



<https://www.stemwithcog.org>

Name _____

Date _____

WHO DIGS BOSQUE BURROWS?

Part I: Vocabulary Words: Before watching the movie, review the given definitions. Define the remaining vocabulary words as you watch.

Bosque [0:16] is a Spanish word for *forest* and in this video refers to the cottonwood forest that runs alongside the Rio Grande in Albuquerque.

Burrows [0:16] are tunnels or holes some animals dig to live in or for temporary protection.

A Tracker [0:20] is a person who follows tracks or other signs animals leave behind.

Rock Squirrels [1:00] are large ground squirrels that are primarily plant eaters, but they also eat grasshoppers, beetles, and earthworms.

Pocket Gophers [1:15] are small burrowing mammals whose burrows resemble piles of dirt with no visible entrance hole. They eat roots, shrubs, and other vegetables.

A Game Camera [2:32]

The Lure [2:32] is a stinky smell that attracts the animal so it will walk near the game camera that snaps a photo or records a video. The lure has to be positioned to make sure the animal shows its head in photos or videos so it can be identified.

How do we know the size and shape of a burrowing animal? [0:27]	How do we know a dog didn't dig the burrow? [1:35]
What was Ann Hunkins' project trying to estimate? [2:05]	How can we identify individual badgers? [2:30]



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USING CLUES TO TRACK ANIMALS

Part II (a) Use a line to connect each of the four animals to a clue they left behind.

ANIMAL

DESCRIPTION

WHO LEFT THIS CLUE?



1. Hummingbird

Hummingbirds are tiny birds. These lively flyers flap their wings 50 times per second. A hummingbird nest is held together with spider webs. The nests get bigger as the chicks grow. Hummingbirds drink nectar from flowers and eat small flying insects.



A.



2. Swallow

Cliff swallows spend their summers in New Mexico. They like to live near the river where they can find a lot of mud. Parents make about 1000 trips to the river to collect clumps of mud. All that mud is used to build a nest for their chicks.



B.



3. Raccoon

Raccoons eat plants and animals. They really love to eat our garbage. You won't see them much in the daytime. They are active early mornings, late evenings, and at night. Raccoons have five toes on their front and back paws. They use their front paws to wash food, open trashcans, and latches.



C.











4. Coyote

Coyotes are wild dogs that live year-round in New Mexico. They hunt rodents and rabbits in groups; but also eat insects, fruits, pinons, and dead animals. Coyotes have four large toe pads on each foot. Claws sometimes show on tracks.



D.

II (b) Use a line to connect each of the four animals to a clue they left behind.

ANIMAL	DESCRIPTION	WHO LEFT THIS CLUE?
 5. Beaver	Beavers have strong, orange teeth and powerful jaws. They can't climb trees. To reach the upper branches, they chew the trunk until the whole tree falls. Now the beaver tears the bark off smaller tree branches to eat the juicy power-packed food layer underneath.	E. 
 6. Badger	Badgers are meat-eating, super diggers. At night, they hunt small animals. Their big claws help them dig into the tunnels of pocket gophers and ground squirrels. Badgers also dig tunnels where they sleep during the day.	F. 
 7. Porcupine	Porcupines are good tree climbers. They live up in the branches of tall trees. Their big orange teeth are strong. They use those teeth to strip the bark high up in the tree. Under the bark is a juicy, power-packed layer of food. It is called the tree's cambium.	G. 
 8. Pocket Gopher	Pocket gophers have large front teeth that never stop growing. Those teeth are used to cut roots that they eat. The teeth can also be used to break up dirt when they dig burrows. Pocket gopher burrows look like a pile of dirt.	H. 

Part III: Brainstorm – Make a list of at least 5 things an animal might leave behind that we can use to track them.

1. _____ 2. _____ 3. _____

4. _____ 5. _____



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Part I: Vocabulary Words: Before watching the movie, review the given definitions. Define the remaining vocabulary words as you watch.

Bosque [0:16] is a Spanish word for *forest* and in this video refers to the cottonwood forest that runs alongside the Rio Grande in Albuquerque.

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Pocket Gophers [1:15] are small burrowing mammals whose burrows resemble piles of dirt with no visible entrance hole. They eat roots, shrubs, and other vegetables.

A Game Camera [2:32] is a camera left in the wild to take photos of animals that normally hide from people. It allows us to see who is living there and how they behave when people are not around.









The Lure [2:32] is a stinky smell that attracts the animal so it will walk near the game camera that snaps a photo or records a video. The lure has to be positioned to make sure the animal shows its head in photos or videos so it can be identified.

