Grade 1: 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 Labs 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. (Refer to the In the Labs section on the following pages for more detailed information on which days these tasks occur.)

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

Create Lab

How can I create a realistic drawing of a tool?

Engineer Lab

How can I use classroom tools to create my own magnificent thing?

Imagine Lab

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

Learning Target

Create Lab

I can create a final drawing of a "tool I use" in my life as a first-grader.

Engineer Lab

I can create a magnificent thing to be used in my own life.

Imagine Lab

I can show respect for Lab materials and my peers.

Ongoing Assessment

Create Lab

Create Lab Checklist (**SL.1.1, SL.1.3, SL.1.4, SL.1.5, SL.1.6**)

Engineer Lab

Engineer Lab Checklist (**SL.1.1, SL.1.3, SL.1.4, SL.1.5, SL.1.6**)

Imagine Lab

Imagine Lab Checklist (**SL.1.1, SL.1.3, SL.1.4, SL.1.6**)

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

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

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 or she is proud.

In advance:

- Choose a text from your own classroom library or the K–5 Recommended Text List (standalone 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 dicussion, goal setting, and reflection.

Materials

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

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. (Example: "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 the question, 'How does the main character create something magnificent of his/her very 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 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 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)
- ☑ Sticky notes (optional; one per student)

Experience

- Orient students to the **Lab schedule** and the learning target for each Lab.
- Remind students that they will visit 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, providing a sentence frame as necessary: "Today my goal is to _____." Ask:

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

- Consider asking students to quickly sketch or write their goal for their Choice and Challenge Lab on a **sticky note** with their name. This will add greater accountability to their Lab time and will serve as a concrete tool to use for their reflection.
- 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 on the following pages for detailed plans on each specific Lab.

Choice and Challenge Stage: Reflecting on Learning

Teaching Notes

Purpose:

- Recall that the Reflecting on Learning portion of Labs serves as a bookend to Setting Lab Goals. This time should 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 their 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.
- 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.

Choice and Challenge Stage: In the Create Lab

Guiding Question

- How can I create a realistic drawing of a tool?

Learning Target

- I can create a final drawing of a "tool I use" in my life as a first-grader.

Teaching Notes

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

- Students continue to use the tools they have acquired for drawing (lines and textures) to draw tools.

What is new about this stage of this Lab:

- Students use all they have learned about drawing a tool 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 tool drawings.
- Students use all the tools of their Artist's Toolbelt (lines, textures, and size), the Tool 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 tool to use when co-creating the Tool 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

Continued materials:

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

- ☑ Lines card (one per pair)
- ☑ Colored pencils, crayons, or markers (one set per pair)
- ☑ Magnifying glass (one per student in the Create Lab)

Additional materials:

- ☑ Tool or picture of a tool (one; for teacher modeling)
- ☑ Chart paper (two pieces; for teacher modeling)
- ☑ Tool Drawing: Teacher Model (one to display)
- ☑ Tool 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 tools more accurately. This tool is size.
- Act out the process of putting on your toolbelt and adding size. Invite students to do the same.
- Begin modeling how to draw a tool, using a **tool** or **picture of a tool** and **chart paper**. Begin with lines and purposefully distort the tool's size. (Example: Draw a very small head of the hammer compared to the size of the hammer's handle.)
- Using a total participation technique, invite responses from the group:

  "How does my drawing look different from the tool?" (Responses will vary, but may include: The top of the hammer does not look the right size.)

- Guide students to understand that you confused the size of the parts 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 tool, I see that the end is about the same size as my finger. Let me try again."
- Repeat this process with other parts of the tool, asking students to compare sizes to help create a more proportionate drawing.
- Display the Tool Drawing: Teacher Model.
- Tell students that they will now use this drawing and the concepts they added to their Artist's Toolbelts (lines, textures, and 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 sizes.)

- As students share out, capture their ideas on chart paper to create the **Tool 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.
- Tell students that they will create a drawing of a tool of a first-grader (for example, writing tools used in first grade, math tools used in first grade, art tools used in first grade, etc.) for their final product. These drawings will be compiled in a book of first-grade tools. This book could be used by kindergarteners as they enter first grade, to get to know all the important tools they will use in this classroom.
- Using a total participation technique, invite responses from the group:

  "What are some tools you use a first-grader that you could draw for our book?" (Responses will vary, but may include: paintbrush, pencils, markers, stapler, scissors, ruler, etc.)
- Ask students to point their finger to their head and close their eyes, thinking deeply and quietly.
- Ask:

  "What is your favorite tool in our first-grade classroom that you would like to draw?"
- Invite students to give a silent signal when they have thought of their first-grade tool.
- Tell students that on the way to the Create Lab, they will need to get a model of their tool to draw. Consider assisting students whose tools are not readily available to them.
- Tell students that they will use all they know about drawing to begin their first draft.
- Students continue to have access to materials provided in the Launch, Practice, and Extend stages. Refer to the materials for a list of **continued materials**.

