

Kindergarten: Module 1: Labs

4 – Choice and Challenge Stage

Labs: Choice and Challenge Stage

Days 19–25

Each of the Labs unfolds across an entire module and takes place in four stages: Launch, Practice, Extend, and Choice and Challenge.

At this point in the Labs, students have had several days in each Lab to become acquainted with purpose, tasks, and the materials of each Lab, as well as Lab routines.

The Choice and Challenge stage serves three purposes:

- To help students gain greater ownership through their choice of one of two Labs (Create Lab or Engineer Lab).
- To provide students the time and materials to engage in the task with greater depth, as well as the sense of purpose that accompanies creating a final product.
- To challenge students to a higher sense of craftsmanship through the co-construction of criteria, the giving and receiving of feedback, and the preparation for and sharing with an audience.

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 Lab time: transition to Choice and Challenge stage, giving and receiving feedback, preparing to share, and celebrating. (later in this chapter)

The chart on the next page shows the guiding question, learning target(s), and ongoing assessment for each Lab during this specific stage:

(Note: The guiding question for a given Lab remains the same for the entire module. By contrast, the learning targets become more refined and precise from stage to stage.)



Choice and Challenge Stage: At-a-Glance

Guiding Question	<p>Create Lab</p> <p>How can I use shapes, details, and size to draw a toy?</p> <p>Engineer Lab</p> <p>How can I use everyday materials and my imagination to create a toy?</p> <p>Imagine Lab</p> <p>How can I use my imagination to create a world of play for myself and others?</p>
Learning target(s)	<p>Create Lab</p> <p>I can use size to make a more realistic drawing of a toy. I can show perseverance in creating a final drawing of a toy.</p> <p>Engineer Lab</p> <p>I can use everyday materials and my imagination to create a toy. I can show perseverance in creating a final toy.</p> <p>Imagine Lab</p> <p>I can show respect for Lab materials and my peers.</p>
Ongoing Assessment	<p>Create Lab</p> <p>Create Lab Checklist (SL.K.1a, SL.K.1b, SL.K.3, SL.K.5, SL.K.6)</p> <p>Engineer Lab</p> <p>Explore Lab Checklist (SL.K.1a, SL.K.1b, SL.K.3, SL.K.6)</p> <p>Imagine Lab</p> <p>Imagine Lab Checklist (SL.K.1a, SL.K.1b, SL.K.3, SL.K.6)</p>

Labs are one hour long in all four stages. During the Choice and Challenge stage, this hour is divided as follows:

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.
- During the Choice and Challenge stage, choose texts that meet the following criteria:
 - Highlight a character who is learning about or demonstrating perseverance in completing a difficult task.
 - Highlight a character who is creating something of which he/she is proud.

In advance:

- Choose a text from your own classroom library or the Recommended Texts and Other Resources list (stand-alone document).
- Consider creating a focus question for Storytime (see example in the Experience section below)
- Post: Focus question (optional)
- Consider:
 - A system for having individual students choose which Lab they would like to participate in during the Choice and Challenge stage.
 - Seating students in groups according to their chosen Lab to promote more focused discussion, goal setting, and reflection.

Materials

- ☑ Text for Storytime (chosen by teacher; see Teaching Notes)
- ☑ Labs song (see supporting materials)

Experience

- Gather students whole group by singing the (start of the) **Labs song**.
- Introduce the **text for Storytime**.

- Consider giving students a focus question with which you would like them to listen, especially as it supports their work in the Labs. (Examples: “While I read this story aloud, think about the ways in which the characters show perseverance, or keep trying even when something is hard” or “While I read this story aloud, think about this question: How does the main character turn an ordinary object into a toy of his/her own?”)
- Read aloud the text for Storytime slowly, fluently, and without interruption.

Choice and Challenge Stage: Setting Lab Goals

5 MINUTES

Teaching Notes

Purpose:

- Students’ goals during the Choice and Challenge stage should become more specific in nature, as 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. Consider providing a sentence frame to help students formulate meaningful goals. (Examples: “Today I will work on...” or “Today I will show perseverance by...”)