How do we know the size and shape of a burrowing animal? [0:27] Animals make their burrow entrances just big enough so they can get in, but predators cannot.	How do we know a dog didn't dig the burrow? [1:35] Claw marks on the sides of the burrow tell us that this animal twisted its paws to dig the burrow. Dogs can't do that.
What was Ann Hunkins's project trying to estimate? [2:05] The goal of the project was to estimate how many badgers live along the east side of the river in Albuquerque.	How can we identify individual badgers? [2:30] Each badger has a unique white strip down the middle of its face. That stripe can be used like a fingerprint to identify an individual badger.











USING CLUES TO TRACK ANIMALS

II (a) Use a line to connect each of the four animals to a clue they left behind.

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 1. Hummingbird	Hummingbirds are tiny birds. These lively flyers flap their wings 50 times per second. A hummingbird nest is held together with spider webs. The nests get bigger as the chicks grow. Hummingbirds drink nectar from flowers and eat small flying insects.	A. 
 2. Swallow	Cliff swallows spend their summers in New Mexico. They like to live near the river where they can find a lot of mud. Parents make about 1000 trips to the river to collect clumps of mud. All that mud is used to build a nest for their chicks.	B. 
 3. Raccoon	Raccoons eat plants and animals. They really love to eat our garbage. You won't see them much in the daytime. They are active early mornings, late evenings, and at night. Raccoons have five toes on their front and back paws. They use their front paws to wash food, open trashcans, and latches.	C. 
 4. Coyote	Coyotes are wild dogs that live year-round in New Mexico. They hunt rodents and rabbits in groups; but also eat insects, fruits, pinons, and dead animals. Coyotes have four large toe pads on each foot. Claws sometimes show on tracks.	D. 

Answers: 1C, 2B, 3D, 4A

II (b) Use a line to connect each of the four animals to a clue they left behind. .

ANIMAL	DESCRIPTION	WHO LEFT THIS CLUE?
 5. Beaver	Beavers have strong, orange teeth. They can't climb trees. To reach the upper branches, they chew the trunk until the whole tree falls. Now the beaver tears the bark off smaller tree branches to eat the juicy power-packed food layer underneath.	 E.
 6. Badger	Badgers are meat-eating, super diggers. At night, they hunt small animals. Their big claws help them dig into the tunnels of pocket gophers and ground squirrels. Badgers also dig tunnels where they sleep during the day.	 F.
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 8. Pocket Gopher	Pocket gophers have large front teeth that never stop growing. Those teeth are used to cut roots that they eat. The teeth can also be used to break up dirt when they dig burrows. Pocket gopher burrows look like a pile of dirt.	 H.

Answers: 5F, 6H, 7G, 8E

Part III: Brainstorm – Make a list of at least 5 clues an animal might leave behind.

Tracks, bones, feathers, fur, nests, scat (poop), chewed trees or stems, food leftovers like seed shells, eggs, burrows, holes, dirt baths, and more.

TEACHER RESOURCES

Grade 4 Common Core Standards:

Reading Informational Text

RI.4.1 Anchor Standard: Key Ideas and Details

R.1: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence to support conclusions drawn from the text.

Description of Packet: This three-page packet is made to use with the 5-minute movie, [*Let's Find Out: Who Digs Bosque Burrows*](#). It can help prepare 4th-graders for the **Rio Field Trip** with the Albuquerque Bernalillo County Water Utility Authority. Watching the movie and completing the packet will take 45 minutes to one hour, depending on discussion times.

- **Page 1** is a vocabulary/understanding check for viewers.
- **Page 2** introduces students to 4 Bosque animals and the clues they leave to tell us where they live.
- **Page 3** introduces students to 4 more Bosque animals and the clues they leave to tell us where they live.

PAGE 1

Step 1: Go over new vocabulary words with students. Ask them to define “game camera” as they watch the video.

Step 2: Go over the questions at the bottom of the page before they watch the movie. Ask them to write down their answers to those questions once the movie is over. Discuss their answers together in a group. Check to see if students have questions.

PAGE 2 (Note: This activity would be best done on a Promethium board. The animals and their clues are easier to see in color and enlarged.)

Step 1: Give students time to read about each of the four animals. Ask them to draw a line to connect each of the four animals to a clue it might leave behind. Only use the clues on this page.

Step 2: Start with the hummingbird. What clue might it leave that tells us the hummingbird has been here. Ask students to point to the sentence in the paragraph about hummingbirds that tells you about hummingbird nests (3). Ask them how they determined that is the nest made of spider webs. It may look like spider webs, or they could have used elimination to find the right answer.

Step 3: Repeat Step 2 for the swallow, racoon, and coyote.

PAGE 3

Repeat steps 1-3 that you used on page 2. This time discuss the beaver, badger, porcupine, and pocket gopher.

Step 4: As a whole group or in pairs, brainstorm clues that animals leave us that we can use to track them.