tomorrow.</i></p>

<p>Text and Discussion 18 minutes page 5</p>	<p>Read through page 5, then pause. <i>This diagram offers a lot of information about the structures of a flower and how those different parts work the way that they do. We can also look at our class diagram.</i></p>
<p>Parts of a Flower poster</p>	<p>Show the Parts of a Flower poster. <i>These diagrams teach us a lot of new vocabulary, but we will need to think about, talk about, and use these words over time to really understand them.</i></p> <p><i>What's important right now is to note that flowers are where most seeds begin.</i></p>
<p>pages 6-7</p>	<p>Return to the book, and read the next two pages. Think, Pair, Share. <i>Pollination is going to be the central idea in this unit. From what you've heard so far, what is pollination? Can you explain it in just a few words?</i></p>
<p>page 17</p>	<p>Continue reading through page 17. Stop to briefly explain seed dispersal. <i>Part of how a plant grows and changes over time is seed dispersal. Seeds have to move to locations where the conditions are right for them to grow. They need to have enough space so that they are not fighting for resources like minerals and water. The book is telling us the many different ways this movement happens.</i></p>
<p>page 19</p>	<p><i>Turn and talk to a partner. What do we know so far about how a plant grows and changes over time?</i></p> <p>Stop today's reading here. Move children into small groups.</p>
<p>Key Discussion 12 minutes</p>	<p>Synthesize learning using the Numbered Heads Together routine with two prompts.</p> <p>Prompt 1. <i>Describe how seeds and plants depend on other living things.</i></p> <p>Prompt 2. <i>Why do you think knowing about plants and how they grow and change over time is important to animals and people? In other words, why did Gail Gibbons write this book?</i></p>
<p>Writing Station Prompt 2 minutes</p>	<p>Introduce the Writing Station. <i>In Text Talk today, we read a text about how plants grow and change over time. At the Writing Station, you will draw and write about this.</i></p> <p>Show the sheet, read the prompts, and clarify children's questions about the prompt.</p>

<p>Closing 1 minute</p>	<p><i>Today we read the first part of From Seed to Plant written and illustrated by Gail Gibbons. We read to find out some big ideas and details. Now we know a bit about how plants grow and change, and we are starting to learn about pollination!</i></p>
<p>Standards</p>	<p>R.4.2 Ask and answer questions about who, what, when, where, how, and why. R.6.2.b Describe the relationship between a series of events, ideas, or concepts, using language that pertains to time, sequence, and cause/effect. R.9.2.b Identify the main purpose of a text, including what the author wants to answer, explain, or describe. 2-LSS2-3(MA). Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live. Clarification Statement: • Animals need food, water, air, shelter, and favorable temperature; plants need sufficient light, water, minerals, favorable temperature, and animals or other mechanisms to disperse seeds.</p>
<p>Ongoing assessment</p>	<p>Consider how children participate in this discussion, using key vocabulary about seeds and plants such as pollen, fruit, and ripen. How do children describe key details from the text? How do they identify what the author wants to convey and why it matters?</p>

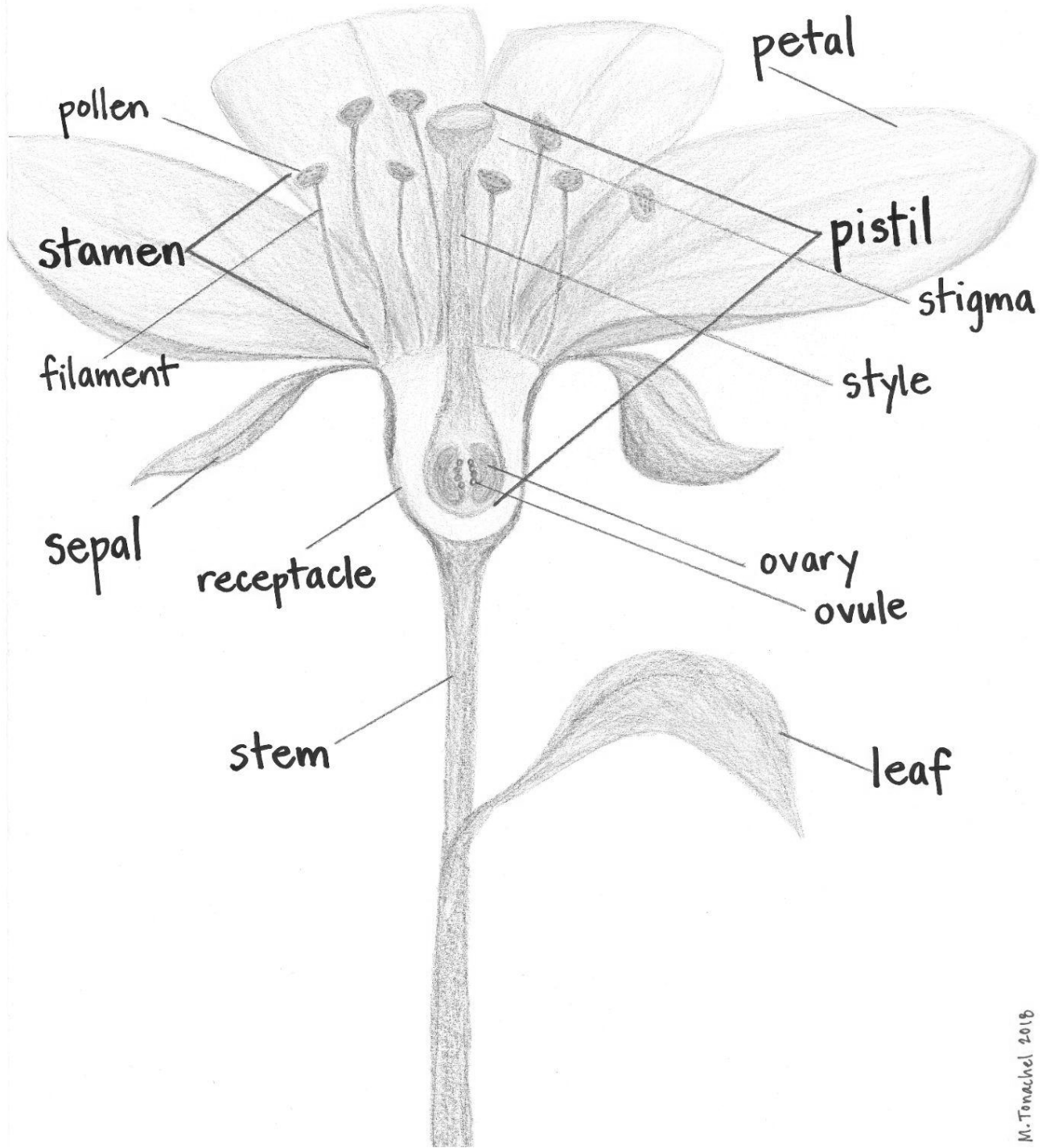
Notes

Writing Station Response: ***From Seed to Plant***

Name: _____ Date: _____

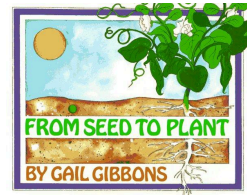
Explain how seeds and plants depend on other living things.
Use evidence from the text.

Parts of a Flower



M. Tonachel 2018

Unit 4: The Power of Pollinators



WEEK 1 Day 5

Text Talk
From Seed to Plant
 Read 2 of 2

Big Ideas	Organisms in an ecosystem are interdependent. Living things grow and change over time. The parts of an organism have specific functions.
Weekly Question	What is important about seeds?
Content Objective	I can explain and describe the text’s big ideas. (R.9.2.b, LSS2-3(MA).) I can show how images in the book clarify the text. (R.11.2.c, R.11.2.d)
Language Objective	I can determine the meaning of unknown words using the text and illustrations to guide me. (L.4)
SEL Objective	I can respectfully discuss with my group using a specific protocol. (Social Awareness, Relationship Skills)
Vocabulary	<p>bud: an undeveloped part of a plant</p> <p>fluff: a soft, light part</p> <p>germination: the process of beginning to develop into a plant</p> <p>hook: something that catches on to something else</p> <p>nectar: the juice of a plant that attracts pollinators</p> <p>nutrition: food</p> <p>petal: the colored pieces of the flower that surround the stamen and stigma</p> <p>pistil: female part of the flower; made up of style, stigma, ovary</p> <p>pollination: when pollen is moved from a stamen to a stigma in order for a plant to reproduce</p> <p>* ripen: to become ripe or ready</p>

	<p>* scatter: to disperse, to toss or go in different directions</p> <p>seed: the fertilized part of a mature plant</p> <p>seed coat: the outer covering of a seed</p> <p>* shoot: a new plant or branch</p> <p>sprout: begin to grow</p> <p>stamen: male part of the plant that makes pollen</p> <p>stigma: top part of the pistil that receives the pollen</p>
<p>Materials and Preparation</p>	<ul style="list-style-type: none"> ● <i>From Seed to Plant</i>, Gail Gibbons ● <i>From Seed to Plant</i> packets (pages 20-23), one copy for each pair of children <p>On the whiteboard, write:</p> <p style="padding-left: 40px;">How are plants dependent on other living things?</p> <p style="padding-left: 40px;">Why is it important for people to learn about seeds and plants?</p> <p>Assign children to groups of four for the Numbered Heads Together routine.</p>
<p>Opening 1 minute</p>	<p><i>How does a plant grow? How do we learn this information? Today we will finish reading From Seed to Plant to answer these questions. We will look closely at a few pages to see how the illustrations and text work together to clarify new information and vocabulary about seeds and plants.</i></p>
<p>Text and Discussion 35 minutes page 20 - end</p>	<p><i>Let's start by reading the rest of the book from where we left off yesterday.</i></p> <p>Briefly review the pages through page 19, as useful to orient children to the text. Begin reading on page 20 and continue to the end.</p>
	<p><i>Now we'll go back to reread a few pages, looking closely at the match between the text and the illustrations. When you read on your own, you can reread parts of the book to see if you can understand it better. You can also look closely at how the text and illustrations support each other. We'll do those things today to better understand seeds and how a plant grows.</i></p> <p>Distribute the packets to pairs of children. Model rereading for comprehension.</p> <p><i>Turn to the first page of your packet. I'm going to reread just the text on the first page. Let's see if this helps us better understand how a</i></p>

	<p><i>plant grows. I'll read this paragraph to you.</i></p> <p>Read aloud, then think aloud.</p> <p><i>The first sentence reads, "The beginning of a plant is curled up inside each seed." What does this mean? How can a plant be inside a seed? What can help us understand this more? Maybe the illustrations can help.</i></p>
page 20	<p>Read the first page of the packet as a group, whisper reading or reading silently. Facilitate a short discussion.</p> <p><i>How do the illustrations support the text on this page?</i></p> <p><i>What do you think it means that the beginning of a plant is inside each seed?</i></p> <p><i>What ideas do you have about the food that is inside the plant?</i></p>
	<p><i>Together, let's read the rest of these pages. After we read, we will go back to see if the illustrations can help clarify new information and vocabulary.</i></p> <p>Read the four pages chorally.</p> <p>Then, return to specific pages to talk about important vocabulary: "seed coat" and "sprout."</p>
	<p>Set up for the Numbered Heads Together routine. Have children turn to page 22 ("When the sun shines and warms...").</p> <p><i>Let's do the Numbered Heads Together routine to think about germination.</i></p> <p><i>What do you think germination is?</i></p> <p><i>During the time that a plant grows and changes, when does germination occur?</i></p> <p><i>How do the text and the illustration help us to understand this word?</i></p>
	<p>Turn to page 23 ("Up grows a shoot.")</p> <p>As a group, read the words and look at the illustration.</p> <p><i>What is a shoot? Why is the shoot important in the development of the seed and plant?</i></p> <p>Facilitate a conversation about the author's purpose.</p> <p><i>Using what we read yesterday and today together, what does Gail Gibbons want us to know about seeds and plants? How do you know? Let's cite specific examples of illustrations or text from the book.</i></p>
Key Discussion	Think, Pair, Share to synthesize learning. Refer to the questions on the

8 minutes	<p>board.</p> <p><i>How are plants dependent on other living things?</i></p> <p><i>Why is it important for people to learn about seeds and plants?</i></p>
<p>Closing</p> <p>1 minute</p>	<p><i>Today we looked very closely at a few pages of text. We talked about how the text and illustrations can help us with new words and ideas. Then, we put together what we are learning about seeds and plants to think about how plants grow and change, and how organisms are interdependent.</i></p>
<p>Weekly Question Chart</p> <p>5 minutes</p>	<p>Refer to the Weekly Question Chart.</p> <p><i>This week we have been thinking about this question: Why are seeds important?</i></p> <p>Read the chart together. Add any essential ideas that may be missing. Identify and color-code 2-3 themes that emerge. Some themes might be: Some animals collect seeds to survive. Seeds are an important stage in the life and growth of a plant.</p> <p>Save this chart for use in Week 5.</p>
<p>Standards</p>	<p>R.9.2.b Identify the main purpose of a text, including what the author wants to answer, explain, or describe.</p> <p>R.11.2.c Explain how specific visuals contribute to and clarify the meaning of a text.</p> <p>R.11.2.d Compare and contrast the information presented by two texts on the same topic.</p> <p>L.4 Use context clues, analyze meaningful word parts, and consult general and specialized reference materials as appropriate to determine or clarify the meaning of unknown and multiple-meaning words and phrases from grade-level content.</p> <p>2-LSS2-3(MA). Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live. Clarification Statement: • Animals need food, water, air, shelter, and favorable temperature; plants need sufficient light, water, minerals, favorable temperature, and animals or other mechanisms to disperse seeds.</p> <p>SEL. Social Awareness</p> <p>SEL. Relationship Skills</p>
<p>Ongoing assessment</p>	<p>Consider how children participate in the small group and whole group discussions, using the illustrations and text to define key vocabulary. Also, note how children synthesize their learning about the development of a plant, to explain seeds’ and plants’ dependence on other living things, and to show how this is important for people and other animals.</p>

