



Protecting Southwest Florida's unique natural environment and quality of life ... now and forever.

CSI: Critter Scene Investigation Pre and Post-Program Activities

Grade Level: 3-5

Next Generation Sunshine State Standards

- SC.3.N.1.6; SC.3.N.1.5;
- SC.4.N.1.4; SC.4.N.1.6; SC.4.N.1.7
- SC.5.L.17.1; SC.5.N.2.1; SC.5.N.2.2

Program Overview

Become a Critter Scene Investigator! Discover the identity of animal suspects by examining clues they leave behind in the wild. Students will explore how scientists use clues to better understand how to protect wildlife in Southwest Florida.

Learning Objectives Students will be able to:

1. Learn how to make observations, collect data, and make conclusions based on findings.
2. Gain an understanding of various animal behaviors and characteristics.
3. Discover how scientists/biologists use clues to locate animals.

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Conservancy of Southwest Florida has been awarded Charity Navigator's prestigious 4-Star top rating for good governance, sound fiscal management and commitment to accountability and transparency. Charity Navigator is America's largest and most respected independent evaluator of charities.

Pre-Program Activity 1: Studying Animal Footprints

Duration of Activity: 40 minutes

Materials: animal footprints (provided)

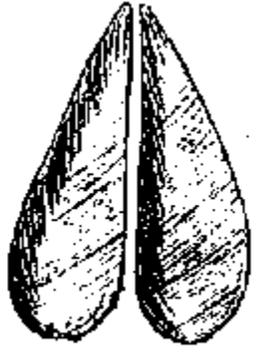
Background: Mammals, birds, and reptiles leave distinct tracks due to the unique characteristics of their feet. Mammals with hooves such as deer walk “on tiptoe.” Some mammals like the fox and bobcat also walk “on tiptoe”, so only the center pads and toes on their feet leave prints. Other mammals such as racoons walk flat-footed, so you can see the entire paw in the print. Some animals have claws that cannot be retracted, while others do. This is also reflected in the prints. Animals without feet, like snakes, can still leave tracks!

Directions: Divide students into groups and give each group an animal footprint sheet. Instruct them to examine the different parts of the tracks, such as the shape and length of the track or the presence of claws. Ask the students to predict what type of animal left that track. Have the students share their observations and predictions with the class. Discuss how different the mammal prints are from each other, even though they all belong to mammals!

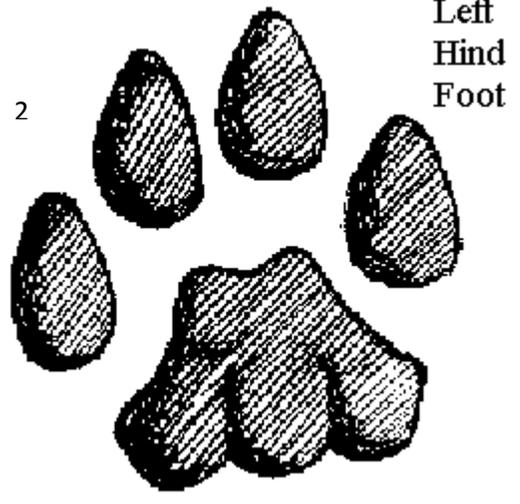
Answer Key:

