

Kindergarten: Module 4: 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 3 Launch Stage).

1. The Launch stage serves four purposes:
 - To introduce and practice the Labs 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 three-dimensional (3-D) representation of a tree?

Imagine Lab

How can I create an imaginative world of play within the trees of my classroom?

Engineer Lab

How can I use trees to design a forest play space?

Research Lab

How can I discover more about the trees near me?

Learning Target(s)

Create Lab

I can use a variety of materials to create a tree trunk and branches.

Imagine Lab

I can help create an imaginary forest.

Engineer Lab

I can describe a variety of play activities and the parts of a play space.

I can collaborate to design a forest play space.

Research Lab

I can use a variety of resources and research reading strategies to learn about the trees near me.

Create Lab

Create Lab Checklist (SL.K.3, SL.K.6)

Imagine Lab

Imagine Lab Checklist (SL.K.1, SL.K.1a, SL.K.1b)

Engineer Lab

Engineer Lab Checklist (SL.K.1, SL.K.1a, SL.K.1b)

Research Lab

Research Lab Checklist (RI.K.1, SL.K.1, SL.K.1a, SL.K.1b, W.K.7, W.K.8)

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 trees and how people benefit from trees, especially those introduced during the module lessons, but it can also include others of the teacher's choice.

In advance:

- Choose a text from your classroom library or the Grade K: Labs Recommended Storytime and Research Book List (in the Labs Teacher Guide)
- Consider creating a focus question for Storytime (see examples in Modules 1 and 2).
- 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 1–3 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 support students in understanding and remembering 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 launch that day.

Materials

- ☑ 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.
- 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 1–3?”
(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!
- 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 1–3, 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)

Experience

- Gather students 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:
 - Ask a reflective question.
 - Invite students to use a silent signal to indicate when they are ready to share.
 - Invite students to share with a partner, a small group, or the whole class, as time permits.
- Continue to reinforce specificity in students' responses (e.g., referring back to their goal, referring back to the learning target(s), giving concrete examples).



Launch Stage: In the Create Lab

Guiding Question

- How can I create a three-dimensional (3-D) representation of a tree?

Learning Target

- I can use a variety of materials to create a tree trunk and branches.

Teaching Notes

Purpose:

- In the Create Lab, the Launch stage continues to serve two purposes:
 - Students closely examine different materials for 3-D art and practice making 3-D trees.
 - Students explore how to use a combination of Play-Doh, real parts of trees and plants, and paper leaves to create 3-D representations of trees.

Habits of character:

- Similar to Modules 1–3, 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. Remind students 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. Perseverance will be necessary for students who think they are “done” 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 examine a 3-D representation of a tree. They discuss what is unique about 3-D representation as an art form and define it. Students then explore how to use a combination of Play-Doh, real parts of trees and plants, and paper (leaves) to create 3-D representations of trees.
- The teacher models for students how the materials can be manipulated and molded to create the different parts of a tree (e.g., trunk, branches), and then students explore manipulating and molding 3-D Play-Doh trees.

In advance:

- Collect twigs and other small tree materials from around your school and community for students to use in their 3-D tree sculptures.
- Create a 3-D Play-Doh Tree Model to use during the Launch stage of the Create Lab (see supporting materials).
- Based on classroom setup and available technology, determine the best way to display the 3-D Play-Doh Tree Model and pictures, and how to model manipulating the Play-Doh, sticking in twigs and branches, and gluing on paper leaves so all students can observe the process.

- Provide precut leaves of different shapes and sizes for students to use. Leave paper for others to cut if they desire or if they need a different size or shape of leaf.
- Prepare four workstations by placing precut leaves of different shapes and sizes (as well as additional construction paper for students to cut), scissors, liquid glue, twigs, and Play-Doh at each workstation.
- Consider:
 - Showing pictures of 3-D clay or Play-Doh art from various artists or students as alternative models.
 - Making homemade Play-Doh instead of using store-bought Play-Doh.
 - Designating a space in the classroom 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 3 Labs.

