# Exploration 2:

# What Are the Animals Doing in the Tree That Makes So Much Noise?



# Exploration 2 Overview

In this Exploration, students investigate Science Question 2: *What are the animals doing in the tree that makes so much noise?* Exploration 2 begins with the Kickoff Discussion in which students review what they discovered in Exploration 1 and share their initial ideas in response to Science Question 2. Four activities help students gather evidence about different kinds of things that animals do in trees. In Activity 1, the teacher reads aloud a new section of *The Noisy Tree*. In Activity 2, students observe videos of animals in trees and use a new language frame to describe their observations. In Activity 3, students revisit pictures of animals in trees and consider what the animals are doing in the trees. In Activity 4, students use stuffed animals and the Tree Model to demonstrate their ideas about what animals might do in trees. Exploration 2 ends with the Shared Drawing and Discussion in which the class summarizes and applies what they have learned. The purpose of Exploration 2 is for students to use science practices and ideas about cause and effect to figure out that animals in trees can make noises when they get food and make shelter for themselves or their babies.

#### Students learn

- Animals in trees can make noises when they get food and make shelter for themselves or their babies.
- Different animals eat different kinds of food.
- Different animals make different kinds of shelter.
- Scientists can examine the same things multiple times in order to get new ideas.
- Scientists can use models to share their ideas.

#### Activities at a Glance

#### Kickoff Discussion: What Are the Animals Doing?

The class revisits the shared drawing and Science Idea 1 from Exploration 1 to review what they have learned so far. The teacher introduces Science Question 2: *What are the animals doing in the tree that makes so much noise?* to motivate the activities students engage in throughout Exploration 2.



#### Activity 1: Reading The Noisy Tree

The teacher leads a Read-Aloud of a new section of *The Noisy Tree*, which models how evidence can be gathered and provides students with evidence about what animals do in trees.

#### Activity 2: Gathering Evidence from Videos

Students observe a series of videos—of animals getting food and making shelter in trees—to gather additional evidence to help answer Science Question 2. Students use a language frame to practice sharing ideas like scientists do.

#### **Activity 3: Gathering More Evidence from Pictures**

Students revisit some of the Tree Cards, which they observed in Exploration 1, to gather more evidence about what animals do in trees.

#### Activity 4: Animals in the Tree Model

Students use stuffed animals and the Tree Model to share their developing ideas about what animals do in trees.

#### Shared Drawing and Discussion: Animals Getting Food and Making Shelter

The class participates in a shared drawing and an accompanying discussion to consolidate and apply their understanding of Science Idea 2: *Animals in trees can make noises when they get food and make shelter for themselves or their babies.* 

#### Vocabulary

- animal
- evidence
- observe
- scientist
- senses
- shelter



# **Materials and Preparation**

#### **Materials**

#### For the Class

- The Noisy Tree
- Science Question 2: What are the animals doing in the tree that makes so much noise?
- 2 vocabulary cards: animal, shelter
- Tree Cards
- Language Frame 1
- Language Frame Cards: Set 2 (8 cards)
- 1 sample Science Notebook
- 1 computer or other digital device\*
- Tree Model
- shared drawing (from Exploration 1)
- shared writing (from Exploration 1)
- 2-4 sentence strips\*
- 6-9 index cards (3.5" x 5")\*
- paper cutter or scissors\*
- stuffed animals\*
- colored markers\*
- marker\*
- masking tape\*
- pocket chart or whiteboard with magnets\*
- optional: Visual Directions Cards (8 cards)

#### For Each Student

- 1 set of crayons\*
- 1 Science Notebook

\*teacher provided

#### Preparation

- 1. Optional: Plan for flexible
  - implementation. If you would like
    to use the flexible implementation
    option, refer to the teacher reference
    on pages 70–71 (Suggestions for
    Flexible Implementation: Exploration
    2) to determine any adjustments you
    may need to make for planning and
    instruction. Activities 2, 3, and 4 can
    be implemented flexibly to incorporate
    a science center with an adult-led
    introduction and wrap-up. Activity 1
    requires adult facilitation.

#### 2. Locate the following print materials:

- Science Question 2: What are the animals doing in the tree that makes so much noise?
- vocabulary cards: animal, shelter
- 3. Prepare Science Idea 2 (Shared Drawing and Discussion). On one or two sentence strips, write "Animals in trees can make noises when they get food and make shelter for themselves or their babies." You will post this during the Shared Drawing and Discussion activity.
- 4. Search for videos on the Internet (Activity 2). You will project a series of videos depicting animals getting food and making shelter in trees. You may use the suggested search terms (in



parentheses below) to find videos, or you may find videos of other animals getting food or making shelter. Make sure to choose videos in which the sound of the animals getting food or making shelter is noticeable and, ideally, in which there is no narration. Be ready to project two or three videos from each category from a computer or other device.

