

# 7

## Project-Based Learning Unit Samplers

**Lizzie:** What might you say to a teacher that may be considering planning and teaching their very first problem-based learning (PBL) unit?

**Nancie:** I would say that it might seem a little intimidating at first, but well worth the time and effort it takes to implement a PBL unit. Observing the light bulbs that go off in your students' heads and the learning and knowledge that they get from this way of teaching is amazing and wonderful! Observing the students interacting and talking with each other about the unit topic is fantastic.

**Lisette:** It's organic, there's not a formula for PBL! This is the teacher's opportunity to be creative too! You have to let go and let the kids guide!

**Jenny:** I love that Lisette, yes, you must let go. It's really cool to hear the students' engagement in the project topics. They love it! Their conversations about learning even carry out to the playground and carpool.

**Lillian:** The children will love it and be very enthusiastic about learning! I love that in project-based learning a particular topic is studied over time and that the children's prior knowledge and questions are part of the process. I definitely feel this keeps the children interested in learning a particular topic. I also love that the children have choices about how

they are going to learn the topic, because this keeps them motivated, and free to be creative.

In the previous six chapters of this book, we've carefully considered ideas for bringing project-based learning into your learning space. Project-based learning is truly a celebration of wonder and discovery each day for our little learners. As you continue to consider and ponder the learning in the previous chapters, use this chapter as a guide to get started. In this chapter, you'll find two PBL full unit samples. Each unit will offer a day-by-day plan for the three phases of project-based learning, as well as sample pictures and ideas to help you get started. You might consider teaching one or both units, so you can get a feel for what an entire unit looks like, before jumping in to plan your own unit. You'll notice that there will be some similarities and differences in both units. This is to show you that no two units are exactly alike or include all of the same ideas. You may consider using both units in their entirety, before you begin planning your own project unit, or incorporate some of the ideas from these units into your current curriculum.

### **Unit One: Birds**

Project Based Learning Unit Sampler 1

Project Topic – Birds

Timeline: 15 days

**Overview:** In the project-based unit on birds, students will investigate and discover the many types of birds and their special traits. Throughout the three phases of this project, students will discover more about many different birds, their habitats, their diet, their special features, and their role on the earth. This unit is fun and filled with many opportunities for creative expression as well as deep thinking. Also included in this unit are real photographs from an early childhood classroom where this unit was taught.

**Driving Question:** What makes birds special?

Picture books to support all three phases throughout unit:

- ◆ *The Beak Book* by Robin Page (2021)
- ◆ *Beaks!* by Sneed Collard (2002)
- ◆ *Birds Make Nests* by Michael Garland (2019)

- ◆ *Nesting* by Henry Cole (2020)
- ◆ *Peep Inside a Bird's Nest* by Anna Milbourne (2022)
- ◆ *Mama Build a Little Nest* by Jennifer Ward (2014)
- ◆ *Birds in my Backyard* by Lisa Donovan (2021)
- ◆ *All the Birds in the World* by David Opie (2020)
- ◆ *Big Book of Birds* by Yuval Zommer (2019)
- ◆ *Penguins* by Anne Schreiber (2009)
- ◆ *Bird Nests and Eggs* by Mel Boring (1998)
- ◆ *Feathers Not Just for Flying* by Melissa Stewart (2022)
- ◆ *Hooray for Birds* by Lucy Cousins (2018)
- ◆ *Bring on the Birds* by Susan Stockdale (2013)
- ◆ *A Nest Full of Eggs* by Priscilla Belz Jenkins (2015)
- ◆ *National Geographic Little Kids First Big Book of Birds* by Catherine Hughes (2016)

## Phase One – An Immersion into Learning More about Birds

The planned duration for Phase One (the immersion phase) is four days. In these four days, students will be introduced to many types of birds through real photographs, books, and planned conversations. During Phase One, the teacher will begin observing and documenting the learning of each child as they progress through the unit.

**TABLE 7.1**

Layout of Phase One in bird unit.

|           |       |                   |
|-----------|-------|-------------------|
| Phase One | Day 1 | 5 Discovery Steps |
|           | Day 2 | 5 Discovery Steps |
|           | Day 3 | 4 Discovery Steps |
|           | Day 4 | 4 Discovery Steps |

The documentation log from Chapter 6 is a great place to begin.

### Phase One Materials:

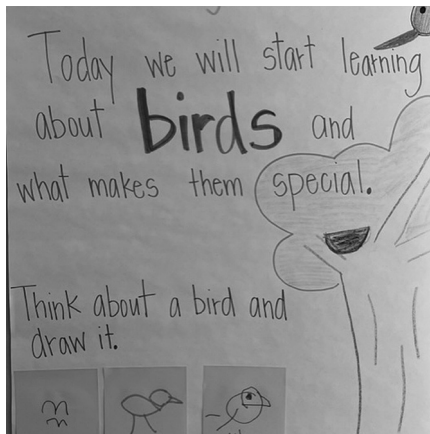
- ◆ Collection of picture books about birds on display in the room
- ◆ Real photographs of a variety of bird types, printed and laminated in various sizes
- ◆ Chart paper
- ◆ Bird artifacts: bird houses, model of fake bird's nest, stuffed animals or figurines of birds, bird seed, etc.

- ◆ Selected spot for focus wall
- ◆ Topic (Birds) labeled at the top of focus wall
- ◆ Magnifying glasses

## Phase One – Day One

**Prepping for the day:** Before students enter the room on day one, you'll want to have the beginnings of your focus wall set up and in place. This includes a title, "Birds," photographs hanging around the wall, and the project message. If your wall is low, the project message can hang right on the board, if your board placement is up higher, the project message will need to be either on an easel or an area where students have the ability to write as well.

**Discovery Step #1:** The first project message of the unit will be the opening to today's learning. You'll want to have parts of the message prewritten on chart paper, before the students enter the room that day and the children will help with fill in the remainder of the wording during the conversation. This is a perfect time to bring your own creativity to light. Feel free to add in visuals to your project message as often as possible. Make it colorful and inviting to student learning. As you prepare to read and converse together about the project message, you'll want to gather students together in a central meeting area, where they can turn and talk with a



**FIGURE 7.1** Sample project message written on chart paper.



partner. Turn and talks will be a daily instructional strategy we'll incorporate into many of our learning opportunities.

**Project Message Idea:**

Good Morning Discoverers,  
Today we will start learning about birds and what makes them special!  
Think about a bird and draw it.

Gather students together and read the project message aloud. You'll notice many of them try to read right along with you! You may consider using a pointer as you track the words and read aloud. On the bottom portion of the message, where it invites learners to draw or tell about a bird, you may consider three ways to accomplish this task.

1. Give each child a sticky note and ask them to draw their bird on the sticky note. Then as they come up to add their drawing, they can share more about what they drew.
2. Invite a few students up at a time to draw their birds directly on the chart paper.
3. Let students help you construct the ideas to write.

**Discovery Step #2:** After all students have added their bird drawing to the project message, ask students to turn to their talking partner on the carpet or meeting space. Ask them to share a time that when they have seen a bird and what they noticed about it.

**Discovery Step #3:** Read a selected non-fiction book about birds. You'll want to choose something that gives an overall glimpse of birds. It might include information that tells more about all birds, instead of focusing on one specific bird. As you read, stop and invite students to share ideas and converse together.

**Discovery Step #4:** A gallery walk of bird pictures. Hang up various bird photographs around the room and invite students to walk with their partner around the room visiting each bird photograph and stopping to chat about what they

notice. You might consider playing classical or low music as they walk and share. While students are conversing during the gallery walk, you can listen in on conversations and begin documenting their ideas and wonders.

**Discovery Step #5:** Bringing day one to a close – After the gallery walk has been finished, gather students once more in the central meeting space. Invite them to share ideas from the photographs they visited. What did they notice? What was interesting about the photograph? What are they still wondering? You might even bring some of the photographs from around the room to the center of the conversation circle, so students can reference them as they share ideas.

As the first lesson of the birds project comes to a close, you'll want to move the bird pictures to the focus wall and hang the first of many project messages near the focus wall. Also consider writing down some of the ideas students share about the bird pictures from their gallery walk on sentence strips or blank sheets of paper. Then, hang their observations next to the bird pictures on the focus wall.

## Phase One – Day Two

**Prepping for the day:** In today's project-based learning lesson, students will continue to develop their knowledge of birds and begin to clear up any misconceptions. Today we'll continue adding to the focus wall, share bird knowledge on a circle map, and participate in conversations about birds with friends. Before the lesson, you'll want to have a circle map drawn on chart paper with birds written in the middle. You'll also want to have a pretty amazing bird story to share with students.

**Discovery Step 1:** Gather students together in the central meeting space in your classroom/learning space. Read a selected non-fiction book on birds. This book can focus on a specific type of bird or all birds in general. As you read aloud to your students, stop throughout the text to model your thinking about birds.

For example: Teacher pauses from book, looks up at his/her students, and models thinking aloud,

I see that this bird has a curved beak and the text said it eats nuts and fruit, but the bird on the other page had a long straw like beak for sipping nectar. I'm realizing that all birds don't have the same beak.

I wonder what you're realizing as we read to find out more.

**Discovery Step 2:** Invite students to share ideas about what they know or are learning about birds. You'll record their ideas on the circle map. You may consider inviting a few students up to the circle map to draw what they've shared on the circle map. This map can be continuously added to as students discover more about birds through the unit.



**FIGURE 7.2** Sample focus wall featuring photographs, charts, and student work samples.

**Discovery Step 3:** Dramatic Play with Birds – After growing their content knowledge and chatting more about the ideas presented in the book, invited students to consider movements of birds. As students consider and discuss bird movements, encourage them to move around the room acting like a bird.

Bird Movements to Consider: flying, standing on one leg (flamingo), pecking a hole in a tree (woodpecker), perching on a branch, sipping nectar from a flower (hummingbird), flying in a V shape.

**Discovery Step 4:** In the share part of today's lesson, it's important to get students talking about their learning. Bring them back to the central meeting space and tell a special story about a time you saw a bird and what it was doing.

Sample Story: One summer afternoon, I was taking a walk to the park in our neighborhood. As I entered the park, I saw a green bench and sat down. I was looking around at all the beautiful trees and saw a bird flying in and out of the tree. After it flew back into the tree the fourth time, I noticed it had something in its mouth. I kept watching it to find out what it was carrying. I realized it was sticks from the ground of the park. This little bird was making a nest in the tree in the park. He was working so hard carrying each stick in his beak back to the nest in the tree.

