

Grade 2: Module 3: Labs

1 – Launch Stage

Labs: Launch Stage

Days 1–4

Labs continue to take place in four stages, and the purposes of each remain the same (see Module 2 Launch Stage).

1. The Launch stage serves four purposes:
 - To introduce and practice the Lab schedule and routines and lay the groundwork for the habits of character that students will practice in each Lab.
 - To orient students to the purpose, guiding questions, and materials of each of the Labs for this module.
 - To establish expectations for each Lab.
 - To build a sense of wonder and excitement around each Lab. Students should be filled with anticipation, questions, and ideas as they continue on to the following, more independent stages of the Labs.



Launch Stage: At-a-Glance

Guiding Question

Create Lab

How can I create a scientific drawing of a plant?

Engineer Lab

How can I use my knowledge about seeds and pollination to design tools to help in these processes?

Explore Lab

How can I use scientific inquiry to discover the needs of plants?

Imagine Lab

How can I use poetry and movement to learn more about seeds and pollination?

Learning Target(s)

Create Lab

I can create an accurate and detailed drawing of a leaf.

Engineer Lab

I can explore materials and methods for dispersing seeds.

I can design a tool to help in the process of seed dispersal.

Explore Lab

I can design and conduct an investigation to discover the needs of plants.

I can make observations about plants.

Imagine Lab

I can build knowledge about seeds and pollination through poetry.

I can improve my reading fluency by reading poetry aloud.

I can create movement to match poetry about seeds and pollination.

Create Lab

Create Lab Checklist (SL.2.1, SL.2.3)

Engineer Lab

Engineer Lab Checklist (SL.2.1, SL.2.3)

Explore Lab

Explore Lab Checklist (W.2.7, SL.2.1, SL.2.3)

Imagine Lab

Imagine Lab Checklist (RL.2.4, RF.2.4, SL.2.1, SL.2.3)

Launch Stage: Daily Schedule

Lab Component	Time
Storytime	10 minutes
Setting Lab Goals	5 minutes
In the Lab	40 minutes
Reflecting on Learning	5 minutes

Launch Stage: Storytime

10 MINUTES

Teaching Notes**Purpose:**

- Recall that the purpose and structure of Storytime is identical across all four stages of the Labs and can include a read-aloud of a text or an oral storytelling experience.
- During the Launch and Practice stages, Storytime should be dedicated to reading, rereading, or retelling narratives about a variety of living things, especially those introduced during the module lessons, but can also include others of the teacher's choice. This supports students' work in the Imagine Lab, where they are expected to use materials to collaboratively re-enact familiar content-connected stories.

In advance:

- Choose a text from your classroom library or the Grade 2: Labs Recommended Storytime and Research Book List (in the Labs Teacher Guide)
- Consider creating a focus question for Storytime (see example in the Experience section below).
- Create four heterogeneous Lab groups.
- Post: Focus question (optional).

Materials

- ☑ Labs song (one to display)
- ☑ Text for Storytime (chosen by teacher; see Teaching Notes)

Experience (identical during all four stages of Labs)

- Follow the routine established in Modules 1–2 to engage students with the **Labs song** and **text for Storytime**.

Launch Stage: Setting Lab Goals

5 MINUTES

Teaching Notes

Purpose:

- Recall that Setting Lab Goals is a time to activate and reinforce students' executive functioning skills: focusing their attention, making a plan for their time, exhibiting self-regulation, and following instructions.
- Continue to consider using visual displays (anchor charts, a Labs schedule, a daily agenda, etc.) to help students understand and remember where they are going that day and what is expected of them.

In advance:

- Post: Guiding question and learning target(s) for the Lab students will be launching that day.

Materials

- ☑ Labs notebook (new; one per student and one for teacher modeling)
- ☑ Pencils (one per student)
- ☑ Learning target(s) (one to display for each Lab; see Launch Stage: At-a-Glance for the specific targets for each Lab)

Experience

- Gather students in the whole group meeting area.
- Distribute **Labs notebooks** and **pencils**.
- Invite students to sit in specified places so they will be close to their Lab group.
- Briefly introduce the Lab that the class will launch today.
- Think-Pair-Share:
 - “What do you already know about the Lab based on your experiences in Modules 1 and 2?”
(Responses will vary.)
- Share the **learning target(s)** for the Lab the class is focused on today.
- Turn and Talk:
 - “What do you think you will be doing in today's Lab?”
 - “How can you show respect for materials?”
 - “How can you show respect for other students in your group?”