Materials

- ✓ 3-D Play-Doh Tree Model (new; teacher-created; one for teacher modeling)
- ✓ 3-D Play-Doh Tree Model photographs (for teacher reference)
- ✓ Tree images (one set per workstation)
- ✓ Play-Doh (one container per student and one container for teacher modeling)
- ✓ Twigs (one set per workstation and one set for teacher modeling)
- ✓ Liquid glue (one bottle for teacher modeling and a few per workstation)
- ✓ Precut leaves (one set per workstation and one set for teacher modeling)
- ✓ Construction paper (shades of green; one pile per workstation)
- ✓ Scissors (one pair per student)

Experience

- Gather students in the whole group meeting area.
- Welcome students to the Create Lab, where they will now be 3-D sculptors!
- Display the **3-D Play-Doh Tree Model**. Refer to the **3-D Play-Doh Tree Model photographs** as necessary.
- Using a total participation technique, invite responses from the group:
 - “What do you notice about this piece of art?” (Responses will vary, but may include: It is a tree made with different materials, like Play-Doh and twigs.)*
 - “How do you think the artist made it?” (by rolling the Play-Doh and sticking the twigs and leaves into it)*
 - “How is this art form different from painting, drawing, or collage?” (Responses will vary, but may include: Those are done on paper, this tree is not. This art sticks up. It's a sculpture.)*
- Confirm for students that 3-D art is a type of artwork that is created to stick or pop out, meaning that it goes up, sideways, and back. 3-D means three-dimensional; you can look at it from all sides.

- Direct students' attention back to the 3-D Play-Doh Tree Model and invite them to look carefully at the different materials that were used to create it. Point out how the Play-Doh was shaped and molded into the trunk, the twigs were placed carefully for the branches, and the paper leaves were applied with glue.
- Tell students that in the Create Lab, they will create their own 3-D Play-Doh trees by molding and shaping the Play-Doh into a tree trunk, and adding twigs and leaves using a variety of materials.
- Show students the set of **tree images** and tell them that they will use the trees they researched in Module 3 as inspiration for their 3-D Play-Doh trees. Select one to use as inspiration as you model how to make a 3-D Play-Doh tree.
- Tell students that in the Create Lab, they will continue to develop their Artist's Toolbelt begun in Modules 1–3.
 - Pretend to put on an imaginary toolbelt and invite students to dramatically do the same.
 - Tell students that the next tool they are adding to their belt is “molding.” Molding means to shape or form a material into something by bending, stretching, folding, pinching, pulling, etc.
 - Invite students to create a gesture or signal for the word “molding” (e.g., pretending to roll a piece of Play-Doh).
 - Pretend to hold the idea of “molding” in your hand and add it to your toolbelt. Invite students to do the same.
- Demonstrate how to mold and shape the **Play-Doh** into the shape of a tree trunk by rolling and pressing it. Ask:

“What shape should I try to make the tree trunk? How can I mold the Play-Doh into that shape?” (It should be the shape of a cylinder. You can roll it on the table, then press the end down so it stands up.)
- Demonstrate how to secure the trunk by pressing it onto the desk or table.
- Demonstrate how to gently press the **twigs** into the Play-Doh to create branches. Think aloud as you decide where to place the branches and select a variety of lengths and sizes to give the tree more interest.
- Demonstrate how to use a small drop of **liquid glue** to attach a **precut leaf** to a branch, or cut one from **construction paper** using **scissors** and attach it. Model how to hold the leaf onto the branch tightly and wait for the glue to dry. Tell students that this part will take a lot of patience and perseverance because the glue may take a long time to dry and if they let go too early, the leaf could fall off.
- Using a total participation technique, invite responses from the group:

“Does this look like the tree in the photograph? Why or why not?” (Responses will vary.)

“Do I need to add more or remold any parts?” (Responses will vary.)
- Reaffirm for students that creating and molding 3-D art is a process that takes time, patience, and perseverance. It is not something they will get right away, and they may be able to only mold the trunk today, but they will have more time to continue working in the upcoming lessons.
- Tell students that today their job is to experiment with creating a 3-D Play-Doh tree.
- They should:

1. Select a tree image for inspiration (available at their workspace).
 2. Mold the Play-Doh into the shape of the trunk (available at their workspace).
 3. Begin to carefully attach twigs and leaves to the trunk (available at their workspace).
- Tell them that each student will need only one piece of Play-Doh, as they can use various twigs and leaves to complete their 3-D Play-Doh tree.
 - Assign each lab group a workspace and invite them to get started.
 - Circulate and support students as they work. Encourage them in the process of molding to respectfully share materials with their lab group and show perseverance when they are having difficulty.
 - At the conclusion of In the Lab time, signal students to clean up their lab space. Cleaning up 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 Imagine Lab

Guiding Question

- How can I create an imaginative world of play within the trees of my classroom?

Learning Target

- I can help create an imaginary forest.

Teaching Notes

Purpose:

- Similar to Modules 1–3, the Imagine Lab continues to be a time for students to create a world of imaginative play. In this module, students do this by creating a forest in their classrooms, which they will later use as a make-believe space to role-play in.
- In this module, the Launch and Practice stages are meant to invite students into the process of actually “building” the physical world of play they will be using.
- In the Extend and Choice and Challenge stages, students will then use this space to “create a world” of play that consists of imaginary scenarios, characters, etc.