Invite students to think about a time they saw a bird, be sure to give a few minutes of wait time for their thinking. Then ask students to turn to a partner and share their story. Our goal is to hear a variety of stories about where birds live and their interactions in their habitats.

**Discovery Step 5:** In the final piece of today's learning, students will spend time reading and looking through a variety of books on birds. They can be fiction and non-fiction books on a wide variety of bird types or general bird information. Consider inviting student buddy pairs to choose a bird book from the book display area and read together to find out more about birds.

## Phase One – Day Three

**Prepping for the day:** In the third day of the unit, students will continue to develop their knowledge of birds through a closer glimpse into some of their habits and behaviors. Today's learning will incorporate a math graph, as well as a drawing to collect their prior knowledge and assess their

understanding of bird habitats. Before the lesson, you'll want to have the project message written, bird chart template created on large chart paper, a non-fiction bird book selected to read, and plain paper for drawing.

**Discovery Step 1:** Gather students together and begin reading the project message aloud to students. Remember to use a pointer as you track the words aloud with your students. Invite them to read along with you, they love this!

**Project Message Idea:**

Good Morning Feathered Friends,  
 Yesterday, we used our arms as wings to pretend to fly like birds. What did you notice about flying?  
 Can all birds fly?

---

Yes

No

---

After students have considered their answer to this question, invite them up to write their name under the "Yes" or "No" columns. After all students have answered "shared the pen" by placing their name on the chart, begin conversation about the data on the chart with questions to the learners.

How many friends think all birds can fly?

How many friends think some birds cannot fly?

If you answered "No," why did you choose this? What birds do you know that cannot fly?

Add their data discoveries to the chart as they converse.

Hang the chart near the focus wall after the discussion.

**Discovery Step Two:** Read a non-fiction book about birds aloud to the students. As you read aloud, stop throughout the book and notice and wonder ideas. You might consider modeling what it looks like to notice and wonder while reading. If you happen to come across any new bird vocabulary words, now is the perfect time to begin adding student-friendly definitions to the focus wall. Remember, the teacher writes the word if the child cannot, and the students draw

out their definition. After one student has drawn the kid-friendly definition, the vocabulary card is added to the focus wall. As words come up through the unit, definitions are continually being added to the focus wall.

**Discovery Step Three:** Send students back to their workspace or table. Pass out plain paper and ask them to think about a specific bird and its habitat. Invite them to draw the bird in its habitat on the plain paper, using crayons, markers or colored pencils. As students draw, you'll want to walk around conversing with them about their drawing and documenting their understanding in your observation binder. This is an important step, because it's a window into their understanding of birds. We learn about students and their knowledge of birds in their habitats.

**Discovery Step Four:** After all drawings are complete, place students in groups of three or four. Encourage them to share more about their drawing and their details of the bird they included its habitat. As groups listen to students sharing, invite them to ask questions to the speaker about their drawings, offer suggestions to add to the picture, or share ideas about changing wrong information. For our little learners this sharing step may seem overwhelming, but the more we incorporate this into our teaching and learning environment, the more comfortable our students are about sharing, asking questions, and offering guidance. This is an important step in releasing responsibility to our young learners as we encourage them in speaking and listening. In a final question to the entire class, revisit the unit's focus question, "What makes birds special?," and listen in on their remarks. You might consider writing some of these ideas down and placing them near the question on the focus board. You'll see that each day, you add a little more information and student interaction the to focus board.

## Phase One – Day Four

**Prepping for the day:** Day four is the last day in Phase One; tomorrow, the unit will move into Phase Two. Today, we'll give students the opportunity wonder and ask questions,

observe bird artifacts and other hands on bird figurines. In preparation for today's learning, create a bird wonders chart, select a non-fiction book about birds, gather bird artifacts.

**Discovery Step One:** Gather students together in a circle in the central meeting space. Focus their attention to the wonders chart. Say,

We've been discovering so much about birds over the last three days. When we learn about things, it's important to ask questions and then research to find out the answers to our questions. "What do you wonder about birds?" "What would you like to find out more about?"

Then have them turn and share a wonder with their buddy. You'll want to listen in on their wonders and shared conversations. After students share their wonders, record their questions on the wonder chart. Their wonders will be referred to often throughout the remainder of the unit. As the whole class, groups of students or individuals find answers in their research during Phase Two, you'll write or draw the answers and add them to the focus board.



**FIGURE 7.3** Teacher listening in on student conversations during a buddy share.

**Discovery Step Two:** Read a non-fiction book about birds aloud to the students. Continue to notice and wonder as you read. Also, continuously look for opportunities to add to the vocabulary wall.

**Discovery Step Three:** In the final parts of Phase One, we'll present students with the opportunity to observe bird artifacts. You might consider putting the artifacts in the center of the circle or spread them out across tables for students to view and discuss. Invite students to observe and explore artifacts with classmates. They should be noticing and sharing with their friends around the table. Student conversations can be supported with conversational stems.

Conversational Stems: I see \_\_\_\_\_.  
 I wonder \_\_\_\_\_.  
 I think \_\_\_\_\_.

**Discovery Step Four:** Allow students to share their observations about the bird artifacts. Place the bird artifacts near the focus wall on a small table or at the top of a bookshelf for the duration of the unit. Students will revisit these artifacts in the next few days.

## Phase Two – Discovery, Inquiry and Innovation

The planned duration for Phase Two (the inquiry phase) is eight days, beginning with day 5 of the unit and lasting until day 12. These eight days will be packed with inquiry, discovery, investigations, stations, and project creations. Students will discover more about birds through field site visits, virtual field trips, class investigations, inquiry station visits, and ending with their project creations. During Phase Two, the teacher will provide discovery opportunities, observe learners and document the learning and support learners in creating a model to share their expert knowledge on birds.



**TABLE 7.2**

Layout planning for Phase Two of bird unit

|              |        |                                      |
|--------------|--------|--------------------------------------|
| Phase<br>Two | Day 5  | 5 Discovery Steps + Inquiry Stations |
|              | Day 6  | 6 Discovery Steps + Inquiry Stations |
|              | Day 7  | 5 Discovery Steps + Inquiry Stations |
|              | Day 8  | 4 Discovery Steps + Inquiry Stations |
|              | Day 9  | 5 Discovery Steps + Inquiry Stations |
|              | Day 10 | 4 Discovery Steps + Inquiry Stations |
|              | Day 11 | 4 Discovery Steps                    |
|              | Day 12 | 3 Discovery Steps                    |

**Phase Two Suggested Materials:**

- ◆ Collection of non-fiction books on birds displayed in the room
- ◆ Real photographs of a variety of bird types, printed and laminated in various sizes
- ◆ Chart paper
- ◆ Bird artifacts: bird houses, model of fake bird's nest, stuffed animals or figurines of birds, bird seed, etc.
- ◆ Clipboards
- ◆ Binoculars
- ◆ Brown paper, large cardboard box, sticks
- ◆ Possible beak examples: straws, serving tongs, scoop, etc.
- ◆ Field guide – recording sheets for three days of bird observations
- ◆ Large brown shopping bags (one per child)
- ◆ Linking cubes for measuring
- ◆ Art supplies – crayons, markers, colored pencils, paint, etc.

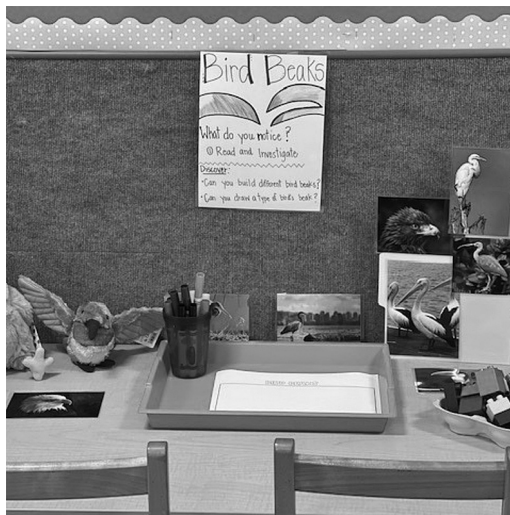
Note – additional materials are needed for inquiry stations and the culminating project. Those materials are listed in the correlating pages following.

**Inquiry Stations**

At the end of days 5–10, students begin rotating through the six stations at the end of the daily lesson. Learners will visit one station a day, cycling through all six across the next six days. In order to prepare and prep the inquiry stations, you'll need

to gather materials for each station, set them up in various locations around the room, and leave them up for the duration of the next six days. Each station will contain its own materials, driving question or wonder and activity. Consider looking at your class list and making a rotation schedule with groups of four or five students moving to each station daily. You'll want to keep track of who visited which stations throughout the unit.

### Station One: Bird Beaks



**FIGURE 7.4** Inquiry station – Discovering more about bird beaks!

#### Bird Beak Station Materials:

- ◆ Linking blocks
- ◆ Straws, scoops, spoons
- ◆ Figurines of birds
- ◆ Markers, crayons, colored pencils
- ◆ Station guide
- ◆ Bird beak observation and recording page
- ◆ Photographs of different bird beaks
- ◆ Picture books on bird beaks:
  - The Beak Book* by Robin Page (2021)
  - Beaks!* by Sneed Collard (2002)

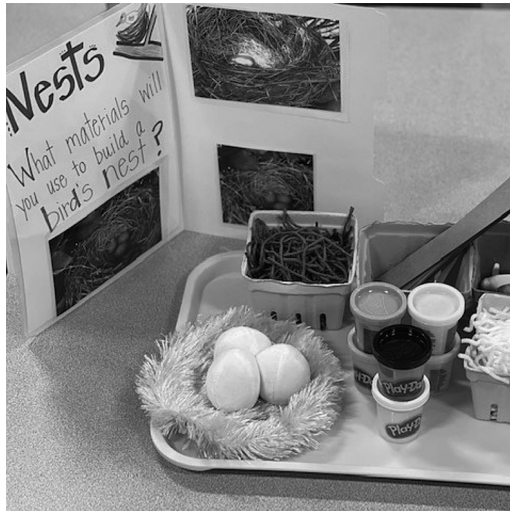
**Inquiry Station Set Up:** Choose a location in the classroom to set up this station. Set out bird photographs, building materials, recording sheet, magnifying glasses, figurines, markers, etc. Also create a station guide that explains to students what they will be discovering in that station.

Suggestions for Station Guide:

1. What do you notice about bird beaks?
2. Can you build different bird beaks?
3. Can you draw different bird beaks?

**Inquiry Station Experience:** We want our little learners to truly have an up-close look into why birds' beaks are different. We want them to notice their shapes, sizes, colors and, ultimately, their purposes. When students visit the bird beak station, they should begin with looking carefully at the photographs of bird beaks and reading about them by looking at the different beaks in books. Then, learners will use the given materials to build and create different beaks. Finally, they will draw the different beaks on their recording page. These pages can be hung around the room or near focus wall.

