



Into the Outback

Day 1

TK-3RD GRADE

WELCOME

(5 min)



Instructions: Welcome your students to camp. Say: "This week we will be exploring Australia! Australia is the 6th largest country in the world! Its landscape is made up of deserts and rainforests. It is even home to the Great Barrier Reef. Australia has so much to offer, and it is home to some of the world's most unique animals—such as owls!"

Remind students they have the opportunity to earn sand dollars.

STEM STORY

(20 min)

READ 'KOORU'S ADVENTURE'

Read the story titled 'Kooru's Adventure'. Use the informational text on each page to help lead a class discussion about owls.



NATURE MOVIE

(10 min)

MEET AUSTRALIA'S NATIVE OWLS

Say: Owls live everywhere in the world, and that includes Australia! One kind of owl that lives in Australia is called a barking owl. Let's watch a short nature movie and observe this owl's behavior!

The owl that says Woof! | Australia Zoo Life

<https://www.youtube.com/watch?v=gbITdc1mAmQ>

STEM TIME

(90 min)

Materials:

- Owl pellets
- Toothpicks
- Paper plate
- Bone sorting chart
- Gloves
- Optional: Cardstock, glue or magnifying glasses/microscope

OWL PELLET EXPLORATION

Say: "Today we are going to be dissecting owl pellets. Pellets are a record of what owls have eaten, and scientists study them to learn more about the owl and the ecosystems they live in. Pellets are coughed up and not pooped. These pellets have been sterilized before use. Let's dive in and see what we discover!"

Teacher note: No mask is required for this lab.

What you'll do:

1. Students watch this movie about pellet dissection.

<https://www.youtube.com/watch?v=VfqhKTIm42w&t=268s>

2. Pass out 1 pellet per student group on a paper plate.

Students put on their gloves before handling the pellets.



STEM TIME

(Continued)

3. Unwrap the foil from the owl pellet. Gently pull the pellet into two halves. The students can use their toothpicks.

Ask: **"What animals do you think these bones could belong to?"**

4. Have the students explore the bones they find. They can use the key to see what the owl ate and sort their bones into piles. If you have magnifying glasses or a microscope available, let them observe the bones more closely and make detailed observations. This activity can be spread out to multiple days in the week.

5. Optional: Have the students take time to assemble a skeleton from their bones. Remember this can take a few days to accomplish so just have each team write their names on a plate with their bones and they can continue to work on it throughout the week.

FREE PLAY

(20 min)



FLY AWAY AND PLAY

Instructions:

Congratulate your students for their excellent careful work as scientists and let them pretend to be owls swooping through the classroom or an open space outside. As they glide, encourage them to think like nocturnal predators—how might their wings move to stay quiet? What sounds might they listen for? What would they see with their powerful night vision?

ART TIME

(60 min)

Materials:

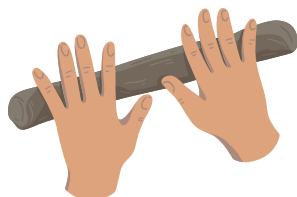
- Clay or make your own
- Flour
- Salt
- Warm water
- Measuring cups
- Bowls for mixing
- Mixing utensils

MAKE AN OWL NEST AND EGGS

Objective: Students make an owl and its nest and eggs out of clay. Clay or salt dough can be baked in an oven or even set outside in the sun for the hot part of the day for 2-4 days to harden. If you have air dry clay just leave it out to dry. Optional: students paint their creation.

Salt Dough Instructions or use air dry clay:

1. Students mix 1 cup salt and 1/2 cup warm water.
2. Students mix in 1 cup flour with a spoon and squish the mixture with their fingers until it becomes doughy.
3. Students sprinkle more flour as they mix to get a doughy consistency.
4. Have students shape their dough into some eggs. To make the nest teach students how to roll the dough into a long snake and then coil it into a nest shape. Take a tooth pick or pencil to smooth the clay between the coils to seal them together. Allow students to be creative and make an owl if you have time



WORD GAME

(20 min)

Materials:

- Whiteboard
- Dry erase markers



WORD GAMES

Say: **"We are going to play a word game! In this game we will choose a word and see how many words you can come up with using the letters in that word!"**

Instructions:

1. Have the students gather in desks or on the ground in front of a whiteboard.
2. Choose a word related to your theme, such as "owl", "Australia," "kangaroo," etc. and write it on the board.
3. Challenge the students to use the letters in the word to come up with other words. Each letter in the word can only be used once. For example, in the word hospital you cannot use the word hall, because there is only one "L" in hospital.
4. Write all of the words on the board, and see how many great words the students can come up with! This is fun for all ages. Students love the challenge!

Here are some words and possible created words to help you. Do not share the shorter words with your students but they are here to assist you in prompting them.

1. Australia

You can make: sail, trail, star, last, suit, tail, art, rat, list, etc.

2. Boomerang

You can make: moon, rang, room, barn, bang, man, groom, roam, game, etc.

3. Outback

You can make: back, bat, cat, tub, tab, out, cab, coat, buck, etc.

4. Kangaroo

You can make: rang, go, ran, roar, organ, ark, oak, rag, etc.