Habits of character:

- Similar to Modules 1–3, students continue to collaborate to create imaginative scenes and scenarios. As they collaborate, they should also continue to respect the classroom space, materials, and each other. As needed, remind them of specific strategies and rationale for planning and executing a fair and respectful shared experience.

Logistics:

- Similar to Modules 1–3, the teacher and students discuss how the new Imagine Lab materials—construction paper to design a forest on large butcher paper or chart paper—might be used. Students then transition to their workstation to explore the material with their lab group.

In advance:

- Use butcher block paper or large chart paper to create a “skeletal” classroom forest with the shapes of several trees for students to add details to.
- Based on classroom setup and available technology, determine the best way to display the Classroom Forest Model drawing and how to model cutting and pasting bark, branches, and leaves onto the prepared paper.
- Prepare copies of the leaf template from the Create Lab in Module 3 for students to color, cut, and add to the forest.
- Consider:
 - Using strips of butcher block paper to twist into trunks and branches and attach to the “skeletal” classroom forest to create a 3-D look.
 - Providing many different colors of construction paper for students to design and cut out their own variety and interpretation of leaves.
 - Labeling each folder with students’ names to create an organization for materials.
 - Forming new lab groups based on students’ progress, strengths, and needs as exhibited in the Module 2 Labs.
- Prepare four workstations by placing leaf templates, construction paper, crayons, scissors, and glue sticks at each.

Materials

- ☑ Classroom Forest (new; teacher-created; see Teaching Notes)
- ☑ Classroom Forest Model drawing (for teacher reference)
- ☑ Leaf templates (one set per workstation and one for teacher modeling)
- ☑ Crayons (a variety of colors per workstation)
- ☑ Construction paper (shades of green, brown, and black; one pile per workstation)
- ☑ Scissors (one pair per student and one pair for teacher modeling)
- ☑ Folders (one per student and one for teacher modeling)

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 in this Imagine Lab, they will use their imaginations for a new challenge: to create a classroom forest to use as an imaginary world of play!

- Turn and Talk:

“If you could create a forest, what would you include? Why?” (Responses will vary.)

- Select volunteers to share out.
- Tell students that, although they cannot actually grow a real forest in their classroom, they can do something just as good: They can use their imaginations to create a pretend forest.
- Share with students that they will use their wonderful imaginations and different art materials to work with their lab groups to create a classroom by creating the trees and other living things from the forest.
- Tell students that the challenge of this lab will be to create a life-sized forest in their classroom. With excitement, share that they will begin by adding details to the **Classroom Forest** to make it look like a colorful, full forest. Refer to the **Classroom Forest Model drawing** as necessary.
- Reveal the “skeletal” Classroom Forest and invite students to Turn and Talk:

“What could you add to our classroom forest?” (Responses will vary.)

- Walk students through the process they will use to add details to it.
 - Think aloud about what tree part or forest part you’d like to add (e.g., leaves).
 - Think aloud about what material would be best for that detail (e.g., leaf templates).
 - Demonstrate how to color the **leaf template** using **crayons** or by layering it with **construction paper**.
 - Model how to use the **scissors** to cut different shapes and parts to add to the Classroom Forest.
 - Show how to store the Classroom Forest parts in your **folder** to add to the Classroom Forest during the Practice stage.
- Point out that students have these same materials at their workstations.
- Tell students that today they will stay in their workstations to make tree or forest parts. They will not begin gluing these parts into the Classroom Forest until the Practice stage.
- Using a total participation technique, invite responses from the group:

“What are some other tree parts or forest parts we could create for the Classroom Forest?” (Responses will vary, but may include: twigs, grass, animals, flowers, etc.)

- Tell students that at their workstations, they will each design at least one part to add to the Classroom Forest. Remind them that they will continue working throughout the Launch and Practice stages, so they should take their time and work to produce high-quality work.
- Transition students to their workstations.
- Circulate and support students as they work, focusing on creating high-quality details and being respectful of one another.
- At the conclusion of In the Lab time, signal students to clean up their lab space. Cleaning up 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 trees to design a forest play space?

Learning Targets

- I can describe a variety of play activities and the parts of a play space.
- I can collaborate to design a forest play space.

