

**Grade 2:** Module 1: Labs

## 3 – Extend Stage

## Labs: Extend Stage

### Days 11–18

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.

3. The Extend stage serves two purposes:

- To push students' thinking and skills further by adding new materials and introducing greater complexity to each task (e.g., in the Create Lab, students learn how to use shapes to describe facial features).
- To learn and practice habits of character, such as collaboration and perseverance.

#### What stays the same from previous stage(s):

- During the Extend stage, the guiding questions remain the same as in previous stages.
- During the Extend stage, students continue to visit two Labs per day.

#### What is different from previous stage(s):

- The Extend stage begins with two “transition days.” These days—described briefly at the beginning of each In the Lab section—give teachers time with their whole class to introduce new materials, introduce new layers of complexity to the task, model various Lab skills and behaviors, and clear up any confusion before students return to a more independent Lab experience.
- During the Extend stage, the learning targets change to reflect students' work in the Labs.
- During the Extend stage, students are given a greater variety of materials.

The chart below 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 target(s) become more refined and precise from stage to stage.)*



## Extend Stage: At-a-Glance

### Guiding Question

#### Create Lab

How can I create a portrait of a person who is important to our school?

#### Engineer Lab

How can I design an ideal space for my school?

#### Imagine Lab

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

#### Research Lab

How can I use research skills to learn about my classroom community?

### Learning Target

#### Create Lab

I can draw a portrait of my Lab partner.

#### Engineer Lab

I can create a design of an ideal space for my school.

#### Imagine Lab

I can show respect for Lab materials and my peers.

#### Research Lab

I can create a graph to show my learning about my classroom community.

### Ongoing Assessment

#### Create Lab

Create Lab Checklist (**SL.2.1, SL.2.6**)

#### Engineer Lab

Engineer Lab Checklist (**SL.2.1, SL.2.6**)

#### Imagine Lab

Imagine Lab Checklist (**SL.2.1, SL.2.6**)

#### Research Lab

Research Lab Checklist (**SL.2.1, SL.2.6, W.2.8**)

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

## Practice Stage: Daily Schedule

Lab Component	Time
Storytime	10 minutes
Setting Lab Goals	5 minutes
In the Lab	40 minutes
Reflecting on Learning	5 minutes

### Extend Stage: Storytime

10 minutes

#### Teaching Notes

##### Purpose:

- Review the Storytime Teaching Notes in the Launch stage document, as needed.
- During the Extend stage, choose texts that meet the following criteria:
  - Introduce students to various members of a school community
  - Allow students to recognize and celebrate the differences in the way people look: face shape, facial features, skin tones, body types, etc.
  - Introduce different ways of representing data

##### In advance:

- Choose a text from your 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).
- 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 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 collaborate, or work together.”)
- Read aloud the text for Storytime slowly, fluently, and without interruption.

## Extend Stage: Setting Lab Goals

5 MINUTES

## Teaching Notes

## Purpose:

- Students continue to use this time to reinforce executive functioning skills by focusing their attention, making a plan for their time, exhibiting self-regulation, and following instructions. All students, but especially primary learners, need to learn and practice the behaviors associated with executive functioning.
- Students may need additional support remembering the second Lab they will be visiting on any given day. Consider posting the Labs schedule in a clearly visible location and pause to review it before students transition to their second Lab.

## Logistics:

- During the Extend stage, Lab groups visit two Labs for 20 minutes each.

## In advance:

- 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 Extend 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)
- ✓ Clipboard (one per student; optional)

## Experience

- Students continue to follow a similar routine for setting Lab goals as they have in the Launch and Practice stages. They will:
  - Review the **learning target(s)** for each Lab.
  - Review the **Labs schedule** with the teacher.
  - Turn and talk with an elbow partner to identify the first Lab they will visit today.
  - Make a goal using a sentence frame. (Example: “Today I will be visiting the \_\_\_\_ Lab first. When I’m there, I want to \_\_\_\_.”)
  - Repeat this process to identify the second Lab they will visit today.
- Invite students to open their **Labs notebook** to the Goal Setting and Reflecting on Learning pages.
- Remind students of which day of the Labs it is. (For example: Today is Day 3 of Labs.)
- Invite students to use their **pencil** and **clipboard** to record their goal for one (or more) of the Labs they will be visiting today.
- Invite students to put on their imaginary lab coats and goggles to show they are ready for learning and fun!

