

**Kindergarten:** Module 2: Labs

# 4 – Choice and Challenge Stage

## Labs: Choice and Challenge Stage

### Days 19–25

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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.

4. 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 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 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 scenes that show how weather affects people?

#### Engineer Lab

How can I design and build a weatherproof shelter?

#### Imagine Lab

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

### Learning Target(s)

#### Create Lab

I can create a paper puppet theater with multiple weather details.

#### Engineer Lab

I can create a windproof, waterproof shelter.

#### Imagine Lab

I can show respect for Lab materials and my peers.

I can collaborate with my Lab group to imagine exciting weather stories.

### Ongoing Assessment

#### Create Lab

Create Lab Checklist (**SL.K.1a, SL.K.4, L.K.1d, L.K.1f**)

#### Engineer Lab

Engineer Lab Checklist (**SL.K.1a, SL.K.4, L.K.1d, L.K.1f**)

#### Imagine Lab

Imagine Lab Checklist (**SL.K.1a, SL.K.4, L.K.1d, L.K.1f**)

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
Story time	10 minutes
Setting Lab Goals	5 minutes
In the Lab	40 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 K–5 Recommended Texts 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

- Labs song (one to display; see supporting materials)
- 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. (Examples: “While I read this story aloud, think about how the characters in this story are affected by the weather” or “While I read this story aloud, think about the question: ‘How does the main character work hard and persevere to create something of which he or she is proud?’”)
- Read aloud the text for Storytime slowly, fluently, and without interruption.

## Choice and Challenge Stage: Setting Lab Goals



### 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 adding clothing details to my paper puppet" or "Today I will test my shelter to see if it is really waterproof.")

#### Habits of character:

- Some students may need additional support with perseverance and collaboration as they prepare their projects 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 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 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 frame of my shelter.)***

- 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

- 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 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 create scenes that show how weather affects people?

### Learning Target

- I can create a puppet theater with multiple weather details.

### Teaching Notes

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

- Students continue to use the tools they have acquired for painting (or drawing) weather scenes and creating people who are dressed for various kinds of weather.

#### What is new about this stage of this Lab:

- Students use all they have learned about creating a weather scene to create their best final product to share with an audience. In this stage, the weather scene serves as the backdrop for their Puppet Theater.
- Students continue to create realistic drawings of people dressed for the weather. However, in this stage, students cut out their drawings and mount them on a craft stick to create a paper puppet.
- Students use a Puppet Theater Criteria List anchor chart and peer feedback to complete a final product.
- For an extension, students may use their Puppet Theater to stage a small weather-related performance, perhaps using ideas they formulated in the Imagine Lab.

#### Habits of character:

- Students are reaching their final creation 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 creation process. Using peer and teacher feedback, students may add more details, revise specific aspects of their work, or complete a new draft.
- Students at this age may still have developing fine motor skills. Therefore, the cutting of the people to create puppets will take a certain degree of perseverance. Some students may require assistance in this process.

#### 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 painting of a weather scene to use when co-creating the Puppet Theater Criteria List anchor chart with students.

- Create or find a model paper puppet, with weather-related clothing, to use when co-creating the Puppet Theater Criteria List anchor chart with students.
- For the Puppet Theater Criteria List anchor chart, prepare a T-chart titled “Paper Puppet Criteria List.” Title one side “Weather Scene” and the other “Paper Puppet.”

### Materials

#### Continued materials:

- Dress for the Weather anchor chart (begun in the Create Lab during the Launch stage)
- Watercolor paper (large; one piece per student)
- Watercolor paints (one set per student)
- Paper (blank; various types, colors, and sizes; several pieces per student)
- Pencils (two per student)
- Liquid glue (one container per student)

#### Additional materials:

- Weather Scene: Teacher Model (one to display)
- Puppet Theater Criteria List anchor chart (new; co-created with students)
- Paper Puppet: Teacher Model (one to display)
- Craft sticks (two or three per student)
- Scissors (one pair per student)

### 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.
- Display the **Weather Scene: Teacher Model**.
- Tell students that they will now use this painting and all they know from earlier stages in the Create Lab to create a criteria list that identifies all the important parts of a great weather scene.
- Invite students to Think-Pair-Share with an elbow partner:
  - “What did the artist of this weather scene do to make it both beautiful and realistic?”  
(The artist filled the entire page with color, instead of leaving large blank spaces. The artist used a lot of details that show the weather.)*
- As students share out, capture their responses on chart paper to create the **Puppet Theater Criteria List anchor chart**. Write these responses on the Weather Scene side of the chart. This anchor chart will be referenced throughout the creation process, but most importantly during the Choice and Challenge: Giving and Receiving Feedback Day.
- Display the **Paper Puppet: Teacher Model**. Consider modeling the process of cutting a paper puppet, showing students that it is all right to leave space around the person, preserving their drawing.

