

Grade 1: Module 2: 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 Research 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 Research 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 following 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 contribute to an “Our Sky” class picture book?

Imagine Lab

How can I use Imagine Lab materials and my imagination to bring our sky stories to life?

Research Lab

I can collaborate with others to reenact stories about our sky?

Learning Target(s)

Create Lab

I can paint a watercolor of the sky at a specific time of day.

Imagine Lab

I can create stories about our sky.

I can act out original stories about the sky.

Research Lab

I can use facts I have learned to create a Sky Riddle Book.

Ongoing Assessment

Create Lab

Create Lab Checklist (**SL.1.1a, c; SL.1.4; L.1.1b, c, d, f, i, j**)

Imagine Lab

Imagine Lab Checklist (**RL.1.2; RL.1.3; RL.1. 9; SL.1.1a, c; SL.1.4; L.1.1b, c, d, f, i, j**)

Research Lab

Research Lab Checklist (**W.1.8; SL.1.1a, c; SL.1.2; SL.1.4; L.1.1b, c, d, f, i, j; L.1.2a, b; L.1.4a**)

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	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 Extend and Choice and Challenge stages, Storytime can continue be dedicated to reading, rereading, or retelling narratives about the sky but can also be used to expose students to content-connected informational texts that will support them in navigating a different genre or build their understanding of research topics.

In advance:

- Choose a text from your own classroom library or the K–5 Recommended Text List (stand-alone document).
- Consider creating a focus question for Storytime (see example in the Experience section below).
- Review the Labs song.
- Post: Focus question (optional).

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 prompt 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 collaborate, or work together.” “When I read this text, think about how it supports or goes against facts you have already learned in the Research Lab or module lessons.”)
- Read aloud the text for Story time 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, 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.

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 watercolor painting in the Create Lab or the riddle book in the Research Lab.
- Create a system for students to choose which Lab they will visit for the Choice and Challenge stage. Use 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)
- ☑ Labs notebook (one per student)
- ☑ Pencil (one per student)

Experience

- Orient students to the **Labs 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:

“What is your goal for Lab time today?” (Responses will vary, but may include: Today, my goal is to include the buildings in my watercolor painting.)
- Direct students to record one of their goals for the day in their **Labs notebook** using a **pencil**.
- 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

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

40 MINUTES

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).

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)
- ☒ Labs notebook (one per student)
- ☒ Pencils (one per student)

Experience

- Gather students back together whole group by singing the (conclusion of the) **Labs song**.
- Remind students of the **learning target(s)** for their Labs.
- Display the appropriate page of the **Labs notebook** with goal setting and reflecting on learning.
- Invite students to open their Labs notebook as well.
- Invite them to review the goal they recorded at the beginning of Lab time in their notebooks.
- Ask a reflection question and direct students to the sentence starters at top of their Labs notebook page, giving students think time before they respond. This promotes more considerate responses and supports English language learners.
- 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.
- Direct students to use a **pencil** to record one reflection from their Labs experience in their Labs notebook.
- Continue to reinforce specificity in students' responses (e.g., referring back to their goal, referring back to the learning target(s), giving concrete examples, etc.)
- 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 contribute to an “Our Sky” class picture book?

Learning Targets

- I can paint a watercolor of the sky at a specific time of day.
- I can include accurate details, including color and position of the sun, in my sky watercolor.

Teaching Notes

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

- Students continue to use blending, horizon lines, sun position, and details to create watercolor pictures.

What is new about this stage of this Lab:

- Students use all they have learned about creating a watercolor painting to make a final draft painting of the sky and horizon when the sun is at a specified position.
- Students compile all of their drawings to create a combined “Our Sky” class picture book.
- Students use all of the tools in their Artist’s Toolbelt, the Sky Watercolor Criteria List anchor chart, and peer feedback to complete a final drawing.

Habits of character:

- Students are completing their final painting 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.
- Encourage students to choose different times of the day for their watercolors. This way, they can be placed in order and the book will show the changing sky colors with the progression of the day.

Materials

- ☑ Model of a sky painting (from Extend stage; one to display)
- ☑ Photographs of the sky (several to share in the Create Lab)
- ☑ Pencils (one per student)
- ☑ Watercolor paints (one set per student)
- ☑ Paintbrushes (one per student or a cup of paintbrushes to share)
- ☑ Cup of water (one cup per student)
- ☑ Palettes of sky colors (from Practice stage; one per student)

Additional materials:

- ☑ Chart paper (one piece; for the teacher to create the Sky Watercolor Criteria List anchor chart)
- ☑ Sky Watercolor 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 19):

- Students who chose to work in the Research 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 **model of a sky painting**.
- Tell students that they will now use this painting, familiar to them from the Extend stage, and the concepts they added to their Artist's Toolbelts (blending, sun position, and horizon line), to create a criteria list that names all the important parts of a really great sky painting.
- Invite students to Think-Pair-Share with an elbow partner:
 - “*What did the artist of this painting do to make it both beautiful and realistic?*” (The artist blended accurate sky colors, instead of making it all blue. The artist placed the sun in an accurate position. The artist used a horizon line. The artist included many details.)
- As students share out, capture their ideas on chart paper to create the Sky Watercolor 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 photograph of the sky, or one of their early paintings, to create a single, final draft of a sky painting for their final product.
- These paintings will be compiled in an “Our Sky” class book. This book will be displayed in their classroom library or shared with other classes to learn about the changing colors of the sky during different times of day.
- Tell students that they will use all they know about painting to begin.
- Remind students that they continue to have access to materials provided in the Launch, Practice, and Extend stages: **photographs of the sky, pencils, watercolor paints, paintbrushes, cups of water, and palettes of sky colors.**

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 sky paintings to the whole group meeting area.
- Tell students that they will help one another make their paintings even more accurate and beautiful by giving and receiving feedback. They will do this by:
 - Hearing about their partner’s painting. (Example: “I am painting _____.”)
 - Thinking about all the things that make a great watercolor painting of the sky.
 - 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 Sky Watercolor 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.
- Invite students to turn and face an elbow partner with their watercolor painting and label themselves partner A and 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 painting even better?”
- Invite some, or all, students to share their next steps, as time permits.