	<p>Listen to children’s discussion.</p> <p>To what extent do children refer to illustrations and text to define key vocabulary?</p> <p>How do children synthesize their learning about how plants grow and change, to explain the seed’s and plant’s dependence on other living things, and to show how this is important for people and other animals?</p> <p>How do children access and use key vocabulary?</p>
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Notes

Unit 4: The Power of Pollinators

WEEK 1

Stations

Station	Activities	Materials
	Guided Independent Reading	<ul style="list-style-type: none"> individual book bags
Teacher groups: strategic small group instruction		
Listening & Speaking	Listen and Respond	<ul style="list-style-type: none"> audio recording and technology <i>The Wakame Gatherers</i> book and slides conversation prompts
Science Literacy	Write and draw about seeds you have noticed at home or in school.	<ul style="list-style-type: none"> Unit 4 Science and Engineering packets colored pencils
Vocabulary	Choose 3!	<ul style="list-style-type: none"> selected Week 8 Weekly Words cards Recording sheets Choose 3! menu
	Talk About It: What happens from seed to plant to new pepper? What do you want to find out more about? <i>Note: Children use vocabulary they know to discuss and write about this image/video.</i>	<ul style="list-style-type: none"> slide with time-lapse video (3:00) Or: Week 1 image, 2 copies cut apart Week 1 sheets
Word Work <i>(align skills with literacy program)</i>	Sorting double vowels (ou/ow)	<ul style="list-style-type: none"> Week 1 Name It, Sort It, Write It sheets
	Marking double vowels (ou/ow)	<ul style="list-style-type: none"> Week 1 Name It, Write It, Mark It sheets
	Choosing vowel teams (ou/ow)	<ul style="list-style-type: none"> Week 1 Name, Choose, Read sheets
	Finding words with ou/ow vowel teams, using them in sentences	<ul style="list-style-type: none"> Week 1 Find Them! sheets
	Writing words, using them in sentences	<ul style="list-style-type: none"> Week 1 Look Cover Write Check sheets
Writing	Prompt from Text Talk Day 1: Retell the story of <i>Cuckoo/Cucú</i>	<ul style="list-style-type: none"> Writing Station Response sheet
	Prompt from Text Talk Day 4: Responding to <i>From Seed to Plant</i>	<ul style="list-style-type: none"> Writing Station Response sheet

Writing Station Response: ***From Seed to Plant***

Name: _____ Date: _____

Explain how seeds and plants depend on other living things.
Use evidence from the text.

Writing Station Response: *Cuckoo/Cucú*

Name: _____ Date: _____

Retell the story of *Cuckoo*. Describe the characters, setting, and main events. Use the Elements of a Folktale chart or sheet to help you.

The Wakame Gatherers Conversation Prompts: Cut apart and provide with text and audio recording.

Page 2:

What are some good things about having family members living in two different places?

The Wakame Gatherers

Page 9:

Baachan is surprised that Gram doesn't eat seaweed in Maine.
How does the place where you live affect the foods you eat?

The Wakame Gatherers

After reading:

When Gram returns home and opens her suitcase, she will find the dried wakame she packed. What do you think were her favorite parts of her trip?

The Wakame Gatherers

I agree with you. I also think ____.



Why do you think that?



I don't think I agree with you because ____.

Name: _____

Name It	Sort It	Write It
---------	---------	----------

Name the picture. Glue it in the proper column. Write the word.

ou as in house 	ow as in clown 
<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>

<p>ou as in house </p>	<p>ow as in clown </p>
<p>_____</p> <p>-----</p> <p>_____</p>	<p>_____</p> <p>-----</p> <p>_____</p>
<p>_____</p> <p>-----</p> <p>_____</p>	<p>_____</p> <p>-----</p> <p>_____</p>

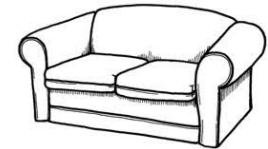
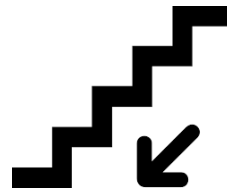
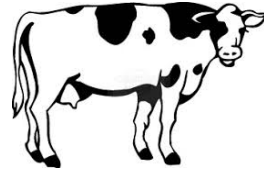
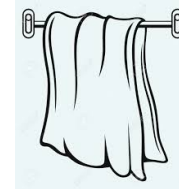
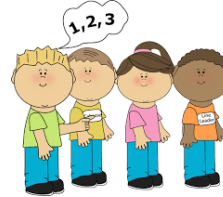
Word Bank		towel	bounce
cloud	crown	down	mouth
cow	couch	count	owl

Skills: Know spelling-sound correspondences for additional common vowel teams.

Name It

Sort It

Write It












Word Work Station U4 W1

Name: _____

Name It	Write It	Mark It
---------	----------	---------

Write the word. Circle and mark the double vowel.

Word Bank							
frown	scout	cloud	owl	couch	mouse	blouse	discount

 c l o w n d	 _____ _____ _____	 _____ _____ _____
 _____ _____ _____	 _____ _____ _____	 _____ _____ _____
 _____ _____ _____	 _____ _____ _____	 _____ _____ _____


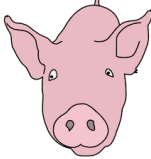




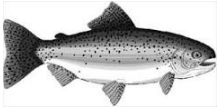

Skills: Know and apply grade-level phonics and word analysis skills in decoding words.

Name: _____

Name It	Choose It	Read It
---------	-----------	---------

Name the picture. Circle the vowel team that completes the word and write it in the space. Read the word.

OU or OW

	cl____n		sn____t
	p____ch		sh____t
	dr____n		r____nd
	tr____t		b____

Skills: Know spelling-sound correspondences for additional common vowel teams.

Name: _____

Find Them!
Vowel Teams

Look through your books to find words with the vowel teams **ou** and **ow**. Write the words you find. Circle the vowel teams.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Skills: Know spelling-sound correspondences for additional common vowel teams.

Use them in Sentences

Choose four words from the list above. Use each one in a sentence.

1. _____

2. _____

3. _____

4. _____

Name: _____

Look	Cover	Write	Check ✓
------	-------	-------	---------

Wednesday	<hr/> <hr/> <hr/>	
Thursday	<hr/> <hr/> <hr/>	
Saturday	<hr/> <hr/> <hr/>	

Skills: Recognize and read grade-appropriate irregularly spelled words.

Use it in a Sentence

Wednesday

Handwriting practice lines for Wednesday, consisting of two sets of three horizontal lines (top solid, middle dashed, bottom solid).

Thursday

Handwriting practice lines for Thursday, consisting of two sets of three horizontal lines (top solid, middle dashed, bottom solid).

Saturday

Handwriting practice lines for Saturday, consisting of two sets of three horizontal lines (top solid, middle dashed, bottom solid).

Talk About It



<https://www.missbuttercup.com/can-you-eat-bell-pepper-seeds/>,
<https://parenting.firstcry.com/articles/magazine-growing-bell-peppers-from-seedlings-procedure-and-tips/>



<https://www.missbuttercup.com/can-you-eat-bell-pepper-seeds/>,
<https://parenting.firstcry.com/articles/magazine-growing-bell-peppers-from-seedlings-procedure-and-tips/>

Vocabulary Station U4 W1

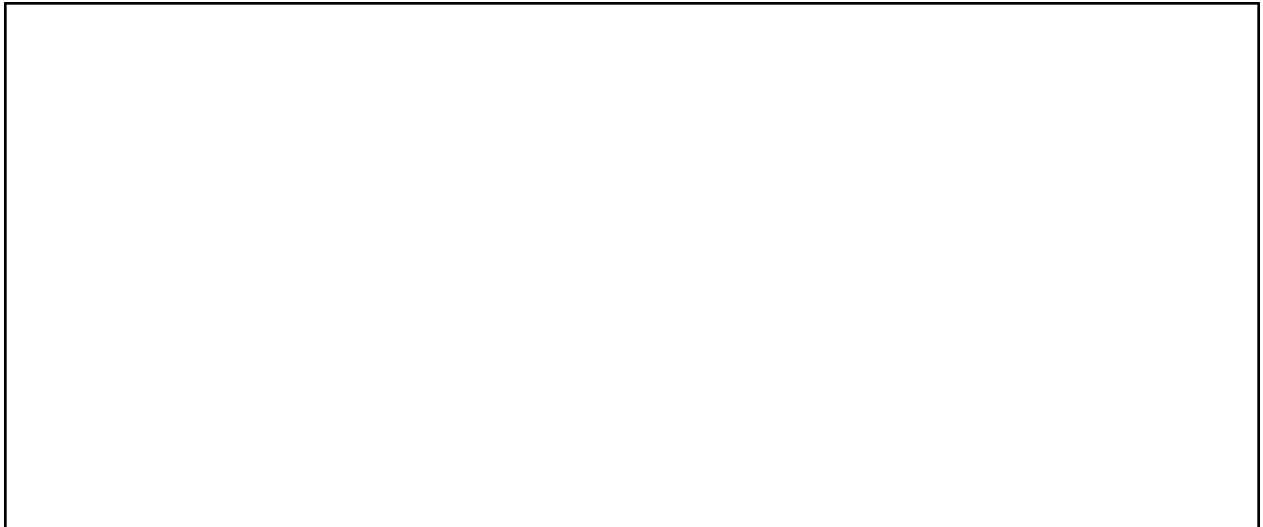
Talk About It

Name: _____ Date: _____

What are some of the things that happen from seed to plant to new pepper?

What do you want to find out more about?

Watch the video or look carefully at the images. **Talk** with your partner, **draw and write** about your ideas, and then **share** your writing. Use important vocabulary words as you talk and write. **Circle** the important words you use.





Vocabulary Station U4 W1

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/
Maine Department of Education

Unit 4: The Power of Pollinators

WEEK 1 Lesson 1

Science and Engineering: Life Sciences
Ecosystems: Gathering Ideas and Questions about Plants

Big Idea	Living things grow and change over time.						
Guiding Question	Why is it important to understand how living things grow and change over time?						
Content Objective	I can identify what I know and what I wonder about plants. (Practice 1)						
Language Objective	I can discuss my ideas and questions about plants. (SL.1.2, SL.1.2.b)						
Vocabulary	grow: to get bigger reproduce: to make new organisms						
Materials and Preparation	<ul style="list-style-type: none"> ● writing tools ● About Plants sheet, one copy for each group ● chart paper <p>Prepare the following chart.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th colspan="2" style="text-align: center;">About Plants</th> </tr> <tr> <th style="text-align: center;">We Think We Know</th> <th style="text-align: center;">We Want to Know</th> </tr> <tr> <td style="height: 100px;"></td> <td style="height: 100px;"></td> </tr> </table> <p>Plan for children to work in small groups.</p> <p>If possible, plan to conduct part or all of this lesson in an area outdoors where children can observe plants growing.</p>	About Plants		We Think We Know	We Want to Know		
About Plants							
We Think We Know	We Want to Know						

	<p>Prepare for Lesson 2: Soak bean seeds overnight to accelerate sprouting time. Each group will need seven or eight seeds. Soak more seeds than needed, as not all seeds will germinate.</p>
<p>Opening 5 minutes</p>	<p><i>In our new unit, The Power of Pollinators, we will look closely at plants. We'll learn about their different parts and how they are used, and we'll learn about what they need to grow and develop. We'll also learn how plants reproduce, or make new plants.</i></p> <p>If possible, take the class outdoors to where plants are growing. Invite children to make and share observations.</p> <p><i>Along with the plants we've just looked at, you all have other experiences with plants—maybe you have planted seeds and watched them grow; maybe you have noticed plants around our town; or maybe you take care of plants where you live. You probably also have some ideas about what plants need to grow. Today you will talk in small groups about what you think you know and what more you want to find out about plants.</i></p> <p>Show the About Plants sheet.</p> <p><i>In your small groups, as you share ideas about plants, you might not all agree about something. Talk about that. Once you have talked about your ideas, have someone in your group record <u>one</u> question that you would like to investigate during this unit. You will revisit this question each time you make an observation of our plants.</i></p>
<p>Investigation 10 minutes</p>	<p>As children talk and record ideas in small groups, circulate to facilitate their discussions. Help them to formulate questions and land on one to investigate over the course of several weeks.</p>
<p>Discussion 14 minutes</p>	<p>Gather the group together and harvest some of the children's ideas, one column and one group at a time. Encourage children to use a signal for repeated ideas, and record only each new novel idea on the chart. Note children's names next to the questions</p> <p>As children share statements from the We Think We Know section, encourage discussion. If disagreement arises, annotate it with a question mark or formulate a new question and record it in the We Want to Know column.</p>
<p>Closing 1 minute</p>	<p><i>Today we talked about ideas we already have about plants and generated some questions to come back to through our study of pollination. This chart will stay up in the classroom so that you can</i></p>

