



# Seeds All Around Us

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**Target Grade:** 2<sup>nd</sup> Grade, Science

**Time Required:** Days 1-3: 60 minutes, Day 4: 90 minutes, Extension Activity: 30 minutes for 15 Days

## Standards

*Next Generation Science Standards (NGSS):*

- 2-LS2-1: Plan and conduct an investigation to determine if plants need sunlight and water to grow.
- 2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats.

## Lesson Objectives

### *Day 1 Engage*

- Students will observe a phenomenon on YouTube by viewing a time elapsed video of a bean germinating.
- Students will compose questions and wonderings related to the phenomenon using an OWL graphic organizer.

### *Day 2 Explore*

- Students will observe, sort, and analyze different types of seeds.
- Students will make connections based on the phenomenon and different types of seeds.
- Students will answer their questions and wonderings on their OWL graphic organizer.

### *Day 3 Explain*

- Students will demonstrate their understanding of the seed germinating process by placing picture cards of a seed germinating in the correct sequence and write a sentence about each picture.

### *Day 4 Extend/Evaluate*

- Students will create a self-watering terrarium.
- Students will observe a seed germinate and use a journal to document the growth of a seed as it germinates.



### Central Focus

In this lesson, students will familiarize themselves with the germination process through videos, observations, questions, and sorting/analysis of seeds. Students will then organize picture cards of the seed germination process in order and detail what is occurring at each step. Lastly, the students will be challenged to plan and carry out an investigation of the life cycle of a plant by growing a plant from a seed and recording its changes over a period of time.

Key words: phenomenon, seeds, terrarium, sort, analyze, germination, plants, graphic organizer

### Background Information:

In this lesson, students will build an understanding of seeds and the germination process. Students will need to understand the key vocabulary terms in order to grasp the concepts within this lesson.

Key vocabulary words are the following:

- Phenomenon: anything that can occur naturally and can be observed/explained.
- Germination: the process of a plant forming from a seed.
- Terrarium: a closed, self-sustaining ecosystem in which plants grow.

Teachers can use this lesson to help students understand the life cycle of plants, as well as helping them gain an understanding of what a terrarium is and how it works. This lesson will provide a basic understanding of seeds and the germination process.

How a plant grows from a seed





## Materials

### Day 1

- OWL Graphic organizer (See Attachment 1 Day 1)
- Spiral notebooks (one for each student)
- Pencils (one for each student)
- [YouTube video](#) entitled Bean Time-Lapse - 25 Days
- Glue sticks (one for each student)
- Large chart paper with the title “O – Observations” written on the top of the chart paper.
- Large chart paper with the title “W – Wonderings” written on the top of the chart paper.
- Crayons
- Formative assessment checklist (see Attachment 4 Day 1)
- Differentiated activities for Day 1
  - Remediation activity Sheet (see Attachment 2 Day 1)
  - Acceleration activity Sheet (see Attachment 3 Day 1)
- Differentiated formative checklist assessments
  - Remediation (see Attachment 5 Day 1)
  - Acceleration (see Attachment 6 Day 1)

### Day 2

- Pages 1-10 of *SEEDS! SEEDS! SEEDS!* by Elizabeth Wallace (See Attachment 1 Day 2 for photo of the book cover)
- OWL graphic organizer from previous day
- Seeds activity sheet (see Attachment 2 Day 2)
- Formal assessment checklist (see Attachment 3 Day 2)
- Spiral notebooks from the previous day
- Pencils (one for each student)
- Glue sticks (one for each student)
- Large “O – Observations” chart paper from the previous day
- Large “W – Wonderings” chart paper from the previous day
- Crayons
- One black permanent marker
- 5 different types of seeds
- 2- 3 boxes of Ziploc bags
- One bag of paper plates
- Magnifying glasses (one per group or one per student)
- Small sticky notes



### Day 3

- Pages 11-30 of *Seeds! Seed! Seeds!* by Elizabeth Wallace
- Picture card activity sheet 1 (Attachment 1 Day 3). *Please note: the teacher should cut the picture cards prior to this lesson. Each student will be given a set of four picture cards.*
- Activity sheet 2 (see Attachment 2 Day 3)
- Scissors
- Spiral notebooks from the previous day
- Pencils (one for each student)
- Glue sticks (one for each student)
- Large “O – Observations” chart paper from the previous day
- Large “W – Wonderings” chart paper from the previous day
- OWL graphic organizer from previous day
- Large chart paper with the title “L – learnings” written on the top of the chart paper
- Formative assessment checklist (Attachment 7 Day 3)
- Differentiated activities for Day 3
  - Remediation activity sheet (Attachment 3 Day 3)
  - Acceleration activity sheet (Attachment 4 Day 3)
- Differentiated formative checklist assessments
  - Remediation formative assessment checklist (Attachment 5 Day 3)
  - Acceleration formative assessment checklist (Attachment 6 Day 3)

### Day 4

- Activity sheet (see Attachment 1 Day 4 )
- Summative assessment rubric (see Attachment 3 Day 4). *Please note: use this with activity sheet Attachment 1.*
- [“DIY – Terrariums for Kids” video on YouTube](#)
- Spiral notebooks from the previous Day
- Pencils
- Maker Space Materials
  - Clear plastic cups
  - 1 large bag of potting soil
  - Small figurines
  - Small spray bottles filled with water
  - Rolls of 2-inch clear packing tape
  - Permanent markers
  - Packets of different types of seeds (for example, flower seeds, bean seeds, vegetable or fruit seeds)
  - Different bags of small rocks and pebbles
  - Pipe cleaners
  - Plastic water bottles
  - Sequins