Habits of character:

- Some students may need additional support with perseverance and collaboration as they prepare their toys 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 Lab and the Imagine Lab, each for 20 minutes.

In advance:

- Gather sticky notes for students to sketch or write their goal for Lab time today (optional).
- Post: Guiding question for each Lab, learning target(s) for each Lab, and Labs schedule.

Materials

- ✓ Labs schedule (one to display; see supporting materials)
- ✓ Sticky notes (optional; one per student)

Experience

- Orient students to the **Lab Schedule** and the **learning target(s)** for each Lab.
- Remind students they will be visiting two Labs each day during the Choice and Challenge stage: their Choice and Challenge Lab and the Imagine Lab.
- Identify which Lab group will visit each Lab first. Invite students to share, through a silent signal, which Lab they are visiting first.
- Tell students that, in their Choice and Challenge Lab, it is very important to think of specific and achievable goals.

- Invite students to turn and talk with an elbow partner to identify their goal for Lab time today:

“What is your goal for Lab time today?” (Responses will vary, but may include: Today my goal is to make the sizes in my drawing more accurate.)

Provide a sentence frame as necessary. (Example: “Today, my goal is to ____.”)

- Consider asking students to quickly sketch or write their goal for their Choice and Challenge Lab on a **sticky note**. This will add greater accountability to their Lab time and will serve as a concrete tool to use for their reflection.

Choice and Challenge Stage: In the Labs

40 MINUTES

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

Choice and Challenge Stage: Reflecting on Learning

5 MINUTES

Teaching Notes

Purpose:

- Recall that the Reflecting on Learning portion of Labs serves as a bookend to Setting Lab Goals. This time should both invite students to recall how they spent their time in the Labs and to reflect on their experience in the Labs. Students entered the Choice and Challenge Lab with a specific goal for the day. During this time, they should reflect on their progress toward that goal.
- Continue to support students with predictable structures of reflection (such as repeated protocols) as well as familiar sentence frames.

In advance:

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

Experience

- Gather students back together whole group by singing the (conclusion of the) **Labs song**.
- Remind students that they set a goal for themselves before they entered their Choice and Challenge Lab today.
- If students sketched or wrote their goal on a sticky note, invite them to refer to the sticky note and use a written or pictorial system to mark their progress. (Example: checkmark = I reached my goal; X = I'm stuck; Picture of a clock = I need more time.)
- If students did not use a sticky note to record their goal, consider using a protocol, such as Sit, Kneel, Stand, to check their progress toward their goal.



Choice and Challenge Stage: In the Create Lab

Guiding Question

- How can I use shapes, details, and size to draw a toy?

Learning Targets

- I can use size to make a more realistic drawing of a toy.
- I can show perseverance in creating a final drawing of a toy.

Teaching Notes

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

- Students continue to use the tools they have acquired for drawing (shapes and details) to draw toys.

What is new about this stage of this Lab:

- Students use all they have learned about drawing a toy to create their best final product to share with an audience.
- Students add the concept of size to their “Artist’s Toolbelt” and use size in their toy drawings.
- Students use all the tools of their Artist’s Toolbelt (shapes, details, and size), the Toy Drawing Criteria List anchor chart, and peer feedback to complete a final drawing.

Habits of character:

- Students are reaching their final drawing during the Choice and Challenge stage. 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 drawing process. Using peer and teacher feedback, students may add more details, revise specific aspects of their drawing, 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:

- Create or find a model drawing of a toy to use when co-creating the Toy Drawing Criteria List anchor chart with students.
- Prepare technology necessary to play “Austin’s Butterfly” during Giving and Receiving Feedback (<https://vimeo.com/38247060>).