	<p><i>keep these questions in mind as we read, investigate, and talk about plants.</i></p> <p><i>Tomorrow we will begin to work with seeds.</i></p>
Standards and Practices	<p>SL.1.2 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>SL.1.2.b Build on others' talk in conversations by linking their comments to the remarks of others.</p> <p>2-LS2-1 Plan and conduct an investigation to determine if plants need sunlight and water to grow.</p> <p>2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.</p>
Ongoing assessment	<p>Collect children’s recording sheets and reflect on the class discussion.</p> <p>What ideas do children begin with?</p> <p>What misconceptions have arisen?</p> <p>How do children discuss what they think they know?</p> <p>How attentively do they listen to others’ ideas?</p> <p>How do children formulate questions?</p>

Notes

Names: _____

Date: _____

About Plants

We Think We Know	We Want to Know

Unit 4: The Power of Pollinators

WEEK 1 Lesson 2

Science and Engineering: Life Sciences
Ecosystems: Observing Seeds

Big Idea	Living things grow and change over time.
Guiding Question	Why is it important to understand how living things grow and change over time?
Content Objectives	I can identify characteristics of seeds using a hand lens. (Practice 3) I can record my observations using drawings and words. (W.1.2.a) I can draw and write about the seed I observed. (Practice 4, W.1.2.a)
Language Objective	I can exchange observations about bean seeds with a partner. (SL.1.2.b)
Vocabulary	enlarge: to make bigger marking: a pattern of marks or coloring on a plant or animal (* Week 3)
Materials and Preparation	<ul style="list-style-type: none">● About Plants chart, from Lesson 1● bean seeds, one for each pair of children● one large seed of another kind, for modeling● pencils and colored pencils● Unit 4 Science and Engineering packets● hand lenses or other magnifiers● chart paper Create the following chart (an enlarged model of the Science and Engineering packet page for Week 1, Lesson 2)

	<p>Observing Plants</p> <p>Question: _____</p> <p>_____</p> <p>_____</p> <p>Observations:</p> <div style="border: 1px solid black; width: 80%; margin: 10px auto; height: 150px;"></div> <p>_____</p> <p>_____</p> <p>_____</p>
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<p>Opening 5 minutes</p>	<p><i>Today you will practice recording observations with detail. Doing this—observing closely and recording details—will be a very important part of our work in this unit.</i></p> <p><i>We'll concentrate on observing and drawing bean seeds. We will be recording careful observations throughout our study of plants and pollination. Each page will include your question, the date, a drawing, and some notes.</i></p> <p><i>During our last lesson, your group came up with a question to investigate. That will be the question you record at the top of your observation page. It might take some time to answer that question, so you'll keep it in mind as we investigate.</i></p> <p>If helpful, review the questions recorded on the chart, naming the children who will follow each question (as determined in the Lesson 1 small groups, allowing for children to change their minds and instead choose a question posed by a different group, if more interesting to them).</p> <p>Use the extra seed (other than a bean seed) to model observational recording. Be methodical to set children up for future entries.</p>
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	<p><i>Today we are looking carefully at a seed.</i></p> <p>Choose a question from the chart or suggest a different, simple question as a title, such as What are the parts of a seed? or What does a seed look like?</p> <p>Collaboratively with a child, model noticing and talking through the observation.</p> <p><i>Let's look carefully. What do you notice?</i> <i>Yes, I see that, too. I also see...</i></p> <p>Model using a hand lens to get a better look at the seed. Talk about all the details of the seed: size, color, shape, texture, and any other noticeable markings.</p> <p>Model drawing, discussing scale.</p> <p><i>Make sure to draw every single thing you notice.</i> <i>This is tricky. A seed is quite small. We can include more details if we draw it bigger, or enlarge it. Scientists often do this, while also ensuring that they show the actual size. How could I do that?</i></p> <p>Invite children to make suggestions about how to indicate scale, and include this clearly on the page.</p> <p>Model writing observational notes.</p> <p><i>This detail is especially interesting to me, so I'll write about it in the observations section at the bottom. What words might I use to describe this?</i></p> <p><i>You can also use this space to write a new question.</i></p>
<p>Investigation 15 minutes</p>	<p>Distribute children's packets, seeds, and hand lenses.</p> <p>Guide children to write their question at the top of the page.</p> <p>As children look at the seeds and record their observations, listen to their conversations and take note of how they approach the drawing. Encourage children to look ever more closely and to include every detail they see. Support their conversations as they exchange observations and formulate questions.</p> <p><i>Tell me what you notice.</i> <i>How can you draw those details?</i> <i>Are you both showing that part of the seed in your drawings?</i> <i>How will you show what size the bean seed actually is?</i> <i>What are you wondering about the seed?</i></p> <p>Identify the work of one pair of children to share with the whole group using the Thinking and Feedback routine.</p>

	Talk with these children ahead of time to identify the strategy they used or any specific feedback they would like to solicit.
Discussion 10 minutes	Gather the children in the whole group, and facilitate the Thinking and Feedback routine. Finish by reviewing clear expectations for observational recording.
Closing	If any new ideas or questions have arisen, add them to the About Plants chart. <i>Tomorrow we will start growing the bean seeds you observed today. It will be interesting to see how they change over time.</i>
Standards and Practices	W.1.2.a Investigate questions by participating in shared research and writing projects. SL.1.2.b Build on others' talk in conversations by linking their comments to the remarks of others. 2-LS2-1 Plan and conduct an investigation to determine if plants need sunlight and water to grow. 2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
Ongoing assessment	Review children's packets. Notice how children represent their ideas in drawings and words. Add new questions to the class chart for ongoing research and informing successive lessons and conversations.

Notes

Unit 4: The Power of Pollinators

WEEK 1 Lesson 3

Science and Engineering: Life Sciences

Ecosystems: Setting Up Germination Investigations

Big Idea	Living things grow and change over time.
Guiding Question	Why is it important to understand how living things grow and change over time?
Content Objective	I can design investigations to determine in what conditions seeds germinate. (2-LS2-3(MA), Practice 3)
Language Objective	I can exchange ideas with my partners for testing conditions for seed germination. (SL.1.2.b)
Vocabulary	condition: a characteristic of the environment (that allows seeds to germinate or not) germinate: to begin to develop into a plant sprout: to begin to grow
Materials and Preparation	<p>For the lesson:</p> <ul style="list-style-type: none">● chart paper At the top of this paper write the question, What conditions do seeds need to germinate?● About Plants chart, from previous lessons● Science and Engineering packets● Writing and drawing tools <p>Ahead of the lesson, assign children to small groups, and a specific investigation to each group. Investigations can be led by the questions children have articulated previously, if applicable. To the extent possible, each investigation should have only one variable. Some possibilities for investigations are:</p> <ol style="list-style-type: none">1. Do seeds need dirt to sprout? Set up one bag with seeds and a paper towel, and another with

	<p>seeds in dirt. Keep them both moist.</p> <ol style="list-style-type: none"> 2. Do seeds need light to sprout? Set up one bag in a dark place and another in a light-filled place. Keep both moist, and both with paper towels or with dirt. 3. Do seeds need water to sprout? Set up two sets of seeds in plastic bags, one that will be watered and one that will be kept dry. Both should be with paper towels or with dirt, and both in similar light conditions. 4. Do seeds need warm (or cool) temperatures to sprout? Set up one set of seeds in a cool or cold location and one in a warm location. Keep them both moist, both with paper towels or with dirt, and both in similar light conditions. (If one bag will be in a refrigerator, the other should also be in a dark place.) <p>Organize materials according to the investigations planned, and arrange them at each work station, as indicated below.</p> <p>For all investigations:</p> <ul style="list-style-type: none"> ● bean seeds, 4 for each group (please make sure you have extras) ● 1 spray bottle or small container with water, 1 for each group ● Investigation Labels, copied and cut apart, enough for each group to have 2 <p>For investigations starting seeds in bags:</p> <ul style="list-style-type: none"> ● Starting Seeds in Bags procedure, 1 copy for each group ● sandwich-size plastic bags, 2 for each group ● paper towels, 3 for each group <p>For investigations starting seeds in soil:</p> <ul style="list-style-type: none"> ● Starting Seeds in Soil procedure, 1 copy for each group ● small containers for planting, 4 for each group Punch one hole in the bottom of each container. ● small saucers or plastic lids, to place under each container ● soil, enough to fill all the containers ● popsicle sticks, 1 for each group
<p>Opening 12 minutes</p>	<p><i>What conditions do seeds need to germinate?</i></p> <p>Read the question on the chart and define conditions and germinate.</p> <p>Invite children to suggest initial answers to the question, drawing on their ideas from previous discussions. Refer to the About Plants chart as useful. Some possible questions to extend the discussion:</p> <p><i>Do you think seeds need light to sprout, or not?</i></p>

	<p><i>Do you think seeds need dirt to germinate, or not? Do you think seeds need water to sprout, or not? Do you think seeds will sprout at any temperature?</i></p> <p>Encourage children to cite evidence from personal experience by asking <i>What makes you say that?</i> as they offer ideas. Add any new ideas and questions to the About Plants chart.</p> <p><i>You have lots of ideas about what seeds need to start growing. Think, Pair, Share. How might we investigate these ideas?</i></p> <p><i>You're going to set up some investigations to answer your questions about what seeds need to start growing. Everyone will use bean seeds, and we'll start some in plastic bags and some in containers with soil. These investigations will test the conditions needed for seeds to germinate or sprout—to start growing into a plant.</i></p> <p><i>Here are two procedures, one for starting seeds in plastic bags, and one for planting seeds in soil.</i></p> <p>Briefly walk through the main points of each procedure. Note that the plastic bag procedure will vary slightly, depending on the investigations children conduct.</p> <p><i>Make sure you label your plastic bags so we know which group each one belongs to and what the investigation is about. [Show labels.]</i></p> <p><i>Once your investigations are set up, be sure to record them in your packets. [Refer to the appropriate page in the packet.]</i></p> <p>Assign children to groups and send them to work.</p>
<p>Investigation 13 minutes</p>	<p>Circulate as children work, assisting as needed with setting up investigations, supporting recording, checking that investigations are properly labeled, and confirming locations for each bag or pot.</p>
<p>Discussion 5 minutes</p>	<p>Gather children in the whole group. Ask each group to share the investigation they set up and what they think they will learn from it.</p> <p><i>What question do you hope we will answer with this investigation? What do you think might happen? Why do you think that?</i></p>
<p>Closing</p>	<p><i>Today we set up some investigations to test ideas about what seeds need to germinate, or start growing. You will be checking on the</i></p>

	<p><i>seeds every day. You have already recorded the setup of your investigation in your Science and Engineering packets. You'll record any changes you notice, and next week you'll all report on your investigations.</i></p>
<p>Standards and Practices</p>	<p>SL.1.2.b Build on others' talk in conversations by linking their comments to the remarks of others.</p> <p>2-LS2-1 Plan and conduct an investigation to determine if plants need sunlight and water to grow.</p> <p>2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.</p>
<p>Ongoing assessment</p>	<p>Reflect on children's work during the investigation, and review their packets.</p> <p>How do children talk with each other about growing conditions? What do they already understand about seed germination? What misconceptions are revealed? How do children work together to set up their investigations? Do children have a clear purpose for their investigations?</p>

Notes

Starting Seeds in Bags



Materials

- 3 paper towels
- 1 small container of water
- 2 sandwich-size plastic bags
- 4 bean seeds

Preparation

Spread one paper towel on the workspace to keep it clean and dry.

	<p>1. Fold one paper towel to the size of your hand.</p> <p>2. Dip your hand in the water.</p>		<p>5. Place the paper towel flat inside a bag.</p>
	<p>3. Put your hand on the folded paper towel to get it a little bit wet. Keep doing this until the paper towel is damp but not soaking wet.</p>		<p>6. Place two beans on top of the paper towel inside the bag.</p> <p>Leave the bag open so air can circulate.</p>
	<p>4. Fold the paper towel again so that it fits flat inside a plastic bag.</p>		<p>7. Repeat this process with another bag and seeds. You will have two bags with two seeds in each.</p>
		<p>Group: _____</p> <p>Experiment question: _____</p> <p>Conditions: _____</p>	<p>8. Label the bags.</p>

Starting Seeds in Soil



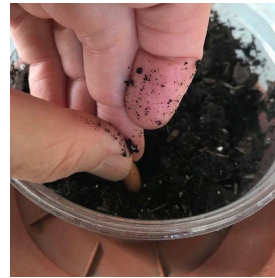
Materials:

- 4 small containers, with a hole punched on the bottom of each
- about 4 cups of soil (enough to fill the containers)
- 4 saucers to place under the containers
- 4 soaked bean seeds
- 1 popsicle stick
- 1 cup or pitcher of water

Preparation: Fill each pot with soil.



1. Wet the soil in each pot. Make sure the soil is wet throughout.

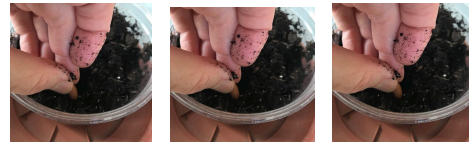


2. Plant the seed just as deep as its size.
(If you plant it too deep it might not germinate.)

Mark the location of the seed with a popsicle stick.