## Station Two: Nest Building



**FIGURE 7.5** Inquiry station – Observing and building a bird's nest.

### Nest Building Station Materials:

- ◆ Yarn in various colors
- ◆ Twigs and sticks
- ◆ Brown construction paper
- ◆ Modeling dough
- ◆ Fine motor tweezers
- ◆ Station guide
- ◆ Small paper plates
- ◆ Photographs of bird nests
- ◆ Popsicle sticks
- ◆ Picture books on nests:
  - Birds Make Nests* by Michael Garland (2019)
  - Nesting* by Henry Cole (2020)
  - Peep Inside a Bird's Nest* by Anna Milbourne (2022)
  - Mama Build a Little Nest* by Jennifer Ward (2014)

**Inquiry Station Set Up:** Choose a location in the classroom to set up this station. Set out bird nest photographs, yarn, sticks, paper plates, and modeling dough. Also create a station guide that explains to students what they will be discovering in that station.

Suggestions for Station Guide:

1. What do you notice about a bird's nest?
2. What materials will you use to build a nest?

**Inquiry Station Experience:** In this station we're providing the opportunity for our learners to internalize what it's like for a bird to build a nest with its beak and feet. We want them to notice the shape and structure of different nests. When students visit the bird nest station, they should begin with looking carefully at the photographs of bird nests and reading about them. Learners will use the given materials to build a bird's nest just like a bird. They will use the fine motor tweezers to pick up their materials and create the nest on the paper plate. They can use the modeling clay to create eggs in the nest.



**FIGURE 7.6** Inquiry station product – A bird’s nest.

### Station Three: Bird Habitats



**FIGURE 7.7** Inquiry station – Bird habitats.

### Nest Building Station Materials:

- ◆ Bird figurines
- ◆ Modeling clay
- ◆ Small pieces of cut yarn
- ◆ Plastic toy tree or connecting blocks
- ◆ Station guide
- ◆ Photographs of different bird habitats
- ◆ Sheets of blue felt
- ◆ Picture books on bird habitats:
  - Birds in my Backyard* by Lisa Donovan (2021)
  - All the Birds in the World* By David Opie (2020)

**Inquiry Station Set Up:** Choose a location in the classroom to set up this station. Set out materials to invite play with the bird figurines. Create a station guide that explains to students what they will be discovering in that station.  
 Suggestions for Station Guide:

1. How does a bird's habitat help them live?
2. What do birds do all day?
3. Can you pretend with the birds?

**Inquiry Station Experience:** In this station we're providing the opportunity for our learners to learn through role play about a bird's habitat. We want them think about a day in the life of a bird and bring the figurines to life by building their nests in trees, pretending to be a penguin swimming through the ocean, making a flower for a hummingbird to sip nectar, etc. Learners will use the given materials to discover more through play.

## Station Four: Watercolor Birds



**FIGURE 7.8** Inquiry station – Watercolor birds.

### Nest Building Station Materials:

- ♦ Watercolor paints
- ♦ Paint brushes
- ♦ Watercolor paper
- ♦ Water dishes
- ♦ Station guide
- ♦ Photographs of a variety of bird types
- ♦ Picture books about birds

*Big Book of Birds* by Yuval Zommer (2019)

*Penguins* by Anne Schreiber (2009)

**Inquiry Station Set Up:** Choose a location in the classroom to set up this station. Set out bird photographs, paint, paint-brushes, and dishes of water. Also create a station guide that explains to students what they will be discovering in that station.

Suggestions for Station Guide:

1. What do you notice about the colors of birds' feathers?
2. Which bird will you paint on your paper?

**Inquiry Station Experience:** This station is all about the celebration of the beauty of birds. We want them to notice the shapes and coloring of birds' feathers. As students visit the bird painting station, they will observe photographs of different birds and look at pictures of them in books. Learners will use the vibrant colors to bring birds to life on their blank papers.

### Station Five: Birds in Shapes

Bird Shape Station Materials:

- ◆ Shape tiles
- ◆ Blocks
- ◆ Colored paper cut into shapes
- ◆ Station guide
- ◆ Tangram pieces
- ◆ Photographs of a variety of bird types
- ◆ Board and simple books on birds
  - Birds* by Kevin Henkes (2017)
  - Curious About Birds* by Cathryn Sill (2020)

**Inquiry Station Set Up:** Choose a location in the classroom to set up this station. Set out bird photographs, blocks, shape tiles, colored paper, etc. Also create a station guide that explains to students what they will be discovering in that station.

Suggestions for Station Guide:

3. What shapes do you see in birds?
4. What shapes can you use to create birds?

**Inquiry Station Experience:** This station is all about using shapes to create birds. This requires students to know the attributes of each shape and how they work together to



create new shapes. After looking at pictures of birds, we invite learners to discover more about the body shapes of birds by creating them with blocks, tangram pieces, etc.

### **Station Six: Close Up on Bird Eggs**

Bird Shape Station Materials:

- ◆ Photographs of different bird eggs
- ◆ Models drawn with paper of bird egg sizes
- ◆ Birds and their eggs match game
- ◆ Station guide
- ◆ Modeling clay
- ◆ Bird egg recording sheet
- ◆ Picture Books on Bird Eggs:  
*Bird Nests and Eggs* by Mel Boring (1998)

**Inquiry Station Set Up:** Choose a location in the classroom to set up this station. Set out bird egg photographs, models, matching game, etc. Create a station guide that explains to students what they will be discovering in that station.

Suggestions for Station Guide:

1. What do you notice about bird eggs?
2. Can you match the birds to their eggs?
3. Can you make a bird egg with modeling dough?
4. Draw your observations of different bird eggs.

**Inquiry Station Experience:** This station introduces bird observers to the different shapes, sizes, and colors of bird eggs. It allows students to engage in deep observations about similarities and differences. After looking at pictures of bird eggs, students will observe the different shapes, sizes, and colors of eggs. Then, if you have a bird egg matching game (can be purchased on the internet) students can engage in that activity first. If not, then learners can go directly to making their own bird eggs with modeling clay, using the pictures as a guide. Last, learners will draw their observations.

## Phase Two – Day Five

**Prepping for the day:** This is the first day in Phase Two and the fifth day of the unit. The next few days will look a whole lot different from the previous four days of the unit. In preparation for the beginning of Phase Two, all six inquiry stations should be completely set up with all materials in place and ready for discovery, before day five begins. In preparation for day five, the project message should be written ahead of time with areas for student interaction. Also, clipboards, observation papers, binoculars, and pencils should be easily accessible and ready. As we enter a new phase and continue our learning about birds, students will observe birds outside each day for the next three days. Consider playground bird observations or another area around your learning environment for students to observe and record.

**Discovery Step #1:** Invite students to the central meeting space and read the project message together. Pause and invite students to “share the pen” and add to the message with their drawings and letters. Share with students that they will be going outside to watch birds today and record their observations on a recording sheet. Remind students that we are all working together to find out what makes birds special.

### **Project Message Idea:**

Good Morning Bird Watchers,  
 Yesterday we discovered more about birds.  
 Birds have \_\_\_\_\_.  
 Most birds can \_\_\_\_\_.  
 Today we are going outside to watch birds. What do you think we'll observe?

**Discovery Step #2:** With pencils, clipboards, recording sheets, and binoculars in hand, take students outside to

observe birds in their environment. Plan to spend about 15 to 20 minutes outside observing birds in their environment, talking with students about what they see, and encouraging them to record their observations by drawing what they see in their field guide.



**FIGURE 7.9** Child using binoculars to observe birds in their natural habitat.



**FIGURE 7.10** Students working recording observations in their field guides.

**Discovery Step #3:** After spending enough time outside observing and discussing birds, bring learners inside and return to central meeting location. Invite learners to turn and talk with carpet partner about their observations. After students have shared, ask some students to share their observations with the entire class.



**FIGURE 7.11** Students are working with a partner to share their observations.

**Discovery Step #4:** It's time to bring the bird observations to life! Invite students to act out what they observed birds doing outside. Talk about the birds' movements and patterns observed as they moved.

Examples: Did the bird fly back and forth from a location? Did the bird sit for a while on an electrical wire, fence board or another area? Did the bird fly in a specific pattern in the sky. Did a group of birds fly in a pattern?

**Discovery Step #5:** A focus on bird wings. Lay out different bird photographs and ask students what they notice about the different wings of birds. Invite students to share their observations. Read a non-fiction book focusing on bird wings or watch an expert short video explaining different birds' wings.

Display the bird wing (can have chart) and work together with students supporting them in facilitating the conversation about what bird wings can do and what they have. Fill in the chart as students share ideas. Explain to learners that they are going to create their own set of giant bird wings from what they've learned. Each student should receive a precut brown paper bag. Instruct them to use their knowledge and pictures around the room to draw the back of the bird with the wingspan spread open. You may want to model this step, before you release them to draw on their own. Students can then color their wingspan with markers or crayons. As students complete their wings and are busy coloring the feather coloration, you'll want to assist them in cutting out their giant wingspan. The final step will be to attach strips of cardstock or strips of the left-over bag to the inside of the wingspan as handles. Once all wingspans have been cut out, invite students to lay their wings on the floor and use linking cubes to measure their wingspan. If there is available time, consider creating a chart that shares each child's wingspan, linking cube measurements.

**Stations** – Learners will move to their first round of stations. They will visit one station each afternoon over the next six days and rotate through all six by the end. Students should rotate with the same friends for the duration of the six days. You'll want to be sure to communicate each group's station for the day and where they'll rotate the next day to avoid confusion. Students should be spending between 10 and 20 minutes in stations each day. Remember, during inquiry stations, the teacher's role is to support the work in each station, observe the learning and document observations. Do you have an assistant that can serve in this same role as well?

## Phase Two – Day Six

**Prepping for the day:** In the second day of Phase Two, students will again take their field guides outside to observe birds in their natural habitat. You'll also want to research a

child-friendly video of a bird building a nest. Finally, learners will participate in a nest-building group project. You'll need materials organized and ready. Ideas for a large nest in the classroom: a large cardboard box as a base, large sticks or twigs, long strips of brown construction paper, long strips of fabric precut.

**Discovery Step #1:** Invite students to the central meeting space and read the project message together. Pause and invite students to “share the pen” and add to the message with their drawings and letters.

