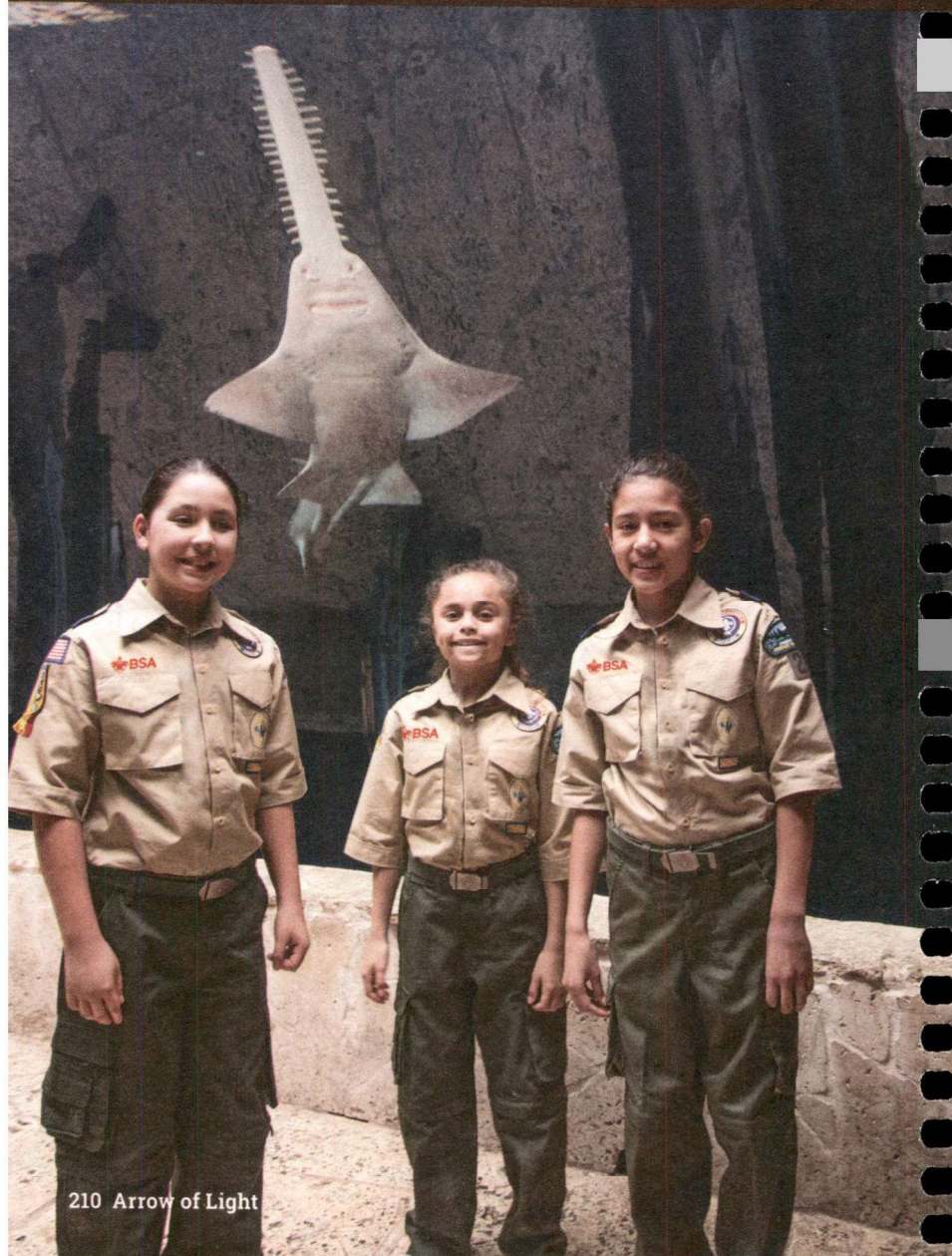


INTO THE WILD

ELECTIVE ADVENTURE



210 Arrow of Light

SNAPSHOT OF ADVENTURE



When you go "into the wild," you will begin to learn about some of the mammals, birds, reptiles, amphibians, and insects that live with us day and night and how they contribute to the world in which we live.

REQUIREMENTS

Approved by _____

1. Visit a place with a variety of wild animals.
Select one of the animals and observe its behavior. Use your selected animal to complete the remaining requirements. _____
2. Create a model of your animal's ecosystem. _____
3. Investigate how your animal coexists with other animals in the wild. _____
4. Describe how humans interact with your chosen animal's ecosystem. _____
5. Discover how wildlife management benefits your animal. _____



- Elective Adventure
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REQUIREMENT 1

Visit a place with a variety of wild animals. Select one of the animals and observe its behavior. Use your selected animal to complete the remaining requirements.

Here are some tips for observing wild creatures:

- ▶ Be as quiet as you can.
- ▶ Approach creatures from downwind, with the wind blowing toward you, not toward the creature.
- ▶ Move slowly and do not make sudden movements.
- ▶ Look in places where animals can find food or water.
- ▶ Make your observations in the early morning or early evening. Many wild creatures rest during the heat of the day.
- ▶ If possible, observe wildlife from a natural or human-made blind, a structure you can hide behind so the creatures cannot see you.



REQUIREMENT 2

Create a model of your animal's ecosystem.

