

Kindergarten: Module 4: Labs

4 – Choice and Challenge Stage

Labs: Choice and Challenge Stage

Days 23–30

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

What stays the same from previous stage(s):

- During the Choice and Challenge stage, the guiding questions remain the same as in previous stages.

What is different from previous stage(s):

- Within a single Lab session during the Choice and Challenge stage, students spend half of the Lab time in the Lab space of their choice and the other half in the Imagine Lab. This is done to meet the needs of our youngest learners, giving them the time and space for play. It also gives teachers more capacity in addressing students' needs in the Engineer and Create labs.
- During the Choice and Challenge stage, a few specific tasks are also given their own separate days of Labs time: transition to the Choice and Challenge stage, giving and receiving feedback, preparing to share, and celebrating. (Refer to the In the Labs section below for more detailed information on which days these tasks occur.)



Choice and Challenge Stage: At-a-Glance

Guiding Question

Create Lab

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

Engineer Lab

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

Imagine Lab

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

Learning Target(s)

Create Lab

I can choose my favorite materials to make a 3-D tree.
I can create my best 3-D tree.

Engineer Lab

I can build a model of one element of my forest play space.

Imagine Lab

I can collaborate to create and act out a story about something that people do in the forest.

Create Lab

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

Engineer Lab

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

Imagine Lab

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

Choice and Challenge Stage: Daily Schedule

Lab Component	Time
Storytime	10 minutes
Setting Lab Goals	5 minutes
In the Lab: Choice Lab	20 minutes
In the Lab: Imagine Lab	20 minutes
Reflecting on Learning	5 minutes

Choice and Challenge Stage: Storytime

10 MINUTES

Teaching Notes**Purpose:**

- Review the Storytime Teaching Notes in the Launch stage document as needed.

In advance:

- Choose a text from your own 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 example in the Experience section below).
- Post: Focus question (optional).

Materials

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

Experience

- Follow the routine established in Modules 1–3 to engage students with the **Labs song** and **text for Storytime**.

Choice and Challenge Stage: Setting Lab Goals

5 MINUTES

Teaching Notes

Purpose:

- Students' goals during the Choice and Challenge stage should become more specific, because they are working on a single project over the course of multiple days. Support students in focusing their goals on a specific aspect of their Lab work that they want to finish or improve, or a particular obstacle they hope to overcome.

Habits of character:

- Some students may need additional support with perseverance and collaboration as they prepare their products for feedback and an audience. Consider providing students with supportive Lab partners to problem-solve and give continual feedback.

Logistics:

- During the Choice and Challenge stage, students visit two labs, their Choice and Challenge Lab and the Imagine Lab, each for 20 minutes.

In advance:

- Present the different product options available to students: the 3-D tree in the Create Lab or the play space element in the Engineer Lab.
- Create a system for students to choose which Lab they will visit for the Choice and Challenge stage. Consider using student choice to create new Lab groups for this stage.
- Post: Guiding question for each Lab, learning target(s) for each Lab, and Labs schedule.

Materials

- ☒ Learning target(s) (one to display for each Lab; see Choice and Challenge Stage: At-a-Glance for the specific target(s) for each Lab)
- ☒ Labs schedule (one to display)

Experience

- Tell students that today they will visit two labs.
- Review the **learning target(s)** and **Labs schedule** with students.
- Invite students to follow the routine established in Modules 1–3 to guide them through setting goals:
 - Turn and Talk:

“Which Lab will you visit first? What will your goal be when you are there?”
(Responses will vary.)
 - Turn and Talk:

“Which Lab will you visit second? What will your goal be when you are there?”
(Responses will vary.)

- 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!

Choice and Challenge Stage: In the Labs

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

Choice and Challenge 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)
- ✓ Learning target(s) (one to display for each Lab; see Choice and Challenge Stage: At-a-Glance for the specific target(s) for each Lab)

Experience

- Gather students whole group by singing the (conclusion of) the **Labs song**.
- Remind students of the **learning target(s)** 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 the learning target(s), giving concrete examples).



Choice and Challenge Stage: In the Create Lab

Guiding Question

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

Learning Targets

- I can choose my favorite materials to make a 3-D tree.
- I can create my best 3-D tree.

Teaching Notes

How this stage of this lab builds on previous stage(s):

- Students continue to use the technique of molding to create a 3-D representation of a tree using either Play-Doh or paper products.

