

Lessons 1–3

Bird Nests

Prepare

Throughout this module, students explore the different materials birds use to build nests. In Lesson 1, students examine materials birds might use for nest building and draw an initial model of a bird nest. In Lesson 2, students observe photographs of different kinds of bird nests and listen to readings about the wide variety of materials birds use for nest building from *A Nest Is Noisy* by Dianna Hutts Aston and Sylvia Long (2015). Students then develop an initial anchor model by describing different bird nests and the materials the birds used to construct them. In Lesson 3, students begin to explore the properties of materials by comparing metal and plastic spoons and forks. Next, they apply their understanding of materials and objects to create an anchor chart and update their anchor model with an explanation of how materials and objects relate to bird nests. Lastly, students generate questions about bird nests and the materials birds use to build them to develop a driving question board that will guide student exploration throughout the module.

Student Learning

Knowledge Statement

Birds use a variety of materials to build their nests.

Concept 1: Properties of Matter

Focus Question

How can we describe and classify matter?

Phenomenon Question

What can a bird nest look like?

Objectives

- Lesson 1: Develop an initial model of a bird nest by exploring materials birds might use to build nests.
- Lesson 2: Observe materials different kinds of birds use to build their nests.
- Lesson 3: Compare spoons and forks to describe properties of materials and objects.

Texas Essential Knowledge and Skills Addressed

- 2.2A **Ask questions about organisms, objects, and events during observations and investigations.** (Addressed)
- 2.4B **Measure and compare** organisms and **objects.** (Addressed)
- 2.5A **Classify matter by physical properties, including** relative temperature, **texture, flexibility,** and whether material is a solid or liquid. (Introduced)

English Language Proficiency Standards Addressed

- 2E Use visual, contextual, and linguistic support to enhance and confirm understanding of increasingly complex and elaborated spoken language.
- 4A Learn relationships between sounds and letters of the English language and decode (sound out) words using a combination of skills such as recognizing sound-letter relationships and identifying cognates, affixes, roots, and base words.
- 4C Develop basic sight vocabulary, derive meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials.

Materials

		Lesson 1	Lesson 2	Lesson 3
Student	Bird nest building materials prepared by teacher (1 set per group): cotton ball (1), feathers, moss, pieces of string (2), twigs (3), thin vines	•		
	Science Logbook (Lesson 1 Activity Guide)	•	•	
	Spoon and fork comparison (1 set per group): white plastic fork (1), metal teaspoon (1)			•
	Science Logbook (Lesson 3 Activity Guide)			•
	Colored pencils (at least 8 colors per student pair)			•
Teacher	Bird nest building materials: scissors (1), spool of string (1), twig garland (1) or 3"–6" twigs (18)	•		
	<i>A Nest Is Noisy</i> (Aston and Long 2015)	•	•	
	Baya Weaver Nests Photograph (Lesson 1 Resource)	•		
	Bird Nest Photographs (Lesson 2 Resource)		•	
	Large metal fork (1), white plastic teaspoon (2)			•
	Colored markers (at least 8 colors)			•
Preparation	Gather a set of bird nest building materials for distribution to each group, including materials that require preparation: break twig garland into 18 3"–6" twigs, and cut string into 12 8"–10" pieces.	•		

Lesson 2

Objective: Observe materials different kinds of birds use to build their nests.

Launch 5 minutes

Display the photographs of bird nests (Lesson 2 Resource) without revealing that the structures pictured are bird nests. Ask students to share their observations.



Sample student responses:

- *Little tan cups are stuck to rocks. They look like potato chips.*
- *I see a ball on the ground.*
- *It looks like a lot of fluff and sticks are in the middle of a cactus.*

Reveal to students that each picture shows a different bird nest. 🗨️ Elicit student ideas about differences between the nests and the materials the birds used to build them.

Agenda

Launch (5 minutes)

Learn (25 minutes)

- Read *A Nest Is Noisy* (15 minutes)
- Develop Anchor Model (10 minutes)

Land (5 minutes)



Teacher Note

These photographs depict the nests of the edible-nest swiftlet, the American flamingo, and the cactus wren. These birds and their nests are featured in *A Nest Is Noisy*. Note that although *A Nest Is Noisy* uses the name *cave swiftlet*, this module uses the more accurate *edible-nest swiftlet*. Students will study edible-nest swiftlet and American flamingo nests later in the module (2E).

► Why do these nests look so different?

- *I think the nests look different because they are made of different materials.*
- *They look different because different kinds of birds made them.*
- *Maybe they are different because they are in different places.*

► What materials do you think is each nest made of?

- *I'm not sure what the cup-shaped nest is made of, but it kind of looks like plastic.*
- *I think the middle nest is made of dirt and grass.*
- *The last nest looks like it is made of fluff, sticks, and cactus.*

Explain that students will listen to readings from *A Nest Is Noisy* to learn more about these and other kinds of nests.

