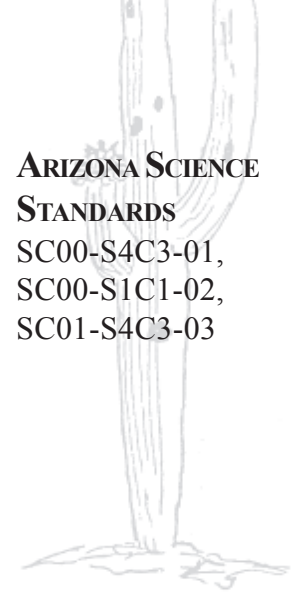


Children create finger puppets of Sonoran Desert animals and act out links that connect them in a food chain.

ARIZONA SCIENCE STANDARDS
 SC00-S4C3-01,
 SC00-S1C1-02,
 SC01-S4C3-03



OBJECTIVES

Students should:

- Act out simple food chains by role playing with hand-made finger puppets.

MATERIALS

- copies of finger puppet patterns
- markers, crayons
- scissors
- stapler
- pipe cleaners
- blackboard

GETTING READY

There are two finger puppet patterns on the following pages. Each has instructions written on it, plus information on what the animal eats and what eats it.

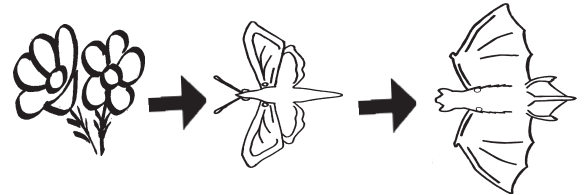
- 1) Make copies of both finger puppet patterns for your students.
- 2) Prepare a set of finger puppets before class to serve as a sample food chain.
- 3) Sketch some flowers on the board to represent moth food.

DOING THE ACTIVITY

SETTING THE STAGE

- 1) Show the hawk moth finger puppet to the class, and choose a volunteer to come up and mimic the movements of a moth with the puppet. Ask the student, "What do moths eat?" (Plants. The caterpillars eat leaves, and the adults eat flower nectar.) Point out the flower sketch on the blackboard.
- 2) Now ask for another volunteer to come up and be the big brown bat. Ask her or him, "What do you think bats eat?" (This type of bat eats night-flying insects such as moths and mosquitos. Point out that there are other types of bats that eat fruit, pollen, and nectar.)
- 3) Ask the class, "Which animal eats the other one?" (The bat eats the moth.) Explain that this bat is a **predator**, an animal that hunts and eats other animals. The moth is its **prey**. Encourage the child with the moth finger puppet to act out sipping on flower nectar at the flower sketch on the board. Have the child with the bat finger puppet act out looking for the moth. Then have the volunteers gently act out the predator/prey relationship with the finger puppets.
- 4) Tell the class that they just acted out a **food chain** - the moth ate plants and another animal ate it. Explain that food

chains always begin with plants. Plant eaters are eaten by meat eaters, and small meat eaters are eaten by larger meat eaters on up the food chain. Sketch the sample food chain on the board as you explain it:



plant → hawk moth → big brown bat

Ask students if they can think of any other examples of desert food chains, starting with animals that eat plants and thinking of animals that might eat them.

(Others might include:

plant → rabbit → coyote or
 plant → mouse → bobcat.)

MAKING FINGER PUPPETS

- 1) Tell the students that each of them is going to get to make their own finger puppets.
- 2) Demonstrate finger puppet construction following the instructions on the patterns.
- 3) Remind the children to keep the papers from which they cut the pattern, because these contain information for them to act out the predator/prey relationships.
- 4) Pass out their materials and have them color and make their puppets.

PREDATOR/PREY ROLE PLAY

- 1) As they finish their puppets, ask the children about the roles of each animal: "What kind of animal is this? Is it a predator? Is it prey? What does it eat?"



VOCABULARY

- **Food chain-** a group of animals and plants in a community through which energy flows in the form of food
- **Predator-** an animal that kills other animals for food.
- **Prey-** An animal that is hunted for food by a predator.

- 2) When the students have finished making their puppets, have them act out the food chain. Remind the students to be gentle with each other and each other's puppets.

