

KANGAROO RAT

A reading and cross-word puzzle on the adaptations of the kangaroo rat.



OBJECTIVES

Students should:

- become familiar with many interesting survival strategies of the well-adapted desert kangaroo rat.
- understand the concept of niche.

MATERIALS

- copy of *Handouts 6 and 6A* for each student

VOCABULARY

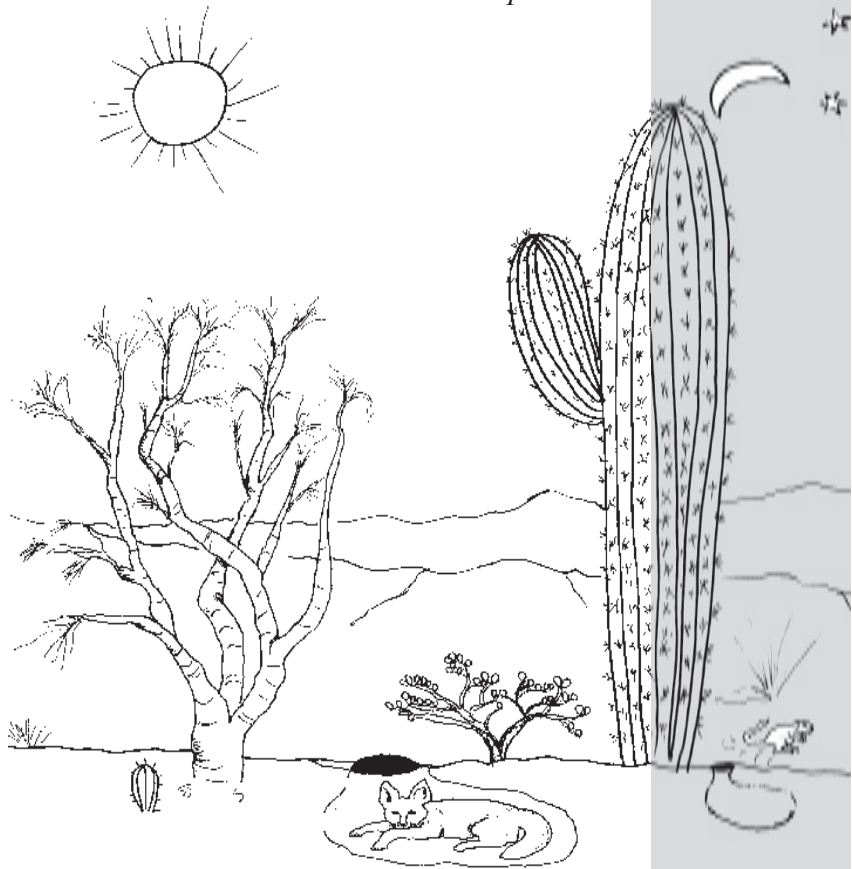
- adaptation
- herbivore
- mammal
- niche
- nocturnal
- predator
- prey

BACKGROUND

Students should become familiar with the many interesting survival strategies of the well-adapted desert kangaroo rat. Students will also be introduced to the concept of niche; an important term in studying ecology. Niche refers to the “role” or “job” of an animal or plant within its habitat. Among other things, niche includes an animal’s position on the food chain.

Make a copy of *Handouts 6 and 6A* (pages 21-22) for each student.

- 1) Ask students to read *Kangaroo Rat*.
- 2) Discuss the reading, introducing new vocabulary.
- 3) Discuss the life history of a kangaroo



rat. Ask students when they would need to go the desert to see a kangaroo rat. (night)

- 4) Pass out *Handout 7A* and have students complete the puzzle.
- 5) Review the answers with the class.

ANSWER KEY TO *KANGAROO RAT PUZZLE*:

Across: 3. HABITAT 6. DESERT
8. OWL 9. ASDM

Down: 1. RAT 2. NICHE 4.

PREY 5. FOOD 7.
SEED

EXTENSION ACTIVITIES

Make a “Desert Day and Night Wheel” to illustrate how several desert animals adapt to their environment by being nocturnal. The pattern and instructions are found in *Ranger Rick’s Nature-Scope: Discover* the

Kangaroo Rat

The kangaroo rat is an amazing desert **mammal**. It is an **herbivore** and eats mostly dry seeds. It can live for years without drinking water! Its body gets all its water from the food it eats. This is an important **adaptation** to life in the dry desert.

The kangaroo rat has many other adaptations that help it keep water in its body. It has pouches on the side of its mouth that it fills with seeds to carry to its burrow. Unlike a hamster, the pouches are not inside its mouth. Instead, the kangaroo rat's pouches are on the outside of its cheeks. It can put the seeds in them without opening its mouth and losing water from its breath. Also, a kangaroo rat never sweats.

During the day, the kangaroo rat sleeps in an underground burrow where it is cool and moist. It plugs the entrance to its burrow to seal out heat and keep moisture inside. It is a **nocturnal** animal. The kangaroo rat comes out at night when it is cool to look for food. Foxes, coyotes, owls and bobcats are also out at night looking for **prey**, so the kangaroo rat needs to be on guard. Its large dark eyes are set on the sides of its head. This helps it see **predators** coming from many directions. (Touch your eyes. They are on the front of your head, so you can't see as far behind you as does a kangaroo rat. It's a good thing you don't have to look out for predators!) Being prey for predators is part of the kangaroo rat's **niche**.

The kangaroo rat is important to desert plant life. Often its pouches are so stuffed with seeds that they fall out as it hops back to its burrow. These dropped seeds will grow after the rains. Being a desert gardener is another important part of the kangaroo rat's niche.



Would you like to see a kangaroo rat asleep in its burrow? When you visit the Desert Museum, look carefully and you may be able to find one in the Life Underground Exhibit.

KANGAROO RAT PUZZLE

Across

3. A burrow under a creosote bush and the nearby desert is all part of its _____.
6. The kangaroo rat is well adapted for _____ survival.
8. A predator of the kangaroo rat is the _____.
9. The letters that stand for Arizona-Sonora Desert Museum are _____.

Down

1. The animal below is a kangaroo _____.
2. Spreading seeds as it gathers them and being food for other animals is all part of its _____.
4. Sometimes the kangaroo rat is food or _____ for other animals.
5. A predator kills for its _____.
7. The kangaroo rat is a _____ eater. It is an herbivore.