- Remediation materials:
  - Remediation activity journal (see Attachment 6 Day 4)
  - Remediation summative checklist (see Attachment 9 Day 4)
- Acceleration materials:
  - Informational report (see Attachment 7 Day 4)
  - *The Lotus Seed* by Sherry Garland (See Attachment 11 Day 4)
  - Acceleration summative assessment (see Attachment 10 Day 4)

#### *Extension lesson*

- Extension activity journal (see Attachment 4 and Attachment 5 Day 4). Please note: The teacher will need to make 15 copies of Attachment 5 for each student.
- Summative checklist (see Attachment 8 Day 4)

#### **Instruction**

##### Day 1: Engage (60 minutes)

##### *Opening: 15 min.*

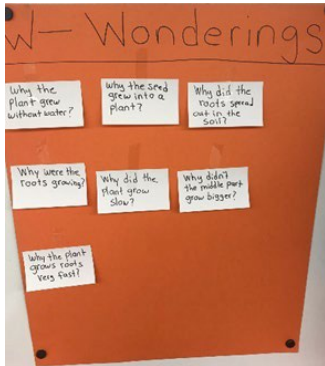
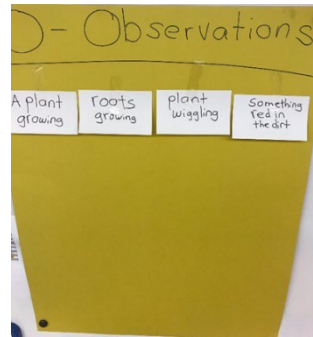
- Please note: The phenomenon that students will view is a time elapsed video of a bean germinating for 25 Days. The teacher should not explain the phenomenon to the class, nor should the teacher tell the students what they are watching. The purpose for this lesson is for the students to compose questions and wonderings about what they are viewing. The phenomenon is the hook to engage the students about what they will be learning in this lesson.
- The teacher will begin the lesson by asking all students to sit on the floor. Then, the teacher will say, “Today class, we will watch a phenomenon on YouTube. As you observe the phenomenon, compose questions in your mind about what you are watching,” (Review with the class the definition of phenomenon: anything that occurs naturally and can be observed and explained). Then, show the video to the students (link to the video can be found in Day 1 materials).

##### *Worktime: 30 min.*

After watching the video, the teacher will say, “Now, that you have observed the phenomenon and composed questions in your mind, you will write those questions on your OWL graphic organizer.” The teacher will give each student an OWL graphic organizer (see Attachment 1 Day 1), one glue stick, one spiral notebook, and one pencil. Students will write their names on the front of their spiral notebook. Students will open their spiral notebook and glue their OWL graphic organizer on the first page.



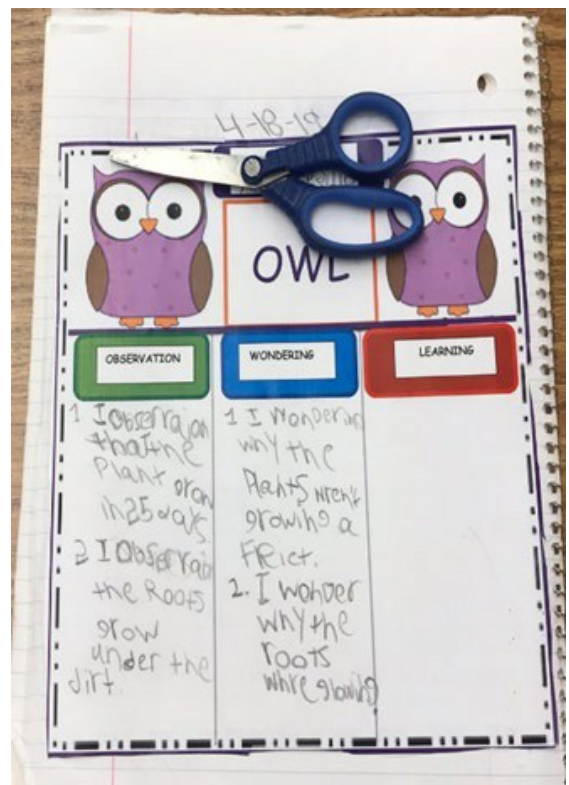
Students will write on their OWL graphic organizer in the “O” section only. They will write what they observed in the video. Then, the students will take turns reading with a partner what they wrote in the “O” section of their OWL graphic organizer.



After students have shared with a peer about what they observed from the video, the teacher will say, “Now, I want you to write in the ‘W’ section of your OWL graphic organizer, what you are wondering about after watching the video.” After students have written their wonderings in the “W” section of their Owl graphic organizer, the students will take turns reading with a partner what they wrote.

Closing: 15 min.