**Project Message Idea:**

Bird Observers,  
Yesterday we observed birds in their natural habitats.  
What are some bird habitats?

**Discovery Step #2:** Is there another location on your campus or around your learning environment where you can take students to observe birds? If possible, plan to take students to another location for bird observations today; if not, the same observation space will do. Before taking students out for their bird observation field study, you may consider talking with them about carefully observing bird patterns and movement today as they record in their field guide.

Observers will need clipboards, field guides (working on a new recording sheet), binoculars, and pencils, as they prepare for another great day of bird observations. Spend another 15 to 20 minutes outside observing, recording, and discussing birds in their habitats.

**Discovery Step #3:** After spending time outside observing birds in their natural habits bring students to the central meeting space and chat about what they observed today. Ask students if they observed anything different about birds than in yesterday's observations. Check the wonders chart

on the focus board to see if there are any questions that can be answered from the observations.

**Discovery Step #4:** Share with learners that today they'll be taking an up-close look at how some birds build their nests. You might ask them to share what they know about nest building before they watch the video of a bird building its nest. Play the expert video for students and chat about what they are discovering as they learn more about how birds build a nest.

**Discovery Step #5:** Dramatic Play: Share with students that they will pretend to be birds and wear their bird wing creations from yesterday to build a large nest. Show them the possible building materials and talk about how their knowledge of nests and the expert video will them pretend to be birds and build their nests. Remind students that they are working together as a team. If your class size is too large to build one giant nest, you may consider dividing students up into two, three, or four groups with multiple large birds' nests. Remember to take photographs of students creating nests to document the learning and share their experiences with others, document what students are saying as they build, and question them throughout the process.

**Discovery Step #6:** After the large nest creations have concluded, bring students together to share more about their experience as a bird, the teamwork they used to build together, and what they noticed about the difficulty in creating and building.

**Stations** – Learners will move to their second round of stations. Groups should be rotating through a different inquiry station each day. Students should rotate with the same friends for the duration of the six days. You'll want to be sure to communicate each group's station for the day and where they'll rotate the next day. Students should be spending between 10 and 20 minutes in stations each day. Remember, during inquiry stations, the teacher's role is to support the work in each station, observe the learning, and document observations.

## Phase Two – Day Seven

**Prepping for the day:** Today the discovery learning will be focused on different bird feet and their specific uses. To plan for a successful day of learning, you'll want to gather close-up photographs of different bird feet, find an expert preschool/kids video on birds' feet, lay out a large sheet of white bulletin board paper with crayons, markers, colored pencils and any other art medium, and finally prewrite the project message.

**Discovery Step #1:** Invite students to the central meeting space and read the project message together. Pause and invite students to “share the pen” and add to the message with their drawings and letters. Share with students that they will be going outside for the last time today to observe birds and continue to record their observations.

### Project Message Idea:

Nest builders,  
Yesterday, you built a bird's nest.  
What did you discover?  
What's interesting about bird feet?

**Discovery Step #2:** Bring students outside with their field guides, binoculars, pencils, and clipboards for a final day of observing birds in their habitats. Once students have observed for a while, bring them back in to share new discoveries in the central meeting space.

**Discovery Step #3:** Lay out several photographs in the center of the meeting circle and invite students to notice and wonder as they look at the different pictures. Begin a class conversation about their observations.

**Discovery Step #4:** Read a book focusing on different birds' feet or watch an expert video about birds' feet. This knowledge will help students as they grow in their understanding of birds and what makes them special. Pose the question, “What is special about a bird's feet?” Have them turn their



partner and share their thinking. Be sure to listen in on conversation and ask questions as they converse.

**Discovery Step #5:** Lay out the giant piece of bulletin board paper either on the floor or across a table. Invite students to consider all the different bird feet and their uses and draw them on the giant bird feet mural. Be sure to have the bird feet photographs on hand if students need to refer to a model for drawing. Also, as they draw the feet, question students on what the feet may be used for or important things that make them special. Record their responses on strips of paper and glue them near the feet drawn by the student. After the mural is complete, discuss the different feet, their features and uses with students. The mural should be hung in a central location in the classroom.

**Inquiry Stations** – Learners will move to their third round of stations. Groups should be rotating through a different inquiry station each day. Students should rotate with the same friends for the duration of the six days. You'll want to be sure to communicate each group's station for the day and where they'll rotate the next day. Students should be spending between 10 and 20 minutes in stations each day. Remember, during inquiry stations, the teacher's role is to support the work in each station, observe the learning and document observations.

## Phase Two – Day Eight

**Prepping for the day:** Talking bird beaks and their uses is today's discovery focus. You'll want to be totally prepped for an incredible day of learning more about what makes a bird's beak special. In planning for learning, gather books about beaks, an expert video, or both. There is also a planned whole-class investigation where you'll test out the use of different bird beaks. You will need a few supplies for this investigation: an ice scoop, salad tongs, a bowl filled with cut brown yarn at the bottom, water mixed with coca power to mimic dirty pond water, goldfish, and rubber ducks. Be sure to create your project message before learning begins.

**Discovery Step #1:** Invite students to the central meeting space and read the project message together. Pause and invite students to “share the pen” and add to the message with their drawings and letters.

**Project Message Idea:**

Tweeting friends,  
Why are birds’ feet different?



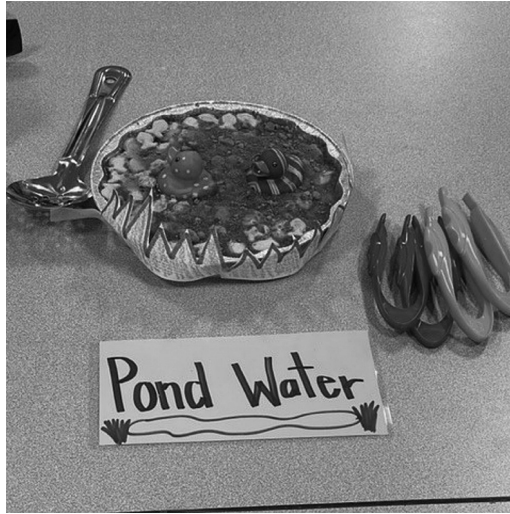
Today we are investigating bird beaks. What do you think we’ll find out?

**Discovery Step #2:** Lay out several photographs in the center of the meeting circle and invite students to notice and wonder as they look at the different pictures of bird beaks. Invite them to turn and talk with their partner about what they notice.

**Discovery Step #3:** In the central meeting space, read aloud book on bird beaks. Discuss with the students the different uses of bird beaks and their observations.

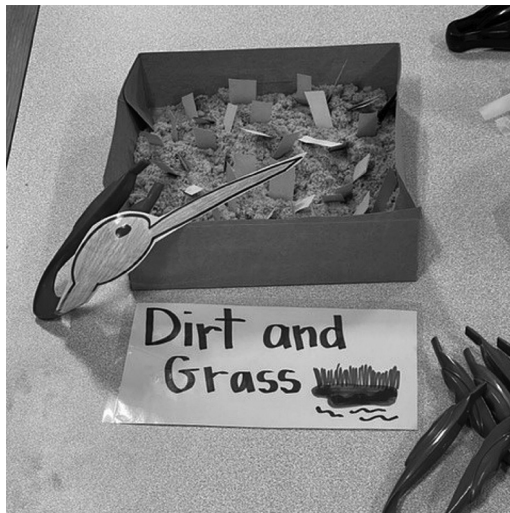
**Discovery Step #4:** On a table in the classroom, before students arrive, set up the bird beak class investigation. You’ll want to have different pictures of beaks, along with a model of a pond and a grassy area, a large straining spoon to mimic a duck’s beak, an ice scoop to mimic a pelican’s beak, and fine motor tongs to mimic a crane’s beak.

**Pond Model Set-up:** Take a container and lay pieces of yarn at the bottom to mimic worms, wrap green colored paper to mimic grass around the container, fill the container with a few goldfish crackers, then mix water and cocoa mix together to mimic muddy water, dump in muddy water in container over fish and yarn, then place rubber ducks on for the final pond model.



**FIGURE 7.12** Discovery experiment set up to test out bird beaks.

**Dirt and Grass Set Up:** Take a second container and line the bottom with lots of cut brown yarn to mimic worms and possibly snakes, dump a bag of brown sugar over the top as dirt, then stick short pieces of green construction paper out of the sugar to act as blades of grass.



**FIGURE 7.13** Discovery experiment set up to test out bird beaks.

Invite students to gather around the table for the investigation. Facilitate discussion on how they just read about the differences in bird beaks and their uses. Now, we're going to investigate to see exactly how they work. Visit each model and talk about the tool being used as the beak and how it's like a real bird's beak. Model how the duck's beak acts as a strainer straining out water and leaving in fish another bottom pond food. Invite different students to test out the duck's beak. Then move to the dirt and grass model and discuss with students the long shape of a crane's beak to dig its beak deep into the dirt and pull out worms, snakes, and other food. Let students test out different bird beaks and uncover their purpose and use.



**FIGURE 7.14** Discovery experiment set up to test different types of bird beaks.

**Stations** – Learners will move to their fourth round of stations. Groups should be rotating through a different inquiry station each day. Students should be spending between 10 and 20 minutes in stations each day. Remember, during inquiry stations, the teacher's role is to support the work in each station, observe the learning and document observations.

## Phase Two – Day Nine

**Prepping for the day:** Today we're talking bird sounds! Prior to the lesson, you'll want to gather a good bird sound video from the internet, images of bird movements, non-fiction bird books that either tell about the bird's sound or its movements.

**Discovery Step #1:** Invite students to the central meeting space and read the project message together. Pause and invite students to "share the pen" and add to the message with their drawings and letters.

### **Project Message Idea:**

Bird Beaks of All Kinds,

What did we discover about bird beaks?

What do you know about the sounds birds make? Can you try to make one?

**Discovery Step #2:** Watch the selected expert video on bird sounds and movements. Talk with students about the differences in the sounds birds make.

**Discovery Step #3:** Practice the different bird sounds with learners. Cultivate a conversation around when birds use their calls and what they tell us.

**Discovery Step #4:** Read about four different birds and the specific movements they make. These excerpts can be found in various non-fiction bird books. Invite students to act out these bird movements. You might consider taking pictures of this in action for documentation and an addition to the focus wall.

**Discovery Step #5:** Make a chart with the students of the different bird movements and a drawn picture of the bird making that movement. Students can help with the drawings of these movements in action. Display this poster near the focus wall when complete.

**Stations** – Learners will move to their fifth round of stations. Groups should be rotating through a different inquiry station

each day. Students should be spending between 10 and 20 minutes in stations each day. Remember, during inquiry stations, the teacher’s role is to support the work in each station, observe the learning and document observations.