Giving and Receiving Feedback (Day 22):

- Similar to Transitioning to the Choice and Challenge Lab 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 tool drawings to the whole group meeting area.
- Tell them 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 with an elbow partner:

  "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 or she did really well) and one *grow* (something he or she can do to make it even better).

- Review the Tool 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, he or she is being a good partner.
- Invite students to turn and face an elbow partner with their tool 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 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 of the product, and labels of the various parts of the drawing.
  - 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 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 use classroom tools to create my own magnificent thing?

Learning Target

- I can create a magnificent thing to be used in my own life.

Teaching Notes

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

- Students continue to use a variety of tools and materials to build an object.

What is new about this stage of this Lab:

- Students return to using their imagination, not a model, to create something magnificent of their own.
- Students think of an authentic need or want in their own life and then use classroom tools and materials to build it.
- Students will use all they know about building with classroom tools and materials, the Magnificent Thing Criteria List anchor chart, and peer feedback to complete a final object.

Habits of character:

- Students are creating a final product 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 teaching feedback, students may add more details or revise specific aspects of their "magnificent thing."

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 of a "magnificent thing" made of everyday materials to use when co-creating the Magnificent Thing Criteria List anchor chart with students. (This could address an authentic want or need in the teacher's life—for example, a picture frame, a cellphone case, a keychain, etc.)
- Prepare technology necessary to play "Austin's Butterfly" during Giving and Receiving Feedback (https://vimeo.com/38247060).

Materials

Continued 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 product design)
- ☑ Paper bags (make several available; not all students will use for their product design)
- ☑ Small milk cartons (make several available; not all students will use for their product 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 product design)
- ☑ Small cardboard boxes (make several available; not all students will use for their product design)
- ☑ Items from the natural world (e.g. nuts, leaves, pinecones, rocks, beans) (make several available; not all students will use for their product design)
- ☑ Brads (make several available; not all students will use for their product design)
- ☑ Rubber bands (make several available; not all students will use for their product design)

Additional materials:

- ☑ Magnificent Thing: Teacher Model (one to display; see Teaching Notes)
- ☑ Chart paper (one piece; for the teacher to create the Magnificent Thing Criteria List anchor chart)
- ☑ Magnificent Thing 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.
- Tell students that in the Engineer Lab, they will create their own magnificent thing for their life. Reference the character in the book *The Most Magnificent Thing*.
- Discuss how this character created something she could really use in her own life. It was both functional (it worked to do a job) and fun.
- Tell students you tried this out for your own life.

- Display the Magnificent Thing: Teacher Model.
- Tell students that they will now study this object to create a criteria list that names all the important parts of a magnificent thing made from everyday or recycled materials.
- Invite students to Think-Pair-Share with an elbow partner:

  "What did the engineer of this magnificent thing do to make it functional, attractive, and well-made?" (Examples: "The engineer included lots of details" or "The engineer made different parts move" or "The engineer added color to it.")

- As students share out, capture their ideas on **chart paper** to create the **Magnificent Thing 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.
- Using a total participation technique, invite responses from the group:

  "What are some wants or needs you as first-graders have? What magnificent thing could you make to help you with these wants and needs?" (Responses will vary, but may include: I want a picture frame for a picture of my family. I need a way to organize all my trading cards. I want to make a gift for my mom, and she needs a box to organize her jewelry.)

- Ask students to point their finger to their head and close their eyes, thinking deeply and quietly.
- Using a total participation technique, invite responses from the group:

  "What do you plan to make when you get to the Engineer Lab today?" (Responses will vary.)

- Invite students to give a silent signal when they have thought of their magnificent thing.

Recall that students continue to have access to materials provided in the Launch, Practice and Extend stages. Refer to the materials for a list of **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 magnificent thing 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 magnificent things. They will do this by:
  - Hearing about their partner's magnificent thing. (Example: "I am making a _____.")
  - Thinking about all the things that make a great magnificent thing.
  - Telling their partner one "glow" (something he or she did really well) and one "grow" (something he or she can do to make it even better).
- Review the **Magnificent Thing 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 magnificent thing 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 magnificent thing even better?"
- Invite some, or all, students to share their next steps, as time permits.
- Give students specific, positive feedback for the 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 magnificent thing is good.' They named exactly what the engineer did that was good, saying, 'Your magnificent thing uses really great materials and has a lot of details' and 'You made it really colorful and beautiful.'")

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 magnificent thing with their name, a title, and various parts of the product.
  - Work with a partner to practice presenting their magnificent thing 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 for students, families, or other classes to visit.
  - Displaying student work in the school library, a local library, or a museum.

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.
  - 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

Continued 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 materials could 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 recreate 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.