3. Cover the seed with soil and pat it gently.



4. Repeat the procedure three more times in three different containers. Do not mark these seeds with popsicle sticks.

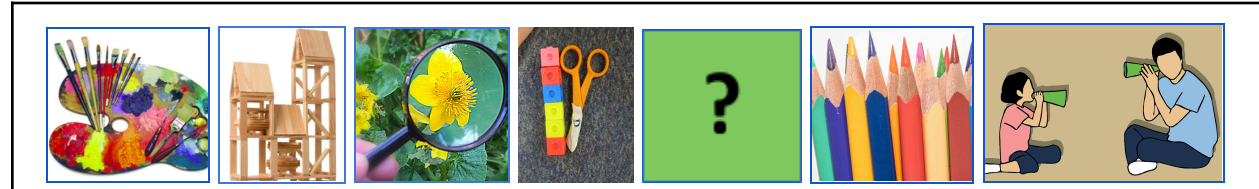
5. Label the containers.

Investigation Labels: Copy enough to label all seed investigations; cut apart.

Group: Investigation: Conditions:	Group: Investigation: Conditions:	Group: Investigation: Conditions:
Group: Investigation: Conditions:	Group: Investigation: Conditions:	Group: Investigation: Conditions:

Unit 4: The Power of Pollinators

WEEK 1 Studios



Exploring Seeds and Plants

Children interact with ideas about seeds and plants presented in the opening of the unit, drawing on their own experiences, emerging ideas, and academic vocabulary. Studios run for just two days this week, with most activities continuing in Week 2.

Big Idea	Organisms in an ecosystem are interdependent.
Weekly Question	What is important about seeds?
Materials and Preparation	<ul style="list-style-type: none"> ● Parts of a Flower poster ● new studios prompts Cut apart and replace studios prompts. ● Unit 4 Observation Sheet <p><u>For the Art Studio:</u></p> <ul style="list-style-type: none"> ● <i>Cuckoo</i>, Lois Ehlert ● Mexican Folk Art images ● pencils ● colored construction paper, large sheets ● colored construction paper, cut into quarter sheets and arranged for easy access ● scissors ● paper fasteners ● hole punches ● liquid glue and/or glue sticks ● glue brushes ● tray or basket to collect paper scraps for reuse <p><u>For the Building Studio:</u></p> <ul style="list-style-type: none"> ● K'NEX ● Flowers images ● <i>From Seed to Plant</i>, Gail Gibbons

	<p><u>For the Discovery Studio:</u></p> <ul style="list-style-type: none"> ● a variety of seeds ● seed catalogs (optional) ● small bowls, containers, or egg cartons ● magnifiers ● index cards or other small-sized papers ● “The Beauty of Pollination” video, From Text Talk, Day 3 ● Science and Engineering packets ● pencils and colored pencils <p><u>For the Math Studio:</u></p> <ul style="list-style-type: none"> ● base-10 blocks ● number cubes <p>Each partnerships needs 3 number cubes.</p> <ul style="list-style-type: none"> ● Target Numbers recording shee <p><u>For the Research Studio:</u></p> <ul style="list-style-type: none"> ● research materials, from Writing Days 4-5 ● children’s writing folders, with report research ● technology for digital research ● writing tools <p><u>For the Writing and Storytelling Studio:</u></p> <ul style="list-style-type: none"> ● <i>Cuckoo</i>, Lois Ehlert ● Writing and Storytelling Books or other notebooks ● fabric, clothespins, and other storytelling props ● writing and drawing tools <p>In the Opening Basket, place the Studios Planner and a few sample materials from each studio. Include prompts, and review them, as needed, as those studios are introduced.</p> <p>Have sufficient copies of the Observation Sheet on clipboards.</p> <p>Decide which day(s) to host a Thinking and Feedback meeting, and plan Studios time accordingly.</p>
<p>Opening</p>	<p><i>This week we have begun a new study: The Power of Pollinators. In Studios, we’ll keep exploring some of the ideas from Science lessons and Text Talks.</i></p> <p><i>At the Art Studio, look again through the book Cuckoo and at these images of Mexican folk art. These might inspire you to make your own images by cutting out shapes in colored paper</i></p>

	<p><i>and putting them together. As Lois Ehlert did in the book, you might include some moving parts by using paper fasteners.</i></p> <p><i>Here’s a challenge: use K’NEX to build flowers! Even with your experience with K’NEX, it will be tricky: include as many important parts of the flower as you can. These images will help you think about shapes and parts of flowers.</i></p> <p><i>Two different things are happening in the Discovery Studio: you can watch the video, “The Beauty of Pollination” again, and you can look closely at seeds. When you are looking at seeds, please make sure to keep the different kinds of seeds separate! Remember to record what you notice and what you wonder in your Science and Engineering packets. What might be a good title for a page about seeds?</i></p> <p>Allow children to make suggestions, and agree on one for the class to use. Write this title on the board or on paper in the studio for children to access.</p> <p><i>The Research Studio is a good place to continue working on your report writing research.</i></p> <p><i>Finally, in the Writing and Storytelling Studio, you might want to act out the story of Cuckoo! Or you might want to tell a new story, inspired by this one. Remember to act, draw, and write so you can save your story. That way we can act your stories out all together at the end of the day.</i></p> <p><i>One more thing: we have just two days to work in Studios this week, so you might just have a chance to begin work that you will continue next week.</i></p>
<p>Facilitation</p>	<p>Circulate through studios and check in with children about what they are pursuing. Refer to the Weekly Question and to studio-specific prompts and resources.</p> <p>Direct children’s attention to each other’s work. Encourage them to ask each other for help and collaboration.</p> <p>Identify a piece of work for use during Thinking and Feedback and/or for planning purposes.</p>

Art



Collage inspired by *Cuckoo* and Mexican folk art

Content Objective:

I can create artwork inspired by the text *Cuckoo*, by Lois Ehlert.

Process:

Children consult the illustrations in *Cuckoo* and images of Mexican folk art. They discuss colors, shapes, and themes and then decide on their own designs. Children may work in pencil sketch first, or go right to cutting. Children might work together to make a larger or more elaborate artwork.

Facilitation:

Before children glue their papers down, encourage them to move pieces around to achieve a most satisfying result.

Where are your ideas coming from? What has inspired you?

Are you imagining a story?

If so, who are the characters?

What do these images of Mexican artwork make you think about Mexico?

Thinking and Feedback Possibilities:

Children can share their collages, tentatively finished or in process, and describe their inspirations, successful strategies, or struggles. If a particular illustration page or image has inspired the work, children might discuss the two together.

Peers might make observations about how the work connects to *Cuckoo* or other provided images, suggest elements to add, or ask questions that propel the artist's or their own work.

Ongoing Assessment:

Use the observation sheet to record what children are working on, what understandings and misconceptions are revealed in their work, and how they are interacting.

How do children use the materials?

What connections do they make to emerging topic understandings?

What connections do they make to the Big Ideas of Unit 3?

Building




Building Flowers


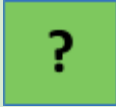
Content Objective:


I can represent the parts of a flower.

Process:

Children work with K'NEX to build flowers, including as many parts as

	<p>possible. They consult images, texts, and the Parts of a Flower poster for support.</p> <p><u>Facilitation:</u> Make sure children can easily reference multiple sources for parts of a flower. Support them in using precise and relevant vocabulary.</p> <p><u>Thinking and Feedback Possibilities:</u> Children can bring their built flowers and the images that they have referenced. In the whole group conversation, model using a reference for building and for naming the parts.</p> <p><u>Ongoing Assessment:</u> Use the observation sheet to record what children are working on, what understandings and misconceptions are revealed in their work, and how they are interacting.</p> <p style="padding-left: 40px;">How are children understanding the parts of a flower? How do they move between a two-dimensional representation and the three-dimensional representation they are building?</p>
<p>Discovery</p> 	<p>Examining Seeds Reviewing “The Beauty of Pollination” video</p> <p><u>Content Objective:</u> I can make close observations, ask questions, and write notes about seeds.</p> <p><u>Process:</u> Children explore various kinds of seeds by looking at them very closely, comparing real seeds to images found in catalogs or elsewhere, and discussing what they find. They can record their observations and questions in their packets.</p> <p>Children might also have an opportunity to watch and discuss the video shown during Text Talk, Day 3.</p> <p><u>Facilitation:</u></p> <p style="padding-left: 40px;"><i>What do you notice here? Why do you think each kind of seed looks so different? Could you describe the process of this seed growing into this kind of plant? What questions do you have? Are your classmates wondering the same things?</i></p> <p><u>Ongoing Assessment:</u></p>

	<p>Use the observation sheet to record what children are working on, what understandings and misconceptions are revealed in their work, and how they are interacting.</p> <p>Review children’s packets.</p> <p>What questions do they have? What observations do they make?</p>
<p>Math</p> 	<p>Target Numbers</p> <p><u>Objective:</u> I can make decisions about what numbers to create and subtract from 100 to end up with the lowest end difference.</p> <p><u>Process/Directions:</u></p> <ul style="list-style-type: none"> • Children play in partnerships. • Partner A starts at 100 and rolls the three number cubes. • Partner A picks one number to represent the tens and one number to represent the ones. Subtract this number from 100. Write an equation to represent the difference. • Partners take turns for 6 rounds. In each round, the difference from the previous equation is the starting number in the new equation. • The partner who gets a difference closest to 0 without going below 0 wins. <p><u>Facilitation:</u></p> <p><i>What math strategies are helpful in this game?</i> <i>How are you making decisions about which number goes in the tens place and the ones place?</i> <i>What is your plan for your next move?</i></p>
<p>Research</p> 	<p>Continuing Report Research</p> <p><u>Content Objective:</u> I can paraphrase information found in texts to answer research questions.</p> <p><u>Process:</u> Children continue research begun during Day 4’s Writing lesson.</p> <p><u>Facilitation:</u> Support children’s ongoing research, and encourage them to support each other.</p> <p><u>Ongoing Assessment:</u></p>

	<p>Review children’s research materials and Report Notes packets. Do they underline important information? Is the information related to the subtopic? Do they write notes in their own words?</p>
<p>Writing and Storytelling</p> 	<p>Telling Stories Inspired by <i>Cuckoo</i> <u>Content Objective:</u> I can tell, act out, and write and draw stories about real or imagined events, inspired by a text.</p> <p><u>Process:</u> Children draw on the text and on their own experiences to tell, enact, write, and illustrate stories.</p> <p><u>Facilitation:</u> <i>What part of the book are you thinking about here?</i> <i>Is your story inspired by something that has really happened to you? by this book? by another story you know?</i> <i>Is there a lesson at the end of your story?</i> <i>What do you want your audience to feel or think about as they watch this story being acted out?</i></p> <p><u>Thinking and Feedback Possibilities:</u> Ask children to act out their stories or to read them aloud to the group. Children can offer feedback about how effective the storytellers are in communicating their story.</p> <p><u>Ongoing Assessment:</u> Use the observation sheet to record what children are working on, what understandings and misconceptions are revealed in their work, and how they are interacting. What kinds of stories do children tell? How do children represent elements of the book? What narrative structures do children use?</p>

<p>Standards</p>	<p>Some standards addressed will depend on the studios in which children work. Some possibilities include work towards those listed in the Studios Introduction (Part 1) and the following studio-specific standards.</p> <p><u>Art:</u></p> <p>R.5.2.a Retell texts, including details about who, what, when, where,</p>
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	<p>how, and why; demonstrate understanding of the theme.</p> <p><u>Building:</u> 2-LSS2-3(MA). Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live.</p> <p><u>Math:</u> QR.C.6 Use place value understanding and properties of operations to add and subtract. 2.NBT.B.5</p> <p><u>Research:</u> SL.2.2.a Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. W.1.2.a Investigate questions by participating in shared research and writing projects. W.1.2.b Gather information from provided sources and/or recall information from experiences in order to answer questions.</p> <p><u>Writing and Storytelling:</u> R.5.2.a Retell texts, including details about who, what, when, where, how, and why; demonstrate understanding of the theme. SL.3.2.a Describe people, places, and things, tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.</p>
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<p>Notes</p>

Art Studio

While you are working, think about:

What is inspiring me?

What is the story I am telling through my artwork? Who are the characters?

What do these images of Mexican artwork make me think about Mexico?

Building Studio

While you are working, think about:

What are the important parts of the flower to represent?

Why is each part important?

What does this help me understand about pollination?

Discovery Studio

While you are working, think about:

What do I notice?

What is the same and different about each seed?

What adjectives can I use to describe this?

How does this seed grow into a plant?

What questions do my classmates have?

Math Studio

While you are working, think about:

What math strategies are helpful in this game?

How are you making decisions about which number goes in the tens place and the ones place?

What is your plan for your next move?

Research Studio

While you are working, think about:

What information is important here?

What subtopic am I writing about? Is this information related to that subtopic?

How can I say this in my own words?

Writing and Storytelling Studio

While you are working, think about:

What inspires this story? What does it remind us of?

What is the lesson in this story?

What feelings do we want the audience to have as they watch our story?