## Phase Two – Day Ten

**Prepping for the day:** Today’s learning will be centered around students working in groups to learn more about a specific type of bird. Each group of three or four students will work to research and display their knowledge of the bird on a fact poster. Groups will need pictures and books of specific bird types to support their research. (Group examples: hummingbirds, penguins, ducks, eagles, etc.) Groups will also need art supplies and a large sheet of paper for fact poster creation. The project message should be created before the learning begins.

**Discovery Step #1:** Invite students to the central meeting space and read the project message together. Pause and invite students to “share the pen” and add to the message with their drawings and letters.

### **Project Message Idea:**

Bird Tweets of All Kinds,  
 Why do birds have different calls?  
 Are all birds the same?  
 What is different about a hummingbird and an owl?

**Discovery Step #2:** Share an expert early childhood video on different types of birds. Engage in discussion about what makes birds different. Invite students to share ideas about different birds, where they’ve seen them, or what they discovered through the video.

**Discovery Step #3:** Place students in their groups around the classroom with sufficient room for working as a team. They should have all their materials (photography, books, art supplies, large sheet of paper, etc.) in their working location. Explain to students that they are going to research a specific

type of bird, observe it through pictures, and create a fact poster about the bird to share with the rest of the class. As groups work together, walk around discussing information in the books with groups, asking important questions and supporting their thinking as they make meaning from the text and photographs.



**FIGURE 7.15** Students investigating and displaying their knowledge on ducks through a drawing.

**Discovery Step #4:** Invite groups to share what they learned from their investigations and their fact posters. The posters can be hung around the room and photographed as documentation.

**Stations** – Learners will move to their sixth and final round of stations. Groups should be rotating to their last station today.

## Phase Two – Day Eleven

**Prepping for the day:** Days eleven and twelve are the last two days of Phase Two. Across these two days, students will begin researching, completing their expert knowledge, and creating their final projects.

**The Project:** This culminating project has been designed to be a whole-class project, where each child individually contributes. We are building a bird museum! The museum will feature different types of birds created by the students. They will first select a favorite bird that have developed expert knowledge on, spend a day looking at pictures and reading more about the bird, then finishing with a constructed bird model. Each child will create one bird model over the next two days, and it will be placed in the class bird museum.

**Discovery Step #1:** Gather students into the central meeting space and talk about all the great learning they have done over the last two weeks. Then ask them to think about a bird that they've learned the most about and have lots of expert knowledge to share. Invite students to turn and talk to their neighbor about the bird they chose and expert knowledge about the bird.

**Discovery Step #2:** Explain to students that today begins the final project day where they will create a model of a bird to show their expert knowledge. Ask if anyone has ever been to a museum. Talk with them about museums. Share with learners that they will be working on a bird museum to share their knowledge with others.

**Discovery Step #3:** After each child has selected an expert bird, invite them to look through books and photographs to gain more expert knowledge on that specific bird. This should last for a while, as students dig through books and have conversations with each other. While they are finalizing their research, you'll want to question students on their bird of choice and their knowledge.

**Discovery Step #4:** Continue to explain that their museum display will have a drawing of their selected bird as well as a model they will create tomorrow with various art supplies. Pass out plan sheets of paper and invite students to paint, draw or color their bird of choice. Talk about including many of the details we've talked about over the last few days (birds' feather colors, type of beak, type of feet, body shape, use of feathers, habitat, etc.).



## Phase Two – Day Twelve

**Prepping for the day:** This is the last day of Phase Two and an exciting one! Today students will use various art supplies and modeling clay to create their selected bird model for the bird museum. You'll want to consider the foundation (what they'll build their bird on) for their creation: brown craft box, paper plate, paper tray, etc.

Art Supplies to Support Culminating Project:

- ♦ Modeling dough
- ♦ Assortment of colored feathers
- ♦ Wiggle eyes
- ♦ Paper shapes
- ♦ Popsicle sticks
- ♦ Yarn
- ♦ Buttons
- ♦ Pom pom balls
- ♦ Paper straws
- ♦ Foundation for bird: plate, tray, box, etc.

**Discovery Step #1:** Have the table/working space set up for bird creating. You may consider having all the supplies set out in the center of the table with the base ready at each spot.



**FIGURE 7.16** The table is prepped for culminating projects to show expert knowledge.

**Discovery Step #2:** Invite experts to find a spot around the bird exhibit creation table to begin bringing their birds to life. Students will use a variety of materials to create their bird. Encourage their creations with questions about their bird and observations about the details they include.



**FIGURE 7.17** Students are displaying expert knowledge of birds for their culminating bird museum project.



**FIGURE 7.18** A student used expert knowledge to create a bird for the final project.



**FIGURE 7.19** A model of a parrot created for final bird museum project. Student has used expert knowledge to create model for presentation day.

**Discovery Step #3:** After bird experts have finalized their bird creations, students will label their bird and place it in the class bird museum. After all birds have been finished, the students love going up to view the models and share ideas with each other.

## A View of the Final Bird Museum Culminating Project



**FIGURE 7.20** The culminating project display – A bird museum.



**FIGURE 7.21** A model of a bald eagle created as a culminating project.

## Phase Three – Celebrate and Share

The planned duration for Phase Three (the celebration phase) is two days. During these two days, students will plan their project celebration, before presenting their expert knowledge on the final day.

**TABLE 7.3**

Layout planning for phase three of bird unit

|             |        |                   |
|-------------|--------|-------------------|
| Phase Three | Day 13 | 2 Discovery Steps |
|             | Day 14 | 1 Discovery Step  |

Phase Three Suggested Materials:

- ◆ Art supplies – crayons, markers, colored pencils, paint, etc.
- ◆ Paper for invitation creation
- ◆ Backdrop creation supplies – bulletin board paper, paint, etc.

## Phase Three – Day Thirteen

**Prepping for the day:** Today is all about letting the students planning and creativity shine! As a class, they will determine who should be invited, where the presentations will take place and what expert knowledge they plan on sharing. The teachers' work will consist of gathering samples of student documentation (photographs of students at work, work samples, etc.) to put on display.

**Discovery Step #1:** Gather students together to collaborate on a few ideas:

1. Who should be invited to the presentation day tomorrow?
2. Who will make the invitations?
3. What important information should be placed on the invitation?
4. Where will the presentations take place?
5. Will there be a stage or a backdrop?
6. What order will bird experts present?

Once these questions have been decided upon, students will break into groups to get busy working on the invitations, stage set up, display areas and the backdrop.

**Discovery Step #2:** Send groups of students to deliver the invitations to the invited guests. If by chance the guests are not part of the school faculty, you can snap a quick picture of the invitation and email it.

## Phase Three – Day Fourteen

**Prepping for the day:** Today is a celebration of all the wonderful learning that has taken place over the last two weeks in the PBL unit on birds! Students will take turns presenting their bird models and sharing their expert knowledge with classmates and invited guests. Refer back to the end of chapter four for a more detailed view of the celebration day.

**Discovery Step #1:** As invited guests arrive and students take their places in the audience, the presentations will begin.

Each speaker will have the opportunity to share their expert knowledge, answer questions from the audience and share their bird model.

Once all students have presented their bird models and expert knowledge, invite students to share their learning around the room with the invited guests.

After the project has concluded, consider displaying the learning somewhere in your hallway, front office or another school location to share the newly learned knowledge with others. Students from around the school will now have the opportunity to grow their knowledge of birds through the class display.

### **Unit Two: Neighborhoods**

Project Based Learning Unit Sampler 2

Project Topic – Neighborhoods

Timeline: 18 days

**Overview:** In the project-based unit on neighborhoods, students will explore the different facets of a neighborhood by discovering more about the unique people, places and things found within each neighborhood.

**Driving Question:** What is a neighborhood?

Picture books to support all three phases throughout unit:

- ◆ *People in My Neighborhood* by Shelly Lyons (2013)
- ◆ *Signs in My Neighborhood* by Shelly Lyons (2013)
- ◆ *City Signs* by Zoran Milich (2005)
- ◆ *We Love Reading Street Signs* by Dustin Lee Carlton (2017)
- ◆ *On My Block* by Zeta Elliott (2020)
- ◆ *Helpers in Your Neighborhood* by Shira Evans (2018)
- ◆ *Good Morning, Neighbor* by Davide Cali (2018)
- ◆ *Places in My Neighborhood* by Shelly Lyons (2013)
- ◆ *In Lucia's Neighborhood* by Pat Shewchuk (2013)
- ◆ *Who's Hat is This?* by Sharon Cooper (2006)
- ◆ *Meet a Mail Carrier!* by Becky Herrick (2021)
- ◆ *Last Stop on Market Street* by Matt de la Pena (2015)

- ◆ *In Every House on Every Street* by Jess Hitchman (2019)
- ◆ *Map My Neighborhood* by Jennifer Boothroyd (2013)
- ◆ *Homes for Everyone* by Jennifer Gillis (2006)

## Phase One – An Immersion into Learning More about Neighborhoods

The planned duration for Phase One (the immersion phase) is three days. During these three days of immersion, students will be introduced to the places and parts of a neighborhood, discover neighborhood maps, and display their prior knowledge about a neighborhood. During Phase One, the teacher will begin observing and documenting the learning of each child as they progress through the unit. The documentation log from Chapter 6 is

**TABLE 7.4**

Three-day plan for Phase One in PBL unit on neighborhoods

|           |       |                   |
|-----------|-------|-------------------|
| Phase One | Day 1 | 4 Discovery Steps |
|           | Day 2 | 3 Discovery Steps |
|           | Day 3 | 4 Discovery Steps |

a great place to begin.

### Phase One Materials:

- ◆ Collection of picture books on neighborhoods, community helpers, places in a neighborhood, neighborhood signs
- ◆ Real photographs of a variety of neighborhood pictures (places, signs, streets, people)
- ◆ Chart paper
- ◆ Selected spot for focus wall
- ◆ Topic (Neighborhoods) labeled at the top of focus wall
- ◆ Magnifying glasses
- ◆ Simple neighborhood maps for viewing
- ◆ Neighborhood play items – train set, playhouses, play people, small cars, street signs, anything you have on hand

## Phase One – Day One

**Prepping for the day:** Before students enter the room on day one, you'll want to have the beginnings of your focus wall set up and in place. This includes a title-Neighborhoods, photographs hanging around the wall, and a neighborhoods can/have/are chart.