- Tell students that their most important goals for the day are to think about the learning target, show respect for materials, show respect for other students in their group, and have fun!
- Remind students of the importance of setting goals and follow the routine established in Modules 1–2 to guide students through setting goals:
 - Invite students to think of a goal.
 - Invite students to turn and talk about their goal.
 - Direct students to write their goal in their Labs notebook.
- Invite students to take out their imaginary bow and arrow and then stand up and take aim at the target.
- Invite students to put on their imaginary lab coats and goggles to show they are ready for learning and fun.

Launch Stage: In the Labs

- Refer to the In the Lab section below for detailed plans on each specific Lab.

Launch Stage: Reflecting on Learning

Teaching Notes

Purpose:

- Similar to Modules 1–2, the cycle of goal-setting and reflecting is meant to increase student ownership and intentionality. Continue to support students with predictable structures of reflection and familiar sentence frames.

In advance:

- Post: Sentence frames or picture clues for any reflection questions you will use regularly (optional).

Materials

- ☒ Labs song (one to display)
- ☒ Labs notebook (one per student and one for teacher modeling)

Experience

- Gather students back together whole group by singing the (conclusion of) the **Labs song**.
- Remind students of the guiding question for the specific Lab the class focused on today and guide them through their reflection:
 - Invite students to review their goal in their **Labs notebook**.
 - Ask a reflective question and remind students of the sentence starters at the top of the page.

- Invite students to signal and share with a partner when they are ready.
- Invite students to record their reflection in their Labs notebook.
- Invite students to give a neighbor a high-five and take off their imaginary Lab coat and goggles to indicate the end of the Lab experience.



Launch Stage: In the Create Lab

Guiding Question

- How can I create a scientific drawing of a plant?

Learning Target

- I can create an accurate and detailed drawing of a leaf.

Teaching Notes

Purpose:

- In the Create Lab, the Launch stage continues to serve two purposes:
 - Students closely observe the subject (in this case, leaves) of a scientific drawing in order to identify its details.
 - Students practice drawing leaves with accuracy, especially in regard to shape, veins, edges, and colors.

Habits of character:

- Similar to Modules 1–2, the Create Lab requires perseverance from students in different ways. For some, the process can be frustrating when their artwork does not match the model or does not meet their own expectations. Guide these students toward understanding that mastery of skills and materials is a long-term process and that making multiple attempts is a productive and natural part of the process. Other students will feel “done” with their first attempt. Perseverance will be necessary for these students when provided with descriptive feedback and encouraged to make additional drafts to improve their work.

Logistics:

- During the Launch stage of the Create Lab, the teacher and students work together to closely study multiple leaves (or high-resolution, close-up photographs of leaves.) They compare the shapes, edges, veins, and colors of multiple leaves in order to understand that leaves are distinctive from one another
- The teacher guides students (in partnerships) through a process of close observation of leaves in order to identify the leaves’ distinguishing characteristics.
- The teacher models drawing a leaf accurately and scientifically.
- Students begin to explore the process of drawing accurately and scientifically.

In advance:

- Form partnerships within each Lab group for the whole group teaching experience.
- Based on classroom setup and available technology, determine the best way to display the leaves and how to model drawing a leaf.
- Prepare four workstations by placing leaves (or photographs of leaves), magnifying glasses, paper, pencils, and colored pencils at each workstation (see supporting materials).
- Consider:
 - Having a folder for each student's work in progress and leftover materials
 - Forming new Lab groups based on students' progress, strengths, and needs as exhibited in the Module 2 Labs.
 - Making a Creating Scientific Drawings anchor chart that captures the steps taught in this lesson.

