

Grade 2: 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 the purpose, tasks, and materials of each Lab, as well as Labs 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 Research Lab).
- To provide students with 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 Labs time: transition to Choice and Challenge stage, giving and receiving feedback, preparing to share, and celebrating. (Refer to the In the Labs section below for more detailed information on which days these tasks occur.)

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	<p>Create Lab</p> <p>How can I create a sculpture of my favorite dinosaur?</p> <p>Imagine Lab</p> <p>How can I use Imagine Lab materials and my imagination to bring paleontology stories to life?</p> <p>Research Lab</p> <p>How can I use research skills to learn and wonder about dinosaurs?</p>
Learning Target(s)	<p>Create Lab</p> <p>I can create a final sculpture of my favorite dinosaur. I can add beautiful details to my dinosaur sculpture using small found or recycled objects.</p> <p>Imagine Lab</p> <p>I can create paleontology stories using my imagination and materials of the Imagine Lab. I can collaborate with others to act out paleontology stories.</p> <p>Research Lab</p> <p>I can use information I have learned to create dinosaur trading cards.</p>
Ongoing Assessment	<p>Create Lab</p> <p>Create Lab Checklist (SL.2.1, SL.2.1a, L.2.1d, L.2.4)</p> <p>Imagine Lab</p> <p>Imagine Lab Checklist (RL.2.2, RL.2.3, RL.2.5, SL.2.1, SL.2.2)</p> <p>Research Lab</p> <p>Research Lab Checklist (W.2.5, W.2.7, W.2.8, L.2.4)</p>

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

Teaching Notes

Purpose:

- Review the Storytime Teaching Notes in the Launch stage document, as needed.
- During the Extend and Choice and Challenge stages, Storytime should be used to:
 - Read complex nonfiction texts about dinosaurs to support students in their work in the Research Lab.
 - Continue to read or revisit content-connected narrative texts to support students in their work in the Imagine Lab.
 - Reinforce habits of character, such as responsibility or perseverance, that will support students' work in all Labs.

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 on the following page).
- 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 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.

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:

- Present the different product options available to students: the sculpture in the Create Lab or the trading cards 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 Practice Stage: At-a-Glance for the specific target(s) for each Lab)
- ✓ Labs schedule (one to display)
- ✓ Labs notebook (from Launch stage; one per student)
- ✓ Pencil (one per student)

Experience

- Orient students to the **Labs 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 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 create a sculpture with a lot of details.)
- 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

- 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).

Materials

- ☑ Labs song (one to display)
- ☑ Learning target(s) (one to display for each Lab; see Practice Stage: At-a-Glance for the specific target(s) for each Lab)
- ☑ Labs notebook (from Launch stage; 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 for students the appropriate page of the **Labs notebook** with goal setting and reflecting on learning.
- Invite students to open their Labs notebook to the same page.
- Invite them to review the goal they recorded at the beginning of Lab time in their Labs notebooks.
- Ask a reflection question and direct students to the sentence starters at top of the page, giving students think time before they respond. This promotes more considerate responses and supports English language learners.

“How did you do in reaching your goal today?” (Responses will vary, but may include: I added a lot of detail to my sculpture today.)

“What were you successful at doing?” (Responses will vary, but may include: I found the facts I was looking for about swimmers.)

“What did you find challenging?” (Responses will vary, but may include: One of the books I was using felt a little difficult. I needed a friend to help with some of the words.)

- 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 create a sculpture of my favorite dinosaur?

Learning Targets

- I can create a final sculpture of my favorite dinosaur.
- I can add beautiful details to my dinosaur sculpture using small found or recycled objects.

Teaching Notes

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

- Students continue to use pinching and pulling, texture, and details in their sculptures.