Materials

- ✓ Paper (various types, colors, and sizes; several blank pieces per student)
- ✓ Pencils (two per student)
- ✓ Toys (variety; for students to use as a model to draw; see Teaching Notes)

- ✓ Shapes card (one per pair; see supporting materials)
- ✓ Colored pencils, crayons, or markers (one set per pair)
- ✓ Magnifying glass (one per student in the Create Lab)

Additional Materials:

- ✓ Toy (one; for teacher modeling)
- ✓ Chart paper (two pieces; for teacher modeling)
- ✓ Toy Drawing: Teacher Model (one to display)
- ✓ Toy Drawing Criteria List anchor chart (new; co-constructed with students during Transitioning to the Choice and Challenge Stage)
- ✓ “Austin’s Butterfly” (video; play in entirety; see Teaching Notes)

Experience

Transitioning to the Choice and Challenge Stage (Day 19):

- 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.
- Tell students that you are going to introduce them to a new tool that artists keep in their Artist’s Toolbelt. This tool will help them draw toys more accurately. This tool is size.
- Repeat the process of putting on your toolbelt and adding size. Invite students to do the same.
- Begin modeling how to draw a toy, using a **toy** and **chart paper**. Begin with shapes and purposefully distort the toy’s size. (Examples: Draw a very small head compared to the size of the toy’s body. Draw very large wheels compared to the size of a truck.)
- Using a total participation technique, invite responses from the group:

“How does my drawing look different from the toy?” (Responses will vary, but may include: The head on my toy bear does not look the right size.)
- Guide students to understand that you confused the size of the shapes you should be using (a very common difficulty for primary artists). Tell them that artists are very careful with the sizes in their drawings to help them to look more realistic.
- Continue modeling, this time using more accurate proportions. Say:

“When I look at the toy, I see that the head is about the same size as the body. Let me try again.”
- Repeat this process with other parts of the toy, asking students to compare sizes to help create a more proportionate drawing.
- Display the **Toy Drawing: Teacher Model**.
- Tell students that they will now use this drawing and the concepts they added to their Artists’ Toolbelts (shapes, details, size) to create a criteria list that names all the important parts of a really great drawing.
- Invite students to Think-Pair-Share with an elbow partner:

“What did the artist of this drawing do to make it both beautiful and realistic?” (The artist drew the fur on the bear, instead of making it all one color. This shows how the artist added details. The artist also used accurate shapes and accurate sizes.)

- As students share out, capture their ideas on chart paper to create the **Toy Drawing 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.
- Students continue to have access to materials provided in the Launch, Practice, and Extend stages. Refer to the materials list for **continued materials**.

Giving and Receiving Feedback (Day 22):

- Similar to Transitioning to the Choice and Challenge Lab Stage, consider dividing students into 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 toy drawings to the whole group meeting area.
- Tell students they will watch a short video about a boy named Austin and his drawing.
- Show **“Austin’s Butterfly”** uninterrupted.
- Invite students to Think-Pair-Share:
 - “How did Austin’s drawing change from the first draft to the final draft?” (His drawing looks more like a real butterfly.)*
 - “What helped Austin to improve his drawing?” (The other students told him ways to make it better.)*
- Tell students that, just like Austin and his friends, they are going to help each other make better drawings.
- They will do this by:
 - Hearing about their partner’s drawing. (Example: “I am drawing a ____.”)
 - Thinking about all the things that make a great drawing.
 - Telling their partner one “glow” (something he/she did really well) and one “grow” (something he/she can do to make it even better).
- Review the **Toy Drawing Criteria List anchor chart** that students helped to create on the first day of the Choice and Challenge Stage.
- Tell students that their “glow” and “grow” should come from this list.
- Consider modeling this process of giving and receiving feedback with a student volunteer or another teacher.
- Remind students that feedback is meant to be helpful, not hurtful. When someone tells you something you can do better, that person is being a good partner.
- Invite students to turn and face an elbow partner with their toy drawing and choose a partner A and a partner B.
- Invite partner As to begin sharing and partner Bs to begin listening and offering feedback.
- After 3–4 minutes, invite students to switch roles.
- Ask students to answer the following question in their heads:
 - “What will you do now to make your drawing even better?”*
- Invite some or all students to share their next steps, as time permits.