5. Wombat

You can make: bat, mat, bow, mob, tab, atom, mow, etc.

6. Bushland

You can make: hand, land, sand, ban, hub, dash, bush, lash, etc.

7. Campfire

You can make: fire, camp, map, rim, race, face, pier, carp, etc.

8. Waterhole

You can make: water, hole, whole, heat, late, heart, what, tear, etc.

9. Outdoors

You can make: door, root, soot, sort, rod, dot, too, sour, etc.

10. Adventure

You can make: ant, dent, date, rave, turn, neat, run, trade, etc.

GAME TIME

(20 min)



OWL I-SPY

Instructions: Players sit in a large circle. Ask one player to be the owl and leave the room.

While the owl is out, choose a leader to begin a motion (for example: tapping toes, blinking, turning heads). Everyone in the circle will follow the leader. Bring the owl back into the room and have them sit in the center of the circle and watch with their owl eyes to guess who is the leader.

The leader will occasionally change motions and everyone will begin doing the new motions. When the owl has guessed the leader, the leader will become the new owl and a new round will begin. If the owl cannot guess who the leader is after a few motions, then a new leader is chosen.





Owl Pellet Dissection TIPS

ALL GRADE LEVELS











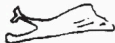












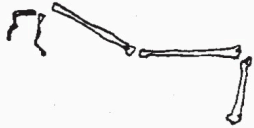










1. Keep it organized. Careful dissection takes time. Remind students that each bone is a tiny piece of a puzzle and a clue to figuring out the mystery of what the owl ate. Dissecting each pellet on a plastic clamshell or a paper plate will help keep the bones contained over time.
2. Keep it clean. The owl pellets you receive are sterilized and safe. Remember to wash your hands after you are done.
3. Share discoveries. Kids can each have their own owl pellet to dissect but kids also enjoy having a partner to share discoveries with! This will boost collaboration and discussion, and foster careful dissection even if every student has their own pellet.
4. Turn bones into skeletons. Challenge students to reconstruct any skeletons or partial skeletons they find. For older students, once they have a skeleton they like have the students glue it to a cardstock paper or card and label the bones!
5. Class prizes
 - *You can also play a class game to see:
 - who has the most complete skeleton
 - who has the most skulls
 - who has the most bones
6. Connect to the barn owl. Rather than simply examining pellets, connect your students to the barn owl that made the pellet. This is some info from the Cornell Lab of Ornithology: "The barn owl has excellent low-light vision and can easily find prey at night by sight. However, its ability to locate prey by sound alone is the best of any animal ever tested. It can catch mice in total darkness." What an amazing bird you are studying!

Owl Pellet Bone Sorting Chart

Use this chart to identify the different types of bones that you discover in your owl pellets.

May be reproduced for classroom use only. Not reproducible for commercial purposes.

© 2005 Nature Watch
(800) 228-5816
www.nature-watch.com

	RODENT	MOLE	SHREW	BIRD
Skull				
Jaw				
Shoulder Blade				
Front Leg				
Hip				
Back Leg				
Rib				
Vertebrae				
Misc. Items	Caterpillar larvae & caterpillar cocoons 		Caterpillar droppings 	



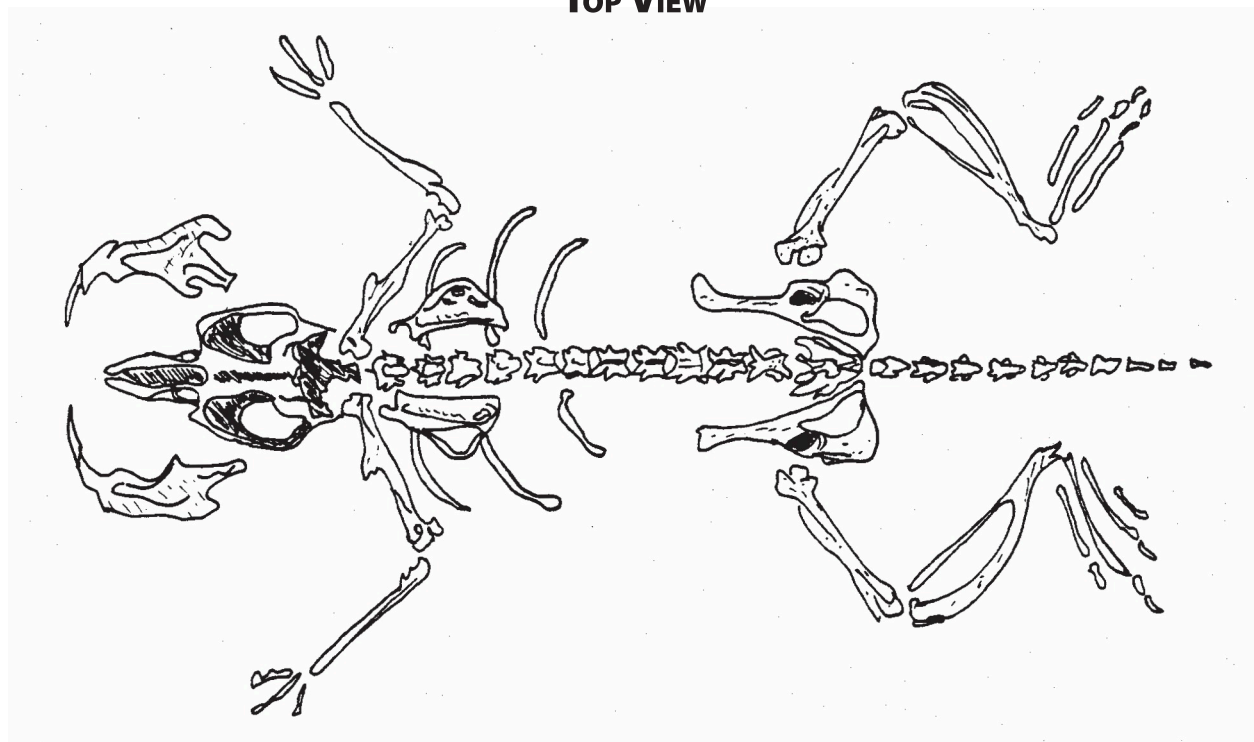
© 2005 Nature Watch
(800) 228-5816
www.nature-watch.com