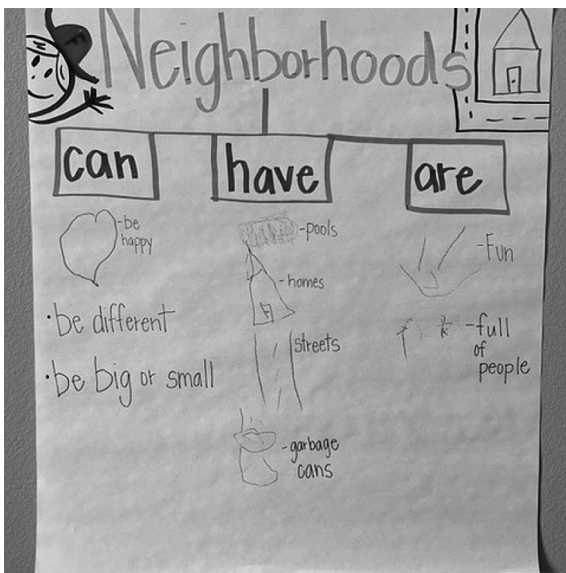
**Discovery Step #1:** The PBL unit on neighborhoods will begin with a focused book reading. Gather students together and read aloud a book on neighborhoods. Stop throughout the reading and model thinking out loud about things you notice in the book.

**Sample Think-Aloud** – “Wow! I see that there are a lot of different places and people in a neighborhood. This page shows a restaurant where people eat and there is a restaurant in my neighborhood too.”

**Discovery Step #2:** A gallery walk of neighborhood pictures – Hang up various neighborhood photographs around the room and invite students to walk with their partner around the room visiting each photograph and stopping to chat about what they notice. You might consider playing classical or low music as they walk and share. While students are conversing during the gallery walk, you can listen in on conversations and begin documenting their ideas and wonders.

**Discovery Step #3:** Invite students back to the central meeting area to share ideas about what they noticed in the gallery walk. Direct their attention to the Neighborhoods Can/Have/Are chart and ask them to begin sharing what neighborhoods can, have, and are. Write their ideas on the chart and consider inviting a few friends to come up and draw or write their ideas about what neighborhoods can give or provide. Continue to document their ideas on the chart, as well as invite them to come up and add their own ideas to the chart.





**FIGURE 7.22** Can/Have/Are chart to document student knowledge in phase one.

**Discovery Step #4:** Bringing day one to a close – Invite students to draw a picture of a neighborhood on plain paper. As you pass out the paper, remind them to fill up the entire page with ideas. This will give you a glimpse into their understanding of a neighborhood and their misconceptions.

## Phase One – Day Two

**Prepping for the day:** Today, we'll focus on writing down our wonders about neighborhoods and discover more about neighborhoods through play. Before today's learning begins, you'll want to have the chart hanging with the title – "What do you wonder about neighborhoods?"

**Discovery Step #1:** Today's neighborhood learning will begin by gathering students to the central meeting space to chat about and document wonders about neighborhoods on the wonder chart. Ask students to turn to their buddy and share their what they may wonder about neighborhoods. As students share their wonders, document thinking, and conversations on the class wonder chart. This chart will hang on

the focus wall for the duration of the unit. As the unit progresses, students will discover answers to the questions and answer them.

**Discovery Step #2:** Select a book from the book display on neighborhoods and read aloud to students. As you read, stop and notice things that are included in a neighborhood.

**Discovery Step #3:** Discovery through play – It's time to observe our students through play to see what information they are connecting when thinking about a neighborhood. Place several building opportunities for students and invite them to build a neighborhood and play.

Possible Neighborhood Discovery Play Ideas:

- ◆ Blocks
- ◆ Train sets with train tracks
- ◆ Small houses
- ◆ Buildings
- ◆ Connecting blocks
- ◆ People figurines
- ◆ Animals
- ◆ Toy trees
- ◆ Play street signs
- ◆ Anything that might contribute to neighborhood play

### Phase One – Day Three

**Prepping for the day:** In today's learning, students will gain a better understanding of a neighborhood map. After viewing and discussing different maps, the entire class will create a large map on bulletin board paper. The map will feature streets and bridges and each day for the rest of the unit, a new idea will be added to the class neighborhood map.

Suggested Book: *Map My Neighborhood* by Jennifer Boothroyd (2013)

**Discovery Step #1:** Read aloud of a book on neighborhood maps (see book suggestion above). As you read, pause and point out different things in the book. Chat about what maps do and how they help us.

**Discovery Step #2:** After the book discussion has come to a close, place simple map pictures in the center of the meeting circle or scattered on tables around the room. Invite students to notice and wonder as they observe the simple maps.

**Discovery Step #3:** Place a large sheet of bulletin board paper on the floor or across a few tables in the classroom. Explain to students that they are going to create a giant map of a neighborhood and add a few things to it each day as they learn more about neighborhoods. Today, they will begin by designing the streets and bridges in the neighborhood. Invite students to plan, draw, and color or paint the streets and bridges of the classroom neighborhood map. Remember, it's important to let them take the lead in designing this map.



**FIGURE 7.23** A neighborhood map created by early childhood students.

**Discovery Step #4:** After the streets on the neighborhood map have been completed, invite students back to the central meeting space to begin the ABC neighborhood chart. The chart should be premade with 26 boxes. Ask the students to come up and fill in the alphabet with one letter going in

each box. Then, invite students to begin brainstorming a list of things that relate to neighborhoods and place them under the correct letter. This is a great way to organize information. This chart will be revisited each day throughout the remainder of the unit as new words and ideas come up.



**FIGURE 7.24** ABC chart to organize information throughout the three phases of the PBL unit on neighborhoods.

## Phase Two – Discovery, Inquiry and Innovation

The planned duration for Phase Two (the inquiry phase) is seven days, beginning with day 4 of the unit and lasting until day 10. The next seven days will be packed with inquiry, discovery, investigations, stations, and project creations. Students will discover more about a neighborhood through field site visits, virtual field trips, class investigations, inquiry station visits, and finish with project creations. During Phase Two, the teacher will provide discovery opportunities, observe learners, and document the learning and support learners in creating a model to share their expert knowledge of things in a neighborhood.

**TABLE 7.5**

Table displays the planning and discovery phases in Phase Two of the PBL unit on neighborhoods

|           |        |                          |
|-----------|--------|--------------------------|
| Phase Two | Day 4  | 5 Discovery Steps        |
|           | Day 5  | 4 Discovery Steps        |
|           | Day 6  | 5 Discovery Steps        |
|           | Day 7  | 4 Discovery Steps        |
|           | Day 8  | 5 Discovery Steps        |
|           | Day 9  | 3 Discovery Steps        |
|           | Day 10 | 5 Discovery Steps        |
|           | Day 11 | 2 Inquiry Station Visits |
|           | Day 12 | 2 Inquiry Station Visits |
|           | Day 13 | 2 Inquiry Station Visits |
|           | Day 14 | 4 Discovery Steps        |
|           | Day 15 | 2 Discovery Steps        |
|           | Day 16 | 2 Discovery Steps        |

### Phase Two Suggested Materials:

- ♦ Collection of picture books on neighborhoods on display in the room
- ♦ Real photographs of neighborhoods, community helpers, places in a neighborhood, street signs
- ♦ Chart paper
- ♦ Items and playthings for setting up a restaurant (fake food, plates, etc.)
- ♦ Community helper hats and dress up items
- ♦ White bulletin board paper
- ♦ Paint/paintbrushes
- ♦ Chart paper
- ♦ Loose parts (Daly et al., 2014)
- ♦ Large, printed neighborhood signs

Note – additional materials are needed for inquiry stations and the culminating project. Materials are listed in the correlating pages following.

## Phase Two – Day Four

**Prepping for the day:** The first day of Phase Two opens with a project message for students to help construct using their prior knowledge. Students will also discover further about families that live in a neighborhood. The first piece to the neighborhood map will be constructed today as each student adds a drawing of their family’s home.

**Discovery Step #1:** Today, students will begin the second phase with a project message. Gather students to the central meeting space to read and construct parts of the message together.

### Project Message Idea:

Hi Neighbors,  
 Yesterday we created a giant map of neighborhood streets, grass and bridges.  
 What else should we add to our neighborhood map?  
 What do you find in a neighborhood?

**Discovery Step #2:** Invite students to turn and talk about things they do with their families in their neighborhood. You may consider modeling this conversation to help students form thoughts and ideas.

**Sample Think-Aloud:** In my neighborhood we have a park and a community pool. On Saturday afternoons, our family walks to the park and we slide down the slide together. I see many friends at the neighborhood park, and we talk and play. After we play for a while, we take a swim in the neighborhood pool.

**Discovery Step #3:** After thinking and talking more about neighborhoods, read a story about different homes in neighborhoods. Open the discussion by inviting students to share more about the home they live in.

Read-Aloud Suggestion: *Homes for Everyone* by Jennifer Gillis (2006)

**Discovery Step #4:** Pass out plain sheets of paper and tell students to spend time thinking about their own home and family. Ask them to use all the space on the paper to draw their house and their family. Encourage them to include as many details as possible in their drawing.

**Discovery Step #5:** After all drawings are complete, bring students over to the community map painting. Begin discussion about what would happen if all their pictures were added to the map. We want them to begin seeing that many homes begin making a neighborhood. Invite students to use tape and other supplies to add their picture to the map.



**FIGURE 7.25** A student-created home and family for the class neighborhood map.

## Phase Two – Day Five

**Prepping for the day:** Today the learning will be centered on places we find in a neighborhood. Students will brainstorm different places found in a neighborhood and why each place is an important addition to a neighborhood.

An important place in a neighborhood will be brought to life through dramatic play.

**Discovery Step #1:** In today's learning, students will gain a deeper understanding of the important places that are found in a neighborhood. Begin by gathering students to the central meeting space for a read aloud on neighborhood places. You'll want to select a book that highlights the different places found in a neighborhood (restaurants, schools, grocery stores, an ice cream shop, post office, etc.). As you read, stop and discuss the different places in the book.

**Discovery Step #2:** In order for students to have a first-hand look at places in a neighborhood, consider taking them on a walk around the outside of the school building as a field study. Are there any places near your school that are visible from the building? If not, a virtual field trip around a neighborhood is a great alternative option. Also, consider asking parents to take their child on a scavenger hunt after school. Extend the idea that, as a family, they can ride around the neighborhood and notice places as they ride. This is a great way to involve parents in the learning too!