- Animals getting food
  - squirrel eating ("squirrel eating nuts in tree")
  - bear eating ("bear eating berries in tree")
  - koala eating ("koala eating eucalyptus leaves")
  - woodpecker eating ("woodpecker finding food in tree")
  - chimpanzee eating ("chimpanzee eating ants in tree")
- Animals making shelter
  - woodpecker making shelter ("woodpecker building nest cavity")
  - yellow jackets making shelter ("yellow jacket nest tree")
  - robin making shelter ("nesting robin")
  - bear making shelter ("bear nest in tree")
- 5. Prepare Language Frame 2 and accompanying card set (Activity 2, Shared Drawing and Discussion).

- Language Frame 2. On one or two sentence strips, write "The \_\_\_\_\_ makes a \_\_\_\_\_ noise when it is \_\_\_\_\_.
- Language Frame Cards: Set 2. This card set is provided as a Class Resource, located after the activities in Exploration 2. Make a copy of the card set (8 cards) and cut apart each card.
  - Once you have chosen videos to show students in Activity 2, use index cards to make additional language frame cards that depict each kind of animal in the videos.
  - For each card, write the name of the animal at the bottom of the card and either draw the animal or search for a picture of the animal on the Internet and print and tape it to the card.
- 6. Arrange the language frame and cards in a pocket chart or on a whiteboard (Activity 2, Shared Drawing and Discussion). Refer to the teacher reference on page 72 (Language Frame 2) to see what the setup with the sentence strip(s) and cards will look like.
  - Place the language frame in a pocket chart or attach it to a whiteboard with magnets.
  - Place the cards beneath the language frame. Make sure the cards are turned over so they are not revealed to students until you discuss them in Activity 2.





- Under the first blank of the language frame, you will place the cards you created on index cards.
- Under the second blank of the language frame, you will place the speech-bubble cards.
  - Write a sound on a speechbubble card that corresponds to an animal from the video (e.g., if you found a video of yellow jackets making shelter, you would write "bzzz, bzzz" in the speech bubble).
  - If you need to provide more than 6 cards with speech bubbles, make extra copies of that card.
- Under the third blank of the language frame, you will place the getting food and making shelter cards.
- You will hold up Language Frame 1 from Exploration 1 for review in the Kickoff Discussion in this Exploration.
- Prepare subset of Tree Cards (Activity 3). In this Exploration, students will only observe Tree Cards with pictures of animals in trees. Gather these cards (Tree Cards 9–24) for students to use in Activity 3.
- 8. Prepare to play sound recordings from Exploration 1 (Shared Drawing and Discussion). You will replay the

woodpecker and squirrel making a nest sound recordings from Exploration 1. Be ready to play these from a computer or other device.

- 9. Review The Noisy Tree (Activity 1, Shared Drawing and Discussion). Preview pages 16–23.
- 10. Preview shared drawing and shared writing (Kickoff Discussion, Shared Drawing and Discussion). At the beginning of Exploration 2, students will revisit the shared drawing and shared writing from Exploration 1. At the end of Exploration 2, you will add to the shared drawing and shared writing. Refer to the teacher references on page 74 (Shared Drawing: Exploration 2) and page 75 (Shared Writing: Exploration 2) to see what the shared drawing and shared writing will look like at the end of Exploration 2. (If you removed the shared drawing and shared writing from the wall after Exploration 1, repost them next to each other.)
- 11. Gather stuffed animals for the Tree Model (Activity 4).
  - Gather a collection of stuffed animals representing animals that get food and/or make shelter in trees (e.g., bears, squirrels, birds, raccoons, chipmunks, monkeys, snakes) for students to add to the Tree Model.



- Refer to the teacher reference on page 73 (Tree Model: Exploration 2) to see what the Tree Model will look like with the addition of stuffed animals.
- You might also invite students to bring stuffed animals from home. If you choose to do so, write a letter or send an email to their families asking for students to bring stuffed animals to class.