## Extend Stage: In the Labs

40 MINUTES

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

## Extend Stage: Reflecting on Learning

5 MINUTES

### Teaching Notes

#### Purpose:

- Recall that the reflection 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.
- 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 notebook (from Launch stage; one per student)
- ☒ Pencil (one per student)
- ☒ Clipboard (one per student; optional)

### 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 and invite them to think about the goals they made at the beginning of Lab time.
- Invite students to open their **Labs notebook** to the Goal Setting and Reflecting on Learning page.
- Ask students to quietly read the goal they set during Goal Setting that day.
- Ask a reflection question, giving students think time before they respond. This promotes more considerate responses and supports English language learners. Examples:
  - \* *“Did you meet a goal for today?” (Responses will vary, but may include: I finished my portrait of my partner. I used details and worked hard to match his/her skin tone.)*
  - \* *“How did you work well with a partner in the Labs today? How could you work better with your partner in the Labs tomorrow?” (Responses will vary, but may include: My partner and I asked a lot of survey questions today. We did not agree at first on our research question, but then we decided on something we both like.)*

- \* *“What did you do to care for classroom materials in the Labs today?” (Responses will vary, but may include: In the Imagine Lab, I put away all the blocks before I played with the puppets.)*
- \* *“What is something you want to do better in the Labs tomorrow?” (Responses will vary, but may include: Tomorrow I want to add more details to my drawing.)*
- \* *“What was your favorite part of Labs today? Why?” (Responses will vary, but may include: My favorite part of Labs was imagining an ideal playground for our school.)*

- 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.
- 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 use their **pencil** and **clipboard** to complete the Reflecting on Learning portion of their Lab notebook for that day.
- 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.



## Extend Stage: In the Create Lab

### Guiding Question

- How can I create a portrait of a person who is important to our school?

### Learning Target

*I can draw a portrait of my Lab partner.*

### Teaching Notes

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

- Students continue to draw portraits with a focus on facial features and the number of facial features.

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

- Students move from drawing self-portraits to drawing portraits of a partner.
- Students consider the various shapes, and other details, they can use to describe a face.

#### Logistics:

- On the first day, students work as a whole class to make the transition to the Extend stage of the Labs.
- During the remaining days of the Extend stage, students divide into Lab groups and spend 20 minutes each in two Labs.

### In advance:

- Prepare the Create Lab by placing paper, pencils, outlining tools, and coloring tools in the Lab space.
- Create supportive partnerships for portrait drawing.
- Consider whether the system previously established for storing student work is working and change as necessary.

### Materials

#### Continued materials:

- ✓ What Makes a Face? anchor chart (begun in the Launch stage)
- ✓ Paper (blank; one piece per student)
- ✓ Pencils (one per student or a cup of pencils per workstation)
- ✓ Outlining tools (black crayon, black charcoal, black pastel or black marker; one per student)
- ✓ Coloring tools (watercolors, colored pencils, or crayons; one set per student)

### Experience

#### Transitioning to the Extend Stage (Whole Class):

- Gather students whole group, seating them next to their predetermined portrait partners.
- Give students specific positive feedback regarding their drawing of self-portraits. (Example: “You have all done wonderful work in including all of your facial features and details of your face!”)
- Tell students that during the Extend stage of the Create Lab, they are no longer going to be creating self-portraits. They are now going to be portrait artists drawing the faces of other people.
- Tell students that portraits artists must look closely at the face of the person they are drawing. Just like in their self-portrait they must try to see all the different facial features as well as the number of each feature on a person’s face.
- Using a total participation technique, invite responses from the group:
  - \* **“How do you think it will feel to have another person closely study your face?” (strange, silly, uncomfortable)**
- Affirm that portrait drawing (and having your portrait drawn) can feel like a very strange experience.
- Tell students that, because of this, it is important that everyone is showing kindness and compassion in their words and their drawings. Everyone’s face is unique and different; this is something we should celebrate and be proud of.
- Discuss possible words or phrases that may feel hurtful or judgmental when describing another person’s face. (Examples: strange, weird, or big)
- Discuss with students how to use factual statements when describing a face. (Examples: “Your ears come out from your face, so I should draw them like half circles.” “You have seven freckles on each of your cheeks.” “Your nose moves down at the end, so I can use almost a triangle shape to draw it.”)
- 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 faces even more accurately. This tool is the use of shapes.