- Give students specific, positive feedback for the very important and difficult work of giving and receiving feedback. (Examples: “Sometimes it is difficult to hear things we need to do to make our work better. But, I noticed students receiving feedback with a very positive attitude” or “I heard students using very specific feedback. They did not just say, ‘Your drawing is good.’ They named exactly what the artist did that was good, saying, ‘Your shapes are really accurate’ and ‘You included a lot of great details.’”)

Preparing to Share (Day 24):

- At this point, students should have a final product that they are ready to share with an audience (internal or external).
- Students can use this preparation time in a variety of ways. They might:
 - Label their final product with their name, a title, and various parts of the drawing or toy.
 - Work with a partner to practice presenting their product to another person.
 - Write and draw a short reflection that shows their process and what they are proud of about their work.

Celebrating (Day 25):

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



Choice and Challenge Stage: In the Engineer Lab

Guiding Question

- How can I use everyday materials and my imagination to create a toy?

Learning Targets

- I can use everyday materials and my imagination to create a toy.
- I can show perseverance in creating a final toy.

Teaching Notes

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

- Students continue to use their imagination and everyday materials to build a toy.

What is new about this stage of this Lab:

- Students return to individual work for the Choice and Challenge stage.
- Students will use all they know about toys, the Toy Criteria List anchor chart, and peer feedback to complete a final toy.

Habits of character:

- Students are reaching their final toy during the Choice and Challenge stage. 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 design and building process. Using peer and teacher feedback, students may add more details or revise specific aspects of their toy.

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 or find a model toy made of everyday materials to use when co-creating the Toy Criteria List anchor chart with students.
- Prepare technology necessary to play “Austin’s Butterfly” during Giving and Receiving Feedback <<https://vimeo.com/38247060>>.

Materials

- ✓ Cardboard (various sizes; two or three pieces per student)
- ✓ Paper (various types, colors, and sizes; several blank pieces per student)
- ✓ Tape (one roll or pre-cut 6-inch strips)
- ✓ String (one roll or pre-cut 12-inch strips)
- ✓ Scissors (one per pair)
- ✓ Paper (one piece per pair)
- ✓ Pencils (one per student)
- ✓ Cardboard tubes (make several available; not all students will use for their toy design)
- ✓ Paper bags (make several available; not all students will use for their toy design)
- ✓ Small milk cartons (make several available; not all students will use for their toy design)
- ✓ Craft sticks (five or six per student)
- ✓ Pipe cleaners (five or six per student)
- ✓ Tin cans (make several available; not all students will use for their toy design)
- ✓ Small cardboard boxes (make several available; not all students will use for their toy design)
- ✓ Items from the natural world (e.g., nuts, leaves, pinecones, rocks, beans; make several available; not all students will use for their toy design)
- ✓ Brads (make several available; not all students will use for their toy design)
- ✓ Rubber bands (make several available; not all students will use for their toy design)

Additional Materials

- ✓ Toy: Teacher Model (one to display)
- ✓ Chart paper (one piece; for the teacher to create the Toy Criteria List anchor chart)
- ✓ Toy Criteria List anchor chart (new; co-constructed with students during Transitioning to the Choice and Challenge Stage)
- ✓ “Austin’s Butterfly” (video; play in entirety; see Teaching Notes)

Experience

Transitioning to the Choice and Challenge Stage (Day 19):

- Students who chose to work in the Create Lab for the Choice and Challenge Stage may transition to the Imagine Lab during this time. This will allow for a smaller group discussion specific to the needs of students who chose the Engineer Lab.
- Display the **Toy: Teacher Model**.
- Tell students that they will now study this toy to create a criteria list that names all the important parts of an imaginative toy made from everyday or recycled materials.
- Invite students to Think-Pair-Share with an elbow partner:

“What did the engineer of this toy do to make it both fun and well-made?” (The engineer included lots of details on the toy; the engineer made different parts move on the toy.)
- As students share out, capture their ideas on **chart paper** to create the **Toy 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.
- Students continue to have access to materials provided in the Launch, Practice and Extend stages. Refer to the materials list to see the continued materials.