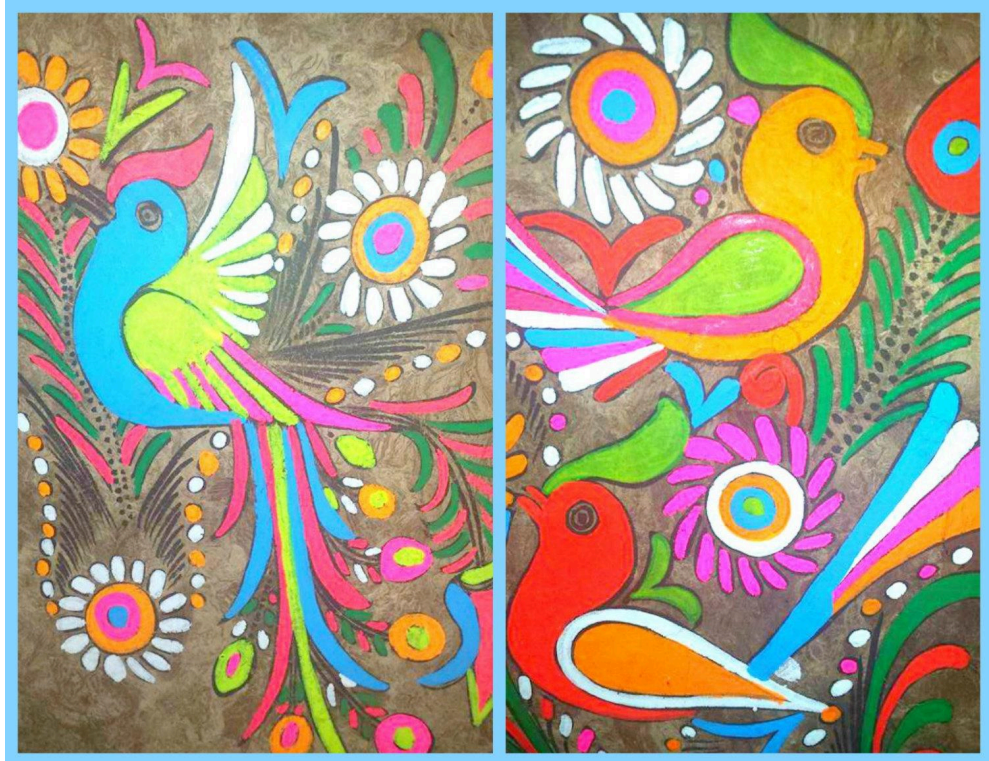
Kerri Ambrosino, artist



Kerri Ambrosino, artist



A.V. Apostle, artist



Traditional Amate Bark Painting

Art Studio U4 W1



Traditional Amate Bark Painting



Patti Haskins, artist



A.V. Apostle, artist



Rojelio Beuites, artist



Artist unknown

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Hibiscus



Tickseed Sunflower



Trillium



Zinnia



Tiger Lily



Building Studio U4 W1

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Dahlia



Russian Sage



Building Studio U4 W1

Sunflower



Cassava



Strawberry



Agrimony



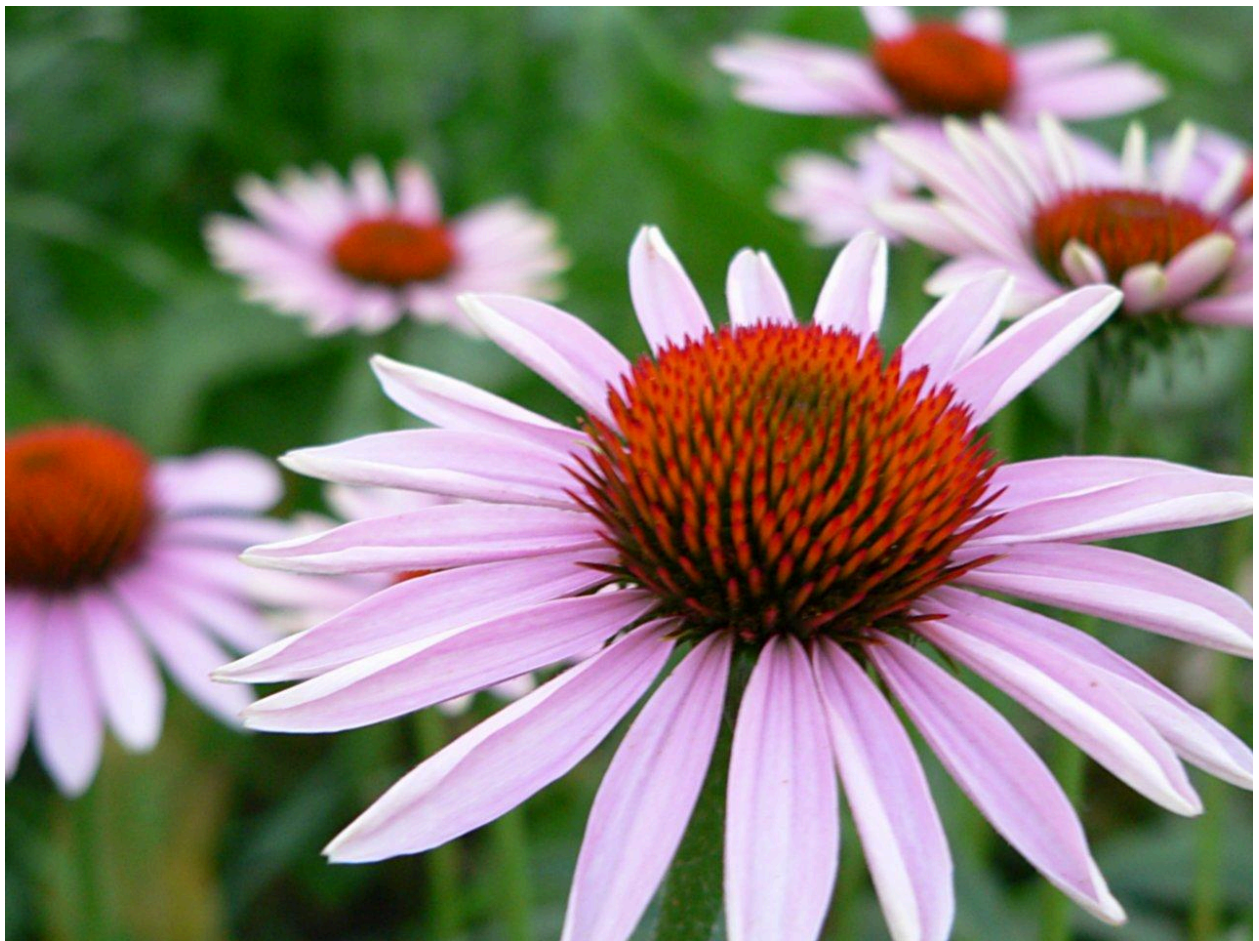
Honeysuckle



New England Aster



Trumpet Vine



Purple Coneflower

Building Studio U4 W1

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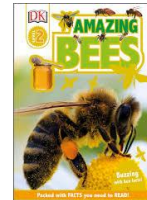
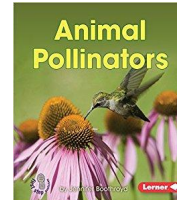
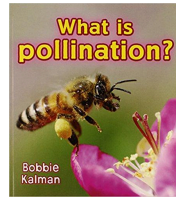
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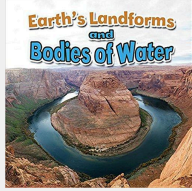
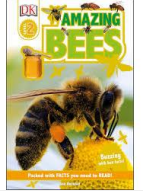
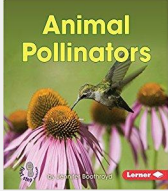
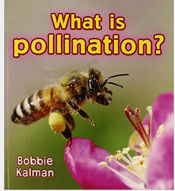
Unit 4: The Power of Pollinators



WEEK 1 Day 1

Writing Report
Deconstruction: Report Purpose and Stages

Content Objective	I can identify the purpose of a text. (R.9.2.6)
Language Objective	I can recount key details from a text to support my thinking. (SL.2.2.a)
Vocabulary	<p>genre: a type of writing</p> <p>information: facts or details about a subject</p> <p>organize: to arrange</p> <p>purpose: the reason for doing or creating something</p> <p>report: a genre of writing whose purpose is to organize information about a topic</p> <p>stages: the parts of a piece of writing</p> <p>subtopic: a smaller part of the topic</p> <p>title: the name of a piece of writing</p> <p>topic: what the writing is about</p>
Materials and Preparation	<p>To become familiar with the genre and how it is taught, read Writing: Introduction to Report (in the Introduction documents). Note that this is a continuation of report writing, begun in Unit 2.</p> <ul style="list-style-type: none"> ● report mentor texts: <i>Amazing Bees</i> (4 copies), <i>Animal Pollinators</i> (4 copies), <i>What is Pollination?</i> (2 copies) ● Report anchor chart images: mentor texts ● Report anchor chart, from Unit 2, Week 4, Day 3 Cut out the images and add them to the chart, as below.

	<p style="text-align: center;">Report</p> <p>Purpose: to organize information about a topic</p> <p>Examples:</p> <div style="display: flex; justify-content: space-around; align-items: center;">     </div> <p>Stages:</p> <p>Language:</p> <div style="border: 1px solid black; padding: 5px; background-color: #ffffcc; margin: 10px 0;"> <p>What you need:</p> <ul style="list-style-type: none"> a strong piece of cardboard a bucket of sand a block of wood or a box a full pitcher of water </div> <p>adjectives that pack information</p> <p>On the whiteboard, write the following questions, leaving space under each one to record children's ideas:</p> <p style="padding-left: 40px;">Why did the author write this?</p> <p style="padding-left: 40px;">What do you notice?</p>
<p>Opening 1 minute</p>	<p>Show the report mentor texts and read their titles.</p> <p><i>Today we will look at some new mentor texts. Working in pairs, you will review a text and try to determine the author's purpose. Then we will come back together to talk about the genre of writing that these texts belong to.</i></p>
<p>Deconstruction 20 minutes</p>	<p>Refer to the questions written on the board.</p> <p><i>With your partner, review the text. Flip through the pages and scan the illustrations and words. Discuss these two questions: Why did the author write this? and What do you notice? Be prepared to share your ideas and observations with the group.</i></p>

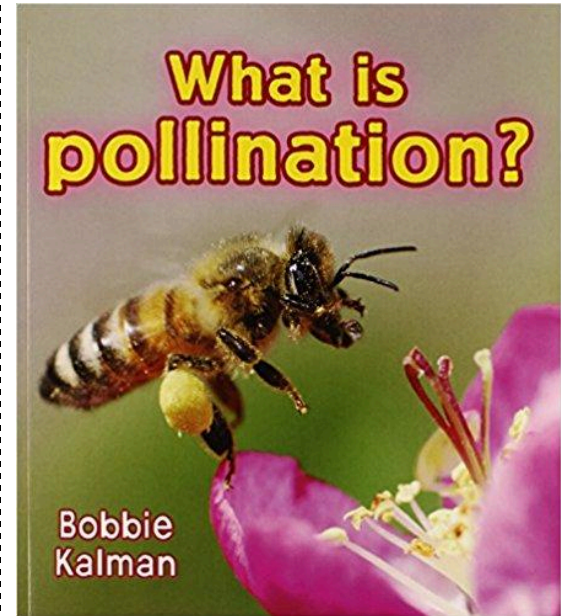
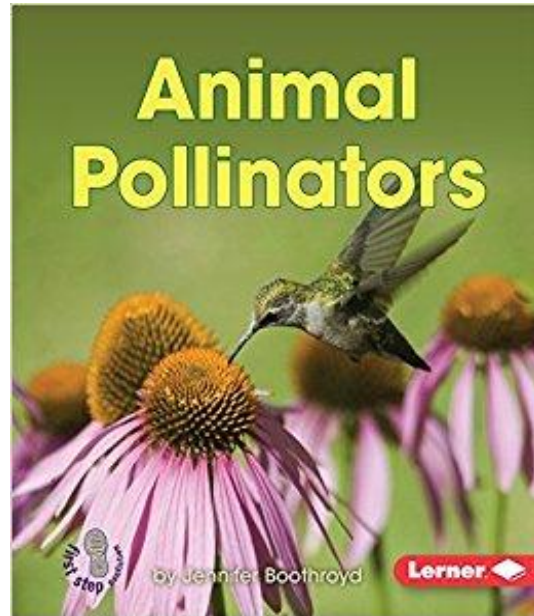
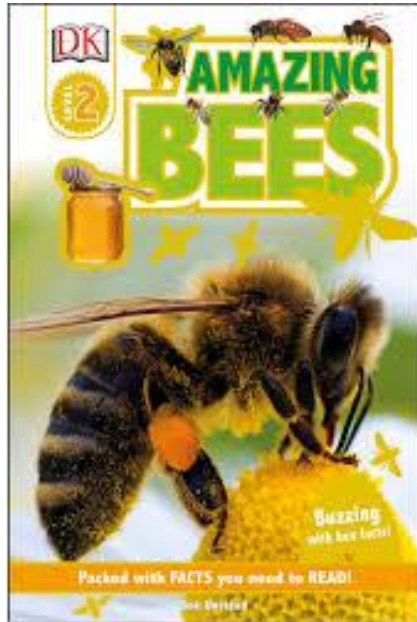
	<p>Provide each pair with a report mentor text to analyze. As children work, circulate to support them and refer them to the questions on the board. Give children about ten minutes to work together, then bring them back to the whole group.</p> <p>Invite pairs to hold up their report to show their classmates. Ask, <i>Why did the author write this?</i> <i>What did you notice?</i></p> <p>Encourage children to cite key details from the text as they respond. Write the pairs’ responses on the whiteboard. As pairs share, think aloud to highlight the trends in their responses.</p>
<p>Deconstruction 8 minutes</p>	<p><i>These texts are all examples of reports.</i></p> <p>Show the Report anchor chart. <i>In Unit 2 we started learning about reports by reading Earth’s Landforms and Bodies of Water and by writing captions for images of landforms. A caption is a very short form of report.</i></p> <p><i>We learned that the purpose of reports is to organize information about a topic.</i></p>
<p><i>Amazing Bees</i></p>	<p>Show <i>Amazing Bees</i>. Read the title. <i>Thinking about the title and cover illustration, what do you think is the topic of this report—what do you think it’s about?</i></p> <p><i>Reports are organized by grouping information together. The groups of information that tell more about the topic of a report are called subtopics. For example, a report about the topic of bees may include subtopics about what they look like, where they live, and how they work.</i></p> <p>Show the Contents page. <i>Some reports have a page like this: the Contents, or Table of Contents. This page, a feature of informational text, allows the reader to preview the information included in the text and to understand how it is organized.</i></p> <p><i>What subtopics does Sue Unstead include?</i></p> <p>Harvest the children’s ideas.</p>
<p>Closing 1 minute</p>	<p><i>Today we continued learning about report, a genre written to organize information about a topic. Tomorrow we will talk more about the stages of report.</i></p>