Materials

- ☑ Leaves or photographs of leaves (two different leaves for teacher modeling; a variety of different leaves, or photographs of leaves, per workstation)
- ☑ Magnifying glasses (one per pair)
- ☑ Paper (blank; two or three pieces per student)
- ☑ Pencils (one per student)
- ☑ Colored pencils (variety of colors; a cup to share per workstation)

Experience

- Gather students in the whole group meeting area. Remind them to sit next to their assigned partner in their Lab group.
- Welcome students to the Create Lab, where they will now be both scientists and artists!
- Tell students that they will be scientists by closely observing, and learning about, plants and plant parts. They will be artists by communicating what they know about plants and plant parts in detailed, accurate drawings.
- Point out the **leaves or photographs of leaves** and **magnifying glasses** at each workstation.
- Turn and Talk:
 - “What is similar or the same about your two leaves?” (They are both green. They both have lines.)***
 - “What is different about your two leaves?” (One is darker than the other. They have different shapes.)***
- Confirm for students that, although leaves have many similarities, leaves of different plants or of different ages are very different when you observe them closely.
- Tell students that when artists draw leaves for some purposes (e.g., to illustrate a fiction book or paint a beautiful picture), they may not be so concerned with how accurately they are drawing the leaves. However, when we are drawing scientifically, being accurate about the details is the most important goal.
- Tell students that there are four important attributes, or parts, of the leaves that they need to observe closely: the edges, the shape, the colors, and the veins.

- Tell students they are going to take a second look at their leaves, focusing on these four attributes.
- Invite pairs to identify one of their leaves as “Leaf A” and the other as “Leaf B.”
- Ask:
 - “How would you describe the edges of Leaf A? Are they smooth? Rough? Pointy?” (Responses will vary, depending on how students labeled their leaves.)*
 - “How do the edges of Leaf A compare to the edges of Leaf B?” (They are the same. One is pointed and the other is smooth.)*
 - “How would you describe the color of Leaf A? Dark green? Light green? A mixture of colors?” (Responses will vary.)*
 - “How do the colors of Leaf A compare to the colors of Leaf B? (One is darker. One has many colors; the other has only one.)*
 - “How would you describe the shape of Leaf A? Long and skinny? Rounded? Pointed?” (Responses will vary.)*
 - “How does the shape of Leaf B compare to the shape of Leaf A?” (One is longer and skinner. One is rounded at the end; the other is pointed)*
 - “How would you describe the veins of Leaf A? How many are there? Are they dark or light?” (Responses will vary.)*
 - “How do the veins of Leaf A compare to the colors of Leaf B?” (The veins of Leaf A are really big; the veins of Leaf A are very skinny and hard to see.)*
- Tell students they have already done the hardest part of drawing scientifically: closely observing their subject and identifying its important details.
- Tell them that today and over the next few days, they will be practicing the skill of drawing like scientists.
- Tell students that when scientists draw, they are sure to:
 - Closely observe their subject
 - Identify the important details (shape, color, lines, etc.)
 - Use the whole page (a zoomed-in drawing)
 - Accurately include details and colors
 - Label the parts of the drawing
- Using **paper**, a leaf, and a **pencil**, model how to begin a scientific drawing:
 - Look closely at the leaf.
 - Name the details of the leaf’s attributes.
 - Draw the leaf’s shape.
 - Use as much of the paper as possible, and with accurate edges.
- Using a total participation technique, invite students to give feedback on your drawing as you work:
 - “How accurate is the shape in my drawing? Do I need to make any revisions?” (Responses will vary.)*
 - “How accurate are the edges?” (Responses will vary.)*
- Continue this process through choosing the colors for the leaf.
- Assign each Lab group a workspace and invite them to get started.
- Circulate and support students as they work.

- At the conclusion of In the Lab time, signal students to clean up their Lab space. Cleaning up scraps of paper, glue sticks, scissors, and storing materials may need to be modeled the first time they do this.
- Give Lab groups or individual students specific, positive feedback for responsible and respectful cleanup behaviors.
- As Lab groups are ready, transition them back to the whole group area for Reflecting on Learning.



Launch Stage: In the Engineer Lab

Guiding Question

- How can I use my knowledge about seeds and pollination to design tools to help in these processes?

Learning Targets

- I can explore materials and methods for dispersing seeds.
- I can design a tool to help in the process of seed dispersal.

Teaching Notes

Purpose:

- In the Engineer Lab, the Launch stage continues to serve two purposes:
 - Introduce students to the purpose and materials they will use in the Lab.
 - Help students build background knowledge about the idea of seed dispersal.
- In this particular Lab, the Launch stage also introduces students to the idea of developing a simple tool that mimics the function of an animal in dispersing seeds.
- This Engineer Lab is designed to connect to Next Generation Science Standard 2LS-2. While creating a tool to mimic the function of seed dispersal, students focus on the following science and engineering practice: Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.