What is new about this stage of this lab:

- Students use all they have learned about creating a 3-D representation of a tree to make a final product of a 3-D tree using Play-Doh or paper products.
- Students will make a plan to decide which materials they will use before creating the 3-D tree.
- Students use all the tools in their Artist's Toolbelt, the 3-D Tree Criteria List anchor chart, and peer feedback to complete a final 3-D tree.

Habits of character:

- During the Choice and Challenge stage, students complete their final 3-D tree. Many will feel they are “done” early in the process. Encourage students to push their craftsmanship further, using details and all they know about the molding process. Using peer and teacher feedback, students may add more details, revise specific aspects of their 3-D tree by molding and remolding, or complete a new draft.

Logistics:

- During the Choice and Challenge stage, students spend 20 minutes in their Choice and Challenge Lab and 20 minutes in the Imagine Lab.

In advance:

- Prepare:
 - The Create Lab by placing tree images, paper products, scissors, liquid glue, Play-Doh, twigs, precut leaves, and popsicle sticks or toothpicks in the lab space.
 - A selection of student-created 3-D trees, at least one made from Play-Doh and one made from paper products created in the Practice and Extend stages to use as models.

Materials

Continued materials:

- ☒ Tree images (one set in the Create Lab)
- ☒ Precut leaves (one set in the Create Lab)

- ✓ Paper products (a variety of types and sizes in the Create Lab)
- ✓ Scissors (one pair per student)
- ✓ Liquid glue (a few bottles in the Create Lab)
- ✓ Twigs (one set in the Create Lab)
- ✓ Play-Doh (one container per student)
- ✓ Popsicle sticks or toothpicks (one set in the Create Lab)

Additional materials:

- ✓ Student-created 3-D trees (from Practice and Extend stages; variety of trees per student)
- ✓ 3-D Tree Criteria List anchor chart (new; co-created with students during Transitioning to the Choice and Challenge Stage)

Experience

Transitioning to the Choice and Challenge Stage (Day 23):

- Students who chose to work in the Engineer Lab for the Choice and Challenge stage may transition to the Imagine Lab at this time. This will allow for a smaller group discussion specific to the needs of students who chose the Create Lab.
- Display the **student-created 3-D trees**.
- Tell students that they will now use these student models and the concept they added to their Artist's Toolbelts (molding) to create a criteria list that names all the important parts of a really great 3-D tree.
- Think-Pair-Share:

“What did the artists of these two 3-D trees do to make these models?” (Responses will vary, but may include: The artist molded the Play-Doh onto the table to give it a strong trunk; the artist tore, twisted, and molded small pieces of paper and glued them on to make branches.)
- As students share out, capture their responses on the **3-D Tree Criteria List anchor chart**. This anchor chart will be referenced throughout the creation process, but most importantly during the Choice and Challenge Giving and Receiving Feedback Day.
- Tell students that they will choose a **tree image** and a 3-D technique—Play-Doh or paper products—to create a final 3-D tree representation.
- These 3-D trees will be displayed so others can learn about the art of making 3-D art and parts of trees.
- Remind students that they continue to have access to materials provided in the Launch, Practice, and Extend stages: **precut leaves, paper products, scissors, liquid glue, twigs, Play-Doh, and popsicle sticks or toothpicks**.
- During days 24–26, students continue to work on their 3-D Trees using the materials and the 3-D Tree Criteria List anchor chart.

Giving and Receiving Feedback (Day 27):

- Similar to Transitioning to the Choice and Challenge Stage, consider dividing students into their two groups during Giving and Receiving Feedback. One group will work on giving and receiving feedback while the other group works in the Imagine Lab. Then, the groups will switch.

- Invite students in the Create Lab to bring their 3-D trees to the whole group meeting area.
- Guide students through giving and receiving feedback about their 3-D trees using the routine established in Module 2:
 - Review the 3-D Tree Criteria List anchor chart.
 - Remind students that their star and step should come from this list.
 - As needed, model giving and receiving feedback with a student volunteer.
- Invite students to give and receive feedback about their 3-D trees with an elbow partner.

Addressing Feedback (Day 28)

- Students apply the feedback they received on the previous day to revise their 3-D Trees.