#### 12. Have on hand the following materials:

- Kickoff Discussion: Language Frame 1, Science Question 2, masking tape
- Activity 1: The Noisy Tree
- Activity 2: videos; vocabulary cards: animal, shelter; masking tape
- Activity 3: Tree Cards 9–24, Science Notebooks, crayons
- Activity 4: Tree Model, stuffed
   animals
- Shared Drawing and Discussion: prepared Science Idea 2, masking tape, *The Noisy Tree*, sound recordings, colored markers



## **Teacher References**

#### Suggestions for Flexible Implementation: Exploration 2

Activities 2, 3, and 4 can be implemented flexibly to incorporate a science center with an adult-led introduction and wrap-up. Activity 1 requires adult facilitation. Refer to the following suggestions about how to modify these activities to incorporate a science center into Exploration 2:

#### Activity 1: Reading The Noisy Tree

• This activity requires adult facilitation. Follow all steps as written.

#### Activity 2: Gathering Evidence from Videos

- Introduction: Follow Steps 1–9 to play the videos and introduce the new vocabulary and language frame. When demonstrating the language frame, set expectations for using the language frame and associated cards to make sentences about the videos.
- Science center (Step 10): Students work at the center to practice discussing their observations from the videos by using the language frame and language frame cards.
- Wrap-up: Once all students have completed the center activity, gather the class together and follow Step 11 to synthesize student learning.
- **Materials adjustments:** Prepare one language frame with language frame cards for each pair of students working at the center.
- Visual Directions Cards: share, explain



#### Activity 3: Gathering More Evidence from Pictures

- **Introduction:** Follow Steps 1–4 to model observing a Tree Card with a partner and drawing your idea in the Science Notebook about what the animal in the picture is doing.
- Science center (Steps 5–7): Students work at the center to discuss observations of Tree Cards with a partner and draw ideas in their Science Notebooks. If you would like to complete the Formative Assessment Opportunity in Step 7, make sure to listen to the conversations students have while working at the center.
- Wrap-up: Once all students have completed the center activity, gather the class together and follow Steps 8–11 to synthesize student learning.
- Materials adjustments: n/a
- Visual Directions Cards: observe, share, draw and write

#### Activity 4: Animals in the Tree Model

- Introduction: Follow Steps 1–3 to review the Tree Model and to demonstrate using a stuffed animal to show how an animal uses the tree to get food or make shelter.
- Science center (Step 4): Students work at the center with stuffed animals to demonstrate their ideas about how animals use trees to get food or make shelter. You may also want to have students draw these ideas on an additional page in their Science Notebooks.
- **Wrap-up:** Once all students have completed the center activity, gather the class at the Tree Model and follow Step 5 to synthesize student learning.
- Materials adjustments: n/a
- Visual Directions Cards: *think* (You may also want to take a photo or draw a picture of a student placing a stuffed animal in the Tree Model to post as an additional visual cue for what students will do at the science center.)



#### Language Frame 2

On one or two sentence strips, write the language frame shown below. Place the language frame in a pocket chart or attach it to a whiteboard with magnets. Place the cards in the pocket chart beneath the language frame. Make sure the cards are turned over so they are not revealed to students until you discuss them in Activity 2.





#### **Tree Model: Exploration 2**

In Activity 4, students will add stuffed animals to the Tree Model to represent animals that get food and/or make shelter in trees (e.g., bears, squirrels, birds, raccoons, chipmunks, monkeys, snakes). Below is an example of how the Tree Model will look at the end of Exploration 2.





#### Shared Drawing: Exploration 2

At the end of this Exploration, you will add to the shared drawing with student input. Below is an example of how the shared drawing for Exploration 2 will look. Be sure to include the following:

- a hole in the tree trunk with a baby woodpecker waiting to be fed
- a bug in the woodpecker's mouth to feed to the baby woodpecker
- a nest made of leaves
- a squirrel with leaves in its mouth and a speech bubble to indicate the crunching sound the squirrel is making as it adds leaves to the nest

If students suggest additional animals that get food in trees or make shelter in trees, you might add those animals to the drawing as well.





#### Shared Writing: Exploration 2

During the Shared Drawing and Discussion activity at the end of Exploration 2, you will add another sentence to the shared writing. Below is an example of how the shared writing for Exploration 2 will look.

There is a woodpecker in the tree.

The woodpecker makes a tapping noise when it is getting food.

# Kickoff Discussion: What Are the Animals Doing?

#### What?

The class reviews Science Idea 1 and the shared drawing from Exploration 1. Students are introduced to Science Question 2 and discuss their initial ideas in response to this question.

#### Why?

Introducing and discussing Science Question 2 and looking ahead to gathering additional evidence provide students with further experience in how scientists approach a problem.