Habits of character:

- Similar to Modules 1–2, the Engineer Lab helps students build their skills of goal-setting and reflection. The Engineer Lab has a clearly shared goal by the time students reach the Choice and Challenge stage: to create a tool that mimics the function of an animal. This clearly defined end goal will help students reflect on their own progress and set benchmark goals for their work along the way.

Logistics:

- Similar to Modules 1–2, the teacher and students build background knowledge about seed dispersal and discuss how seeds are dispersed by animals, and then students transition to their workstation to explore the materials with their Lab group.

In advance:

- Collect a variety of fabric pieces with different textures (e.g., cotton, denim, wool, satin, etc.). These could be cut from discarded or old clothing, or can be bought as pre-cut fabric samples.
- Prepare workstations by placing the Seed Dispersal Challenge materials at each: two bowls, birdseed, a variety of fabrics, cotton balls, feathers, and Velcro.
- Consider:
 - Creating partnerships within Lab groups for students to have a more supportive experience in the design process.
 - Forming new Lab groups based on students' progress, strengths, and needs as exhibited in the Module 2 Labs.

Materials

- ☑ Photographs of animals (one of each to display)
- ☑ Small bowls (two per workstation)
- ☑ Timer (one per pair)
- ☑ Birdseed (one small package per workstation; consider dividing a 10-pound bag between the stations)
- ☑ Cotton balls (one per student)
- ☑ Fabric swatches (approximately 3-by-3-inch squares; four or five different fabrics; one set per workstation)
- ☑ Velcro (one 3-by-3-inch square per workstation)
- ☑ Feathers (one per pair)
- ☑ Labs notebooks (one per student and one for teacher modeling)

Experience

- Gather students in the whole group meeting area
- Welcome students to the Engineer Lab.
- Display a **photograph of an animal**.
- Remind students that they have been learning about seed dispersal.
- Using a total participation technique, invite responses from the group:
 - “What does seed dispersal mean?” (the movement of seeds)***
 - “How would the animal in this photograph play a part in dispersing seeds?” (Responses will vary, depending on the photograph.)***
- Change the photograph to another animal and ask:
 - “How would the animal in this photograph play a part in dispersing seeds?” (Responses will vary.)***
- Guide the students to the understanding that animals disperse seeds in a couple of ways: by eating plants and leaving seeds in their droppings and by picking up seeds on the outside of their bodies and dropping the seeds in other places.
- Tell students they will be focusing on this second idea, the outsides of animal bodies, as they begin their design challenge.

■ Turn and Talk:

“What is it about the outside of an animal’s body that helps it to disperse seeds?” (The animal’s hair or fur picks up the seeds, much like Velcro.)

“Why might some animals’ bodies move greater numbers of seeds than other animals’ bodies?” (Different animals’ fur has different textures and a varying amount of oils, both of which change the number of seeds that will be picked up.)

- Guide students to understand that *one* important factor in seed dispersal is the texture of an animal’s fur or feathers. Some textures pick up and drop off greater numbers of seeds than others do.
- Tell students that over the next several days, they will design a tool that mimics (or copies) animals’ role in seed dispersal. To do this, they will need to experiment with several textures in order to find the one that is best at picking up and dropping off seeds.
- Display the following tools: **small bowls, timer, birdseed, cotton balls, fabric swatches, Velcro** and **feathers**.
 - Fill one of the bowls about halfway with the birdseed.
 - Tell students that the goal of this challenge is to move as many seeds as possible from this bowl to the empty bowl in 30 seconds.
 - Invite a student to act as the timer while modeling this process with one of the available materials.
 - Point out that the goal is for the material itself to pick up and drop off seeds. Students should not “scoop” or “pinch” seeds to pick up more.
 - Similarly, they can lightly shake the materials to disperse seeds, mimicking the movement of an animal. They should not, however, use their other hand to brush the seeds off.
 - Invite students to chorally count the seeds, determining how effective the material was.
 - Display the Seed Dispersal Challenge page of the **Labs notebook**.
 - Model how to complete one row of the Seed Dispersal Challenge page.
 - Tell students they will be working with their partner on this challenge, so they need to show respect and collaboration.
 - Remind them that they will be visiting this Lab several times over the coming days, so they do not need to finish this challenge today.
- Direct each Lab group to their workstation for the day.
- Invite students to begin working.
- Circulate and support students as they work, focusing on their collaboration skills, their accuracy in recording in their Labs notebooks, and their respect for materials.
- At the conclusion of In the Lab time, signal students to clean up their Lab space.
- Give Lab groups or individual students specific, positive feedback for responsible and respectful cleanup behaviors.
- As Lab groups are ready, transition them back to the whole group area for Reflecting on Learning.