Preparing to Share (Day 29):

- At this point, students should have a final product that they are ready to share with an audience (internal or external).
- Similar to Modules 1–3, students can use this preparation time to label their final product, present it to a partner, or write and draw a reflection.

Celebrating (Day 30):

- There are multiple ways in which students may celebrate and share their final product. Consider:
 - Setting up a “museum” of student work for students, families, or other classes to visit.
 - Displaying student work in the school library or local library.



Choice and Challenge Stage: In the Engineer Lab

Guiding Question

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

Learning Target

- I can build a model of one element of my forest play space.

Teaching Notes

How this stage of this lab builds on previous stage(s):

- Students use the plans of the Forest Scenes they created in the Extend stage to create a final 3-D forest play space model of one element from the forest play space. Students will use skills acquired from the Create Lab to build a 3-D tree and incorporate at least one play element.
- Students make a plan to decide on what materials to use for different parts of the play space.
- Recall that 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).”

What is new about this stage of this lab:

- Students use the Forest Scenes, the 3-D Forest Play Space Criteria List anchor chart, and peer feedback to complete their 3-D Forest Play Space Model.

Habits of character

- During the Choice and Challenge stage, students create a final product. Some students may feel they are “done” early in the process. Encourage them to push their craftsmanship further by creating multiple drafts or adding additional details to create their best possible work.

Logistics:

- During the Choice and Challenge stage, students spend 20 minutes in their Choice and Challenge Lab and 20 minutes in the Imagine Lab.

In advance:

- Create a 3-D Forest Play Space Model using a Forest Scene to help students co-create a criteria list for high-quality work.

Materials

Continued materials:

- ☑ Forest Scenes (from Extend stage; one per student)

Additional materials:

- ☑ 3-D Forest Play Space Model (new; teacher-created; one to display)
- ☑ 3-D Forest Play Space Criteria List anchor chart (new; co-created with students during Transitioning to the Choice and Challenge Stage)
- ☑ Paper products (a variety of types and sizes in the Engineer Lab)
- ☑ Scissors (one pair per student)
- ☑ Liquid glue (a few bottles in the Engineer Lab)
- ☑ Twigs (one set in the Engineer Lab)
- ☑ Play-Doh (one container per student)
- ☑ Popsicle sticks or toothpicks (one set in the Engineer Lab)
- ☑ Consider other recycled materials, such as:
- ☑ Bottle caps (one set in the Engineer Lab)
- ☑ String (a variety of lengths in the Engineer Lab)
- ☑ Wire (a variety of sizes and lengths in the Engineer Lab)
- ☑ Bottles (a variety of sizes in the Engineer Lab)

Experience

Transitioning to the Choice and Challenge Stage (Day 23):

- Students who chose to work in the Create Lab for the Choice and Challenge stage may transition to the Imagine Lab at this time. This will allow for a smaller group discussion specific to the needs of students who chose the Engineer Lab.

- Tell students that all the hard work they have done on their **Forest Scenes** will be put to use in an exciting final product.
- Dramatically reveal and display the **3-D Forest Play Space Model**. Ask:
“What was included in this 3-D Forest Play Space Model?” (Responses will vary, but may include: a 3-D tree and a play element from the Forest Scenes created in the Extend stage)
- Tell students that they will now use their Forest Scenes to inform their work while they create their own 3-D Forest Play Space Model.
- Tell students that they will now use the 3D Forest Play Space Model to create a criteria list that names all the important parts of a really great 3-D Forest Play Space Model.
- Think-Pair-Share:
“What did the engineer of this 3-D Forest Play Space Model do to turn it from the plan in the Forest Scene to the 3-D model?” (Responses will vary, but may include: The engineer chose one part of the Forest Scene to build. The engineer created a 3-D tree with a strong branch. The engineer used string and other recycled materials to build the swing and attach it to the tree branch.)
- As students share out, clarify and capture their responses on the **3-D Forest Play Space Criteria List anchor chart**. This anchor chart will be referenced throughout the creation process, but most importantly during the Choice and Challenge Giving and Receiving Feedback Day.
- Tell students that they will now create their own 3-D forest play space, using the Forest Scenes as plans, their skills of molding from the Create Lab, and the **continued** and **additional materials**.
- Tell students they should use their Forest Scenes as a resource for accurate molding and building.
- Remind students that their first draft is just that: a first draft. They will make multiple drafts during the Choice and Challenge stage to achieve a high-quality product.
- During days 24-26, students continue to work on their 3-D forest play space using the materials and the 3-D Forest Play Space Criteria List anchor chart.