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 playing in and around trees.
- This Engineer Lab invites students to brainstorm and design different ways to play in and around trees. In the Launch and Practice stages, students are asked to brainstorm different ways kids can play in and around trees and work with a partner to create designs (e.g., make bridges between branches using ropes, have a slide coming from a branch).
- The Launch and Practice stages of this lab are intentionally open to self-differentiation. Some students may opt to color, cut, and paste the play elements into the forest. Other students may use this and a combination of drawing. Finally, some students may choose to simply use the templates as a guide and draw their play space themselves.
- This Engineer Lab connects to Next Generation Science Standard KLS-1. While designing a model of a forest play space, students “develop and/or use a model to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s).”
- Students may create several drafts of play spaces. The purpose of this stage is to allow the time and space to experiment with both the materials and the engineering/physics principles involved. Students’ creations during the Launch Lab may seem illogical or crowded, but allow students the time and space to experiment.

Habits of character:

- Similar to Modules 1–3, the Engineer Lab helps students build their skills of collaboration. In the Launch and Practice stages, students work with a partner to collaborate on the design of their play space.

Logistics:

- Similar to Modules 1–3, the teacher and students build background knowledge about ways you can play in and around trees and discuss these ways, and then students transition to their workstation to brainstorm and design different ways to play in and around trees.

In advance:

- Predetermine student pairs based on students' progress, strengths, and needs as exhibited in the Module 2 and 3 Labs.
- Based on classroom setup and available technology, determine the best way to display the Forest Play Space Model and how to model cutting and pasting, or drawing, the play elements onto the Forest Scene.
- Prepare:
 - Forest Scene and Play Elements template (see supporting materials)
 - Forest Play Space Model to show students a final product for what they will be creating.
 - Workstations—each with forest scenes—by placing play element templates, pencils, crayons, scissors, and glue sticks at each.

Materials

- ✓ Forest Play Space Model (new; teacher-created; one for teacher modeling)
- ✓ Forest Scene (one per student and one for teacher modeling)
- ✓ Play Elements template (one per pair and one for teacher modeling)
- ✓ Pencils (one per student)
- ✓ Scissors (one pair per student and one pair for teacher modeling)
- ✓ Glue sticks (one per student and one for teacher modeling)

Experience

- Welcome students to the Engineer Lab.
- Tell students that their goal in the Engineer Lab will be the same for the next several weeks: to answer the question “How can I use trees to design a forest play space?”
- Tell students they will be engineers, going through the design process (planning their ideas, revising and editing, and finally building a part of their creation) to create a model of one way you could play in or around a tree.
- Turn and Talk:

“What do you know about the ways kids enjoy trees?” (Responses will vary, but may include: You can swing on the branches; you can play in a tree house.)

“What playground equipment do you enjoy playing on?” (Responses will vary, but may include: the slide, the swings, the monkey bars, the balance beam, etc.)

“If you could create a forest play space, what would you include? Why?” (Responses will vary, but may include: ladders to help climb up, a slide coming down, a swing tied to a branch, a tree house, etc.)

- Select some volunteers to share out.
- Display the **Forest Play Space Model**. Ask:

“What do you notice about this forest play space? What play element does it include?” (Responses will vary, depending on the model.)
- Tell students that as they sketch and plan for the forest play space, they can use lots of different play elements, but their final product will only be a model of one of those play elements.

- Display the **Forest Scene** and tell students that this is where they will plan their designs using the **Play Elements template**.
- Model how students can use the template as a guide to sketch the play elements onto the Forest Scene with a **pencil**. Also, model an alternative: how to use the **scissors** and **glue stick** to cut and paste the play elements onto the Forest Scene.
- Point out that students have these same materials at their workstations. Remind them that they need to be respectful and take turns gluing or drawing the play elements onto the Forest Scenes.
- Tell students that for this stage, they will collaborate with a partner to design a forest play space.
- Move students into predetermined pairs.
- Turn and Talk:
 - “What play elements do you want to include in the forest play space?” (Responses will vary.)***
- Transition students to workstations.
- Circulate and support students as they work, focusing on their sharing and caring for materials, and collaboration between partners.
- As you visit workstations, guide students’ reasoning and thinking by asking probing questions such as:
 - “Why did you decide to include this play element here?”***
 - “What would happen if the play element went this way?”***
- 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 Research Lab

Guiding Question

- How can I discover more about the trees near me?

Learning Target

- I can use a variety of resources and research reading strategies to learn about the trees near me.

Teaching Notes

Purpose:

- The purpose of the Research Lab in the Launch stage continues to be introducing students to the purpose and materials they will use in the lab.
- In this lab, students begin researching different trees in their school and neighborhood community by looking closely at different tree parts and materials.

Habits of character:

- The Research Lab requires students to take initiative and research about something that interests them and contributes to their knowledge about trees. Students are expected to remain focused on the research materials, recording facts and questions as they read and collect information.