- Act out putting on an Artist's Toolbelt with students. Say the word *shapes*, holding it up in your hand like a treasured object, as students do this with you. Add *shapes* into a new pocket of your toolbelt. Invite students to do the same.
- Using a total participation technique, invite responses from the group:
  - \* ***“What do you know about the word shapes?” (Triangles, squares, and circles are all shapes.)***
- Tell students that when they think about shapes in a face, it is different from the shapes they learn about in math. The shapes of a face are not as precise in their lines and angles as the shapes we study in math.
- Tell students that this is what is so important about the shapes on faces. They are not perfect lines or angles, and they are all different on different faces.
- Tell students they can use shapes to describe a face, but they will also use some additional words, such as rounded, sharp, long, short, half-circle, etc.
- Review words with students to build their word bank for describing a face. Consider adding these words to the **What Makes a Face? anchor chart**.
- Ask students to remain seated but turn toward their portrait partners, sitting knee-to-knee.
  - Ask students to identify a partner A and a partner B.
  - Tell students that they are going to use all they know about faces (facial features, numbers of facial features on a face, and shapes of facial features) to describe their partner's face).
  - Model this process with a student volunteer or another teacher, making clear how to use specific, kind language. (Example: “I see two oval eyes, with long eyelashes. I see two eyebrows. They go up a little in the center. I see two ears. They are rounded and close to the side of your head. I see one chin. It is pointed, like a rounded triangle, and has a small dent in the center.”)
  - Invite all partner As to begin describing their partner's face, using specific, kind language.
  - Circulate and listen to students' descriptions. Identify a couple of partners to use as models in a whole group share.
  - After 1 minute, refocus whole group. Ask selected students to share some of their descriptions that used specific, kind language. Give students specific, positive feedback for their sensitivity and specificity. (Example: “I loved hearing students use specific, non-judgmental language to describe their partner's face.”)
  - Repeat this process with all partner Bs.
- Direct students' attention to the workstations around the room and the materials at each workstation. Point out that they still have access to the materials from the Launch and Practice stages: **paper, pencils, outlining tools, and coloring tools**.
- Tell students they will take turns drawing: One student will be the portrait artist (using pencil) while the other student is the model, and then they will switch.
- Remind students of the importance of sitting still while their Lab partner creates their portrait. This will help their partner to look closely at the details of their face.
- After both partners have drawn their portraits in pencil, they can use the outlining tools and coloring tools to work simultaneously to add outlines and color to their portraits.
- Invite students to begin working.

- Circulate and support students as they work.
- At the conclusion of In the Lab time, signal students to clean up their Lab space.
- As Lab groups are ready, transition them back to the whole group area for Reflecting on Learning.



### Extend Stage: In the Engineer Lab

#### Guiding Question

- How can I design an ideal space for my school?

#### Learning Target

*I can create a design of an ideal space for my school.*

#### Teaching Notes

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

- Students continue to use open-wall perspective and straightedges to draw school spaces.

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

- During the Extend stage of the Engineer Lab, students move from drawing a space they see in front of them (their classroom) to designing a space they imagine, or “see” in their mind. This may, or may not, be an actual space that exists in their school. (If the school does not have a playground, for example, students may still choose to create an ideal playground for their school.)
- Students learn the concept of relative scale to help make their designs more realistic.
- Students consider what would make a specific school space “ideal” for students. What would make an ideal library? What would make an ideal playground?

##### Habits of character:

- Students continue to work with goal setting and reflection as they design an ideal space for their school.

##### Logistics:

- On the first day, the teacher will introduce the task, the materials, and the expectations to help students make the transition to the Extend stage of the Labs.
- During the remaining days of the Extend stage, students divide into Lab groups and spend 20 minutes each in two Labs.

##### In advance:

- Prepare the Engineer Lab space by placing paper, pencils, rulers, and colored pencils or crayons in the Lab space.
- Consider providing students with copies of the model drawing to reference as they work.