#### How?

#### 1. Revisit Science Idea 1.

- Q In our first Exploration, we learned that trees often have lots of animals in them and that animals make noises.
- 2. Display the shared drawing and shared writing from Exploration 1. Invite students to describe what is depicted in the drawing. Hold up and review Language Frame 1 and encourage students to use the language frame to support their ideas. As needed, guide students to the following description:
  - There is a woodpecker in the tree.

#### 3. Introduce Science Question 2.

When scientists figure out an answer to a question, they often wonder about a new question. So, now that we know that there are animals in the tree and that these animals make noises, we can ask a new question.

Post Science Question 2 to the classroom wall and read it aloud.

- ${igodot}$  What are the animals doing in the tree that makes so much noise?
- **4. Invite students to share their ideas about Science Question 2.** Provide the Shared Listening prompt and give students time to engage in the Shared Listening routine with partners.

 ${igodot}$  Take turns sharing what you think the animals are doing in the tree that makes so much noise.

- 5. Preview gathering additional evidence and wrap up the activity.
  - We are going to continue working as scientists to gather more evidence to help us answer our new science question. After we have more evidence, we might change our ideas about what the animals are doing in the tree that makes so much noise.

### **Teacher Support**

#### Rationale

#### Pedagogical Goals: Introduction to Food and Shelter

Exploration 2 focuses on two key behaviors that animals engage in: getting food and making shelter. We chose to focus on these behaviors because they introduce two of the needs for animal survival that students will learn more about in kindergarten and grade 1. Focusing on food and shelter builds toward the ways in which animals depend on plants, which students will discover in Exploration 3. Furthermore, the key science idea that students come to understand in Exploration 3—Science Idea 3: *Trees are good places for animals to get food and make shelter because trees have things that animals need.*—provides a foundation for later learning about interdependence between types of organisms in an ecosystem.



# Activity 1: Reading The Noisy Tree

#### What?

The teacher reads aloud the next section of *The Noisy Tree* in which the girl gathers new evidence about what the animals in the tree are doing.

#### Why?

This section of the book models the practice of gathering additional evidence in order to better understand what causes something to happen. This section also helps students construct the idea that animals in trees can make noises when they get food or when they make shelter for themselves or their babies.

#### How?

- 1. Display *The Noisy Tree*. Invite students to share what they remember from the previous readings of the book. Explain that the class will read a new section of the book to gather evidence to help them figure out what the animals are doing in the tree that makes so much noise. As needed, remind students that the girl in the book heard noises coming from the tree and is trying to figure out what is going on.
- 2. Open to page 15. Invite students to name the animals that the girl observed in and around the tree.
- **3. Read aloud pages 16–18.** Pause after you have finished reading and invite students to share their observations of the picture on page 18.

 ${igodol Q}$  What do you think the woodpecker was doing?

[Getting food. Eating bugs. Feeding its babies.]

- 4. Read aloud page 19. Pause after you have finished reading.
  - Q What do you think the woodpecker was doing when it was making that tapping noise on the tree?

[Getting food for its baby.]

Highlight the evidence the girl observed.

- The girl observed the woodpecker tap the tree and pull out something small. Then, she observed the woodpecker give the small thing to the baby, and the baby ate it.
- C These observations are evidence that the woodpecker was getting food for its baby when it made the tapping noises on the tree.



- 5. Read aloud page 20. Pause after you have finished reading.
  - $\bigcirc$  What do you think the squirrel is doing?
    - [Getting food to save for later. Getting leaves to make a nest.]
- 6. Read aloud page 21. Pause after you have finished reading.
  - $\bigcirc$  What noise do you think the squirrel made?
    - [A crunchy noise.]
  - Q What do you think the squirrel was doing when it made that crunchy noise in the tree? [Getting leaves for its nest.]
- 7. Read aloud page 22. Pause after you have finished reading.
  - Q What noise do you think the caterpillar makes when it is eating the leaf? [A quiet chewing noise. A munching noise.]
- 8. Read aloud page 23 and wrap up the activity.
  - Q What did the girl have to do to figure out what was going on with the noises in the tree? [Make more observations. Gather more evidence.]
  - $\bigcirc$  We will keep gathering evidence to answer our questions, just like scientists do.



# **Activity 2: Gathering Evidence from Videos**

#### What?

Students observe videos of animals getting food or making shelter in trees. Students use a language frame to describe their observations.

#### Why?

Observing animals making noises while engaged in various activities in trees enables students to gather additional evidence to help answer Science Question 2. Introducing a new language frame provides students with another structured opportunity to share ideas in the way that scientists do.