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 Imagine Lab

Guiding Question

- How can I use Imagine Lab materials and my imagination to bring our sky stories to life?

Learning Targets

- I can create stories about our sky.
- I can act out original stories about the sky.

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 re-create or reenact familiar sky stories.
- Students continue to create their own sky stories and act them out with their Lab group.
- 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 with a variety of imaginative play materials (other possible materials might include modeling clay or felt or magnet boards).

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)
- ☑ Sun prop (one to share in the Imagine Lab)
- ☑ Moon prop (one to share in the Imagine Lab)

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 sky stories from the module lessons or their own original stories about the sky.
- Tell students they will have 20 minutes in the Imagine Lab. Invite them to begin exploring materials and imagining.

**Choice and Challenge Stage: In the Research Lab****Guiding Question**

- How can I use research skills to learn and wonder about our sky?

Learning Target

- I can use facts I have learned to create a Sky Riddle Book.

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

- Students use the facts they have collected in their Labs notebook to make their Sky Riddle Book.

What is new about this stage of this Lab:

- Students no longer collect new facts or generate new questions, unless it is necessary for the completion of their Sky Riddle Book.
- Students use the information they collected in the Research Lab, the Sky Riddle Book Criteria List anchor chart, and peer feedback to complete their Sky Riddle Book.

Habits of character

- Students create a final product during the Choice and Challenge stage. 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 model Sky Riddle Book to help students co-create a criteria list for high-quality work by following these guidelines:

- The book is a (preferably large) sheet of paper folded in half down a vertical line.
- The cover is cut into several horizontal strips (depending on the number of facts being used).
- Each strip has a fact about the sky object being written about (the sun, the moon, the stars, or a planet, etc.).
- As each strip is lifted, a portion of a picture is revealed, showing the reader which sky object is being written about.

Materials

- ☑ Labs notebook (one per student)
- ☑ Pencils (one per student)
- ☑ Scissors (one pair per student)
- ☑ Colored pencils or crayons (one set per student)

Additional materials:

- ☑ Sky Riddle Book: Teacher Model (one to display)
- ☑ Chart paper (one piece; for the teacher to create the Sky Riddle Book Criteria List anchor chart)
- ☑ Sky Riddle Book Criteria List anchor chart (new; co-created with students during Transitioning to the Choice and Challenge Stage)
- ☑ Paper (blank; 11 by 14 inches; several per student to create multiple drafts as necessary)

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 at this time. This will allow for a smaller group discussion specific to the needs of students who chose the Research Lab.
- Give students specific, positive feedback about the wonderful work they have done in the Research Lab! (Example: “Wow! It is amazing how much information you have collected about your sky topic, especially in your expert topic.”)
- Tell students that all of the hard work they have done and all of the information they have collected in their **Labs notebooks** will be put to use in an exciting final product.
- Dramatically reveal and display the **Sky Riddle Book: Teacher Model**.
- Tell students that you need their help solving a very important riddle using the clues on the strips that make the cover of the Sky Riddle Book.
- Read, or invite a volunteer to read, the clue from the first strip. (This clue will vary, based on the sky object chosen for the model. Example: “I am 93 million miles away from the Earth.”)
- Give students a chance to share possible answers to this clue.
- Regardless of students’ accuracy, pull back the first strip.

- Using a total participation technique, invite responses from the group:
“What can you tell from the part of the picture we see so far?” (Responses will vary, but may include: I see space in the background, so it is in space. I see the top of a circle shape, so it could be a star, a moon, or a planet.)
- Continue to ask questions from the strips, give students time to discuss the possible answers, and dramatically reveal new parts of the picture as you go. (These do not need to be done in order and, in fact, it may be fun to reveal parts in a random sequence.)
- Once all of the questions have been asked and answered, the full picture will be revealed.
- Using a total participation technique, invite responses from the group:
“What was the riddle about?” (Responses will vary, based on the sky object chosen.)
- Return to the strips and review them, reflecting on the facts now that the sky object is known.
- Tell students that they will now use this book to create a criteria list that names all the important parts of a really great Sky Riddle Book.
- Invite students to Think-Pair-Share with an elbow partner:
“What did the writer of this book do to make it both interesting and beautiful?” (The writer used a variety of interesting facts. The writer used his or her best handwriting. The writer cut the strips carefully. The writer took time to draw a beautiful picture.)
- As students share out, capture their ideas on **chart paper** to create the **Sky Riddle Book 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 their own Sky Riddle Book, using the **paper** available in the Research Lab, about their expert sky object. (If students are planet experts, they may want to choose a single planet on which to focus their book.)
- Tell students they should use their Lab notebook as a resource for the facts they are going to use.
- 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.

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 Research Lab to bring their Sky Riddle Book to the whole group meeting area.
- Tell them they will help one another make their books even more interesting and beautiful by giving and receiving feedback. They will do this by:
 - Hearing about their partner’s book. (Example: “I am writing about ____.”)
 - Thinking about all the things that make a high-quality product.
 - 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 Sky Riddle Book 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.
- Invite students to turn and face an elbow partner with their Sky Riddle Book and label themselves partner A and 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 book even better?”
- Invite some, or all, students to share their next steps, as time permits.

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:
 - 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
 - Visiting another classroom to interactively share and try out their riddle books.