## Materials

### Continued materials:

- ☑ Paper (blank; several pieces per student)
- ☑ Pencils (one per student or a cup of pencils per workstation)
- ☑ Rulers (one per student or a cup of rulers per workstation)
- ☑ Colored pencils or crayons (one set per student)

### Additional materials:

- ☑ Model drawing of an ideal classroom (new; see Supporting Materials)

## Experience

### Transitioning to the Extend Stage (Whole Class):

- Direct students' attention to the learning target and read it aloud:
  - ***“I can create a design of an ideal space for my school.”***
- Using a total participation technique, invite responses from the group:
  - \* ***“What does the word ideal mean to you?” (perfect, excellent, imagined)***
- Explain that the word *ideal* usually implies something imagined. It is the designer showing the perfect version of something.
- Explain that the biggest difference between the Practice stage and Extend stage for the Engineer Lab is that students are no longer drawing an actual space within their school. Instead, they will now envision an *ideal* space within their school: an *ideal* classroom, an *ideal* library, an *ideal* playground, etc.
- Invite students to turn and talk with an elbow partner:
  - \* ***“If you were creating an ideal classroom, a classroom of your dreams, what would you include?” (Responses will vary, but may include: I would include a pet center. I would include telescopes. I would include a slide that takes us straight to the playground.)***
- Display the **model drawing of an ideal classroom**.
- Tell students that this is another engineer's design for an ideal classroom.
- Using a total participation technique, invite responses from the group:
  - \* ***“What did this engineer include in her design of an ideal classroom?”***
- Invite students to turn and talk with an elbow partner:
  - \* ***“What did this engineer do to make her design high-quality work?” (included many details, used a straightedge)***
- 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 to accurately draw objects in relation to one another according to size. This tool is the use of scale.
- Act out putting on an Artist's Toolbelt with students. Say the word *scale*, holding it up in your hand like a treasured object, as students do this with you. Add *scale* into a new pocket of your toolbelt. Invite students to do the same.
- Model adding a detail to the model drawing using scale:

- Tell students that you would like to add a student to the model drawing of an ideal classroom as an added detail, and you are going to place that student near the door of the classroom.
- Lightly sketch a person near the door of the classroom, making the student in the drawing nearly as tall as the door.
- Invite students to turn and talk with an elbow partner:
- \* *“What do you notice about my drawing? Is there anything you would change?” (The student is too big.)*
- Invite a volunteer student to stand next to the door of your classroom.
- Using a total participation technique, invite responses from the group:
- \* *“How would you describe the height of the student in comparison to the height of the door?” (The student is much shorter than the door; the door is the height of two students stacked on top of each other.)*
- Erase the first sketch of the student.
- Think aloud: “I notice that the student stands a little less than halfway of the height of the door. So, I am going to find the halfway point on the door in my drawing, go down a little a bit and make a mark. That is where I am going to make the top of my student’s head.”
- Model drawing the student again, this time to a more appropriate scale in relationship to the door.
- Using a total participation technique, invite responses from the group:
- \* *“How does my second attempt look in comparison to my first?” (better, more realistic)*
- Tell students that engineers use scale in all of their drawings. They compare the sizes of objects in their drawing to help them make their designs more realistic.
- Consider comparing multiple objects in the room to one another, as needed, to help students understand this concept.
- Remind students that they are not limited to the classroom as they consider their own ideal school space. They may think of other school spaces in which they spend time and create their ideal version of that space.
- Remind students of the materials they have in the Engineer Lab to help them create high-quality designs: **paper, pencils, rulers, and colored pencils or crayons.**
- As time allows, invite students to move with their Lab groups to a workstation and begin working on their designs.
- Remind students that they will have more time to work on their designs during the remaining days of the Extend stage in the Engineer Lab.
- Circulate and support students as they work on their designs.
- As Lab groups are ready, transition them back to the whole group area for Reflecting on Learning.
- As students arrive to the whole group, invite them to congratulate or compliment as many of their peers as they can for 15 to 30 seconds before being seated. Model an example as necessary: “Great job in Labs today!” “Way to go!” “I’m proud of you!”



## Extend 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):

- Students continue to use a variety of imaginative play materials to create their own imaginative play scenarios.
- Students continue to show respect for materials and one another.

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

- Readers Theater scripts from the module lessons are added as an additional material to the Imagine Lab. During the module lessons, students work with this material for a limited time and encounter only one script. In the Imagine Lab, students can return to this script to continue to build reading fluency through repeated readings, as well as by interacting with both academic and domain-specific vocabulary.
- In the “Transition to Extend Stage” lesson, students consider multiple ways they can bring these scripts to life through the use of Imagine Lab materials.
- Students are encouraged to use the Imagine Lab as space to reenact or incorporate characters and ideas they have encountered in the module lesson texts.