Logistics:

- In the Launch and Practice stages, the teacher and students set a purpose as students begin to research different trees in their community. Down the road, in the Extend stage, students research the ways different people at school enjoy those trees.

In advance:

- Collect a variety of natural materials from four local trees (or, if possible, take students to collect these materials themselves) and write captions for each (e.g., the pine cone holds seeds). These trees may be the same species of tree but should have some distinct and noticeable differences (e.g., one has large, low branches, the other has a knot in the trunk where squirrels build nests).
- Preview the questions on page 1 of the Local Trees Research note-catcher and collect a variety of research materials that give information about what the trees provide to other living things (food, shelter, etc.), what other living things depend on the trees, and what the trees look like.
- Take photographs of trees around the school or community and prepare copies with captions, in color if possible, for each workstation. Also, consider taking video clips when different animals, insects, or people interact with the trees.

- If neither of the above materials are easily accessible, consider selecting four trees to focus on and finding photographs and information online, gathering pamphlets from local parks or nature reserves, or borrowing books from the local library as research materials. As stated above, write your own kindergarten-friendly captions for students to read while researching. Prepare one workstation for each of the local trees by placing a variety of research materials (e.g., photographs, tree parts and materials, teacher-created descriptions, video clips) at the workstation. This helps all students access new information and answer questions about which they are curious.
 - Workstation 1: Tree 1
 - Workstation 2: Tree 2
 - Workstation 3: Tree 3
 - Workstation 4: Tree 4
 - Consider including:
 - Books (consider *Trees, Leaves, and Bark* from the Recommended Text List)
 - Photographs
 - Video clips
 - Twigs
 - Leaves
 - Buds
 - Bark
 - Flowers
 - Seeds
 - Seedpods

Materials

- ☑ What Researchers Do anchor chart (from Module 3)
- ☑ Local Trees Research note-catcher (page 1; one per student and one for teacher modeling)
- ☑ Pencils (one per student)
- ☑ Basket of research materials (one per workstation)
- ☑ What Researchers Do student copy (one per workstation)

Experience

- Welcome students to the Research Lab.
- Remind students that in Module 3, they researched different trees around the country. They are already doing the important work of being a researcher.
- Display the **What Researchers Do anchor chart** and read the ideas aloud. Invite students to act out the gesture with each idea from the anchor chart.
- Remind students that the Research Lab is a space for them to discover new and exciting things. Tell students that for this Research Lab, they will focus on discovering more about the trees in their community.

- Turn and Talk:

“What are you wondering about the trees outside our school and/or community?”
(Responses will vary.)

- Point out the physical setup of the classroom and the workstations. Each workstation has a unique focus: a different local tree to research.
- Tell students that lab groups will have time at each station to explore the research materials for each tree. While at each station, students should use page 1 of the **Local Trees Research note-catcher** to record interesting information they discover as well as questions they have based on that material.
- Display page 1 of the Local Trees Research note-catcher and point out that each tree (or workstation) has its own box. Model using a **pencil** to label the boxes with each of the trees’ names.
- Display a material from the **basket of research materials**. Tell students that this is an example of a material they may encounter in the Research Lab. Give students time to study the photograph or other material from the basket.
- Remind students that as they research, they should make sure they comprehend, or understand, the information. One way to do that is to say the information again in your own words.
- Read the caption of the material aloud and modeling thinking aloud (e.g., “Hmm, this caption says that ‘pine cones hold the seeds.’ I think that means that the seeds are inside the pine cone.”).
- Tell students that they will also find the **What Researchers Do student copy** at each workstation to remind them of how to read and think like researchers as they work independently.
- Using a total participation technique, invite responses from the group:

“What is something that this research material helps you learn about the tree?”
(Responses will vary based on the material being studied.)

- While still displaying page 1 of the Local Trees Research note-catcher, model how students could record this in the “Tree 1” section of the note-catcher using sketches and labels.
- Assign each lab group to one of the workstations and invite them to quickly and quietly move there.
- Tell students that today they will have 9 minutes of research time at each workstation. Invite them to begin exploring and researching.
- As students work, circulate and support them, specifically in the areas of comprehension and recording their tree facts. Consider using the Research Labs Checklist to track students’ progress toward RI.K.1, SL.K.1a, SL.K.1b, W.K.7, and W.K.8.
- Every 10 minutes, give the cleanup signal. Take a quick survey of each workstation to be sure students have carefully stored all materials and are ready to rotate.
- Remind students of which workstation they will visit next. Invite them to rotate.
- 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.