After students have shared with a peer, the teacher will randomly select students to share with the class what they wrote in the “O” section of their OWL graphic organizer. Then, the teacher will write the student responses on a large chart paper entitled “O – Observations”. The teacher will also randomly select students to share with the class what they wrote in the “W” section of their OWL graphic organizer. As the students share with the class, the teacher will write the student responses on a large chart paper entitled “W – Wonderings”. Then, the teacher will read all of the question and wondering responses from both chart papers. The teacher will say, “As we close the lesson for today, we have made many observations and wonderings from viewing the phenomenon. As we continue with our lesson tomorrow, we will make connections to the phenomenon, and we will try to answer our wonderings and questions from the large ‘O’ and ‘W’ charts, and your individual OWL graphic organizer.”



Day 2: Explore (60 minutes)

*Opening: 10 min.*

To begin the lesson, the teacher will briefly review what the students did yesterday during the engage part of the 5E lesson. The teacher will say the following while all of the students are seated together on the floor, “Yesterday we viewed a phenomenon. We wrote questions and wonderings about the phenomenon on our OWL graphic organizer. As some of you shared your questions and wonderings, I wrote your responses on the large chart papers. Today, we will do some exploring. As we do our explore activity, we will try to make some connections about what we saw on the video. We will also try to answer some of our questions and wonderings. Today, I am going to read part of the story *Seeds! Seeds! Seeds!* by Elizabeth Wallace,” (pages 1-10). While reading pages 1-10, the teacher will pose questions, such as

- Who are the characters in this story?
- How many bags did Gramps give Buddy Bear?
- Look at the first bag Gramps gives Buddy Bear. There is a note that says, “Different and the same, count them sort them, glue them by their name.” What do you think Gramps wants Buddy Bear to do? Do you think there is something in the bag that Buddy Bear needs to sort, count and glue? What do you think it could be?
- Buddy Bear has different seeds in his bag. What does he notice about the different seeds as he sorts them?

*Worktime: 40 min.*

After receiving responses from the questions posed, the teacher will say, “We are now going to explore different seeds just like Buddy Bear. You will be placed in groups of three. Each group will receive the following items: a set of five Ziploc bags with seeds in each bag, three seed activity sheets (see Attachment 2 Day 2), three pencils, one glue stick, three paper plates, the spiral notebooks from yesterday, three magnifying glasses, small sticky notes, and one box of crayons.”

After telling the students what materials they will receive, place the students in groups of three. Place each group in different locations around the classroom. Select one person in each group to gather all of the materials to bring to their group. The teacher will model with the whole class the worktime task before groups complete the task independently. The directions are as follows:

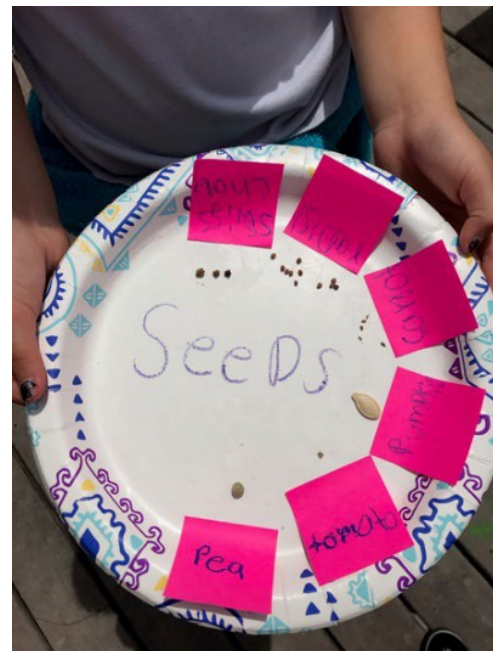
- Each student will glue the seed activity sheet to a page in his/her spiral notebook.
- Each student will use a pencil to write his/her name on the seed activity sheet.



- Each group will select the bag that is labeled “A”. Students will take turns taking one seed from the “A” bag and gluing the seed to their paper plate. Students will be given a small sticky note and crayons. The students will use crayons to write the name of the seed on the small sticky note (please note: The teacher will write the name of each seed on the board for the students to copy).



- Students will use their glue stick to glue the sticky note under the seed. Students will continue with this procedure until they have glued one seed from each bag onto their paper plate.
- The teacher will tell groups to observe each seed on the paper plate using their magnifying glasses and to discuss what they notice about each seed.
- As students discuss their observations, they will work together to complete questions 1-6 on their seed activity sheet.



*Closing: 10 min.*

The teacher will direct all students to sit on the floor together with their groups. The teacher will call on two different groups to share what they wrote on their seed activity sheet. The teacher will also ask questions, such as:

- What did you notice about all of the seeds? How are the seeds alike? How are they different?
- Think about the phenomena you saw yesterday, what was happening with the bean seed? Do you think all of these seeds will grow into a plant? Can we answer any of our wonderings and questions? (The teacher should write the responses on the large “O” and “W” chart paper.)

Students will also try to answer their own questions and wonderings on the “L” section of their OWL graphic organizer (please note that the “L” on the OWL graphic organizer stands for “What I Learned”).





Day 3: Explain (60 minutes)

*Opening: 15 min.*

While the students are sitting on the floor, the teacher will say, “When we read part of our story yesterday, Buddy Bear was exploring seeds. He noticed many things about the different seeds his Gramps gave him. We also explored and noticed many things about the different seeds I gave you. Today, we are going to continue to read the story *Seeds! Seeds! Seeds!* (Pages 11-30). As I read, I want you to think about the word germination and our phenomenon we viewed previously. How do they connect to each other?”