#### Logistics:

- Because students now have access to all Imagine Lab materials, it is important that they set a clear goal for how they want to spend their time in the Lab.
- On the first day of the Extend stage, students work as a whole class to make the transition to this stage of the Labs. (However, students do have some time with their Lab group to begin discussing their work with Readers Theater scripts in the Imagine Lab.)
- During the remaining days of the Extend stage, students divide into Lab groups and spend 20 minutes each in two Labs.

#### In advance:

- Consider different ways in which students may have an audience to show their work with Readers Theater scripts in the Imagine Lab. Adding the element of an audience creates greater authenticity in students’ learning and a greater sense of accountability in how they spend their time in this 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

### Additional materials:

- ✓ Readers Theater scripts (several of each script; from Unit 2, Lessons 8-9)
- ✓ Readers Theater in the Imagine Lab anchor chart (new; teacher-created; see supporting materials)

## Experience

### Transitioning to the Extend Stage (Whole Class):

- Give students specific positive feedback for behaviors you have noticed in the Imagine Lab during previous stages. (Example: “I have seen students sharing materials with one another, I have heard very kind and respectful words like ‘please’ and ‘thank you,’ and I have noticed students inviting each other to play when someone needs a partner.”)
- Reinforce behaviors involving habits of character, especially respect for materials and peers.
- Tell students that the Imagine Lab is a place for them to use their powers of imagination, engaging in fun, creative play with one another.
- Tell them that the Imagine Lab is also a place they can act out or recreate some of their favorite characters or scenes from the books they have been reading in the module lessons.
- Invite students to share some of their favorite characters and parts of stories that you have read together during the module lessons. Using a total participation technique, invite responses from the group:
  - \* *“How could we invite some of our favorite characters into the Imagine Lab with us?” (Responses will vary, but may include: using puppets to recreate scenes, using blocks to create favorite settings, using dress-up clothes to become characters.)*
- Show students that the Imagine Lab now includes the **Readers Theater scripts** from their module lessons. Remind students that they had limited time to work with their Readers Theater scripts and encountered only a single script.
- Give students specific, positive feedback about their work with readers theater during the module lessons. (Example: “You gained great fluency in reading these scripts during the module lessons, including the expression you used in your reading.”)
- In the Imagine Lab, they will return to these scripts (either the script they already practiced or a new one). They will use their imaginations and the tools of the Imagine Lab to create a mini production of one Readers Theater script. They will then perform their production in front of a live audience.



- Using a total participation technique, invite responses from the group:
  - \* ***“How could you use the materials of the Imagine Lab to bring these scripts to life?” (Responses will vary, but may include: We could dress up as the characters while we act out the scripts. We could build a small set out of blocks and use puppets to act out the scripts.)***
- Tell students that creating a mini production of a Readers Theater script takes a high level of collaboration. Students will be working with their Lab groups to do this.
- Invite students to turn and talk to an elbow partner:
  - \* ***“What decisions will Lab groups need to make as a team?” (They will need to choose a script, decide who reads which part, and decide how to use the Imagine Lab materials.)***
- Remind students that each member of the Lab group should have an equal voice as they make these decisions.
- Direct students’ attention to the **Readers Theater in the Imagine Lab anchor chart**.
- Tell students they have the next 10 minutes to discuss the following questions with their Lab groups. They will share what they discussed during Reflecting on Learning time:
  1. Which script will your Lab group produce?
  2. How will you use the materials of the Imagine Lab to bring the script to life?
  3. Who will read which part of the script?
  4. What will be your next steps when your group returns to the Imagine Lab?
- Invite students to break into their Lab groups, assigning each group an area of the classroom to work.
- Distribute one copy of each Readers Theater script to each Lab group.
- Circulate to support Lab groups in their discussions, specifically in the area of equity in student voice and creativity in the use of Imagine Lab materials.
- At the conclusion of In the Lab time, signal students to clean up their Lab space.
- As Lab groups are ready, transition them back to the whole group area for Reflecting on Learning.



### Extend Stage: In the Research Lab

#### Guiding Question

- How can I use research skills to learn about my classroom community?