- Tell students that they will use this puppet and all they know from earlier stages in the Create Lab to create a criteria list that identifies all the important parts of a great drawing of a person dressed for the weather.
- Invite students to Think-Pair-Share with an elbow partner:
  - “*What did the artist of this weather scene do to make it both beautiful and realistic?*”  
*(The artist filled the entire page with color, instead of leaving large blank spaces. The artist used a lot of details that show the weather.)*
- As students share out, capture their responses on the Puppet Theater Criteria List anchor chart on the Paper Puppet side. Remind students that they should also refer to the Dress for the Weather anchor chart to include many details in their paper puppets.
- Students continue to have access to materials provided in the Launch, Practice, and Extend stages, as well as some additional materials (see the materials list).

### **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 weather scenes and paper puppets to the whole group meeting area.
- Tell students that they are going to help each other make their best Puppet Theaters.
- They will do this by:
  - Hearing about their partner’s weather scenes and puppets. (Example: “I am painting a \_\_\_\_\_.”)
  - Thinking about all the things that make a great weather scene and person dressed for specific weather.
  - Telling their partner one *star* (something he or she did really well) and one *step* (something he or she can do to make it even better).
- Review the **Puppet Theater Criteria List anchor chart** that students helped create on the first day of the Choice and Challenge stage.
- Tell students that their “star” and “step” 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 weather 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 or 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?*” *(Responses will vary.)*
- 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 painting is good.’ They named exactly what the artist did that was good, saying, ‘Your colors are really beautiful’ and ‘You included a lot of accurate 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.
  - Work with a partner to practice presenting his or her product to another person.
  - Practice presenting their Puppet Theater with a short play about weather. Students may consider using a story they created or heard in the Imagine Lab.

### **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 in which students, families, or other classes may visit.
  - Displaying student work in the school library, a local library, or museum.
  - Staging a performance of Puppet Theater plays for another class or for families.



## **Choice and Challenge Stage: In the Engineer Lab**

### **Guiding Question**

- How can I design and build a weatherproof shelter?

### **Learning Target**

- I can create a windproof, waterproof shelter.

### **Teaching Notes**

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

- Students continue to construct shelters to protect against elements of weather.

#### **What is new about this stage of this Lab:**

- In addition to being “windproof,” students’ shelters will now have the added element of being waterproof.

### Habits of character

- Students are reaching their final shelter during the Choice and Challenge stage. Many students will feel they are done early in the process. Encourage them 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 shelter.

### 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:

- Choose:
  - Multiple student-created shelters that display some aspect of high-quality work. These will be used to help students create a criteria list for their final products.
  - Multiple photographs of weather-related shelters that display some aspect of high-quality work. These will be used to help students create a criteria list for their final products.

## Materials

### Continued materials:

- ☑ Photographs of various weather-related shelters (several per workstation)
- ☑ Cardboard (various sizes; two or three pieces per student)
- ☑ Toothpicks (several per student; in a container to share)
- ☑ Craft sticks (several per student; in a container to share)
- ☑ Modeling clay (one package to share)
- ☑ Liquid glue (one container per student)
- ☑ Tape (one roll per workstation or pre-cut 6-inch strips)
- ☑ Hair dryer (optional; introduced in the Engineer Lab during the Extend stage)

### Additional materials

- ☑ Student-made shelters (several to model; see Teaching Notes)
- ☑ Weatherproof Shelter Criteria List anchor chart (new; co-created with students)
- ☑ Plastic baggies (sandwich size; one per student)
- ☑ Scissors (one pair per student)
- ☑ Watering can or squirt bottle (one for the class)
- ☑ Cotton ball (one per student)