While reading pages 11-30, the teacher will ask questions. They are as follows:

- What does germination mean?
- How does Gramps help Buddy Bear understand germination?
- Gramps gives Buddy Bear several picture cards to put in order. Each card represents a phase of how a seed germinates. How are these cards similar to our phenomenon?
- Buddy Bear’s mother explains to him how a seed grows. What things do seeds need to grow?
- Buddy Bear’s mother also explains the different parts of a seed. Look at each picture and notice the parts of the seed as it grows. What do we call the tiny plant that grows inside of the seed? What is the name of the white part that is growing in the soil? What is growing out of the soil? What is the food source for a seed?

Please note: As questions are answered by the class, the teacher will elaborate about the process of germination and how it connects to the phenomenon.

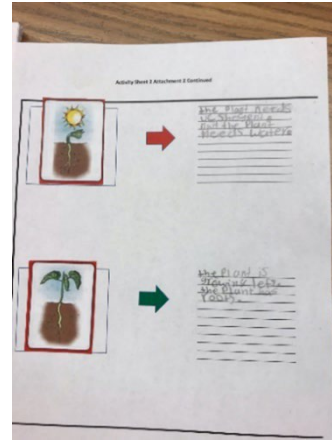
*Worktime: 30 min.*

After reading and discussing the process of germination, the teacher will give each student their spiral notebooks, a glue stick, a pencil, four picture cards from activity sheet one and activity sheet two (see Attachment 1 Day 3 and Attachment 2 Day 3). The procedures are as follows:

- The teacher will place students in groups of three.
- Each student will glue activity sheet 2, (see Attachment 2 Day 3) in their spiral notebooks.
- Each student will be given a set of four picture cards from activity sheet 1, (see Attachment 1 Day 3).
- Groups will look at the four picture cards and discuss with each other what is happening on each picture card.



- As discussion occurs in each group, students will glue their picture cards in the correct boxes on activity sheet 2.
- After gluing the picture cards, students will write a sentence about what is happening during each phase on the picture cards. The sentences will be written on activity sheet 2.



*Closing: 15 min.*

As students are sitting on the floor, the teacher will randomly select students to discuss with the class what is happening on each picture card, and they will also share their sentences.

After responses, the teacher will ask the class, "Are there any new wonderings and observations you made today?" As students respond, the teacher will add their responses to the "O" and "W" chart paper. The teacher will give students their spiral notebooks, and they will add their new wonderings and questions to their OWL graphic organizer.

The teacher will write "L-Learnings" on a new large chart paper. The teacher will ask the students, "What did you learn today about germination? How does germination connect to the phenomenon? What other new things did you learn today?" As the students respond, the teacher will write their responses on the "L" chart paper. Students will also write what they learned on the "L" section of their OWL graphic organizer.

#### Day 4: Extend/Evaluate (90 minutes)

*Opening: 15 min.*

While the class is seated on the floor, the teacher will read the remaining pages of the book *Seeds! Seeds! Seeds!*. The teacher will pose questions. They are as follows:

- Gramps gave Buddy Bear plenty of materials to create a container to plant his seeds. What types of materials did Buddy Bear use?
- What did Buddy Bear do to the seeds to help them grow?

Then the teacher will tell the students, "Just like Buddy Bear, we are going to create a container to plant our seeds." Here is the students' task:

- All plant life on Earth has been destroyed! You are selected by the United States government to replenish Earth with new plant life. You will create a self-watering terrarium for your seed to germinate and grow. (Please note: The students will watch the video, <https://www.youtube.com/watch?v=PB93Mj7lhde>, to aid in the



understanding of what a terrarium is and how to create a self-watering terrarium. After the video, the teacher will briefly summarize the important parts of the video and answer any questions the students may have before they begin their task.)

- You will work in groups of three. The teacher will give each group an activity sheet (see Attachment 1 Day 4). On your activity sheet, your group will select one type of seed to plant in your terrarium. Your group will create a plan of what materials you will need to create your terrarium. You will draw a diagram of your group's terrarium (please note: each person in the same group will illustrate the same diagram).
- Each person in your group will create the same self-watering terrarium that is illustrated on your group's activity sheet. After all groups have created their self-watering terrarium, we will walk around the class to observe all of the self-watering terrariums.

*Worktime: 60 min.*

The student will complete their activity sheet (see Attachment 1 Day 4). The students will use the items listed in the "Maker Space Materials" section found under "Day 4" of "Materials" to create a self-watering terrarium.

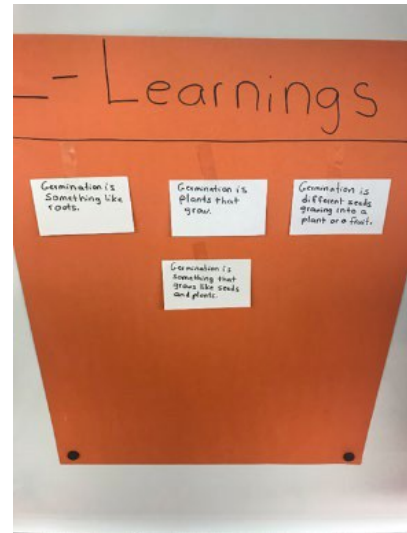
Examples of self-watering terrariums are pictured below:





*Closing: 15 min.*

As students sit on the floor, one person from each group will stand in front of the class to talk about the process of how their group planned-out the creation of their terrariums. After students have shared, the teacher will give the students their spiral notebooks and pencils. All students will write in the “L” section of their OWL graphic organizer what they learned. The teacher will call on different students to share what they wrote on the “L” section of their OWL graphic organizer.