Launch Stage: In the Explore Lab

Guiding Question

- How can I use scientific inquiry to discover the needs of plants?

Learning Targets

- I can design and conduct an investigation to discover the needs of plants.
- I can make observations about plants.

Teaching Notes

Purpose:

- In the Explore Lab, the Launch stage continues to serve two purposes:
 - Students are introduced to the purpose and materials of the Explore Lab.
 - Students work together to design and launch an experiment to help them answer the question “What do plants need to survive and grow?”
- This Explore Lab is designed to connect to Next Generation Science Standard 2LS-1. While working with the teacher and other students on a plan investigation, students are addressing the NGSS standard that says: Plan and conduct an investigation to determine if plants need sunlight and water to grow.

Habits of character:

- Similar to Modules 1–2, the Explore Lab makes use of a variety of materials, so respect will be central to students’ success in multiple ways. First, students must learn and exhibit respect for materials as learning tools.
- Students will have a central role in designing this scientific inquiry process. They will also have a high level of independence in carrying out the scientific process. This will require students to show initiative while working in this Lab. It will be important to name and reinforce this habit of character continually throughout this process, reminding them that they are scientists, and scientists are always seeking ways to make their work better and learn more about their topic.

Logistics:

- Teacher and students begin by examining the various materials that will be available in the Explore Lab and by setting expectations for the respectful care of those materials.
- Teacher and students brainstorm a list of questions about plants and the conditions of plant survival and growth. The teacher guides students toward a shared inquiry question (e.g., “What do plants need to survive and grow?”).
- Teacher and students design and record a prediction to their question as well as the steps of the investigation they will conduct.
- The teacher will need to give students the opportunity to collaborate in planning this investigation, as this role in planning is a central component in the science standards; however, students will need to be skillfully guided toward an investigation around whether or not plants need sunlight and water to grow.

In advance:

- Gather materials necessary for the investigation and display them (see materials list).
- Label the plants: Plant 1, Plant 2, Plant 3, and Plant 4.
- Consider:
 - Forming new Lab groups based on students' progress, strengths, and needs as exhibited in the Module 2 Labs.
 - Using already mature plants (as opposed to growing new plants, or using seedlings). Potted herbs, such as basil, are a cost-effective and readily available option in most geographic areas throughout the year.

Materials

- ✓ Plants (four for class to share)
- ✓ Magnifying glasses (several to share)
- ✓ Rulers (several to share)
- ✓ Colored pencils (variety of colors; one set per student)
- ✓ Labs notebooks (one per student and one for teacher modeling)
- ✓ Pencils (one per student)

Experience

- Welcome students to the Explore Lab.
- Using a total participation technique, invite responses from the group:

“Of all the things you have done in the Explore Lab, what has been your favorite so far?” (Responses will vary.)
- Give students specific, positive feedback about the time they have spent in the Explore Lab already this year.
- Tell students that, in the Explore Lab, they are going to become botanists, or plant scientists. Their job will be to design and then work together to carry out an investigation that will help them learn more about plants.
- Tell students that scientists often begin investigations by *observing* (or noticing) the world around them, and then *inquiring* (or asking questions) about what they see.
- Remind them that they have already begun to observe the world, as they learn about plants, seeds, and pollinators. Now it is time to ask a question—specifically, it is time to ask questions about plants and how they survive.
- Turn and Talk:

“What are some questions you have, as botanists, about plants and how they survive?” (Responses will vary.)
- Circulate as students discuss and choose a few of their questions to help direct the class toward questions focused on plants' needs.
- Refocus whole group. Invite (pre-selected) partnerships to share their questions.
- As students share, affirm their questions, giving specific, positive feedback, especially as it relates to questions about plants' needs, but also being open enough to discover new things.
- Guide students toward a shared question on which they will focus over the next weeks. (Examples: “What do plants need to survive?” or “What do plants need to grow?”)