#### Learning Target

*I can create a graph to show my learning about my classroom community.*

#### Teaching Notes

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

- If needed, students continue to complete surveys of their classroom community.
- Students continue to work with data they collected through a class survey.
- Students continue to learn about their classroom community by doing original research.

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

- Students learn to display the data they collected visually in the form of a bar graph.

### Logistics:

- On the first day of the Extend stage, students gather whole class to share some of their findings in their survey process. They are also introduced to new materials and a next task.
- During the remaining days of the Extend stage, students complete large bar graphs to display in the classroom. If they complete their bar graph and still have time, they can create a second large graph or collect survey data about a new research question.

### In advance:

- Prepare:
  - Bar Graph anchor chart, using a half-sheet of chart paper to represent the data on the class survey question. (Example: What kind of pet do you have at home?) Include the labels typically found on a bar graph: the title of the graph, the title of the x-axis, the title of the y-axis, the categories, and the scale.
  - Research workstation, by placing pencils, chart paper, and markers in the Lab space.
- Consider:
  - Posting sentence frames to help students discuss their data. (Examples: “Most students in our class \_\_\_\_.” “Some students in our class \_\_\_\_.” “The least number of students in our class \_\_\_\_.” “No students in our class \_\_\_\_.”)
  - Preparing student chart papers with the x- and y-axis already in place, as well as blank lines for the title of the graph, the title of the x-axis, the title of the y-axis, the categories, and the scale.
  - How student graphs might be displayed (either inside or outside the classroom) to help students get to know each other or for students of other classes to get to know your classroom community.

## Materials

### Continued materials:

- ✓ Labs notebook (from Launch Stage; one per student and one to display)
- ✓ Clipboard (one per pair)
- ✓ Pencils (one per pair)

### Additional materials:

- ✓ Bar Graph anchor chart (new; teacher-created; see Teaching Notes)
- ✓ Chart paper (one half-sheet per pair)
- ✓ Markers (one set per pair)



## Experience

### Transitioning to the Extend Stage (Whole Class):

- Invite students to bring their **Labs notebook**, **pencil**, and **clipboard** and join you in the whole group area.
- Give students specific positive feedback for behaviors you have noticed in the Research Lab during previous stages. (Example: “I have seen students staying focused on their task; I have heard very kind and respectful words like ‘please’ and ‘thank you.’”)
- Tell students that during the Extend stage, they will be able to share the data they have collected about their classroom community.
- Tell students they will first verbally share the results of their survey with another pair of researchers. When they share, they should use some specific words and phrases that will help them communicate their data. Post sentence starters and review with students:
  - “Most students in our class \_\_\_\_.”
  - “Some students in our class \_\_\_\_.”
  - “The least number of students in our class \_\_\_\_.”
  - “No students in our class \_\_\_\_.”
- Direct students’ attention to the **Bar Graph anchor chart** and model sharing data using this specific language. (Examples: “Most students have a dog. Some students have a cat. The fewest number of students have no pets.”)
- Invite research partnerships to pair up with another research partnership to form groups of four and to label themselves pair A and pair B.
- Invite pair Bs to begin sharing their survey data.
- After 2 minutes, refocus whole group and invite pair As to begin sharing their survey data.
- Circulate and listen in on student conversations, identifying one or two research partnerships to share with the whole group.
- Refocus students whole group. Invite one or two partnerships to share their survey data.
- Tell students that they have just shared their data verbally, and now they are going to learn how to share it visually by making a bar graph.
- Refer to the Bar Graph anchor chart as a model for what students will be making.
- Point out the various parts of the Bar Graph anchor chart: the title of the graph (The Pets We Have), the title of the x-axis (Type of Pet), the title of the y-axis (number of students), the names of the categories (dog, cat, fish, no pet), and a scale.
- Display the data collection sheet and model how to transfer data from the Data Collection Sheet to the bar graph. (This should be fairly direct, as students created a visual similar to a bar graph when filling-in the names of students on the grid.)
- Given time, and on other extend days, invite students to transition to workstations and begin working.

- Circulate and support students as they work.
- If students finish one graph, invite them to create a graph for another survey question they collected data about.
- Two minutes before the end of “In the Lab” time, signal students to clean up their workstations.
- As students are ready, transition them back to the whole group area for Reflecting on Learning.