**Extension Activity: Summative Assessment (30 min/15 Days)**

Students will observe the process of germination. Students will use a daily journal to observe, illustrate and write their observations about the growth of their seed located in their self-watering terrarium (see Attachment 4 and Attachment 5 Day 4 for journal). This activity will be on-going for fifteen days. The teacher will make fifteen copies of Attachment 5 Day 4 for each student to complete their daily observations. (Please note: see Attachment 8 Day 4 for assessment checklist.)

## Differentiation

### Day 1

**Remediation:** As students view the phenomenon, students will be given Attachment 3 Day 1. The directions are as followed:

- Students will draw 2 pictures of what they viewed from the video.
- Students will use crayons to color their picture.
- Students will use sentence frames to explain each picture they drew.
- Students will glue Attachment 3 in their spiral notebook
- Students will work with a peer to complete their sentence frames.

**Acceleration:** As students view the phenomenon, students will be given Attachment 4 Day 1. The directions are as followed:

- Students will write 3 different adjectives to describe 3 different things they viewed from the video.
- Students will use the same three adjectives to compose three different sentences that describe something that was viewed in the video. (Please note: Students will only use one adjective for each sentence.)



### Day 2

The teacher will group students so that there is a remedial and accelerated student in each group. Students will work together to complete this task.

### Day 3

*Remediation:* Students will be given remediation activity sheet 3. Students will cut the picture cards from activity sheet 1. Each student will glue the cards in the correct order on the remediation activity sheet. Each student will convey to the teacher what is happening in each picture. (Please see Attachment 5 for the remedial formative assessment checklist.)

*Acceleration:* Students will be given acceleration activity sheet 4. Students will cut the picture cards from activity sheet 1. Each student will glue the cards in the correct sequence and compose a summary about germination on the acceleration activity sheet. (Please see Attachment 6 for the accelerated formative assessment checklist.)

### Day 4

*Remediation:* Students will observe the process of germination. Students will use a daily journal to observe, illustrate and use sentence frames to write their observations about the growth of their seed located in their terrarium. (see Attachment 4 and Attachment 6 Day 4 for journal) This activity will be on- going for fifteen Days. The teacher will make fifteen copies of Attachment 6 Day 4 for each student to complete their daily observations. (Please note: please see Attachment 9 Day 4 for remediation summative assessment checklist.)

*Acceleration:* Students will read the book *The Lotus Seed*. After reading, the students will research the culture of Vietnam. The students will compose an informational report, (see Attachment 7 Day 4) about the why the red lotus flower is very significant to their culture. (Please note: see Attachment 10 Day 4 for summative acceleration assessment checklist.)

## Assessment

Day 1 assessments will be:

- Formative Checklist
- Remediation Formative Checklist
- Acceleration Formative Checklist

Day 2 assessment will be:

- Formative Assessment checklist



Day 3 assessment will be:


- Formative Assessment checklist
- Remediation Formative Checklist
- Acceleration Formative Checklist

Day 4 assessment will be:

- Summative Assessment Rubric
- Remediation Summative checklist
- Acceleration Summative Checklist
- Extension Activity
- Summative Assessment Checklist

DAY 1 ATTACHMENTS

Owl Graphic organizer Attachment 1

	<p>NAME</p>	
<p>OWL</p>		
<p>OBSERVATION</p>	<p>WONDERING</p>	<p>LEARNING</p>

**Attachment 2 Remediation Activity Sheet**


Name	Date
<p><b>1. Draw a picture in this first box of something you saw on the video.</b></p>	<p><b>2. Draw a picture in this second box of something you saw on the video. Your picture in this box must be different from the picture in the first box.</b></p>
<p><b>1. This is what I drew in the first box. It is a picture of</b></p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p><b>2. This is what I drew in the second box. It is a picture of</b></p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>




### Attachment 3 Acceleration Activity Sheet

Name	Date
<p><b>Directions: After watching the video, think of three adjectives that describe what you saw in the video.</b></p> <p><b>Write your first adjective on the line 1</b></p> <p>Line 1 _____</p>  <p><b>Write your second adjective on line 2.</b></p> <p>Line 2 _____</p>  <p><b>Write your third adjective on line 3.</b></p> <p>Line 3 _____</p>	<p><b>Directions: Write a sentence using the adjective you wrote on line 1. Write the sentence on the purple lines. Your sentence must be about the video you viewed.</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><b>Write a sentence using the adjective you wrote on line 2. Write the sentence on the green lines. Your sentence must be about the video you viewed.</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><b>Write a sentence using the adjective you wrote on line 3. Write the sentence on the red lines. Your sentence must be about the video you viewed.</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>


**Attachment 4 Formative Checklist Assessment**

<b>Name</b>	<b>Date</b>	<b>Place a  in each box if observed.</b>
<b>Student writes two or more observations from the video on the O section of their OWL graphic organizer.</b>		<b>Comments:</b>
<b>Student writes two or more wonderings from the video on the W section of their OWL graphic organizer.</b>		<b>Comments:</b>