	Note: Leave the Report anchor chart posted for continued reference and additions throughout the unit.
Standards	<p>R.9.2.b Identify the main purpose of a text, including what the author wants to answer, explain, or describe.</p> <p>SL.2.2.a Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>
Ongoing assessment	<p>Reflect on the whole group discussion.</p> <p>What do the children already know about the purpose of report?</p> <p>What are they confused about?</p> <p>What do the children notice about the stages of report?</p>

Notes

Report anchor chart images

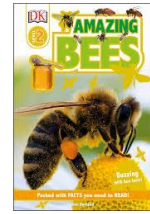
mentor texts



Writing U4 W1 D1

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Unit 4: The Power of Pollinators



WEEK 1 Day 2

Writing Report
Deconstruction: Report Stages

Content Objectives	<p>I can read a section of text and write a heading that summarizes what it is about. (R.5.2.b, W.2.2)</p> <p>I can describe how subtopics relate to the topic of a text. (RI.2.8)</p>
Language Objective	I can recount key details from a text to support my thinking. (SL.2.2)
Vocabulary	<p>classify: to assign to a class or category</p> <p>general statement: the beginning of a report, which introduces and classifies the topic</p> <p>heading: the title of a section of the text</p> <p>information: facts or details about a subject</p> <p>organize: to arrange</p> <p>purpose: the reason for doing or creating something</p> <p>report: a genre of writing whose purpose is to organize information about a topic</p> <p>stages: the parts of a piece of writing</p> <p>subtopic: a smaller part of the topic</p> <p>summarizing comment: the final statement in a report</p> <p>topic: what the writing is about</p>
Materials and Preparation	<ul style="list-style-type: none"> ● <i>Amazing Bees</i>, Sue Unstead ● chart paper and marker <p>Prepare the following <i>Amazing Bees</i> chart.</p>

	<div data-bbox="446 210 1421 504" data-label="Diagram"> <pre> graph TD A[Amazing Bees] --> B[General Statement:] B --> C[Subtopic 1:] B --> D[Subtopic 2:] B --> E[Subtopic 3:] B --> F[Subtopic 4:] B --> G[Subtopic 5:] B --> H[Subtopic 6:] B --> I[Subtopic 7:] </pre> </div> <ul style="list-style-type: none"> ● writing tools ● <i>Amazing Bees</i> Subtopics slides ● projector and screen ● <i>Amazing Bees</i> Subtopics packets, one for each pair Note that the packets vary in length and complexity, which should be considered when forming groups. In order from least to most complex are Packet B, Packet A, Packet C, Packet D. Children will work with partners and then in small groups using the Numbered Heads Together routine. ● Report anchor chart images: stages, cut apart ● Report anchor chart, from Unit 2, Week 4, Day 3
<p>Opening 1 minute</p>	<p><i>Yesterday we reviewed the purpose of report: to organize information about a topic. Today we will look more closely at the stages of report.</i></p>
<p>Deconstruction 7 minutes <i>Amazing Bees</i></p>	<p>Show the <i>Amazing Bees</i> chart. <i>This chart shows the stages of reports. Reports begin with a general statement that introduces and classifies the topic. Let's read and record the general statement of <i>Amazing Bees</i>.</i></p> <p>Read through the end of the first sentence on page 6. <i>The general statement in this report is:</i> <i>A bee is an insect.</i> <i>This general statement introduces the topic: bees, and classifies them as insects.</i></p>
<p>Deconstruction 21 minutes slide 2</p>	<p><i>In pairs, you will read and annotate a section of <i>Amazing Bees</i>. Then, with a small group, you will write a heading that shows what that section is about. Let's try one together.</i></p> <p><i>First we'll read the section. Then we'll use Think, Pair, Share to discuss what this section is about.</i></p> <p>Read the slide as the children follow along.</p>

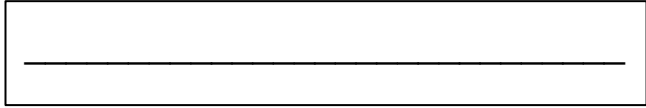
	<p>Think, Pair, Share. <i>What is this page about?</i></p>
slide 3	<p>Model annotating. <i>After reading this page, I had an idea that it might be about how bees grow and change. I went back and underlined important information.</i></p>
slide 4	<p>Model adding a heading. <i>Looking at the important information made me sure that this page is about bee life cycles, so I wrote the heading "The Bee Life Cycle" to name the subtopic.</i></p>
	<p><i>Now you will do the same work using Numbered Heads Together. First, with your partner, read and annotate your section of text. Then, meet together with your group to discuss what the section is about and decide on a heading.</i></p> <p>Prepare for Numbered Heads Together by assigning partners, groups, and numbers and distributing <i>Amazing Bees</i> Subtopics Packets and writing tools. As the children work, circulate to support them.</p> <p>Gather the children back together and choose one number for sharing work. Record each subtopic heading on the <i>Amazing Bees</i> chart. Then fill in the missing subtopics. See the following example.</p> <div style="text-align: center;"> <pre> graph TD A[Amazing Bees] --- B[General Statement: A bee is an insect.] B --> C[Subtopic 1: bee bodies] B --> D[Subtopic 2: bee life cycle] B --> E[Subtopic 3: pollination] B --> F[Subtopic 4: bee dancing] B --> G[Subtopic 5: honeybees] B --> H[Subtopic 6: other bees] B --> I[Subtopic 7: helping bees] </pre> </div> <p><i>All of the subtopics we identified in the text relate to the main topic of bees.</i></p> <p><i>We learned that reports begin with a general statement, followed by information organized in subtopics. Let's add this to our Report anchor chart.</i></p> <p>Add the Stages images to the chart.</p>
Closing 1 minute	<p><i>Today we learned about the stages of report. Tomorrow we will prepare to write reports.</i></p>

Standards	<p>R.5.2.b Identify the main topic of a multi-paragraph text and the central ideas of specific paragraphs.</p> <p>R.10.2.a Describe how reasons support specific points the author makes in a text.</p> <p>W.3.2 Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end.</p> <p>SL.2.2.a Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>
Ongoing assessment	<p>As the children work and after the lesson, analyze their <i>Amazing Bees</i> Subtopic packets.</p> <p>What do children identify as important information?</p> <p>What headings do they write?</p> <p>Are the subtopics accurate?</p>

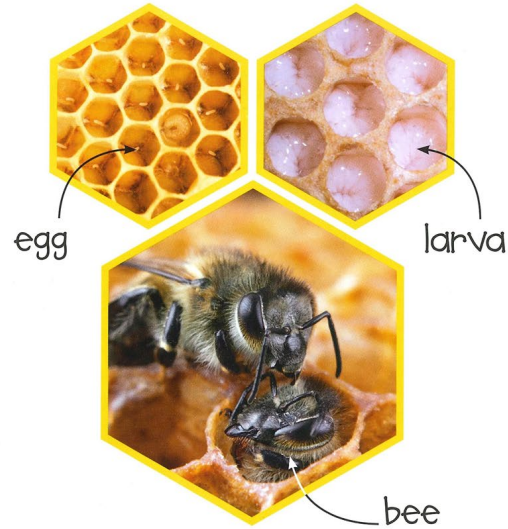
Notes

Amazing Bees Stages

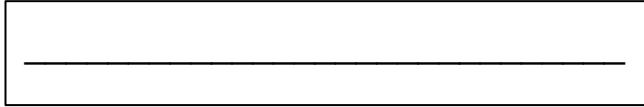
Writing Unit 4 Week 1 Day 2



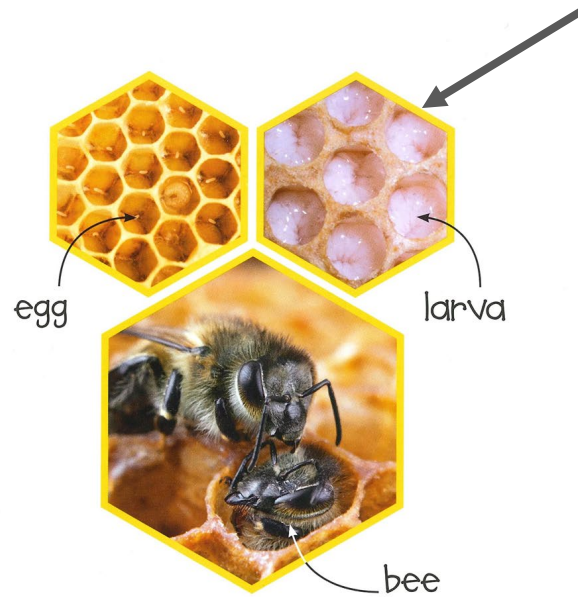
A bee starts life as a tiny egg inside a **wax cell**. A white grub called a **larva** hatches from the egg. The bees feed the larva lots of pollen.



It grows bigger and bigger in its cell. After many days, it becomes a **pupa**. The pupa changes slowly inside its cell. It comes out as an adult bee.



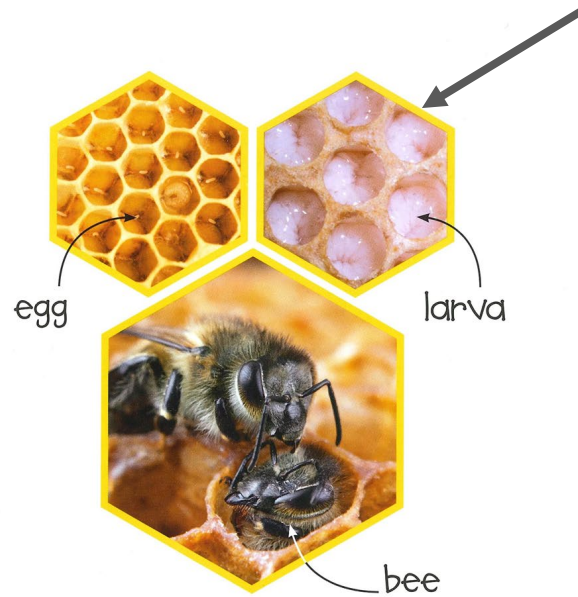
A bee starts life as a tiny egg inside a **wax cell**. A white grub called a **larva** hatches from the egg. The bees feed the larva lots of pollen.



It grows bigger and bigger in its cell. After many days, it becomes a pupa. The pupa changes slowly inside its cell. It comes out as an adult bee.

The Bee Life Cycle

A bee starts life as a tiny egg inside a **wax cell**. A white grub called a **larva** hatches from the egg. The bees feed the larva lots of pollen.



It grows bigger and bigger in its cell. After many days, it becomes a pupa. The pupa changes slowly inside its cell. It comes out as an adult bee.

Packet A

Writing U4 W1 D2

**Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/
Maine Department of Education**

Chapter 1



A bee is an insect.
Like all insects, it has
six legs. It has a body
made up of three parts.



It has two pairs of wings.
Buzz, buzz, buzz!
A bee beats its wings
so fast it makes
a buzzing sound.

Let's **ZOOM** in close.

A bee has
a hairy body
and face.



It has two
big eyes
and three
little ones.

8

It has a
very, very
long tongue.



On its back legs,
there are little
baskets to
collect **pollen**.

All these features
help a bee do its job.

9

Packet B

Writing U4 W1 D2

**Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/
Maine Department of Education**

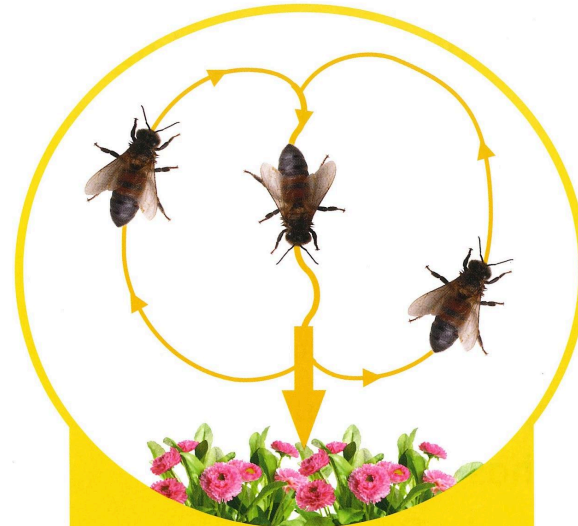


Bees are great dancers.
They dance to tell
other bees the news.



Round dance

A bee dances in a circle.
This means there is
food close by.



Waggle dance

A bee dances
in a figure 8 shape.
There is a **waggle**
in the middle.
It tells the other bees
the way to the nectar.