Owl Pellet Skeleton Diagrams

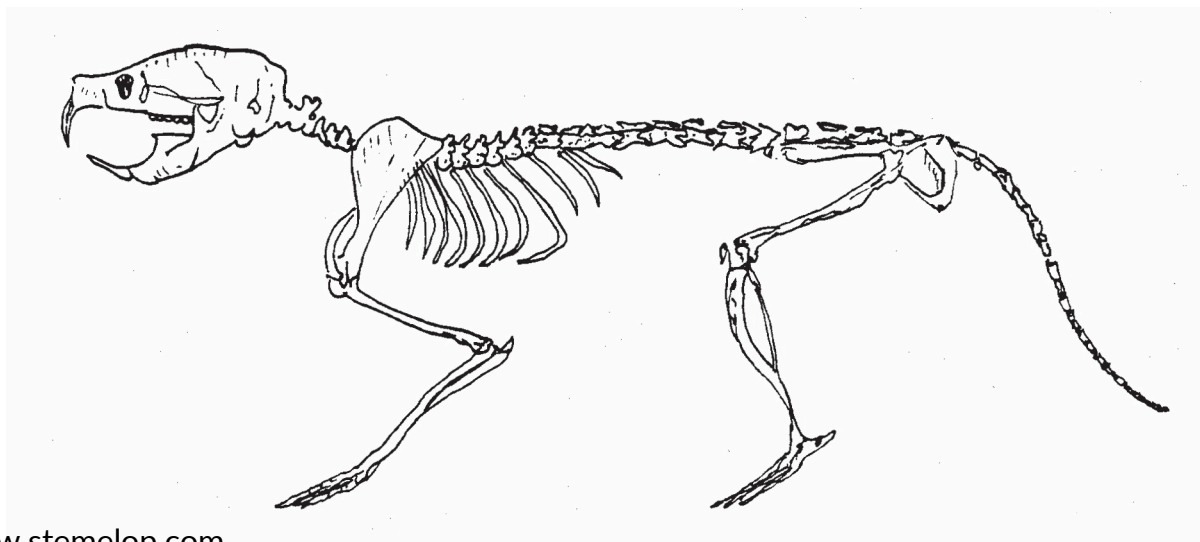
Use these diagrams to aid in reassembling the bones that you discover in your owl pellets.

May be reproduced for classroom use only. Not reproducible for commercial purposes.

TOP VIEW



SIDE VIEW



www.stemelop.com

STEM STORY



OWL PELLET EXPLORATION



OWL NEST AND EGGS

PRETEND PLAY

WORD GAME

I SPY

METRIC

Science Foundation 3.6 Growth, Change, and the Life Cycle of Living Things

Observe and explore growth and changes in humans, animals, and plants and communicate an understanding that living things change over time in size and other capacities as they grow and age.

Science Foundation 2.1 Characteristics of Objects and Materials

Investigate and describe in greater detail the characteristics and physical properties of objects and solid, liquid, or gas materials (for example, size, weight, shape, color, texture, smell, and sound).

Science Foundation 1.6 Planning and Carrying Out Investigations

Carry out simple experiments or investigations, on their own or in collaboration with peers and adults, to test their ideas about their observations.

Foundation 1.1 Making Observations

Observe and actively explore objects and events using their senses and describe their observations in greater detail.

Visual Arts Foundation 1.4 Working with Dough or Clay

Make representational forms that are mostly recognizable out of play dough or clay using their hands or simple tools.

Visual Arts Foundation 3.5 Engaging in Role-Play

Engages in role-play (representing a person, animal, or character) using a wider range of voices, movements, and gestures

Language Arts Foundation 3.1 Demonstrating Interest in Literacy Activities

Demonstrate interest in and engagement with English- language literacy activities.

Visual Arts Foundation 4.4 Learning Basic Dance Skills

Respond to the instruction of one skill at a time in movement (such as jumping or falling).