**Attachment 5 Remediation Formative Checklist**

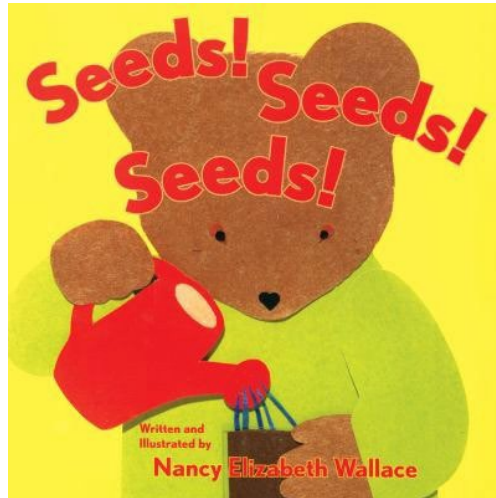
<b>Name</b>	<b>Date</b>	<b>Place a  in each box if observed.</b>
<b>Student draws two pictures about the video. (Each drawing must relate to the video.)</b>		<b>Comments:</b>
<b>Student completes two sentence frames. (Each sentence must relate to the student's drawing.)</b>		<b>Comments:</b>
<b>Student can convey or describe what was drawn in both pictures.</b>		<b>Comments:</b>
<b>Student can read both sentences. (Do not focus on spelling.)</b>		<b>Comments:</b>

**Attachment 6 Acceleration Formative Checklist**

<b>Name</b>	<b>Date</b>	<b>Place a  in each box if observed.</b>
<b>The student writes adjective 1 on line 1. (The adjective describes something viewed on the video.)</b>		<b>Comments:</b>
<b>The student writes a sentence using adjective 1 on the purple line. (The sentence describes something viewed on the video.)</b>		<b>Comments:</b>
<b>The student writes adjective 2 on line 2. (The adjective describes something viewed on the video.)</b>		<b>Comments:</b>
<b>The student writes a sentence using adjective 2 on the green line. (The sentence describes something viewed on the video.)</b>		<b>Comments:</b>
<b>The student writes adjective 3 on line 3. (The adjective describes something viewed on the video.)</b>		<b>Comments:</b>
<b>The student writes a sentence using adjective 3 on the red line. (The sentence describes something viewed on the video.)</b>		<b>Comments:</b>

## DAY 2 ATTACHMENTS

Attachment 1 Photo of the children's book, Seeds! Seeds! Seeds! By Nancy Elizabeth Wallace



Link to buy the book online: <https://www.amazon.com/Seeds-Nancy-Elizabeth-Wallace/dp/0761453660>

Link to read aloud on YouTube: [https://www.youtube.com/watch?v=Uq\\_Fcb119tE](https://www.youtube.com/watch?v=Uq_Fcb119tE)

### Attachment 2 Seeds Activity Sheet

Name and Date						
<b>Directions: Your group will be given six ziplock bags. Each ziplock bag has a letter written on it and seeds inside of it. Your group will analyze each bag of seeds and complete the chart.</b>						
	<b>1. What is the color of the seed?</b>	<b>2. Write or draw the shape of the seed?</b>	<b>3. Is the seed large, or small?</b>	<b>4. How is this seed like the other seeds?</b>	<b>5. How is this seed different than the other seeds?</b>	<b>6. What is the name of the seed?</b>
Seed A						
Seed B						
Seed C						
Seed D						
Seed E						
Seed F						

Formal assessment checklist Attachment 3

Name of each person in the group.

Place a check mark in each box if groups were able to answer.

Date:

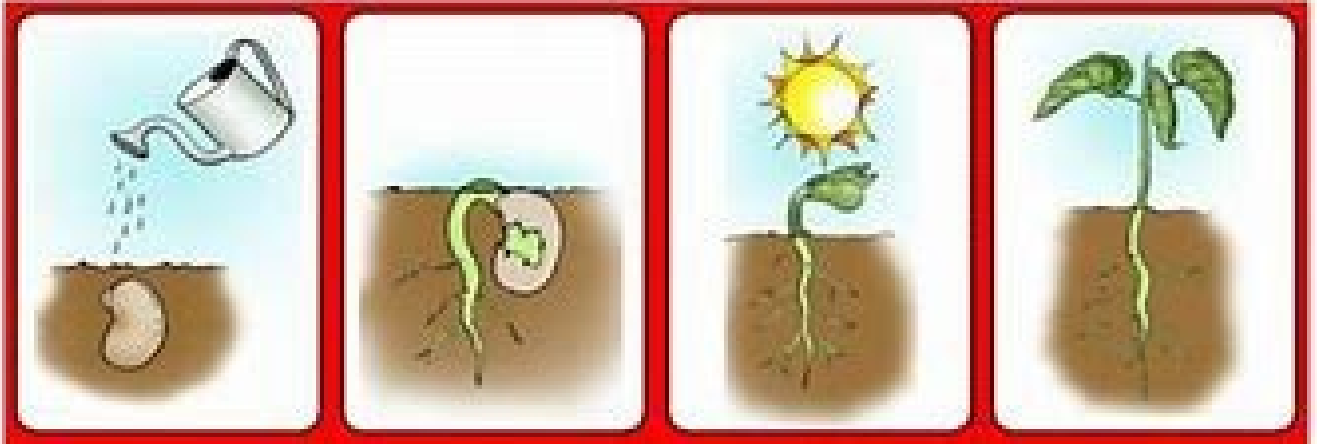
	<b>Wrote the color of the seed.</b>	<b>Wrote or draws the shape of the seed.</b>	<b>Wrote whether the seed is large or small.</b>	<b>Wrote how the seed is similar to the other seeds.</b>	<b>Wrote how the seed is different than the other seeds.</b>	<b>Wrote the name of each seed.</b>
Seed A						
Seed B						
Seed C						
Seed D						
Seed E						
Seed F						