Chapter 3



The honeybee lives in a big family group. Each bee has its own special job to do. Beekeepers provide a home for the bees called a beehive. They can keep their bees safe and collect the honey.

24

Beekeepers always leave enough honey for the bees to eat.



Writing U4 W1 D2

The biggest bee of all is the mother bee, called the Queen. Her job is to lay eggs. Next in size are the drones, the male bees. All the rest of the bees are females, called the worker bees.



The worker bees are busy night and day. Some feed pollen to the baby bees (larvae). Some look after the Queen, feeding and grooming her. They make a special food called royal jelly for the Queen.

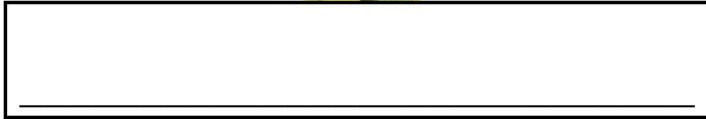


Other workers guard the nest, keep it clean, and build new cells. Many workers fly out of the hive to find nectar and pollen.

Wild honeybees can build their nests in a hollow tree, in a cave, or under a roof. They build a nest with wax cells. They make honey and store it for the winter. There are now fewer bees in the wild. This is sad news.



Chapter 4



Not all bees live in big groups like the honeybee. Some bees live alone and build their own special nests.



Some bees build their nests in a crack in a wall or a hole in the ground. They lay their eggs and leave them to hatch.

Some bees build unusual nests.
If you see a mound of soil on the grass, it could be the door to the nest of a lawn bee.



A carpenter bee chews a hole in wood to make its nest.

36



Look out for neat round holes in a leaf. A leafcutter bee may have made them.

It builds a nest like a tube out of leaves and cuts a circle for a lid.



Writing U4 W1 D2



One of the first bees you will see in spring is the bumblebee. They are hairy and striped, and are bigger than honeybees.

Bumblebees live in small family groups. They live in nests in the ground or in piles of dead leaves.



Report anchor chart images

Stages

general statement

Chapter 1



What is a Bee?

A bee is an insect.
Like all insects, it has six legs. It has a body made up of three parts.



A bee is an insect.

information organized in subtopics

Contents

- 4 Our Bee Friends
- 6 **Chapter 1** What is a Bee?
- 12 Amazing Bee Facts
- 14 **Chapter 2** Bees and Flowers
- 22 Bee Dancing
- 24 **Chapter 3** Bee Families
- 32 All About Honey
- 34 **Chapter 4** Bee Spotting
- 42 Bee Spotter's Guide
- 43 Amazing Bees Quiz
- 44 Glossary
- 46 Guide for Parents
- 48 Index

Unit 4: The Power of Pollinators

WEEK 1 Day 3

Writing Report

Joint Construction and Individual Construction: Research

Content Objective	I can paraphrase information found in texts to answer research questions. (W.1.2a, W.1.2.b, W.3.2)
Language Objective	I can recount key details from the text that relate to the subtopic. (SL.2.2.a)
Vocabulary	information: facts or details about a subject report: a genre of writing whose purpose is to organize information about a topic subtopic: a smaller part of the topic
Materials and Preparation	<ul style="list-style-type: none">● Report Notes packet, one for each child● “Boston Local Plants” brochure, one color copy● projector and screen● Yellow Lady’s-slipper slides● writing tools● “Boston Local Pollinators” brochure, one color copy for each group, and one black and white copy for each child
Opening 1 minute	<i>Today we will begin preparing for writing reports.</i>
Joint Construction 14 minutes	<p><i>In this unit, as we are learning about plants and pollinators, you will write two connected pieces. First, you will each write a report about a plant to give to a gardener.</i></p> <p><i>When gardeners are choosing what to plant, they need certain information about the plants. These are the subtopics you will include in your reports.</i></p> <p>Show the Report Notes packet. <i>Gardeners need to know what conditions the plant needs to grow: When should the seeds be planted? How much sun and water does</i></p>

Writing U4 W1 D3

	<p><i>it need?</i></p> <p><i>You are already thinking about growing conditions with your bean seed investigations in Science. Each kind of seed has conditions that are just right for that kind of plant. The information we provide in our reports will be specifically matched to the kind of plant we are writing about.</i></p> <p><i>Gardeners also need to know what the plant will produce: What do the flowers look like? Will it grow fruit? When do the flowers bloom and the fruit grow?</i></p> <p><i>And, if gardeners are planting to attract pollinators, they will need to know which pollinators each plant will attract.</i></p> <p><i>To find out more about each subtopic, we will need to do research.</i></p> <p><i>When we research, we read to find out specific information. We will use this packet to record what we find.</i></p> <p><i>Today we will practice researching a plant: the Yellow Lady’s-slipper.</i></p> <p>Show the “Boston Local Plants” brochure. <i>This is one source we will use for our research.</i> Read the information on the front of the brochure and quickly walk through what is included in the brochure.</p> <p><i>We are researching the Yellow Lady’s-slipper, so we will focus on that section of the brochure.</i></p>
slide 2	<p><i>First let’s read this section.</i> Read the section aloud.</p>
slide 3	<p><i>We are looking for information about growing conditions, so all of the parts that have to do with where to plant the seeds and how much sun and water it needs are underlined.</i></p> <p><i>Now let’s use the underlined information to take notes. This section says, “should be grown inside for a few seasons before moving outside.” Now let me say that in my own words: “Yellow Lady’s-slipper seeds need to be grown inside first. After a few seasons, the plant can be moved outside.”</i></p>
slide 4	<p><i>Then we will write what we said on our research sheets. The notes don’t need to be written in whole sentences, but they do have to be</i></p>

	<i>written in our own words.</i>
Individual Construction 10 minutes	<p><i>Now it's your turn to practice. You will use this brochure, called "Boston Local Pollinators," to research the subtopic Pollinators.</i></p> <p><i>Look through the brochure. Identify the sections you think are important to read. Read those sections. Then go back and underline the information that relates to Yellow Lady's-slipper pollination. Reread what you underlined; say each part in your own words; and write it here on your paper.</i></p> <p>Send the children to work in pairs, researching together and recording notes individually. As they work, circulate to support them.</p>
Closing 5 minutes	<p>Bring the class back together. Have several children share their notes.</p> <p><i>Today you began learning about taking notes to research for your reports. Tomorrow you will choose a plant to report on and begin researching it.</i></p>
Standards	<p>W.1.2.a Investigate questions by participating in shared research and writing projects.</p> <p>W.1.2.b Gather information from provided sources and/or recall information from experiences in order to answer questions.</p> <p>W.3.2 Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end.</p> <p>SL.2.2.a Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>
Ongoing assessment	<p>After the lesson, review children's "Boston Local Pollinators" brochures and Report Notes packets.</p> <p>Do children underline important information? Is the information related to the subtopic? Do they write notes in their own words?</p>

Notes

Name: _____

Date: _____

Report Notes

Plant: _____

Growing Conditions

Research Questions:	What I'm learning
When should seeds be planted? Where should seeds be planted?	
How much sun does this plant need?	
How much water does this plant need?	

Production

Research Questions:	What I'm learning
What will the plant produce?	
When will flowers bloom? When will fruit grow?	

Pollinators

Research Questions:	What I'm learning
Which pollinator(s) does this plant attract? How is it pollinated?	

Diagrams:

Draw diagrams of the plant and its flower. Label its parts.

Plant:	Flower:
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Yellow Lady's-slipper

Writing Unit 4 Week 1 Day 3 and Week 2, Day 4

Yellow Lady's-slipper

The Yellow Lady's-slipper is an orchid plant with a yellow flower. It grows naturally in woodlands, wetlands, and swamps.

The Yellow Lady's-slipper should be grown inside for a few seasons before moving it outside. It grows well in wet, shady areas and blooms in the early spring.



Yellow Lady's-slipper

The Yellow Lady's-slipper is an orchid plant with a yellow flower. It grows naturally in woodlands, wetlands, and swamps.

The Yellow Lady's-slipper should be grown inside for a few seasons before moving it outside. It grows well in wet, shady areas and blooms in the early spring.



Growing Conditions

Research Questions:	What I'm learning
When should seeds be planted? Where should seeds be planted?	seeds need to be grown inside first plant can be moved outside after a few seasons
How much sun does it need?	
How much water does it need?	

Growing Conditions

Research Questions:	What I'm learning
When should seeds be planted? Where should seeds be planted?	seeds need to be grown inside first plant can be moved outside after a few seasons
How much sun does it need?	not a lot plant in a shady area
How much water does it need?	a lot - needs to be wet

Yellow Lady's-slipper should be planted and grown inside first. After a few seasons, the plant can be moved outside. Yellow Lady's-slipper should be planted in a shady area and given a lot of water.

Write Report Subtopics

1. Choose the subtopic you will write about first.
 2. Review your research notes for that subtopic.
 3. Write your notes in complete sentences to make a paragraph.
 4. Reread your paragraph. Does it make sense?
If not, revise it so it makes sense.
-
1. Think about the main idea of your paragraph. What is it mostly about? Think of a heading to introduce that subtopic. Write the heading above your paragraph.

Brochure Sources

“Boston Local Plants”

Information

USDA Plant Fact Sheets and Guides: “American Red Raspberry,” “Cardinal Flower,” “Field Thistle,” “Highbush Blueberry,” : <https://plants.usda.gov/java/factSheet>

“Pollinator Plants: Northeast Region,” Xerxes Society: <https://xerxes.org/pollinator-conservation/plant-lists/pollinator-plants-northeast-region/>

"Yellow Lady's-slipper," National Heritage & Endangered Species Program: <https://www.mass.gov/files/documents/2016/09/ov/cypridium-parviflorum-2015.pdf>

<https://www.gardeningknowhow.com/>

summer squash: <http://homeguides.sfgate.com/much-time-squash-plant-flower-58928.html>

crocus: <https://www.longfield-gardens.com/article/All-About-Crocus>

Photos

highbush blueberry: <https://pxhere.com/en/photo/554355>

cardinal flower and hummingbird: <https://www.flickr.com/photos/horsepunchkid/14986081725>

American red raspberry: <https://pxhere.com/en/photo/497023>

cardinal flower: <https://www.flickr.com/photos/52421717@N00/28882843311/>

crocus: <https://www.flickr.com/photos/lindadevolder/25935328187>

field thistle: <https://pxhere.com/en/photo/437580>

highbush blueberry: <https://pixabay.com/en/blueberry-bush-shrub-highbush-101862/>

ninebark: <https://www.flickr.com/photos/50697352@N00/8959265965>

summer squash: https://commons.wikimedia.org/wiki/File:Cucurbita_pepo_straightneck_Summer_squash_bush_plant_and_flowers.jpg

yellow lady's-slipper: https://commons.wikimedia.org/wiki/File:Yellow_lady_slippers_Great_Smoky_Mountains_NP.jpg

raspberry flower and bee: <https://www.pexels.com/photo/bee-bloom-blooming-blossom-371607/>

crocus and bee: <http://www.geograph.org.uk/photo/3861117>

ninebark and butterfly: <https://commons.wikimedia.org/wiki/File:Physocarpus-malvaceus.JPG>

“Boston Local Pollinators”

Writing U4 W1 D3

Information

"Butterfly Pollination," USDA Forest Service: <https://www.fs.fed.us/wildflowers/pollinators/animals/butterflies.shtml>

"Pollinator Plants: Northeast Region," Xerxes Society: <https://xerxes.org/pollinator-conservation/plant-lists/pollinator-plants-northeast-region/>

"Lady's Slipper," <http://www.luontoportti.com/suomi/en/kukkakasvit/ladys-slipper>

"Squash Pollinators of the Americas":

<https://www.ars.usda.gov/pacific-west-area/logan-ut/pollinating-insect-biology-management-systematics-research/docs/squash-pollination/>

"Create Habitat for Monarchs": <https://monarchjointventure.org/get-involved/create-habitat-for-monarchs/>

Photos

swallowtail butterfly: <https://www.flickr.com/photos/mullica/3840044006>

hummingbird: https://commons.wikimedia.org/wiki/File:Figure_32_02_03.jpg

bumble bee and blueberry flower: https://commons.wikimedia.org/wiki/File:Bumble_bee_pollinating_Arbutus_unedo_flower.jpg

cardinal flower:

ninebark and butterfly: <https://commons.wikimedia.org/wiki/File:Physocarpus-malvaceus.JPG>

field thistle and butterfly: <https://www.marylandbiodiversity.com/viewSpecies.php?species=4238>

golden alexander and butterfly: https://en.wikipedia.org/wiki/Papilio_ajax

monarch and milkweed flower: <https://www.flickr.com/photos/usfwsmidwest/28780169290>

monarch and milkweed pod:

<https://pixnio.com/fauna-animals/insects-and-bugs/butterflies-and-moths-pictures/monarch-butterfly/monarch-butterfly-rests-on-milkweed-pod>

bee balm and hummingbird: <https://www.flickr.com/photos/beauconsidine/19514545770>

honeysuckle and hummingbird: https://commons.wikimedia.org/wiki/File:Hummingbird_and_a_hiney_bee.jpg

petunia: <https://pixabay.com/en/petunia-garden-petunia-solanaceae-2726335/>

cardinal flower and hummingbird: <https://www.flickr.com/photos/horsepunchkid/14986081725>

ninebark and bee: <https://pixabay.com/en/bee-umbel-801476/>

field thistle and bumble bee: <https://www.flickr.com/photos/kyoshimasamune/14472683471>

highbush blueberry and bee: <https://pixabay.com/en/photos/api/>

crocus and bee: <http://www.geograph.org.uk/photo/3861117>

yellow lady's-slipper: <http://williambritten.com/wordpress/wildflowers/smoky-mountains-wildflowers-yellow-ladys-slipper/>

squash and bee: <https://thegreenthumb20.wordpress.com/tag/monoecious/>

checkered white butterfly: <https://pixabay.com/en/animal-insect-butterfly-white-2649559/>