**Discovery Step #3:** Invite students to think about important places in the neighborhood and begin drafting a list to hang on the concept wall. Ask students to pick one important neighborhood place to bring to life in the classroom. Explain that, as a class, students will design a space in the room to look like an actual place in a neighborhood. The dramatic set up and play experience will be a whole-class learning opportunity. Once the students have selected an important neighborhood place, they'll begin designing the area to bring it to life with props and furniture movement. We want their creativity to soar in this play experience! For example, if the selected place were a restaurant, students would use various items in the room to set up the restaurant dramatic play space. Then allow them time to play and try on different roles in the restaurant.

**Discovery Step #4:** After students have created the dramatic play area and played in various roles there, bring them back to the central meeting space for conversation. Invite students



to share more about their experience in bringing a place in a neighborhood to life in the classroom. Use this as an opportunity to document their thoughts and ideas.

## Phase Two – Day Six

**Prepping for the day:** The learning about places found in a neighborhood will continue today with new opportunities for learning. The day will begin with a project message and move into extended opportunities for discovery. Students will track their knowledge on a bubble map, then work in a group to create a model of a neighborhood place to add to the class neighborhood map.

**Discovery Step #1:** Gather students to the central meeting space and read the project message aloud. Invite students to share ideas and help create ideas to add to the project message.

### Project Message Idea:

Hello Neighbor,  
Yesterday we discovered more about places we find in a neighborhood.  
What did we create yesterday? Why is this place important?

**Discovery Step #2:** If it's not possible to visit a place in the neighborhood surrounding the school, offer a virtual field study to the class. There are a variety of online videos for early childhood students that take them on a tour of different places in a neighborhood.

**Discovery Step #3:** Create a bubble map with the title – “Places in our Neighborhood.” Invite students to draw and add to the bubble map the different places in neighborhoods along with the service they provide to the neighborhood. Example: Fire station – Firetrucks, firefighters, and safety.

**Discovery Step #4:** Explain to students that they are going to work in either groups of two or three to use loose parts (Daly et al., 2014) to create a place in a neighborhood.

After the creations are finished, each group will add their place to the neighborhood map. Groups should also label their place on the map with a handwritten sign. For the discovery creation, you may consider having photographs of neighborhood places printed for reference, books pulled, and other inquiry materials on hand. Once groups have been established, students will begin by researching their neighborhood place through reading and observing photographs. Following the research, students will create a plan, gather loose part materials, and begin building.

**Discovery Step #5:** Once groups have finished their loose parts creation of a place found in a community, allow opportunities for groups to share as they secure it to the neighborhood map.

## Phase Two – Day Seven

**Prepping for the day:** Today’s learning will allow for discovery on different helpers found in neighborhoods (firefighters, teachers, garbage collectors, mail carriers, vets, etc.). The learning will begin with a thoughtful project message and lead into discovery opportunities for students to learn more about the helpers in a neighborhood.

**Discovery Step #1:** Invite students to gather into the central meeting space to collaborate on the project message.

### **Project Message Idea:**

Dear Neighborhood Helper,

How do you help others?

Who are people in your neighborhood that help others?

**Discovery Step #2:** Read a story aloud to students about neighborhood helpers or provide a virtual learning opportunity which introduces helpers in a neighborhood. Begin conversing with students about helpers and the tools they use to do their job.

**Discovery Step #3:** Dramatic play opportunity – Gather any kind of community helper costumes, artifacts, etc. and place them in center circle or around the room. Invite students to try on their uniforms and pretend to be a helper in the neighborhood. Provide opportunities for them to use the helper tools and uncover what they are used for in various jobs. Snap pictures of students as they act out various helper roles. These photographs will serve as great documentation. Hang them on the focus wall with a caption describing the activity and learning.

**Discovery Step #4:** Place community helper books around the classroom. Students will visit different areas of the room and discover more about different helpers, as they chat with each other about the information they are reading. Are they uncovering any answers from the wonder chart? These findings should be discussed and documented on the focus wall. This is also a perfect time to document their learning and conversations in your documentation binder.

## Phase Two – Day Eight

**Prepping for the day:** Discovering more about helpers around neighborhoods will continue today. A project message will begin the learning, followed by a mural of neighborhood helpers and their special tools to demonstrate students' knowledge.

**Discovery Step #1:** Gather students to the central meeting space in the classroom and begin reading and composing the project message together.

### **Project Message Idea:**

Greetings Neighbor,  
Yesterday we met and talked about helpers in our neighborhood.  
How do mail carriers help in the neighborhood?

**Discovery Step #2:** Share a virtual field trip video, plan a Zoom meeting, or invite a neighborhood helper to visit and share more about their job. This will help students as they gain real-life perspectives of the jobs helpers have around the neighborhood.

**Discovery Step #3:** Create the opportunity for students to discover many neighborhood helpers by playing the neighborhood helpers guessing game.

How to play:

1. Print neighborhood helper pictures on small cards
2. Call one student up to the center of the circle and have him/her place a neighborhood helper card from the pile on their forehead
3. Invite the rest of the students to give clues about the neighborhood helper for the guessing student to guess which helper is on their card
4. Allow students to take turns being the guesser

**Discovery Step #4:** Lay out a large sheet of white bulletin board paper across a table or on the floor of the classroom. Share with students that they are going to create a neighborhood helper mural. Each student will choose one neighborhood helper to paint on the mural. Students will be working from different locations on the mural; have enough supplies ready for their work. Consider encouraging them to paint the tools that their helper uses in their job on the mural too.

**Discovery Step #5:** Give students the opportunity to share more about the neighborhood helper they chose to create on the mural.

## Phase Two – Day Nine

**Prepping for the day:** Today students will display their knowledge of neighborhood helpers by once again using loose parts to create a neighborhood helper for the classroom neighborhood map.

**Discovery Step #1:** Invite students to the central meeting space to create a song about one neighborhood helper through a project message.

**Project Message Idea:**

Hi Helper,  
We've talked about many different helpers that work in our neighborhoods.  
Create a song about a neighborhood helper that tells about their job and the tools they use.

**Discovery Step #2:** Share another virtual field trip about a neighborhood helper or invite a neighborhood helper to come and share more about their job. Give opportunities for students to ask questions to the invited neighborhood helper.

**Discovery Step #3:** Place an abundance of loose parts (Daly et al., 2014) on tables around the room and invite students to use their knowledge of a neighborhood helper to create one helper. You might also consider having photographs of neighborhood helpers and books readily available for research during the creation.

Ideas for loose parts to create community workers:

Popsicle sticks, pom pom balls, wiggly eyes, felt squares of different colors, yarn, odds and ends from around the room, etc.

## Phase Two – Day Ten

**Prepping for the day:** Today students will discover more about important signs around neighborhoods and their messages. Students will notice the shapes of different signs and create them with various materials.

**Discovery Step #1:** Begin with the shared project message experience in the central meeting location in the classroom.

**Project Message Idea:**

What is red with four giant letters that say "S..T..O..P"?  
What signs do you see around your neighborhood?

**Discovery Step #2:** Place photographs of various neighborhood signs on the floor in the center of the central meeting space circle. Invite students to notice things about the various sign photographs. Listen in on their discussions with each other as they notice and wonder.

Support students in discussing:

The shape of each sign

The color of each sign

The information each sign displays

**Discovery Step #3:** Using various materials, give students the opportunity to create different sign shapes. This provides students with the opportunity to develop an understanding of shapes and their attributes.

Material Ideas: Popsicle sticks, yarn, straws, etc.

**Discovery Step #4:** Bring students to the class neighborhood map. Pair them with a buddy and ask them to look carefully at the map and consider where a sign may be needed. Provide materials for students to work with a buddy to create one sign to add to the community map. Materials that may be considered: molding clay, paper, crayons, paint, cardboard, etc.

**Discovery Step #5:** After all sign projects have been completed, students will secure their sign on the neighborhoods map. As they place it on the map, ask them to share more about their plan for creation.

## **Inquiry Stations**

Continuing on in days 11–13, students begin rotating through the six stations. Students should be placed in inquiry station rotation groups and each group will visit two stations over the course of three days. They will visit all six stations in the three-day time frame. During the three inquiry station days, students will only visit stations; there will be no formal whole-group learning on these days. In order to prepare and prep the inquiry stations, you'll need to gather materials for each station, set them up in various locations around the room, and leave them up for the duration of the three days. Each station will contain its own materials, and a station guide, including a driving question and

activity. Consider looking at your class list and making a rotation schedule with groups of four or five students. You'll want to keep track of who visited each station throughout the three days, so rotations maintain a smooth flow.

### **Station One: Neighborhood Storytelling**

#### **Storytelling Station Materials:**

- ◆ People figurines
- ◆ Neighborhood building pieces (train tracks, buildings, blocks)
- ◆ Photographs of neighborhood maps, neighborhood helpers and buildings
- ◆ Picture books to support neighborhood helpers

**Inquiry Station Set Up:** Choose a location in the classroom to set up this station. Set out building materials, figurines, photographs, etc. Create a station guide which includes a wonder question and explains to students the possibilities for discovery.

Suggestions for Station Guide:

1. How do people work together in a neighborhood?
2. Make up a neighborhood story using the people and building materials.

**Inquiry Station Experience:** The neighborhood storytelling station is all about bringing neighbors together through storytelling. Students will create a story in a neighborhood setting using building blocks and figurines. This provides them with the opportunity to see how all the pieces and parts of a neighborhood work together.

### **Station Two: Dramatic Play – A Post Office**

#### **Post Office Station Materials:**

- ◆ Photographs of a post office
- ◆ Virtual field trip video on iPad on postal office workers
- ◆ Picture books about postal workers
- ◆ Materials for setting up a post office

Cardboard boxes  
 Markers/paint  
 Paper  
 Envelopes  
 Anything that would add to the play experience

**Inquiry Station Set Up:** Choose a location in the classroom to set up this station. Set out photographs of a post office, books, and building materials, along with a station guide.  
 Suggestions for Station Guide:

1. What does a post office look like?
2. Who works in a post office?
3. Work with your group to create and play in a post office.

**Inquiry Station Experience:** Students will bring a post office to life through planning, setting up, and dramatic play. They will use their knowledge of a post office and its workers to create their own working post office in the classroom. Since this station will be visited by six rotation groups, each group will have the opportunity to add to prior set up and play from the previous groups.

### **Station Three: Neighborhood Helper Books**

#### **Book Writing Station Materials:**

- ◆ Picture books on helpers in the neighborhood
- ◆ Paper
- ◆ Stapler
- ◆ Markers, colored pencils, pencils, etc.
- ◆ Station guide

**Inquiry Station Set Up:** Choose a location in the classroom with a table to support book illustrating and writing. Set out a variety of illustration materials, papers and the station guide.