Day 3 Attachments

Picture Card Activity Sheet 1 attachment 1

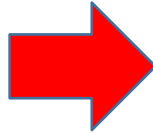


Activity sheet 2 Attachment 2

Name \_\_\_\_\_ Date \_\_\_\_\_

Glue the cards in the correct order and write what is happening in each picture.

**GLUE THE FIRST  
CARD IN THIS BOX**



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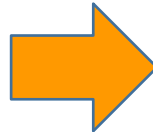
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**GLUE THE SECOND  
CARD IN THIS BOX**



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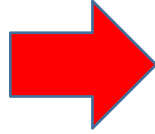
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Activity Sheet 2 Attachment 2 Continued

**GLUE THE THIRD  
CARD IN THIS BOX**



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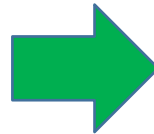
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**GLUE FOURTH CARD  
IN THIS BOX**



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Remediation Activity Sheet Attachment 3

Name \_\_\_\_\_

Date \_\_\_\_\_

Glue the cards from activity one in the correct box. Then tell the teacher what is happening in each box.

**GLUE THE FIRST  
CARD IN THIS BOX**


**GLUE THE SECOND  
CARD IN THIS BOX**

**GLUE THE THIRD  
CARD IN THIS BOX**


**GLUE THE FOURTH  
CARD IN THIS BOX**




**Remedial Formative Assessment Checklist Attachment 5**

Name	Date	Place a  in each box if observed.
<b>Student places picture card 1 in the correct box.</b>		<b>Comments:</b>
<b>Student places picture card 2 in the correct box.</b>		<b>Comments:</b>
<b>Student places picture card 3 in the correct box.</b>		<b>Comments:</b>
<b>Student places picture card 4 in the correct box.</b>		<b>Comments:</b>
<b>Student explains picture card 1 to the teacher.</b>		<b>Comments:</b>
<b>Student explains card 2 to the teacher.</b>		<b>Comments:</b>
<b>Student explains card 3 to the teacher.</b>		<b>Comments:</b>
<b>Student explains card 4 to the teacher.</b>		<b>Comments:</b>

Acceleration Formative Assessment Checklist Attachment 6

Name	Date	Place a  in each box if observed.
<b>Student places and glues all four picture cards in the correct order.</b>		<b>Comments:</b>
<b>Student writes a summary about seed germination.</b>		<b>Comments:</b>
<b>Student begins each sentence with a capital letter.</b>		<b>Comments:</b>
<b>Student ends each sentence with an ending punctuation.</b>		<b>Comments:</b>

Formative Assessment Checklist Attachment 7

Name	Date	Place a  in each box if observed.
<b>Student places and glues each picture card in the correct box.</b>		<b>Comments:</b>
<b>1. Student writes a sentence about picture card</b>		<b>Comments:</b>
<b>2. Student writes a sentence about picture card</b>		<b>Comments:</b>
<b>3. Student writes a sentence about picture card</b>		<b>Comments:</b>
<b>4. Student writes a sentence about picture card</b>		<b>Comments:</b>



**DAY 4 ATTACHMENTS**

**Activity Sheet Attachment 1**

<p><b>Write the names of each person in your group in this box.</b></p>	<p><b>Date</b></p>
<p><b>PROBLEM</b> All plant life on Earth is destroyed. The United States government selected you to replenish Earth with new plant life. You will create a self-watering terrarium for your seed to germinate and grow.</p>	<p><b>2. Write a plan of what materials your group will need to create a self-watering terrarium in this box.</b></p>
<p><b>TASK</b> <b>1. You will create a self-watering terrarium for your seed to germinate and grow. Write the name of the seed your group selected in this box.</b></p>	<p><b>3. Draw a diagram of what the self –watering terrarium will look like in this box.</b></p>

Attachment 2 (YouTube video of what a terrarium is.)