Learn 25 minutes

Read *A Nest Is Noisy* (15 minutes)

Read aloud the full text of pages 1–4, the headings of pages 5–24, and the full text of pages 25–28 while displaying the illustrations on each page to the class.

Provide students with information about blue jay, bee hummingbird, and baya weaver nests by reading the first paragraph on page 6, the full text on page 8, and the first paragraph on page 18, respectively.  As students listen, have them use a nonverbal signal each time they hear the name of a material birds use to construct a nest. 

After reading aloud an important, unfamiliar word that students cannot define through context or morphological clues, stop, briefly define the word, and provide an example of its use in another sentence. Then reread the sentence that contains the word in the text without interruption and continue to read aloud. Important, unfamiliar words in *A Nest Is Noisy* may include *assembled*, *lichen*, *stretchy*, *expand*, *neighborly*, and *fronds*.



Differentiation

Some students may benefit from additional support with reading comprehension. Consider pausing during the read aloud to clarify unfamiliar ideas.



Teacher Note

The use of nonverbal signals is a response technique that allows the class to engage in a quick formative assessment. In this routine, students respond to a question with a closed set of possible responses by using a signal such as thumbs-up and thumbs-down or American Sign Language.

Summarize the information from the readings for the class, and then invite students to share their initial answers to the Phenomenon Question **What can a bird nest look like?** 

Sample student responses:

- *A bird nest can look like a hanging basket.*
- *A bird nest can look like a cup stuck to a wall.*
- *A bird nest can look like a pile of mud.*
- *A bird nest can look like a bunch of sticks and fluff stuck together.*

► **What materials do the different kinds of birds build their nests with?**

- *The bee hummingbird builds its nest with moss, bark, leaves, and spider silk.*
- *The baya weaver builds its nest out of grass.*
- *The blue jay uses sticks, string, and leaves to build its nest.*

Develop Anchor Model (10 minutes)

Tell students that the class will work together to develop an anchor model that the class will use throughout the module to show what they learn about different kinds of bird nests and the materials used to build them.

Explain that the first step in developing an anchor model is to determine which details to include. Tell students to use their bird nest models (Lesson 1 Activity Guide) to help them decide what to include in the anchor model. Ask for volunteers to share their ideas with the class.

As students share, ask the rest of the class to use nonverbal signals to show whether they agree that their classmate has correctly named a detail about bird nests. Call on students to support their agreement or disagreement with evidence.  As needed, ask additional questions to help students build on their classmates' ideas and clearly express their own ideas.



Content Area Connection: English

Encourage students to use words and phrases from *A Nest Is Noisy* to discuss the questions with a partner before they share their responses with the class. Sharing with a partner allows students to practice listening closely and collecting evidence from a variety of sources.



Check for Understanding

Listen for students to provide evidence to support their choices of the anchor model's components and the materials that bird nests are made of.

If necessary, revisit images of bird nests from throughout the lesson set and pose questions such as these (4C):

- What did we find out when we looked at different bird nests?
- What materials did the bird use to build this nest?

Sample student responses:

- *I agree that the anchor model needs to include a few nests because there are many different kinds of nests.*
- *I agree that we should show the materials birds use to build their nests.*
- *I disagree that we need to show the birds that make the nests.*

If most students agree with adding a component and can justify its inclusion, draw it on the anchor model.

Anchor models will vary by class but should include

- one typical bird nest and the name of the bird that builds it,
- two atypical bird nests and the names of the birds that build them,
- individual lists of the materials each bird uses to build its nest, and
- a combined list of all the materials the birds use to build the nests shown on the anchor model. 

Work with students to title the anchor model. 

Sample anchor model:

Nest Materials

- leaves
- vines
- twigs
- string
- grass
- moss
- bark



Blue Jay

- leaves
- vines
- twigs
- string



Baya Weaver

- leaves
- vines
- grass



Bee Hummingbird

- leaves
- moss
- bark

Remind students they will continue to add to the anchor model throughout the module to represent new learning.



Teacher Note

For the purpose of this module, a typical bird nest refers to a bowl-shaped nest made of sticks or twigs. An atypical bird nest refers to all other types of nests.



Teacher Note

In the next lesson, students will update the anchor model to reflect their learning about materials and objects. Leave space above the combined materials list for a heading. In the Concept 2 lessons, students will further update the anchor model with other nests. Leave space for these updates (4C).

Land 5 minutes

As a class, revisit the photographs of different bird nests (Lesson 2 Resource), and briefly discuss what students have learned about bird nests from *A Nest Is Noisy*.

- What new questions do you have about different kinds of bird nests?
 - *How do birds pick the different materials they use to make their nests?*
 - *Why are the nests so different from one another?*
 - *How do birds put their nests together without hands? Do they use their beaks and feet?*

Tell students that in the next lesson, they will observe common household items to build on their understanding about the materials birds use to make nests.