Suggestions for Station Guide:

1. What story can you tell about a neighborhood?
2. Use the materials to write and illustrate a book.



**Inquiry Station Experience:** The book-making station is all about learning to tell a story or write an informational text which involves a neighborhood. In this station, students will demonstrate their knowledge through authoring a book. Various papers and supplies will allow them to freely plan and create their own stories.

### Station Four: Dramatic Play – A Bakery



**FIGURE 7.26** A student plays at the bakery dramatic play inquiry station.

#### Bakery Station Materials:

- ◆ Photographs of a bakery
- ◆ Video on iPad for early childhood on a bakery or a baker
- ◆ Picture books about bakeries
- ◆ Materials for setting up a bakery
  - Cardboard boxes
  - Play food, plates, etc.
  - Paper, markers, colored pencils
  - Cash register, play money
  - Anything that would add to the play experience

**Inquiry Station Set Up:** Choose a location in the classroom to set up this station. Set out photographs of different bakeries, books, and creation materials. Also create a station guide that explains to students what they will be discovering in that station.

Suggestions for Station Guide:

1. Why do neighborhoods have bakeries?
2. Who works in a bakery?
3. What is sold in a bakery?
4. Work with your group to create a bakery and play.

**Inquiry Station Experience:** This station is about learning through play! Students have an up-close experience in setting up and carrying out different roles in a bakery. Each group has the opportunity to add to the bakery set up and pretend to work and shop in the bakery. Be as creative as you can with supplying enough materials for students to use their imaginations and knowledge to bring a real neighborhood bakery to life in the classroom.



**FIGURE 7.27** This child is learning through play in the dramatic play inquiry station.

## Station Five: Drawing Neighborhood Maps

Map-Making Station Materials:

- ◆ Photographs of simple neighborhood maps
- ◆ Large sheets of paper
- ◆ Materials for drawing and creating maps
  - Crayons
  - Markers
  - Paint
  - Paintbrushes

**Inquiry Station Set Up:** The best location for this station is a table. Display pictures of simple maps, along with the station guide and materials for drawing. Since students have been working on a whole-class neighborhood map, this offers a great opportunity to assess learning.

Suggestions for Station Guide:

1. What have you discovered about neighborhood maps?
2. Create your own neighborhood map.
3. What people, places, and signs will you draw?

**Inquiry Station Experience:** Calling all creators! This is the time for our little neighborhood map makers to use their imagination and knowledge from this PBL unit to bring their very own neighborhood map to life. Teacher questions should support them in considering:

1. What will the roads look like?
2. What important people and places will be found in the town?
3. What is the town's name?
4. How will people in the town work together?

## Station Six: Telling a Helping Hands Story with Stop Motion Video

Station Materials:

- ◆ iPad with stop motion video application loaded
- ◆ People figurines

- ◆ Building blocks
- ◆ Paper
- ◆ Markers/colored pencils

**Inquiry Station Set Up:** The best location for this station is a table for background creation and stop motion video production.

Suggestions for Station Guide:

1. How do neighbors help each other?
2. Why is it important to show kindness to others?
3. Work with your team to create a movie about neighbors helping each other.

**Inquiry Station Experience:** Stop motion videos are a fantastic way for even our smallest learners to discover how small parts work together to make a whole story. In their movie-making role, students will design a movie set, discuss a small script, choose characters, and put it all together with the stop motion video creation.

If you are uncomfortable with the stop motion video creation station, an alternative option is another dramatic play experience.

Alternative Dramatic Play Ideas:

- ◆ Grocery Store
- ◆ Restaurant
- ◆ Fire Station

## Phase Two – Day Fourteen

**Prepping for the day:** Today is all about project research and design. Students will choose how they plan to display their expert knowledge with the culminating project. Students can choose to work in groups, pairs, or individually to create and display their expert knowledge on neighborhoods. Students will research in books, investigate expert photos, and watch expert videos on select topics.

**The Project:** The culminating project is designed for students to work in pairs, groups, or individually. The goal in this project is to bring an aspect of the neighborhood to life.

**Project Examples:**

- ◆ A skit of firefighters helping a neighbor
- ◆ A model of a neighborhood map, including all the people and places
- ◆ A book about a veterinarian helping animals in the neighborhood

Refer to back to the end of Chapter 4 for additional ideas to support student projects. Looking back over documentation notes is another way to support students as they consider how they will display their expert knowledge.

**Discovery Step #1:** Gather students into the central meeting space and talk about all the great learning they have done in learning more about neighborhoods. Then ask them to think about a part of a neighborhood that they've learned the most about and have lots of expert knowledge to share. Invite students to turn and talk to their neighbor about areas of expertise.

**Discovery Step #2:** Explain to students that today is the final project day, where they will display their expert knowledge. Support students in considering how they would like to demonstrate their expert knowledge. Allow time to finalize research and design expert knowledge creation.

**Discovery Step #3:** After each child selects how they will display their expert knowledge, invite students to look through books and photographs to gain even more expert knowledge. While they are finalizing their research, support student thinking by questioning them about their neighborhood expert knowledge project plan.

**Discovery Step #4:** Pass out paper for students to brainstorm ideas and consider needed supplies for the next day's build.

## Phase Two – Days Fifteen and Sixteen

**Prepping for the day:** These are the last two days of Phase Two.

Today students will use various art supplies, technology, paper, or decided materials to bring their project plan and expert knowledge to life. Supplies should be easily accessible for students to gather as they begin the creation process.

**Discovery Step #1:** Have working spaces ready for students to begin assembling their expert knowledge creations. Depending on the type of creation they are building will depend on the amount of workspace needed.

**Discovery Step #2:** Invite students to gather their materials at the materials table and use their plan from yesterday to begin their expert knowledge project build. Creation time allows for strong documentation, as well an opportunity for teacher questioning. Students will have two full days to build their project creation; this includes assembling, writing, painting, etc. At the end of day two, all projects should be ready for presentations.

## Phase Three – Celebrate and Share

The planned duration for Phase Three (the celebration phase) is two days. During these two days, students will plan their project celebration and present their expert knowledge.

**TABLE 7.6**

Table displays the planning and discovery phases in Phase Three of the PBL unit on neighborhoods

|             |        |                   |
|-------------|--------|-------------------|
| Phase Three | Day 17 | 3 Discovery Steps |
|             | Day 18 | 1 Discovery Step  |

Phase Three Suggested Materials:

- ◆ Art supplies – crayons, markers, colored pencils, paint, etc.
- ◆ Paper for invitation creation
- ◆ Backdrop creation supplies – bulletin board paper, paint, etc.

## Phase Three – Day Seventeen

**Prepping for the day:** Today is all about letting the students planning and creativity shine! As a class, they will determine who should be invited, where the presentations will take place, and what expert knowledge they plan on sharing. The teachers work will consist of gathering samples of student documentation (photographs of students at work, work samples, etc.) to put on display.

**Discovery Step #1:** Gather students together to collaborate on a few ideas:

1. Who should be invited to the presentation day tomorrow?
2. Who will make the invitations?
3. What important information should be placed on the invitation?
4. Where will the presentations take place?
5. Will there be a stage or a backdrop?
6. What order will bird experts present?

Once these questions have been decided upon, students will break into groups to get busy working on the invitations, stage set up, display areas, and the backdrop.

**Discovery Step #2:** Send groups of students to deliver the invitations to the invited guests. If, by chance, the guests are not part of the school faculty, you can snap a quick picture of the invitation and email it.

## Phase Three – Day Eighteen

**Prepping for the day:** Today is a celebration of all the wonderful learning that has taken place over the last few weeks in the PBL unit on neighborhoods! Students take turns presenting their displays of expert knowledge with classmates and invited guests. Refer back to the end of Chapter 4 for a more detailed view of the celebration day.

**Discovery Step #1:** As invited guests arrive and students take their places in the audience, the presentations should begin. Each speaker will have the opportunity to share their expert knowledge, answer questions from the audience, and share their neighborhood creation.

After project presentations are finished, consider displaying the learning somewhere in your hallway, front office, or another school location to share the newly learned knowledge with others. Students from around the school will now have the opportunity to grow their knowledge of neighborhoods through the class display.

## Further Reading

Daly, L., Beloglovsky, M., & Daly, J. (2014). *Loose Parts: Inspiring Play in Young Children (Loose Parts Series)* (Illustrated ed.). Redleaf Press.

## Chapter 7 Picture Book Reference List

Boring, M., & Garrow, L. (1998). *Birds, Nests, and Eggs (Turtleback Binding Edition)* (Turtleback Binding ed.). Turtleback.

Cali, D., & Dek, M. (2018). *Good Morning Neighbor: (Picture Book on Sharing, Kindness, and Working as a Team, Ages 4–8)* (Illustrated ed.). Princeton Architectural Press.

Collard, S. B., III, & Brickman, R. (2002). *Beaks!* (Illustrated ed.). Charlesbridge.

Cole, H. (2021). *Nesting*. Katherine Tegen Books.

Cooper, K. S., & Muehlenhardt, A. B. (2006). *Whose Hat Is This?: A Look at Hats Workers Wear—Hard, Tall, and Shiny (Whose Is It?: Community Workers)* (Illustrated ed.) Picture Window Books.

Cousins, L. (2018). *Hooray for Birds!* (Illustrated ed.). Candlewick.

Donovan, L., & Paras, D. (2021). *Birds in My Backyard*. Independently Published.

Elliott, Z., & Wong, P. (2020). *On My Block*. Independently Published.

Evans, S. (2018). *National Geographic Readers: Helpers in Your Neighborhood (Pre-reader)* (Illustrated ed.). National Geographic Kids.

Garland, M. (2019). *Birds Make Nests* (Illustrated ed.). Holiday House.



- Henkes, K., & Dronzek, L. (2017). *Birds Board Book* (Illustrated ed.). Greenwillow Books.
- Hitchman, J., & Baleine, L. L. (2019). *In Every House on Every Street* (Illustrated ed.). Tiger Tales.
- Hughes, C. (2016). *National Geographic Little Kids First Big Book of Birds (National Geographic Little Kids First Big Books)* (Illustrated ed.). National Geographic Kids.
- Jenkins, P. B., & Rockwell, L. (2015). *A Nest Full of Eggs (Let's-Read-and-Find-Out Science 1)* (Illustrated ed.). HarperCollins.
- De la Peña, M. (2016). *Last Stop On Market Street*. Penguin.
- Lyons, S., & Saunders-Smith, G. (2013). *People in My Neighborhood*. Capstone Press.
- Stewart, M. (2022). *Feathers: Not Just for Flying*. Charlesbridge.