Giving and Receiving Feedback (Day 22):

- Similar to Transitioning to the Choice and Challenge Lab Stage, consider dividing students into 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 toys to the whole group meeting area.
- Tell students they will watch a short video about a boy named Austin and his drawing.
- Show **“Austin’s Butterfly”** uninterrupted.
- Invite students to Think-Pair-Share:

“How did Austin’s drawing change from the first draft to the final draft?” (His drawing looks more like a real butterfly.)

“What helped Austin to improve his drawing?” (The other students told him ways to make it better.)
- Tell students that, just like Austin and his friends did with the drawing, they are going to help each other make better toys.
- They will do this by:
 - Hearing about their partner’s toy. (Example: “I am making a ____.”)
 - Thinking about all the things that make a great toy.
 - Telling their partner one “glow” (something he/she did really well) and one “grow” (something he/she can do to make it even better).
- Review the **Toy Criteria List anchor chart** that students helped to create on the first day of the Choice and Challenge stage.
- Tell students that their “glow” and “grow” should come from this list.
- Consider modeling this process of giving and receiving feedback with a student volunteer or another teacher.

- Remind students that feedback is meant to be helpful, not hurtful. When someone tells you something you can do better, that person is being a good partner.
- Invite students to turn and face a partner with their toy and choose a partner A and a partner B.
- Invite partner As to begin sharing and partner Bs to begin listening and offering feedback.
- After 3–4 minutes, invite students to switch roles.
- Ask students to answer the following question in their heads:

“What will you do now to make your toy even better?”

- Invite some, or all, students to share their next steps, as time permits.
- Give students specific, positive feedback for the very important and difficult work of giving and receiving feedback. (Examples: “Sometimes it is difficult to hear things we need to do to make our work better. But I noticed students receiving feedback with a very positive attitude” or “I heard students using very specific feedback. They did not just say, ‘Your toy is good.’ They named exactly what the engineer did that was good, saying, ‘Your toy uses really great materials to make it fun.’ and ‘You included a lot of great details in your toy.’”)

Preparing to Share (Day 24):

- At this point, students should have a final product that they are ready to share with an audience (internal or external).
- Students can use this preparation time in a variety of ways. They might:
- Label their final product with their name, a title, and various parts of the drawing or toy.
- Work with a partner to practice presenting their product to another person.
- Write and draw a short reflection that shows their process and what they are proud of about their work.

Celebrating (Day 25):

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



Choice and Challenge Stage: In the Imagine Lab

Guiding Question

- How can I use my imagination to create a world of play for myself and others?

Learning Target

- I can show respect for Lab materials and my peers.

Teaching Notes

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

- During the Choice and Challenge stage, the Imagine Lab remains intentionally unchanged:
 - Students' focus is required for multiple changes and tasks in their Choice and Challenge Lab.
 - Teachers need to focus their attention and support on students working toward their final products (toy drawing and creation).
 - 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.
- Students continue to use a variety of imaginative play materials to create their own imaginative play scenarios.
- Students continue to be encouraged to use the Imagine Lab as space to reenact or incorporate characters and ideas they have encountered in the module lesson texts.
- Students continue to show respect for materials and one another.

Logistics:

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

Materials

- ☑ Building blocks (one set of wood or linking blocks)
- ☑ White board (one large to share or several small) and dry erase markers (one per student)
- ☑ Hand or finger puppets (several to share)
- ☑ Dress-up materials (several to share)
- ☑ Other possible materials might include modeling clay, common kitchen materials and safe cooking utensils, felt or magnet boards

Experience

- Remind students that the Imagine Lab is a place for them to:
 - Demonstrate habits of character, especially respect for materials and peers.
 - Use their powers of imagination, engaging in fun, creative play with one another.
 - Act out or re-create some of their favorite characters or scenes from the books they have been reading in the module lessons.
- Tell students they will have 20 minutes in the Imagine Lab. Invite them to begin exploring materials and imagining.