What is new about this stage of this Lab:

- Students use all they have learned about sculpting with clay to make a final sculpture of their favorite dinosaur.
- Students learn that sculptors add both realistic and non-realistic details to their sculptures, using a variety of materials. Students understand that artists often do this to make their sculptures more beautiful as well as to attract the eye of a viewer to specific areas of their sculpture.
- Teacher and students will need to collect a variety of found or recycled materials to add to the dinosaur sculptures. Examples include but are not limited to: buttons, pieces of tile, shells, cardboard, birdseed, colored stones, etc.
- Teacher will need to provide 5 pounds of fresh clay for students to use in creating their final sculptures.
- Students use all of the tools in their Artist's Toolbelt, the Dinosaur Sculpture Criteria List anchor chart, and peer feedback to complete a final sculpture.

Habits of character:

- Students are completing their final sculpture 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 sculpting process. Using peer and teacher feedback, students may add more details or revise specific aspects of their sculpture.

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:

- ☒ Dinosaur sculpture model (from Extend stage; one for teacher modeling)
- ☒ Air-dry clay (new; one container to share)
- ☒ Cup of water (one to share)
- ☒ Skewers (several per student)
- ☒ Toothpicks (several per student)
- ☒ Plastic forks (several to share)
- ☒ Plastic knives (several to share)

Additional materials:

- ☒ Assorted found or recycled materials (variety to share; used by students to add embellishments or details to dinosaur sculptures)
- ☒ Dinosaur Sculpture Criteria List anchor chart (new; co-created with students during Transitioning to the Choice and Challenge Stage)
- ☒ Pictures of dinosaurs (from Launch stage; several to share)

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 **dinosaur sculpture model**.
- Tell students that, to make your sculpture even more beautiful and more appealing to viewers, you will add one more layer of detail.
- Remind students that, until now, they have been adding skills to their Artist's Toolbelt that would help them make their sculptures look as detailed and realistic as possible.
- Tell students that sometimes artists add details for reasons other than to make their sculptures realistic; they add details to make their sculptures more beautiful, or to help their viewers notice important parts of their sculpture.
- Dramatically put on your Artist's Toolbelt, inviting students to do the same.
- Tell students that today, as they prepare for their final sculptures, they are going to add one more important skill: embellishment.
- Hold the imaginary word in your hand, and then add it to an imaginary pocket of your Artist's Toolbelt, again inviting students to follow along.
- Tell students that to *embellish* something is to add details to make it more beautiful or more interesting.
- Show students the box or basket of **assorted found or recycled materials**.
- Tell students that these materials, when used creatively and imaginatively, can add a lot of beautiful detail to their sculpture.
- Begin to hold up various objects from the assorted found or recycled materials. For each object, invite students to turn and talk to an elbow partner:
"How could I use this object to create a new and beautiful detail for my dinosaur sculpture?" (Responses will vary, based on the object chosen, but may include: The seeds could be added as claws or teeth! The tiles could be added as the plates on a stegosaurus's back!)
- As students share, use materials to add a few new embellished details to the dinosaur model.
- Tell students that embellishments are not always realistic. (The plates on a real stegosaurus's back were not colorful!) They are there for beauty and to make the viewer notice that part of the dinosaur.
- Tell students that they will now use this sculpture, familiar to them from the Extend stage, and the concepts they added to their Artist's Toolbelt to create a criteria list that names all the important parts of a really beautiful dinosaur sculpture.
- Invite students to Think-Pair-Share with an elbow partner:
"What did the sculptor do to make it beautiful?" (The sculptor tried to make the shapes of the dinosaur realistic. The sculptor attached the body parts together and blended the clay. The sculptor added details with tools and his or her hands. The sculptor added embellishments to make it even more beautiful.)

- As students share out, capture their responses on the Dinosaur Sculpture 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 **picture of a dinosaur**, or base their work on one of their early sculptures to create a sculpture of a dinosaur for their final product.
- Tell students that they will use all they know about sculpting to begin.

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 dinosaur sculptures to the whole group meeting area.
- Tell students they will help one another make their sculptures even more accurate and beautiful by giving and receiving feedback. They will do this by:
 - Hearing about their partner's sculpture. (Example: "I am sculpting ____.")
 - Thinking about all the things that make a great sculpture.
 - 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 Dinosaur Sculpture 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 sculpture 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 sculpture 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, and labels of its various parts.
 - 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 paleontology stories to life?

