

# For Creative Minds

The For Creative Minds educational section may be photocopied or printed from our website by the owner of this book for educational, non-commercial uses. Cross-curricular teaching activities, interactive quizzes, and more are available online. Go to [www.ArbordalePublishing.com](http://www.ArbordalePublishing.com) and click on the book's cover to explore all the links.

## Diurnal or Nocturnal

Animals that are active during the day and asleep at night are diurnal. Animals that are active at night and asleep during the day are nocturnal. Read the following sentences and look for clues to determine if the animal is diurnal or nocturnal.



A large dog sneaks up on the **skunk** in the dark of night. The skunk stamps her feet and throws her tail up in the air. She gives the other animal a warning before spraying.



The **garter snake** passes the morning hunting and basking in the warm sunlight. If a predator arrives, he will hide his head under some leaves and flail his tail until it goes away.



This **bluebird** is a helpful garden bird. He spends his days eating insects off the plants and defending his territory from other birds.



The bright afternoon sun helps this high-flying **red-tailed hawk** search for her next meal. She can see a grasshopper from more than 200 feet (61 m) away!



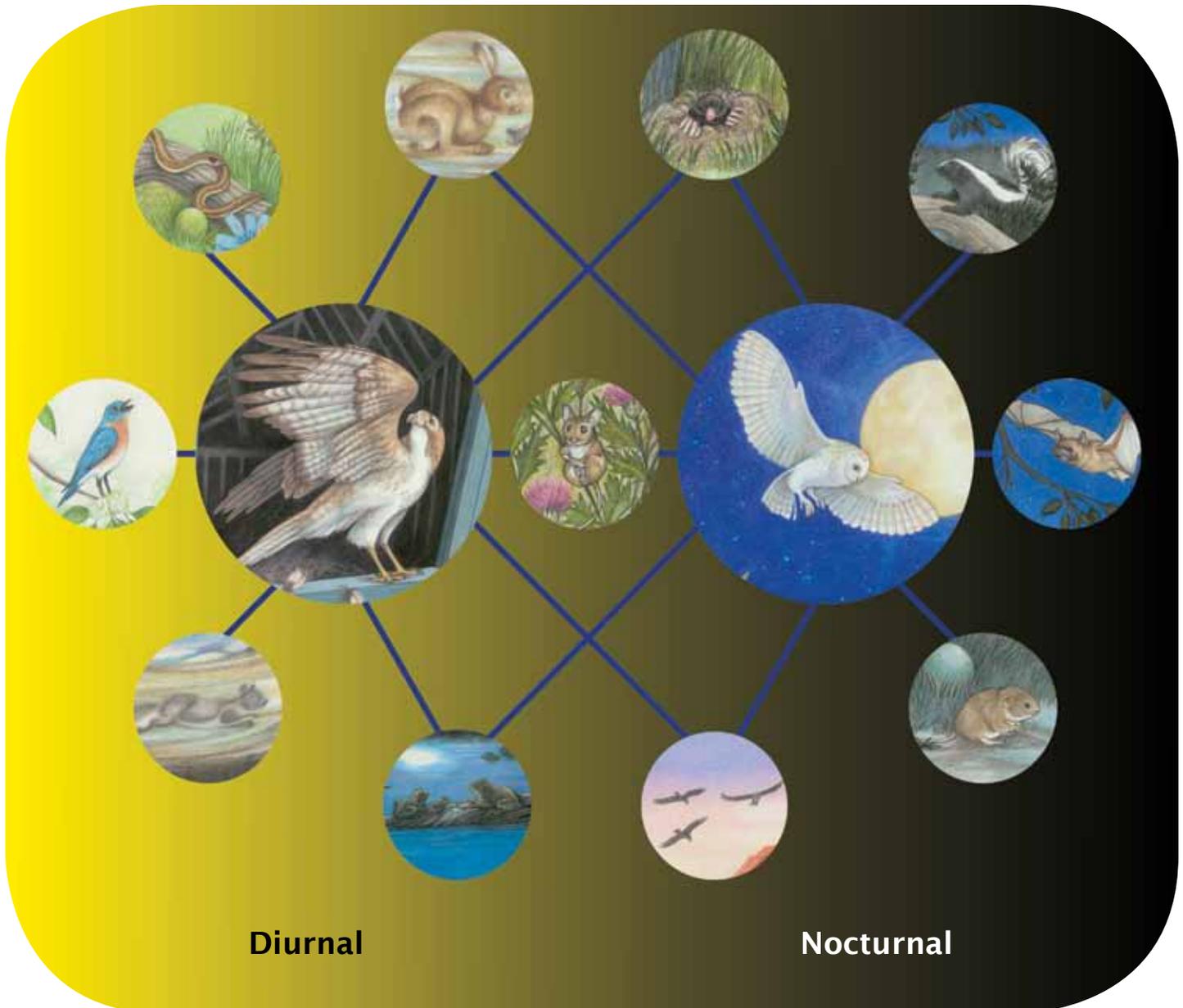
As night falls, a small, flying beetle with a glowing abdomen emerges. She flashes her light to signal to other **fireflies** to come out. Soon the field is glowing with their dancing lights.