Giving and Receiving Feedback (Day 27):

- Similar to Transitioning to the Choice and Challenge Stage, consider dividing students into their two groups during Giving and Receiving Feedback. One group will work on giving and receiving feedback while the other group works in the Imagine Lab. Then the groups will switch.
- Invite students in the Engineer Lab to bring their 3-D forest play space to the whole group meeting area.
- Guide students through giving and receiving feedback about their 3-D forest play space using the routine established in Module 2:
 - Review the 3-D Forest Play Space Criteria List anchor chart.
 - Remind students that their star and step should come from this list.
 - As needed, model giving and receiving feedback with a student volunteer.
- Invite students to give and receive feedback about the 3-D Forest Play Space with an elbow partner.

Addressing Feedback (Day 28)

- Students apply the feedback they received on the previous day to revise their 3-D forest play space.

Preparing to Share (Day 29):

- At this point, students should have a final product that they are ready to share with an audience (internal or external).
- Similar to Modules 1–3, students can use this preparation time to label their final product, present it to a partner, or write and draw a reflection.

Celebrating (Day 30):

- There are multiple ways in which students may celebrate and share their final product. Consider:
 - Setting up a “museum” of student work for students, families, or other classes to visit.
 - Displaying student work in the school library or local library



Choice and Challenge Stage: In the Imagine Lab

Guiding Question

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

Learning Target

- I can collaborate to create and act out a story about something that people do in the forest.

Teaching Notes

How this stage of this lab builds on previous stage(s):

- During the Choice and Challenge stage, the Imagine Lab challenges students to continue collaborating in a world of imaginative play while using props and costumes to play in the Classroom Forest.
- Students are invited to focus their play by asking them to choose a play scenario, assign characters, negotiate a storyline, and rehearse for an audience using the Classroom Forest Plan for Play anchor chart.
- The Imagine Lab serves as a space of greater freedom and flexibility, which is especially important given the constraints and demands of the Create and Engineer labs during the Choice and Challenge stage.

Logistics:

- During the Choice and Challenge stage, students spend 20 minutes in their Choice and Challenge Lab and 20 minutes in the Imagine Lab.

In advance:

- Prepare the Imagine Lab space with a variety of imaginative play materials.

Materials

Continued materials:

Consider any of the following:

- ☑ Building blocks (one set of wood or linking blocks)
- ☑ White board (large one to share or several small ones)
- ☑ White board markers (one per student)
- ☑ Hand or finger puppets (several to share)
- ☑ Dress-up materials (several to share)
- ☑ Animal masks (from Module 3; one per student)
- ☑ Badge template (a few in the Imagine Lab)
- ☑ Mask template (a few in the Imagine Lab)
- ☑ Baskets (a few in the Imagine Lab)
- ☑ Crayons (a variety of colors in the Imagine Lab)

Additional materials:

- ☑ Classroom Forest Plan for Play anchor chart (new; teacher-created; see supporting materials)
- ☑ Classroom Forest Plan for Play anchor chart (example, for teacher reference)

Experience

- Remind students that the Imagine Lab is a place for them to:
 - Demonstrate habits of character, especially respect for materials and collaboration with peers.
 - Use their powers of imagination and engage in fun, creative play with one another.
- Turn and Talk:
 - “*What do you enjoy playing in the Classroom Forest? Why?*” (Responses will vary.)
- Select some volunteers to share out different characters and roles they enjoy playing in the Classroom Forest.
- Remind students that there are many different roles they could act out in the Classroom Forest.
- Direct students’ attention to the **Classroom Forest Plan for Play anchor chart** and review the big ideas. Refer to the **Classroom Forest Plan for Play anchor chart (example, for teacher reference)** as necessary. Tell students that this anchor chart will help guide their play.
- Reread the Classroom Forest Plan for Play anchor chart and invite students to create signals or motions for each step.
- Remind students that collaboration and respect are extremely important in maintaining fun and cooperation in the Imagine Lab.
- Tell students that they will have 20 minutes in the Imagine Lab and that they may choose to use any of the **continued materials** in the lab to collaborate and play together in the classroom forest. Invite them to begin exploring materials and imagining.