#### How?

**1. Set purpose.** Let students know that they will observe videos of real animals in order to gather more evidence about the things animals do that make noises in trees.

As I play each video, use your senses to observe the animals. Look and listen closely to gather evidence about what the animals are doing to make noises.

2. Project the first video. Encourage students to look and listen closely to the animal(s) in the video. As needed, replay the video. Then, pose the following questions, one at a time:

 $\bigcirc$  What animal(s) did you observe in the video?

Q What kind of noise(s) did the animal(s) make?

- Q What was the animal doing when it made that noise? (What were the animals doing when they made those noises?)
- **3.** Project the remaining videos. Encourage students to look and listen closely to the animal(s) in the video. Replay the video as needed. Then, pose the same three questions as you did in Step 2.
  - $\bigcirc$  What animal(s) did you observe in the video?

 $\mathbb{Q}$  What kind of noise(s) did the animal(s) make?

Q What was the animal doing when it made that noise? (What were the animals doing when they made those noises?)



#### 4. Highlight animals getting food.

- Display the language frame cards you made for all the animals in the videos that were getting food.
- Invite students to share what was similar about what all these animals were doing. [All the animals were getting food.]

#### 5. Introduce animal.

Q We have been talking a lot about animals. We just observed different animals getting food.

Use the Vocabulary routine to introduce *animal*: a living thing, such as an ant, a cat, a clam, or a bird, that needs to eat.

#### 6. Highlight animals making or using shelter.

- Display the language frame cards you made for all the animals in the videos that were making shelter.
- Invite students to share what was similar about what all these animals were doing. [All the animals were making a home. All the animals were in their homes.]

#### 7. Introduce shelter.

We just observed different animals making or using their homes. Each animal's home is a shelter.

Use the Vocabulary routine to introduce *shelter*: a safe place for an animal.

#### 8. Introduce Language Frame 2.

Q Remember that scientists share their ideas with other scientists. We can use these words to help us talk about and share what we observed in the videos.

Point to the language frame and read it aloud.

 $\bigcirc$  The \_\_\_\_ makes a \_\_\_\_ noise when it is \_\_\_\_ .

Hold up the *getting food* and *making shelter* cards and explain what getting food and making shelter encompass.

 ${igodold O}$  When we talk about animals getting food, that could be finding food or eating food.

When we talk about animals making shelter, that could be finding a part of the tree to use as a shelter or building a shelter with parts of the tree.



#### 9. Model using the language frame.

- Hold up the animal card that goes with the first video the class watched.
- Invite students to recall what the animal did in the video and what kind of noise it made.
- Model placing a language frame card in each of the three blanks according to students' responses.
- Read the completed sentence aloud.
- Invite students to repeat the sentence with you as you point to the words of the language frame.
- **10. Invite students to share, using the language frame.** Hold up the other animal cards, one at a time, and ask volunteers to share what they observed in the videos for each animal. For each animal card, repeat the following steps:
  - Display the animal card.
  - Invite a volunteer to share what the animal in the video was doing and what noise it made.
  - Have the volunteer place the animal card, speech-bubble card, and either the *getting food* card or the *making shelter* card in the appropriate blanks in the language frame.
  - Point to and read aloud the completed language frame together.

#### 11. Wrap up the activity.

C These videos gave us evidence of two things animals do in trees—they get food and make shelter.



# **Teacher Support**

#### Instructional Suggestion

#### Science Practices: Recording Observations

Consider having students record their observations of each video before discussing their ideas about the animals. After showing each video, invite students to draw (in their Science Notebooks) what they think the animal in the video is doing. This practice reflects how scientists record their observations. It also gives students a chance to process what they observed before having to share, which may support English learners and students who are more visual learners.

#### Instructional Suggestion

#### Providing More Experience: Using the Language Frame for Additional Observations

Providing students with additional opportunities to practice the language structures learned through the instructional activities is important for ongoing oral language development. As space in your classroom permits, keep Language Frame 2 posted and encourage students to use the language frame to describe their continued observations. For example, if students observe animals outside of school, encourage them to use the language frame with family members or friends to describe what the animals are doing and what noises they are making. Students can share these observations with classmates upon returning to school. If you have a class pet or other animals that are visible from your school, encourage students to use the language frame to share observations of these animals getting food and making shelter.

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# **Activity 3: Gathering More Evidence from Pictures**

#### What?

Students revisit the Tree Cards that have animals in trees, which they observed in Exploration 1, and discuss and record observations about what the animals are doing.