Ruby-throated hummingbird: [https://commons.wikimedia.org/wiki/File:Photo_of_the_Week_-_Ruby-throated_Hummingbird_\(MA\)_7725713732.jpg](https://commons.wikimedia.org/wiki/File:Photo_of_the_Week_-_Ruby-throated_Hummingbird_(MA)_7725713732.jpg)

bee and apple blossom: <https://pixabay.com/en/bee-apple-pollination-apple-flower-1373591/>

Unit 4: The Power of Pollinators

WEEK 1 Day 4

Writing Report

Individual Construction: Research

Content Objective	I can paraphrase information found in texts to answer research questions. (W.1.2a, W.1.2.b, W.3.2)
Language Objective	I can recount key details from the text that relate to the subtopic. (SL.2.2.a)
Vocabulary	caption: a short explanation of an image image: a representation of something in the form of a drawing, photograph, etc. report: a genre of writing whose purpose is to organize information about a topic
Materials and Preparation	<ul style="list-style-type: none">● Plant Images slides● research materials: Plant and Flower Images, one color set for each group, and one black and white set for each child● writing tools● sticky notes, one for each child● writing tools● Report Notes packet, one for each child● writing folders● other research resources: Parts of a Flower poster; <i>From Seed to Plant</i>, Gail Gibbons
Opening 1 minute	<i>Today you will choose plants and begin researching and taking notes for your reports.</i>
Choosing Topics 10 minutes slides 2-5	<i>There are four plants for you to choose from. These are plants that attract pollinators.</i> Show each slide and read the captions. <i>You will have time right now to look at similar images of these plants and read the captions again. Look carefully at each. Think</i>

Writing U4 W1 D4

	<p><i>about which is most interesting to you. When you have chosen a plant, write your name on a sticky note and attach it to the image.</i></p> <p>Provide small groups with the color Plant and Flower Images packets. Allow children time to quietly examine the images and choose one to research and write about. Ideally, about five or six children will write about each plant. If children’s interest does not match this distribution, negotiate as a class how to distribute the plants.</p>
<p>Individual Construction 18 minutes</p> <p>slide 6</p>	<p><i>Now each of you knows the plant you will research and write a report about. Today you will begin your research by drawing a diagram of what the plant and its flower look like.</i></p> <p>Show the Plant and Flower Images packet.</p> <p><i>Your primary research tool today is the Plant and Flower Images packet. There is a color copy for each group, and a black and white copy for each of you. The packet includes images of the whole plant and flower, as well as a word bank with words that can be used to label the plant.</i></p> <p><i>Your first step will be to find the page that has your plant.</i></p>
slide 7	<p>Hold up a Report Notes packet, open to the diagram page.</p> <p><i>Then you will open your Report Notes packet to this page.</i></p> <p>Read the instructions on the diagram page.</p> <p><i>Look back at the images of your plant, and read the words in the word bank.</i></p>
slide 8	<p><i>After you have learned about your plant structures, draw and label a diagram of the plant and its flower.</i></p>
slide 9	<p><i>You can also use From Seed to Plant and our Parts of a Flower poster to do more research about the parts of a flower.</i></p>
	<p>Send the children to sit in small groups according to their chosen plants, with writing tools, Report Notes packets, and Plant and Flower Images packets. Children may work collaboratively to identify and discuss the plant structures but should record their own notes. As they work, circulate to support them. Guide children to consult additional research resources as needed.</p>
<p>Closing 1 minute</p>	<p><i>Today you began researching for your reports. Tomorrow you will continue researching with another source.</i></p>

Standards	<p>W.1.2.a Investigate questions by participating in shared research and writing projects.</p> <p>W.1.2.b Gather information from provided sources and/or recall information from experiences in order to answer questions.</p> <p>W.3.2 Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end.</p> <p>SL.2.2.a Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>
Ongoing assessment	<p>After the lesson, review children’s Report Notes.</p> <p>Do children accurately draw and label their plant and its flower?</p>

Notes

Plant Images

Writing Unit 4 Week 1 Day 4



cardinal flower





crocus





highbush blueberry





summer squash

Report Research: Step 1

The Plant and Flower Images packet has detailed images of each plant and its flower. It also includes a word bank with words you can use to label a diagram of your plant.

Look carefully at the page that has images of your plant.



Word Bank for labeling plants and flowers

flower	fruit	leaf	petal	pistil
sepal	stamen	stem	stigma	

Report Research: Step 2

Read the Diagrams section of the Report Notes.

Look again at the images of your plant. Use the Word Bank to help you name its parts.



Diagrams:

Draw diagrams of the plant and its flower. Label its parts.

Plant:

Flower:

Report Research: Step 3

Draw and label diagrams of you plant and its flower.

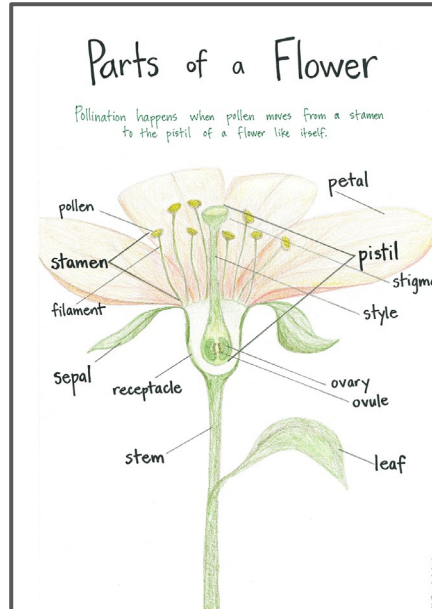
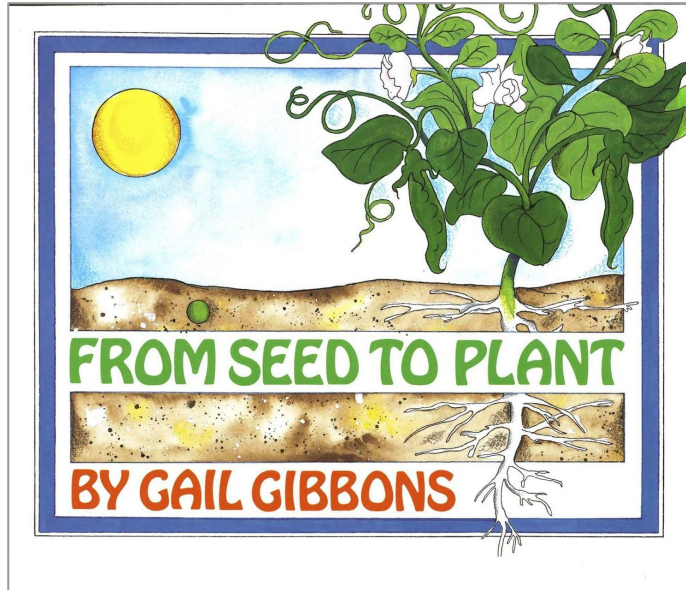
Diagrams:

Draw diagrams of the plant and its flower. Label its parts.

Plant:	Flower:
--------	---------

Additional Resources

For more information about the parts of a flower, see these resources.



Citations

Slide 2: <https://www.flickr.com/photos/horsepunchkid/14986081725>, [https://commons.wikimedia.org/wiki/File:Cardinal Flower - Flickr - treegrow.jpg](https://commons.wikimedia.org/wiki/File:Cardinal_Flower_-_Flickr_-_treegrow.jpg)

Slide 3: <https://pixabay.com/en/crocus-flower-spring-b%C3%BChen-purple-318291/>, <http://www.geograph.org.uk/photo/3861117>

Slide 4: <https://pixabay.com/en/photos/api/>, <https://pixabay.com/en/blueberry-bush-shrub-highbush-101862/>

Slide 5: https://commons.wikimedia.org/wiki/File:Cukina_1.jpg, <https://pixabay.com/en/photos/pumpkin%20flower/>

CROCUS



Writing U4 W1 D4

Focus on Second/ 2nd Grade for ME | Boston Public Schools Department of Early Childhood P-2/
Maine Department of Education

highbush blueberry





summer squash





Plant and Flower Images:

cardinal flower, crocus, highbush blueberry, summer squash

cardinal flower



Word Bank for labeling plants and flowers

flower	fruit	leaf	petal	pistil
sepal	stamen	stem	stigma	

Sources:

cardinal flower plant: https://www.washtenawcd.org/store/p88/07_Cardinal_Flower.html

cardinal flower flower: <https://grandparentsoftheforest.com/product/cardinal-flower-flower-essence>

crocus plant: <https://www.evergreengrowers.com.au/shop/grasses-strappyleaf/autumn-crocus-colchicum-autumnale/>

crocus flower: <https://www.longfield-gardens.com/article/All-About-Crocus>

highbush blueberry plant: <http://edibleberkshires.com/spring-2013/highbush-blueberry-muffins-anyone/>

highbush blueberry flower: <https://www.pinterest.com/pin/281052832979638776/>

summer squash plant: <https://tinyfarmblog.com/perfect-market-garden-squash/>

summer squash flower: <http://www.katesgardenjournal.com/summer-squash-time/>

Unit 4: The Power of Pollinators

WEEK 1 Day 5

Writing Report
Individual Construction: Research

Content Objective	I can paraphrase information found in texts to answer research questions. (W.1.2.a, W.1.2.b, W.3.2)
Language Objective	I can recount key details from the text that relate to the subtopic. (SL.2.2.a)
Vocabulary	information: facts or details about a subject report: a genre of writing whose purpose is to organize information about a topic
Materials and Preparation	<ul style="list-style-type: none">● “Boston Local Plants” Research slides● “Boston Local Plants” brochures, one color copy for each group and one black and white copy for each child● writing tools● writing folders, including research materials and Report Notes packets● other research resources: Parts of a Flower poster; <i>From Seed to Plant</i>, Gail Gibbons
Opening 1 minute	<i>Yesterday you chose the plants that you will research and write reports about, and you began your research. Today you will use a new research source, the “Boston Local Plants” brochure.</i> Hold up a color brochure.
Individual Construction 28 minutes	<i>This brochure is called “Boston Local Plants.” It contains information about different plants. When you research today, you will begin by finding your plant in the brochure and reading the section about it.</i>
slide 2	
slide 3	<i>Next you will go back to your Report Notes packet. Read the Research Questions. Then go back to the brochure and reread the section about your plant. Underline the parts of the text that answer the Research Questions.</i>

slide 4	<i>Then say that information out loud, in your own words.</i>
slide 5	<i>In your Report Notes packet, write down the information you said, next to the Research Questions you are answering.</i>
	Send the children to sit in small groups according to their chosen plants, with writing tools, Report Notes packets, and “Boston Local Plants” brochures. Children may work collaboratively to identify and discuss the information but should record their own notes. As they work, circulate to support them. Guide children to consult additional research resources as needed.
Closing 1 minute	<i>Today you continued researching for your reports. Next you will continue researching with another source.</i>
Standards	<p>W.1.2.a Investigate questions by participating in shared research and writing projects.</p> <p>W.1.2.b Gather information from provided sources and/or recall information from experiences in order to answer questions.</p> <p>W.3.2 Use a combination of drawing and writing to communicate a topic with a beginning, middle (including details), and an end.</p> <p>SL.2.2.a Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>
Ongoing assessment	<p>After the lesson, review children’s brochures and Report Notes.</p> <p>Do children underline important information?</p> <p>Is the information related to the research question?</p> <p>Do they write notes in their own words?</p>

Notes

“Boston Local Plants” Research

Writing Unit 4 Week 1 Day 5

Report Research: Step 1

Find your plant.

Read the section about your plant.

Boston Local Plants



Attracting Native Pollinators



American red raspberry, cardinal flower,
crocus, field thistle, highbush blueberry,
ninebark, summer squash, and yellow
lady's-slipper

Report Research: Step 2

Read the Research Questions again.

Re-read the section of the brochure about your plant.

Underline the parts of the text that answer the Research Questions.

Name: _____		Date: _____
Report Notes		
Plant: _____		
Growing Conditions		
Research Questions:	What I'm learning	
When should seeds be planted?		
Where should seeds be planted?		
How much sun does this plant need?		
How much water does this plant need?		

Boston Local Plants



Attracting Native Pollinators



American red raspberry, cardinal flower,
crocus, field thistle, highbush blueberry,
ninebark, summer squash, and yellow
lady's-slipper

Report Research: Step 3

Say the information in your own words.

Boston Local Plants



Attracting Native Pollinators



American red raspberry, cardinal flower,
crocus, field thistle, highbush blueberry,
ninebark, summer squash, and yellow
lady's-slipper

Report Research: Step 4

Write your notes in your Report Notes, next to the question(s) you are answering.

Name: _____		Date: _____
Report Notes		
Plant: _____		
Growing Conditions		
Research Questions:	What I'm learning	
When should seeds be planted?		
Where should seeds be planted?		
How much sun does this plant need?		
How much water does this plant need?		