DISCUSSION

- 1) Discuss the role plays when the students finish. Ask, "What is it like to be a predator?" "What is it like to be prey?" "How did the food chain begin?" (with plants)
- 2) Ask the students: "How do prey animals avoid predators?" "How do predators capture prey?" Have them share their responses with the group.
- 3) Discuss the limits and extent of food chains. Ask the students: "Do you think the food chain you acted out stops with the brown bat?" If they believe that it does, have them look at the papers from which they cut their finger puppets to get some ideas. Ask, "Are there bigger predators that might hunt bats?" (great horned owls) "Do you think hawk moths might have other predators?" (screech owls) Explain that food chains can extend through many animals and that the predator of one animal may be prey for another. Likewise, one prey animal may have several different predators that feed on it.

EXTENSION

Play a predator/prey tag game outside. You will need:

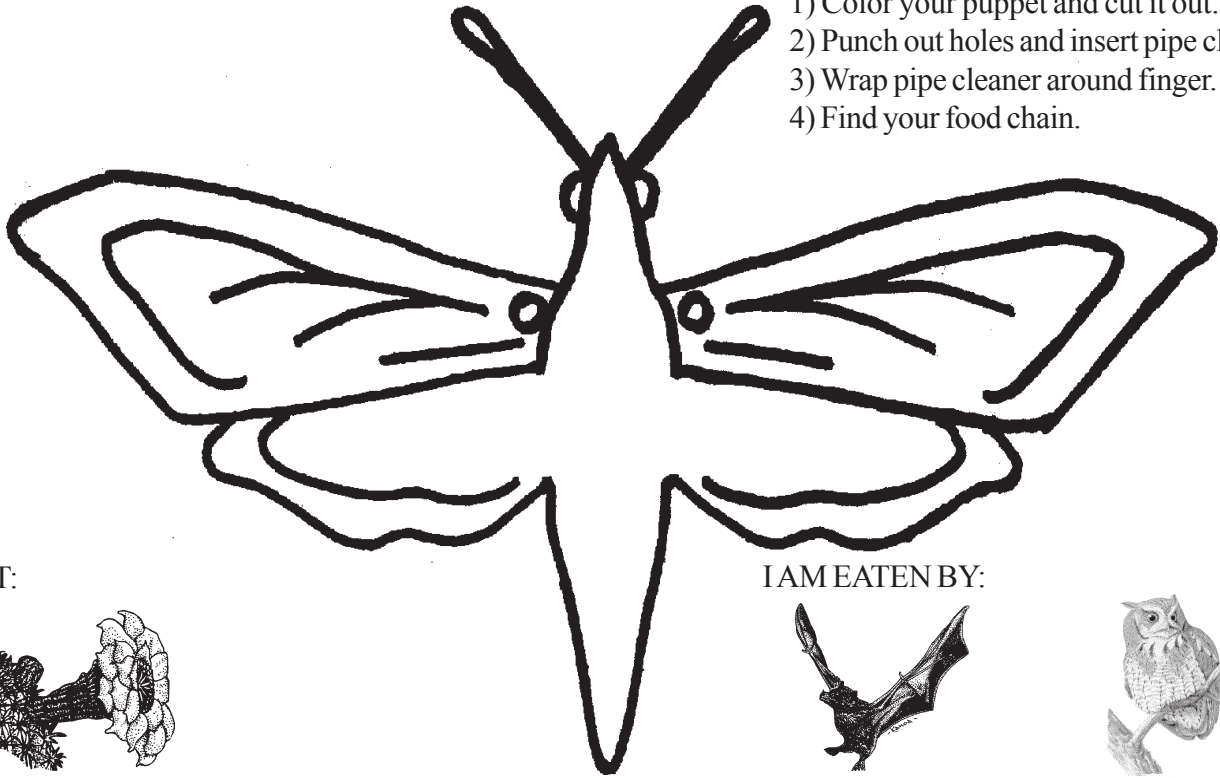
- about 100 one inch square green paper tokens (scrap construction paper works well)
- a 30x30' playing field
- raisins (optional)
- beef jerky cut into small chunks (optional)