#### Why?

Focusing on what animals are doing in the pictures helps students deepen their understanding of what is causing the noise in the tree.

#### How?

- 1. Set purpose. Let students know that they will look at some of the Tree Cards they observed in Exploration 1. This time, students will think about what the animals in the pictures might be *doing* in the trees.
  - Scientists often go back to observe the same things again to get new ideas that can help them answer their questions.

Q We are going to observe the pictures of animals in trees again to help answer our question about what the animals are doing in the tree that makes so much noise.

2. Model observing a Tree Card with a partner. Let students know that they will use the Shared Listening routine to observe and discuss the pictures with a partner. Explain that it is fine if students are not sure what the animal in the picture is doing; they should make their best guess based on what they observe. Invite a volunteer to be your partner and model observing the picture together and engaging in the Shared Listening routine. For example, hold up and discuss Tree Card 18.

Q I think the monkey in this picture is eating fruit. I think that because the monkey is holding a piece of fruit in its hand, and it has some fruit on its tongue, too.

Invite your volunteer partner to share their ideas about the picture. Listen as your partner talks. Then, remind students to share their reasoning.

Q Make sure to explain what makes you think the animal is doing whatever you think it's doing.

**3. Remind students of their Science Notebooks.** Hold up a Science Notebook and remind students that scientists often draw or write their observations and ideas to keep track of



them. Let students know that after discussing each Tree Card with their partners, they will draw their ideas about what the animals are doing.

- **4. Model recording ideas.** Hold up Tree Card 18 and in your Science Notebook, model making a quick drawing of a monkey eating.
- **5. Distribute materials.** Distribute one or two Tree Cards to each pair of students. For each student, distribute their Science Notebook and one set of crayons.
- 6. Students discuss pictures and draw ideas. Give students time to engage in the Shared Listening routine with their partners and to draw in their Science Notebooks. Once pairs have had a chance to discuss and draw their ideas about their Tree Cards, have them trade cards with another pair. Do this a few times so each pair of students has a chance to observe several of the pictures.
- **7.** Formative Assessment Opportunity. As students observe, discuss, and record ideas about the pictures with their partners, circulate to listen to their ideas. Look for how students communicate their ideas with their partners. Consider the following:
  - Do students clearly share their ideas with their partners?
  - Do students refer to specific features they observe in the pictures?
  - Do students provide a rationale for their ideas?

Students who are developing facility with communicating like a scientist will clearly share their ideas, refer to specific features of the pictures, and provide a rationale for their thinking.

8. Discuss animals getting food. After students have had time to discuss the pictures with a partner, bring the class back together.

 $\bigcirc$  Did anyone observe an animal that they think is getting food for itself or for its babies?

Encourage students to refer to their drawings and then invite volunteers to share their ideas. Display the corresponding Tree Cards as students share. Encourage and support students to highlight specific evidence in the pictures that make it appear that the animal might be getting food.

#### 9. Discuss animals making shelter.

Q Did anyone observe an animal that they think is making shelter, such as a nest, for itself or for its babies?

Encourage students to refer to their drawings and then invite volunteers to share their ideas. Again, display the corresponding Tree Cards as students share. Encourage and support students to highlight specific evidence in the pictures that makes it appear that the animal might be making shelter.



#### 10. Elicit students' ideas about animal noises.

Q Do you think any of these animals might make a noise while they are getting food or while they are making shelter?

 ${igodol Q}$  What kinds of noises do you think the animals might make?

Invite volunteers to make or describe the noise they think an animal in a picture might be making. Again, display the corresponding Tree Cards as students share.

#### 11. Synthesize ideas.

Q We gathered evidence from these pictures about two things animals do in trees—they get food and make shelter.

### **Teacher Support**

#### Rationale

#### Pedagogical Goals: Revisiting the Pictures of Animals in Trees

In revisiting a subset of the Tree Cards, rather than just concluding that there are animals present in some of the trees, students look for evidence of what the animals might be *doing* in the trees. Returning to familiar pictures with a new focus can be particularly supportive for students who may not yet have developed a complete understanding of Science Idea 1: *Trees often have lots of animals in them. Animals make noises.* The use of familiar artifacts helps reduce the cognitive load and also offers students an opportunity to revisit key content from Exploration 1. An argument could be made that each picture shows animals either getting food or making shelter; however, even if students do not recognize one of these actions, the pictures still reinforce the idea that trees often have animals in them. Additionally, returning to familiar pictures models the work of real scientists. Scientists often observe the same set of data many times, refining their ideas and considering new questions across successive observations.