- Display the Plant Experiment: Day 1 page of the **Labs notebook**. Invite students to open their own Labs notebooks to the same page.
- Record the class question in the “Question” section, inviting students to do the same.
- Tell students that, before they begin their investigation, scientists use what they already know to make a prediction, asking themselves, “How do I think this question is going to be answered?”
- Using a total participation technique, invite responses from the group:
 - “Using what you already know about plants, what do you think we are going to discover? What do plants need to survive and grow?”*
- Direct students’ attention to the “Prediction” section of their Labs notebook. Invite them to record their prediction here. Consider forming a class prediction to follow as a whole group.
- Display the **plants, magnifying glasses, rulers, and colored pencils**. Tell students that you have already begun one important part of being a scientist and conducting an experiment: gathering materials.
- Review each material with students.
- Tell students that when scientists are trying to answer a question, they plan an investigation in a way that really tries to focus on just that question. In this case, students need to plan an investigation that answers their question:
 - Example: “What do plants need to survive and grow?”
- Tell students that scientists are also trying to test whether or not their prediction is accurate.
- Turn and Talk:
 - “What could we do with our plants over the next few weeks to find out what they need to survive and grow?”*
- Listen in on student conversations, determining partnerships that can share ideas that will guide the class toward a controlled investigation around sunlight and water.
- As time permits, invite two or three partnerships to share out.
- Guide students toward an investigation in which the plants are placed in different environments with different conditions, and then monitoring their growth over time:
 - Plant 1: Given sunlight and water
 - Plant 2: Given only sunlight
 - Plant 3: Given only water
 - Plant 4: Given no sunlight and no water
- Using a total participation technique, invite responses from the group:
 - “Once the plants are in their different environments, with different growing conditions, what data (or information) can we collect to determine whether or not they are surviving and growing?” (data about the plants)*
- Confirm that students can collect quantitative (number) data about the plants over time, specifically: 1) the height of the plant and 2) the number of leaves it has.
- Confirm that students can collect qualitative (observed) data about the plants over time, specifically: 1) the color of the leaves and 2) the manner in which the plant is standing or leaning.
- Tell students that, before placing the plants in their new, controlled environments, they need to collect beginning data so that they can compare as time goes on.

- Tell students that at each workstation, they will be collecting data about a single plant. While at the workstation, they should:
 1. Measure the plant using a ruler
 2. Count the number of the leaves on the plant
 3. Make a quick sketch of the plant that shows the leaves' colors and how the plant is standing or leaning
- Move the four plants to four different workstations.
- Transition students to their workstations.
- After a few minutes, signal students to rotate to the next workstation.
- Circulate and support students as they work, focusing on their collecting of data.
- At the conclusion of In the Lab time, signal students to clean up their Lab space.
- Give Lab groups or individual students specific, positive feedback for showing initiative, respecting materials, and showing respectful cleanup behaviors.
- As Lab groups are ready, transition them back to the whole group area for Reflecting on Learning.



Launch Stage: In the Imagine Lab

Guiding Question

- How can I use poetry and movement to learn more about seeds and pollination?

Learning Targets

- I can build knowledge about seeds and pollination through poetry.
- I can improve my reading fluency by reading poetry aloud.
- I can create movement to match poetry about seeds and pollination.

Teaching Notes

Purpose:

- Similar to Modules 1–2, the Imagine Lab continues to provide students the time, space, and materials to create a world of imaginative play. Recall that guided play is most successful when students have greater ownership over the experience after the teacher has established the purpose and expectations.
- In this module, the Imagine Lab becomes a more guided experience, as students use poetry and movement to represent what they learn about seeds, seed dispersal, pollinators, and pollination.

Habits of character:

- Similar to Modules 1–2, students continue to collaborate to create imaginative scenes. As needed, remind students of specific strategies and the rationale for planning and executing a fair, shared experience.

Logistics:

- Similar to Modules 1–2, the teacher and students discuss how the new Imagine Lab material—poetry—might be used. They practice a few possibilities in a whole group setting. Students then transition to their workstation to explore the material with their Lab group.
- Although poetry and movement are the focus of the Imagine Lab in this module, the Imagine Lab continues to be a place in which students can use multiple means of expression to express their learning and interact with one another. Therefore, students may choose to spend some of their Lab time engaging in other imaginative play activities, using a variety of materials.