- 1) Take the students outside to a marked playing field, and have them bring their finger puppets with them. Tell them that they will get to be both bats and moths for the game, but they need to choose which one they want to be for the first round.
- 2) Scatter the tokens widely throughout the field, explaining that they represent food. Outline the following rules to the group:
 - a) When the game starts, the **moths** need to fly around and gather **5 tokens** each off of the ground.
 - b) Bats cannot gather their food off of the ground because they are predators of the moths and do not eat plants. Therefore, the bats need to hunt the moths to gather their tokens.
 - c) Bats must chase the moths and tag them gently. If a moth is tagged, it must give up **one token** to the bat that tagged it.
 - d) **Bats** must collect **10 tokens** to survive.
 - e) Upon gathering the right amount of tokens, the students need to bring them to the teacher to show that they survived. To resume playing, they need to take the tokens out to the field again and scatter them for other players to use.
 - f) After a few rounds, on the teacher's signal, they can switch and play the opposite role.
- 3) When the students arrive with their tokens, ask each one if they are a predator or prey animal. Ask if they are plant eaters or meat eaters. Optional: If students gather the correct number of tokens and understand their place in the food chain, give a few raisins to the plant eaters/prey animals, and give a piece of beef jerky to the predators/meat eaters.
- 4) Give the signal to switch parts. Play a few rounds. Discuss the game as a group using the discussion questions above.

Hawk Moth

Directions:

- 1) Color your puppet and cut it out.
- 2) Punch out holes and insert pipe cleaner.
- 3) Wrap pipe cleaner around finger.
- 4) Find your food chain.

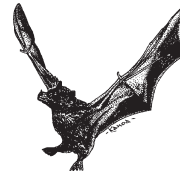


I EAT:



flower nectar

I AM EATEN BY:



big brown bats

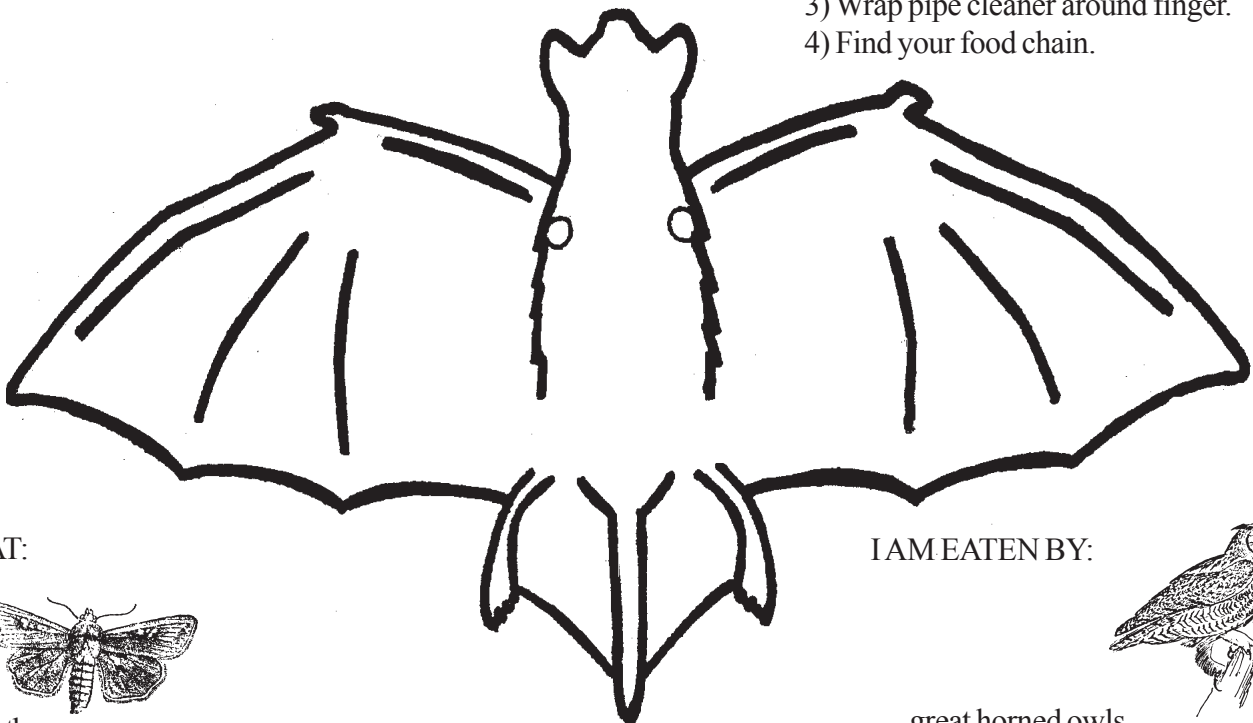


screech owls

Big Brown Bat

Directions:

- 1) Color your puppet and cut it out.
- 2) Punch out holes and insert pipe cleaner.
- 3) Wrap pipe cleaner around finger.
- 4) Find your food chain.



I EAT:



moths

I AM EATEN BY:



great horned owls