## 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 **student-made shelters** and **photographs of various weather-related shelters**.
- Tell students that each of these shelters shows, in some way, high-quality work.
- Tell students that they will now study these shelters to create a criteria list that identifies all the important parts of a weatherproof shelter.
- Invite students to Think-Pair-Share with an elbow partner:
  - *“What did the engineer of this shelter do to make it high-quality?” (Responses will vary, but may include: The engineer made all of the connections very secure. The engineer used a variety of materials to make a strong shelter. The engineer took his time to make it work and be beautiful.)*
- As students share out, capture their responses on chart paper to create the **Weatherproof Shelter 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 (see the materials list).
- Tell students that their shelters need to protect from one additional element: water.
- Using a total participation, technique, invite responses from the group:
  - *“What things in our lives helps to protect us from water?” (Responses will vary, but may include: buildings, umbrellas, raincoats, skin, etc.)*
- Reaffirm that people create many things to help protect us from water (rain).
- Using a total participation technique, invite responses from the group:
  - *“What is important about a waterproof object or shelter?” (Responses will vary, but may include: No water should get through. Nothing inside should get wet.)*
  - *“How can we make a shelter waterproof?” (Responses will vary, but may include: We can use materials like rubber or plastic that don’t let water through. We don’t make the shelter with any spaces or holes that water can come through.)*
- Reaffirm the importance of using waterproof materials and creating “tightly built” shelters that do not let water in.
- Show students the additional materials of **plastic baggies** and **scissors** available in the Engineer Lab.
- Tell students they may, but do not have to, use these materials in creating their weatherproof shelters. (They also can try to create a waterproof shelter by tightly constructing their materials in a way that does not let water pass.)
- Model for students how they can use the scissors to cut pieces of a plastic baggie in appropriate sizes to add to their shelters.
- Show students the **watering can** and **cotton ball**.
- Tell them this is the way they will test their shelters to see if they are waterproof. The cotton ball must remain dry, even when the outside of the shelter gets wet. This, along with the windproof test, will happen on the Giving and Receiving Feedback Day. This way, students will have time to make any necessary adjustments.
- Invite students to begin working on their weatherproof shelters.

**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 Engineer Lab to bring their shelters to the whole group meeting area.
- Tell students that they are going to help each other make better shelters.
- They will do this by:
  - Hearing about their partner’s shelter. (Example: “I used \_\_\_\_\_ to make my shelter. I got my idea from \_\_\_\_\_.”)
  - Thinking about all the things that make a great weatherproof shelter.
  - Testing their shelters with the hair dryer (or breath) and the watering can (or squirt bottle) and cotton ball to see if they are weatherproof.
  - Telling their partner one *star* (something he or she did really well) and one *step* (something he or she can do to make it even better).
- Review the **Weatherproof Shelter Criteria List anchor chart** that students helped to create on the first day of the Choice and Challenge stage.
- Tell students that their “star” and “step” 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.
- Assist students in setting up their shelters, with a partner, in a space where they can be tested (as windproof and waterproof).
- Quickly visit each student partnership and test the shelters by placing the cotton ball inside and using the hair dryer (or by blowing) and the watering can (or squirt bottle). The goal is to see if the shelter remains intact and the cotton ball remains dry. Students need this information to give appropriate feedback.
- Once the shelters have been tested, invite students back to the whole group area.
- Invite students to turn and face a partner with their shelter 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 or 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 shelter even better?” (Responses will vary.)***
- 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, ‘I like your shelter.’ They named exactly what the engineer did that was good, saying, ‘I like how you used plastic on the top to keep the water out’ and ‘Your shelter works well and looks 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 final product with their name, a title, and various parts of the drawing.
  - Work with a partner to practice presenting his or her 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 in which students, families, or other classes may 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 Targets

- I can show respect for Lab materials and my peers.
- I can collaborate with my Lab group to imagine exciting weather stories.

### 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.

### In advance:

- Prepare the Imagine Lab space by placing building blocks, white boards and dry erase markers, hand or finger puppets, dress-up materials, and other possible materials for students to create a variety of imaginative play scenarios (see materials list). Other possible materials might include modeling clay, common kitchen materials and safe cooking utensils, and felt or magnet boards.

## Materials

### Continued materials:

- ☑ Story dice (one pair to share)
- ☑ 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)

## 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.
  - Create stories about exciting weather events using the **story dice** and other **continued materials** of the Imagine Lab.
- Tell students they will have 20 minutes in the Imagine Lab. Invite them to begin exploring materials and imagining.