<https://www.youtube.com/watch?v=PB93Mj7lhdE>

**Attachment 3 Summative Assessment Rubric (use this with activity sheet attachment 1)**

Names of each person in the group	Date
<b>Exceeds</b>	<b>Meets</b>
<p>The group completes each section of their activity sheet. The sheet must have:</p> <ul style="list-style-type: none"> <li>- A diagram of a self - watering terrarium.</li> <li>- The name of the seed is written on the activity sheet.</li> <li>- The name of each material used to create the self-watering terrarium.</li> </ul> <p align="center"><b>3 points</b></p>	<p>The group completes 1 or 2 sections of their activity sheet. The sheet can have any two of the following:</p> <ul style="list-style-type: none"> <li>- A diagram of a self - watering terrarium.</li> <li>- The name of the seed is written on the activity sheet.</li> <li>- The name of each material used to create the self-watering terrarium.</li> </ul> <p align="center"><b>2 points= has completed two sections of the activity sheet</b></p> <p align="center"><b>1 point – completes one section of the activity sheet</b></p>
<p>Each person in this group creates the same self-watering terrarium.</p> <p align="center"><b>3 points</b></p>	<p>1 or 2 people in the group creates the same self-watering terrarium.</p> <ul style="list-style-type: none"> <li>- 2 points for only 2 people in the group creating the self-watering terrarium</li> <li>- 1 point for only one person in the group completing the self- watering terrarium.</li> </ul>
<p>One person in the group explains how their group created their self- watering terrarium. (Please note: Students must use their activity sheet when explaining each part of their activity sheet.)</p> <ul style="list-style-type: none"> <li>- Student names the seed. (1 point)</li> <li>- Student names the material used to create the self-watering terrarium. (1 point)</li> <li>- Student explains the diagram drawn on their activity sheet. (1 point)</li> </ul> <p align="center"><b>3 points</b></p>	<p>One person in the group explains only 2 sections of their activity sheet. (Please note: Students must use their activity sheet when explaining each part of their activity sheet.)</p> <ul style="list-style-type: none"> <li>- Student names the seed. (1 point)</li> <li>- Student names the material used to create the self-watering terrarium. (1 point)</li> <li>- Student explains the diagram drawn on their activity sheet. (1 point)</li> </ul>
<p><b>Points for a group to exceed</b> Must have 7-9 points.</p>	<p><b>Points for a group to meet</b> 4-6 points</p>

# SEED GERMINATION JOURNAL

By: \_\_\_\_\_



Attachment 5 extension activity journal  
Make 15 copies of this page per student.

Day \_\_\_\_\_

Date: \_\_\_\_\_

WRITE WHAT YOU OBSERVED TODAY.

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Illustrate what your seed looks like today!

**Attachment 6 remediation activity journal**

**Make 15 copies of this page per student.**

Day \_\_\_\_\_

Date: \_\_\_\_\_

**This is a picture of what my seed looks like today.**



My seed is \_\_\_\_\_

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- Attachment 8 Summative Checklist (Use this checklist with extension activity journal.)


<b>Name</b> Place a  in each box if observed.	<b>Date</b>	<b>Student writes a sentence about what he/she observed.</b>	<b>Student draws a picture about what he/she observed</b>
<b>Day 1</b>			
<b>Day 2</b>			
<b>Day 3</b>			
<b>Day 4</b>			
<b>Day 5</b>			
<b>Day 6</b>			
<b>Day 7</b>			
<b>Day 8</b>			
<b>Day 9</b>			
<b>Day 10</b>			
<b>Day 11</b>			
<b>Day 12</b>			
<b>Day 13</b>			
<b>Day 14</b>			
<b>Day 15</b>			



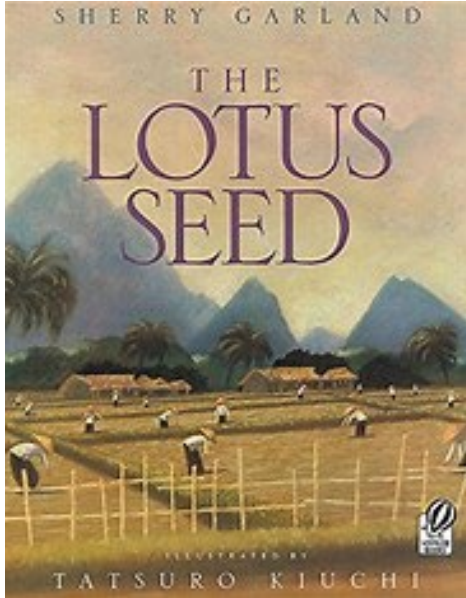
**Attachment 9 Remediation Summative Checklist Use this checklist with the remediation activity journal.)**

<b>Name</b> Place a  in each box if observed.	<b>Date</b>	<b>Student completes the sentence frame about what he/she observed.</b>	<b>Student draws a picture about what he/she observed</b>
<b>Day 1</b>			
<b>Day 2</b>			
<b>Day 3</b>			
<b>Day 4</b>			
<b>Day 5</b>			
<b>Day 6</b>			
<b>Day 7</b>			
<b>Day 8</b>			
<b>Day 9</b>			
<b>Day 10</b>			
<b>Day 11</b>			
<b>Day 12</b>			
<b>Day 13</b>			
<b>Day 14</b>			
<b>Day 15</b>			

**Attachment 10 Summative Checklist Acceleration (Use this with the informational report.)**

<b>Name</b>	<b>Date</b>	<b>Place a  in each box if observed.</b>
<b>Student writes name and date on the informational report.</b>		<b>Comments:</b>
<b>Student explains why the Red Lotus plant is significant to the Vietnamese culture.</b>		<b>Comments:</b>
<b>Student begins each sentence with a capital letter.</b>		<b>Comments:</b>
<b>Student ends each sentence with an ending punctuation mark.</b>		<b>Comments:</b>

**Attachment 11 picture of the book The Lotus Seed by Sherry Garland**



Link to buy the book: <https://www.amazon.com/Lotus-Seed-Sherry-Garland/dp/0152014837>

Link to a read aloud on YouTube: [https://www.youtube.com/watch?v=\\_4CZbiUT9g](https://www.youtube.com/watch?v=_4CZbiUT9g)