1. Deer
2. Panther
3. Skunk
4. Opossum
5. Great Blue Heron
6. Snake
7. Lizard

1



2

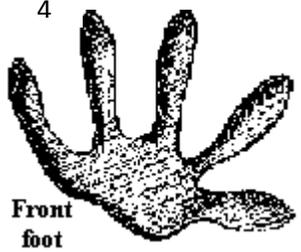


Left
Hind
Foot

3

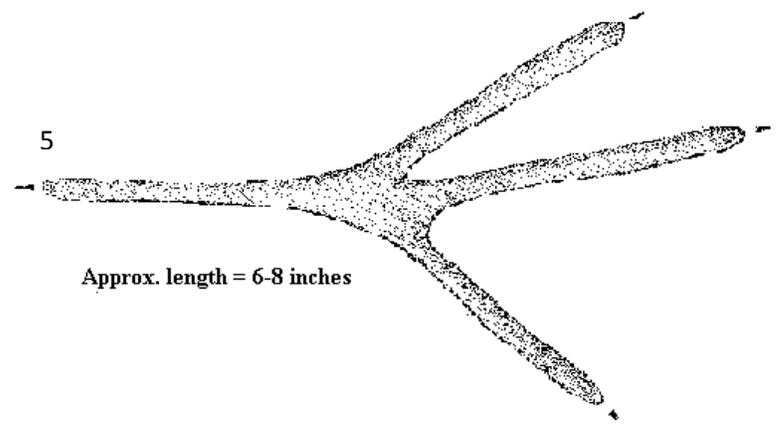


4



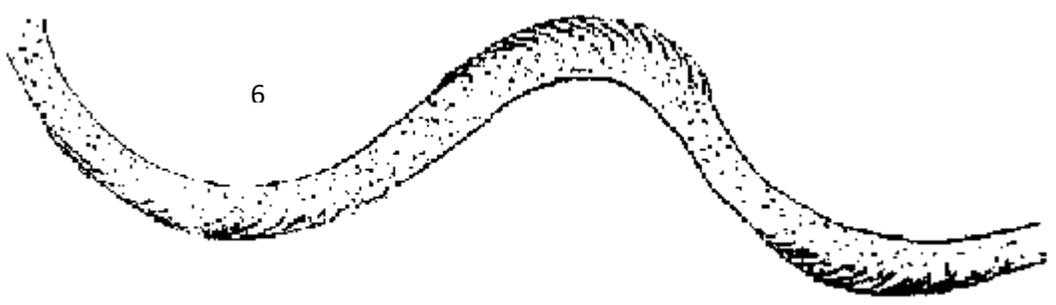
Front
foot

5

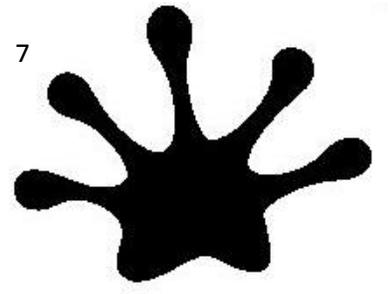


Approx. length = 6-8 inches

6



7



Pre-Program Activity 2: Finding Feathers

Duration of Activity: 45 Minutes

Materials: Activity Sheet (provided)

Background: Birds occasionally drop their feathers. If the feather can be identified, it's possible to determine what kind of bird has been in the area. Color, size, and shape are the primary characteristics used to identify feathers. Some types of birds have unique feather characteristics. For example, owl feathers are serrated and allow for silent flight, while feathers of other raptors are smooth so the bird can fly aerodynamically.

Directions: Divide students into groups of 3-4. Print the activity sheet. Give each group a worksheet and instruct them to match the feather to the correct bird. Make sure they consider color, size, and shape of the feather!

Answer Key:

1. C
2. E
3. B
4. A
5. D



Post-Program Activity 1: Owl Pellets!

Duration of Activity: 45 minutes

Materials: Activity Worksheet (provided), computers with internet access, [Virtual Pellet Dissection](#)

Background Information: Owls eat meat, so they are carnivorous. Like most birds, owls rip their prey into large chunks and swallow the chunks whole. The soft parts of the animal such as the meat and skin are digested in the intestines. The undigestible parts, such as bones and fur, are sent to the gizzard and form into a ball. The ball is then regurgitated. This is called the pellet. Pellets are often mistaken for vomit or feces, but they can be compared to cat's hairballs. Hawks, eagles, and falcons are other species that also form pellets, but owls are the most efficient at forming and expelling the pellet. Dissecting pellets can provide valuable insight into what the animal eats.

Directions:

1. Click on the [Virtual Pellet Dissection](#) link.
2. Have students click the "Pellet Information" tab to fill out the worksheet.
3. Once completed, review the answers with the class.
4. Students can then continue to the virtual dissection. After the short animation plays, the students click on the pellet to uncover the bones. Once exposed, the bones can be dragged and dropped onto the rodent skeleton. Headphones are encouraged, as the computer tells you the names of the bones as you click on them. There is a short animation at the conclusion of the activity. Once the class is done, discuss the students' findings with them. Point out how the owl digests all of the soft material. Even individual vertebrae are separated from each other! This is also a good opportunity to discuss how raptors are an excellent form of natural rodent and pest control.

Activity Sheet Answer Key

1. Carnivores
2. Swallow prey whole or rip prey into large chunks.
3. Regurgitated undigestible material, such as hair, fur, and bones.
4. What it eats

Activity Worksheet: Virtual Owl Pellet Dissection

1. Owls are _____ (carnivores/herbivores/omnivores).
2. How do owls eat their food?
3. What are owl pellets?
4. What can a pellet tell us about the animal it came from?
5. What are some other 'clues' that animals can leave behind (Example: tracks, feathers, etc.)?

Post-Program Activity 2: Critter Scene Investigation

Duration of Activity: 1 hour

Materials: natural outdoor space

Background: Tracks, scat, fur, bones, feathers, scratches, snake skin sheds and much more are evidence that an animal has been in the area. These ‘clues’ can tell scientists quite a bit about the behaviors and actions of animals.

Directions:

1. Select a spot outside to look for signs of animals, ideally around a ‘natural’ area such as a pond or forest.
2. Allow students time to spread out and explore, looking for signs of wildlife (seeing an actual live animal counts, too!).
3. Come back together as a group and discuss any findings. What do these ‘clues’ tell us about these animals?
4. In conservation we say “leave only footprints.” Bones, scat, snake sheds, etc. all put nutrients back into nature when they decompose. For identification purposes, you may take animal clues back to the classroom, but do take heed (it is illegal to be in possession of certain bird feathers, for example, due to the Migratory Bird Treaty Act.).