In advance:

- We have provided several poems for use in the Imagine Lab similar to the poem “Squirrel Forgets” by Lilian Moore (see materials). The poems will be consistent through all stages of the Imagine Lab.
- If you’d like to identify additional poems, consider the following criteria:
 - They meet students’ needs in terms of text complexity and language.
 - They lend themselves to movement (in their word choice, rhythm, or content).
 - They are connected to the content of seeds, seed dispersal, pollinators, and pollination.
- Place one poem at each of the four different workstations. These could be different poems or multiple copies of the same poem, based on the needs of students.
- Consider forming new Lab groups based on students’ progress, strengths, and needs as exhibited in the Module 2 Labs.

Materials

- ☑ “Squirrel Forgets” by Lilian Moore (one per workstation and one to display, see Supporting Materials)
- ☑ “The Seed” by Aileen Fisher (one per workstation and one to display, see Supporting Materials)
- ☑ “Dandelions” by Nicola Davies (one per workstation and one to display, see Supporting Materials)
- ☑ “Squirrel” by Nicola Davies (one per workstation and one to display, see Supporting Materials)

Experience

- Welcome students to the Imagine Lab.
- Using a total participation technique, invite responses from the group:

“Of all the things you have done in the Imagine Lab, what has been your favorite so far?” (Responses will vary.)
- Give students specific, positive feedback about the time they have spent in the Imagine Lab already this year.
- Tell them that they will be continuing to use all those great Imagine Lab materials, including their imaginations.

- Say:

“I think that, because you have been so successful in the Imagine Lab, it is time for a new challenge! Do you agree? I have loved learning about our science topics together. In fact, I have even been finding and reading poetry about our science topics! Would you like to hear?”

- Display **Squirrel Forgets** or other **poem about seed dispersal or pollination**.
- Read the poem aloud slowly, fluently, and without interruption.
- Using a total participation technique, invite responses from the group:

“What is this poem about? How do you know?” (Responses will vary, depending on the poem selected.)

- Say:

“Sometimes, when I hear poetry, it sounds a lot like music. It makes me want to use my body, and movement, to dance or act out what is happening in the poem. Should we try to read this poem again, this time moving our bodies to really try and show what is happening?”

- Invite students to stand up and circle up with their Lab group.
- Read one small section of the poem.
- Using a total participation technique, invite responses from the group:

“How could we use our bodies to show what is happening in just this small section of the poem?” (Responses will vary, depending on poem selected.)

- Give students time to work with their Lab group to decide a movement, or small series of movements, to accompany that section of the poem.
- Choose one or two groups to share whole group.
- Give specific, positive feedback to those groups, allowing other groups to notice what kinds of matching movements they are working toward.
- Continue this process with the remainder of the poem, one small section at a time.
- Once Lab groups have decided movements for each section, say:

“Now that we have decided our movements, let’s try to go through the whole poem from beginning to end!”

- Read the poem from the beginning to the end while students move to the poetry in the Lab groups.
- Give students specific, positive feedback on their imaginative work with this poem.
- Tell students that they are now going to try this again, but with a new poem, and more independently.
- Assign each Lab group a workstation.
- Tell students that at their workstation, they will find a new poem to work with.
- Remind them of the steps they took with the whole group experience:
 1. Read the poem all the way through (they can take turns reading or let one volunteer read it out loud.)
 2. Discuss and decide what they think the poem is about.

3. Read the poem, one small section at a time, choosing movements to match that section.
 4. Read the poem all the way through with movements.
- Transition students to their workstations.
 - Circulate and support students as they work, focusing on having collaborative conversations, reading the poem fluently, and choosing movements.
 - As you visit workstations, guide students toward other challenges they might try while moving like the plants (e.g., “What other parts of your body could you use? Could you have some students doing one movement, while other students do another, in order to show multiple things happening?”).
 - At the conclusion of In the Lab time, signal students to return whole group, bringing their poems with them.
 - Give each Lab group the opportunity to act out their poem for the whole group.
 - Give Lab groups or individual students specific, positive feedback for responsible and respectful behaviors as they worked today.
 - Transition the whole group into Reflecting on Learning.