The **barn owl** sweeps over the field under the dark night sky. He flies slowly and silently, scanning the ground for prey.

## Raptor Diets

An animal's **diet** is all of the things that animal eats or drinks. Raptors like barn owls and red-tailed hawks are **carnivores**, which means they eat other animals. Red-tailed hawks live on a diet of mostly small mammals, but will also eat reptiles, birds, and even insects. Red-tailed hawks can hunt prey more than twice their size. Barn owls usually eat small rodents and other birds. Although they prefer rodents, barn owls will eat other animals as well, including bats, insects, and toads. Because barn owls hunt rodents, many farmers set up nesting boxes to encourage barn owls to live around their barn and keep the rodent population down.



## Raptor Fun Facts



A raptor is a bird that hunts and kills other animals for food. They can also be called birds of prey.

Raptors use their feet to grab onto their prey off the ground or snatch them out of midair. In fact, the word “raptor” comes from a Latin word, *rapare*, which means to grab, snatch, or carry off.

Most raptors are diurnal. Among raptors, only owls are nocturnal.

Because barn owls are nocturnal and red-tailed hawks are diurnal, they would not usually meet in the wild. Since they hunt at different times, they can share a territory and not compete with each other for food.



Barn owls live on six of the seven continents. The only continent where barn owls are not found is Antarctica.



Red-tailed hawks can reach speeds as fast as 120 miles (193km) per hour. Most birds have bones that are partly hollow. This makes the bird lighter and helps them to fly.



Red-tailed hawks live in many different habitats, including both wild areas and in regions where humans live.



Barn owls can swallow small prey whole. They later spit up the bones and other pieces of the animal that they cannot digest.

## Raptor Adaptations

Owls and hawks are both raptors—birds who hunt and eat meat. Raptors are excellent predators because of special adaptations that help them hunt and catch their prey.



Both the red-tailed hawk and the barn owl have feathers that are adapted to help them hunt. The red-tailed hawk has long, stiff feathers that let her glide for a long time with very little effort. The barn owl has short, soft feathers that are completely silent in flight and allow him to sneak up on his prey.



Animals see by using sensory cells in their eyes, called rods and cones. Animals with many cones, like the red-tailed hawk, can see color clearly. Rods are sensitive to dim light and are best at detecting motion. Raptors have large eyes with many sensory cells that allow them to spot their prey from a great distance or in dim light.



Birds have three eyelids! Like humans, birds have an upper and a lower eyelid that close to block out light. A bird's third eyelid is see-through and closes from the side. This thin membrane protects the raptors' eyes from wind, water, dirt, and other debris. It also keeps the eyes moist so that the bird does not need to blink. This helps raptors keep their eyes focused on their prey during the hunt.



Talons are sharp claws on the raptors' feet that help them grab their prey. Owls use their feet and talons to squeeze their prey to death before eating them. Hawks have large talons that hold tight to squirming prey.