#### Instructional Suggestion

#### Providing More Experience: Using the Language Frame to Describe the Tree Cards

As students share what noises they think the animals are making as the animals get food and make shelter, you could have students use Language Frame 2 to structure their ideas. If you choose to do so, model using the language frame to share an idea about an animal on one of the Tree Cards. For example, hold up Tree Card 18 and think aloud about what the monkey is doing and what noise it is making. As you think aloud, place the *monkey* card (from Language Frame Cards: Set 1), a blank speech-bubble card, and the *getting food* card (the latter two cards from Language Frame Cards: Set 2) in the appropriate blanks. Write the animal sound on the speech-bubble card. Read the sentence aloud. Invite volunteers to use the language frame to describe what is happening in other Tree Cards. For each picture:

- Display the picture.
- Invite a volunteer to share the noise and action that describe what's happening in the picture.
- Have the volunteer place the corresponding language frame cards in the appropriate blanks in the language frame (e.g., a student sharing their observation of Tree Card 13 would choose the *wasp* card, a blank speech-bubble card, and the *making shelter* card, and place each in the language frame).
  - For each new animal noise, write the sound on the speech-bubble card.
- Point to and read aloud the completed language frame together, using the noise the student shared (e.g., "The wasp makes a buzzing noise when it is making shelter.").



# Activity 4: Animals in the Tree Model

#### What?

Students return to the Tree Model and use stuffed animals to demonstrate what animals might do in trees.

#### Why?

Interacting with the Tree Model offers students additional experience with the scientific practice of modeling. It also engages them in kinesthetic learning to reinforce their developing understanding of animals getting food and making shelter in trees.

#### How?

- **1. Set purpose.** Let students know that they are going to work with the Tree Model again. This time, students will use stuffed animals to demonstrate what animals do in trees.
- 2. Introduce modeling ideas with the Tree Model. Explain that students will take turns modeling with the Tree Model how an animal gets food or makes shelter. Encourage students to add noises with their voices and/or interact with the Tree Model in a way that an animal might. Let students know that after each student demonstrates with a stuffed animal, the class will guess what the animal was doing in the tree.
- **3.** Model using a stuffed animal with the Tree Model. Demonstrate an animal getting food from the Tree Model. For example, use a stuffed-animal bird to model a bird flying to the tree trunk and pecking at the trunk to get an (imaginary) bug to eat. Invite students to guess what the animal was doing in the tree
- **4.** Have students take turns using stuffed animals with the Tree Model. Call on students, one at a time, to demonstrate how an animal gets food or makes shelter.
- 5. Conclude by highlighting how scientists use models to share ideas.
  - Q We just used our Tree Model to show our ideas about things animals do that make noises in trees.
  - Q Using a model like we have been doing with our Tree Model is one way that scientists can share their ideas.



# **Teacher Support**

#### Instructional Suggestion

#### Providing More Experience: Making Animal Puppets

If you don't have access to a variety of stuffed animals for use with the Tree Model, you can add to your collection by having students create animal puppets out of paper. Invite students to help you generate a list of animals that spend time in trees. Encourage students to think of the animals they observed in the *The Noisy Tree*, on the Tree Cards, and in the videos. Point out which animals are not part of the class collection of stuffed animals (e.g., bugs, bats). Provide students with craft materials and basic outlines to create animal puppets. Invite them to use the puppets to interact with the Tree Model, just as they do with stuffed animals.

#### Instructional Suggestion

#### Going Further: Modeling with Parents and Babies

To emphasize how animals sometimes get food or make shelter for their babies, invite students to use two stuffed animals to represent a parent and its baby and to model how a parent might get food or make shelter for its babies. If you don't have two stuffed animals of the same type, have students make puppets of babies to go with the adult stuffed animals you do have.



# Shared Drawing and Discussion: Animals Getting Food and Making Shelter

#### What?

The class discusses what the animals are doing in the tree that makes so much noise. Then, they represent their ideas in a shared drawing. Students use the language frame to describe the shared drawing in an oral and written explanation.

#### Why?

Participating in the shared drawing and accompanying discussion helps students apply their understanding that animals in trees can make noises when they get food and make shelter for themselves or their babies. This collaborative activity also reinforces students' understanding that scientists draw, write, and talk to share their ideas.

#### How?

1. Review the activities in Exploration 2.

Q We have been working as scientists to gather evidence to help answer this question: What are the animals doing in the tree that makes so much noise?

Remember that evidence is things you see, hear, or read that help you answer a question.