Learning Targets

- I can create paleontology stories using my imagination and materials of the Imagine Lab.
- I can collaborate with others to act out paleontology 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 product.
 - 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 Research Labs during the Choice and Challenge stage.
- Students continue to use a variety of imaginative play materials to re-create or reenact familiar paleontology stories.
- Students continue to create their own paleontology 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.
- Students are no longer working in their Lab groups, as all students made an individual choice as to which Choice and Challenge Lab they would take part in.

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

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)

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 paleontology stories from the module lessons or their own original stories about paleontology.
- 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 dinosaurs?

Learning Target

- I can use facts I have learned to create dinosaur trading cards.

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 dinosaur trading card.

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 dinosaur trading card.
- Students use the information they collected in the Research Lab, the Dinosaur Trading Card Criteria List anchor chart, and peer feedback to complete their dinosaur trading card.

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:

- Prepare white cardstock by cutting 8.5- by 11-inch pieces into four equal parts. Make enough for each student to have three or four pieces. This provides enough cards for them to create drafts or multiple cards, given sufficient time.
- Create the Dinosaur Trading Card: Teacher Model by using the following guidelines. Students will use the model as a guide to help co-create the Dinosaur Trading Card Criteria List anchor chart:
 - The card is one-quarter of an 8.5- by 11-inch piece of white cardstock.
 - The front side of the trading card has a detailed drawing of a dinosaur.
 - The back side of the trading card has the “stats” for the dinosaur.

Materials**Continued materials:**

- ✓ Labs notebook (from Launch stage; one per student)

Additional materials:

- ✓ Dinosaur Trading Card: Teacher Model (one to display)
- ✓ Dinosaur Trading Card Criteria List anchor chart (new; co-created with students during Transitioning to the Choice and Challenge Stage)
- ✓ Cardstock (three or four pieces per student)
- ✓ Colored pencils or crayons (class set; variety of colors 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 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 dinosaurs, 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 notebook** will be put to use in an exciting final product.
- Dramatically reveal and display the **Dinosaur Trading Card: Teacher Model**.
- Give students time to examine both sides of the card.
- Consider connecting this card to other popular trading cards the students may have, especially as it relates to ways the trading cards can be used: to trade with other students, to collect, to play games, etc.
- Tell students that they will now use this model trading card to create a criteria list that names all the important parts of a really great dinosaur trading card.

- Pointing to the picture on the Dinosaur Trading Card: Teacher Model, ask:
“What did the artist of this dinosaur trading card include to make this a high-quality trading card?” (The artist colored it neatly to make it look accurate. The artist included all the body parts of the dinosaur. The artist labeled the picture with the name of the dinosaur.)
- Pointing to the text on the back of the Dinosaur Trading Card: Teacher Model, ask:
“What information did the writer of this dinosaur trading card include to make this a high-quality trading card?” (the name of the dinosaur, the size of the dinosaur, the diet of the dinosaur, other interesting facts about the dinosaur)
- As students share out, capture their responses on the **Dinosaur Trading Card 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 dinosaur trading card about the dinosaur they have been researching, using the **cardstock** and **colored pencils** or **crayons** available in the Research Lab (e.g., if the student is a carnivore expert, he or she may want to choose a carnivorous dinosaur on which to focus the trading card).
- Tell students they should use their Labs 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 dinosaur trading card to the whole group meeting area.
- Tell them they will help one another make their dinosaur trading cards even more interesting and beautiful by giving and receiving feedback.
- They will do this by:
 - Hearing about their partner’s trading card. (Example: “I am drawing and 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 Dinosaur Trading Card 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 trading card 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 trading card 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 game day, in which students play games: trading their dinosaur trading cards with one another, playing “go-fish” with dinosaur trading cards, etc.
 - Displaying student work in the school library or local library.
 - Visiting another classroom to interactively share and try out their trading cards.