Invite students to share some of the ways they have gathered evidence to help answer this question.

- 2. Students share ideas about what animals do in trees that makes noise. Invite volunteers to share their ideas about what animals do in trees that makes noise. As needed, use artifacts from Exploration 2 (e.g., Tree Cards, *The Noisy Tree*) to review two key ideas:
  - Animals can make noise when they are getting food.
  - Animals can make noise when they are making shelter.
- 3. Introduce Science Idea 2. Hold up Science Idea 2 and read it aloud.
  - Animals in trees can make noises when they get food and make shelter for themselves or their babies.

Remind students that they have gathered evidence from many activities to figure out this idea. Post Science Idea 2 on the classroom wall.

#### 4. Display page 14 of *The Noisy Tree*.

Q In our last Exploration, we discovered that a woodpecker was making one of the noises the girl heard coming from the tree.

- 5. Play the woodpecker sound recording. Invite students to share their ideas about what the woodpecker might have been doing to make so much noise.
- 6. Review pages 18–19 of *The Noisy Tree*. Read the pages aloud and then pause and review what the girl observed.

 $\bigcirc$  What did the girl observe on these pages with her senses of hearing and sight?

[She heard the tapping noise. She saw the woodpecker poke its beak into the tree and pull something out. She saw the woodpecker feed something to its baby.]

What do you think the woodpecker was doing when it was making the tapping noise? [Getting food for its baby.]

#### 7. Lead shared drawing of the woodpecker.

When we first created this picture, we drew a woodpecker making a tapping noise to show what we learned about why so many noises were coming from the tree.

Q Today, we can add to our drawing to explain what we have figured out about what the animals are doing in the tree that makes so much noise.

Elicit and then synthesize students' ideas. Use colored markers to add the following to the shared drawing:

- a hole in the tree trunk with a baby woodpecker waiting to be fed
- a bug in the woodpecker's mouth to feed to the baby woodpecker

If students suggest additional animals that get food in trees, you might add those animals to the drawing as well.

8. Play the sound recording of a squirrel making a nest.

 ${igodol R}$  Remember that the girl also heard a crunchy noise like this one.

- $\bigcirc$  What do you think an animal might be doing in a tree to make a noise like that one?
- **9.** Review pages 20–21 of *The Noisy Tree*. Read the pages aloud. Pause after you have finished reading and review what the girl observed.

 $\bigcirc$  What did the girl observe?

[She saw a squirrel carrying leaves in its mouth and climbing up a tree. She saw the squirrel add the leaves to its nest. She heard noises.]



 ${igodot}$  What do you think is making the crunchy noise that the girl heard?

[The squirrel making a nest with leaves.]

- **10. Lead shared drawing of the squirrel.** Elicit and then synthesize students' ideas. Use colored markers to add the following to the shared drawing:
  - a nest made of leaves
  - a squirrel with leaves in its mouth and a speech bubble to indicate the crunchy sound the squirrel is making as it adds leaves to the nest

If students suggest additional animals that make shelter in trees, you might add those animals to the drawing as well.

#### 11. Revisit the language frame.

Q We just drew our ideas about what is happening in the tree. Remember that scientists draw, write, and talk to share their ideas.

Point to the language frame.

- Q We used these words to share our ideas about what we observed in videos of animals in trees with our senses of hearing and sight.
- Q Now we can use these words to help us talk about and write our ideas about what is going on in the tree in the book.
- **12. Lead shared writing about the woodpecker.** Point to the woodpecker on the drawing and then to the language frame as you model building a sentence.
  - If someone asked us what the animal is doing in the tree that makes so much noise, we could say, "The woodpecker makes a tapping noise when it is getting food."

Invite students to repeat this sentence with you. Then, write this sentence on the shared writing, under the sentence you wrote in Exploration 1.

**13. Discuss the squirrel.** Point to the squirrel on the drawing and then to the language frame as you describe what the squirrel is doing.

Q If someone asked us what the squirrel is doing in the tree that makes so much noise, we could say, "The squirrel makes a crunchy noise when it is making shelter."

Invite students to repeat this sentence with you.

**14. Conclude the Exploration.** Let students know that they will continue working to explain what is going on in the tree.



### **Teacher Support**

#### Instructional Suggestion

#### Going Further: Writing about Multiple Animals

Throughout this unit, the shared writing that the class does focuses on the woodpecker. Limiting the writing to one animal ensures that students are not sitting for too long. However, if you think your students will be able to focus on multiple animals, you could expand this to write about the squirrel and/or other animals in the tree in addition to the woodpecker.