An ecosystem is a community of plants and animals living in an environment that supplies what they need for life. In an ecosystem, plants and animals depend on their environment and on each other for survival. Energy and food flow through the community in a food chain. There are many types of ecosystems. For example, forests, deserts, and wetlands all contain different combinations of plants, animals, and environmental characteristics.

Elements of an Ecosystem

Here are the elements of an ecosystem:

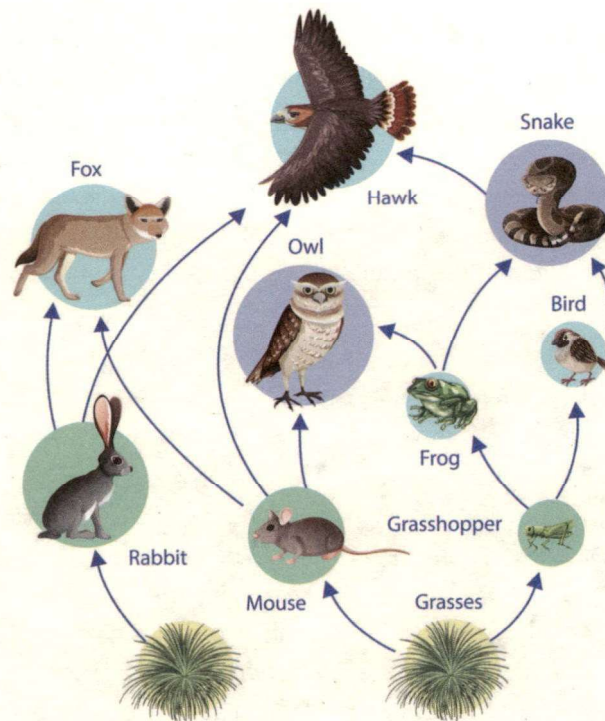
- ▶ **The sun** — Without the sun, there would be no life on Earth. The energy of the sun flows through a cycle in the ecosystem. Plants are the first to use this energy.
- ▶ **Producers** — All green plants — trees, shrubs, grasses, flowers, etc. — use the energy of the sun to grow. Plants also take up nutrients and minerals from the soil. The plants produce leaves, bark, fruits, nuts, and seeds that many animals eat.
- ▶ **Consumers** — Animals are consumers. They use the stored energy, nutrients, and minerals in their food to grow and to maintain their health.
- ▶ **Decomposers** — These are the fungi, lichens, bacteria, and insects that break down dead plants and animals. This process returns organic matter and minerals to the soil, making them available to trees and other plants — the producers. Nature is a good recycler.

You can divide consumers into two categories:

- **Primary consumers** — Plant-eating animals, also called herbivores, are called primary consumers because they are the first to benefit by eating the producers. Examples include rabbits, squirrels, deer, seed-eating birds, grasshoppers, and cattle on farms.
- **Secondary consumers**: Meat-eating animals, also called carnivores, are secondary consumers because they benefit from the energy and nutrients stored in their prey, the herbivores. For example, hawks and owls eat mice and rabbits, while mountain lions hunt deer and smaller animals.

Some consumers are called omnivores because they eat both plants and animals. For example, the gray fox hunts rabbits, mice, voles, birds, and insects, but it also eats blackberries, grapes, persimmons, and grass. Human beings are omnivores, too.





When you figure out the food chain in an ecosystem, you can see how animals, plants, and their habitat are connected. The ecosystem is in balance when all the necessary parts of its community are present. The ecosystem is out of balance when there is not enough habitat and food for animals to survive.

After some natural events, like a forest fire started by lightning, the original ecosystem may slowly recover. Nature eventually adjusts the balance. The needs and plans of humans often alter the balance of nature quickly and permanently. When people clear forest and brush and turn it into agricultural land, much of the animal life may disappear from the area, except for animals that can adapt to the farming environment. When a huge shopping center is built and surrounded by a paved parking lot, animals cannot adapt to that environment. Pollution of air or water can also damage or wipe out an ecosystem.

Losing one link in the food chain can upset the balance, too. Here's an example: Wolves hunt deer, and that helps keep the deer population under control. But since wolves also hunt livestock, many ranchers have tried to reduce their numbers. When the wolf population goes down, the deer population goes up because deer have fewer natural predators. When that happens, deer begin eating more vegetation than an area can produce. Eventually, overgrazing can cause soil erosion, making it harder for vegetation to grow.

As humans, we can all help maintain the balance of nature. Land developers often plant trees to replace those they cut down for their buildings. When hunters and fishermen buy licenses for their activities, part of the money goes to conservation efforts. Many people volunteer in parks and forests to pick up trash, plant trees, and remove invasive species that crowd out native species. You can help with those activities. You can also feed native species and conserve natural resources. When feeding native species, be sure to give them appropriate food (such as birdseed instead of table scraps). Check with a local nature center for guidelines.

Ecosystems don't occur just on dry land. Aquatic ecosystems and wetlands are very important, too. All living things need water, of course, and wetlands serve as natural water filters. Rivers and lakes provide habitat for wildlife and drinking water for human beings. Find out about the aquatic ecosystems and wetlands in your area and talk with your den leader or family about ways you can help protect them.

REQUIREMENT 3

Investigate how your animal coexists with other animals in the wild.

Your animal may be a predator, it may be the prey, it may be a scavenger, or it may be a combination.

- ▶ Predators are animals that hunt other animals.
- ▶ Prey are animals that are hunted by other animals.
- ▶ Scavengers are animals that eat the remains of animals that are already dead.

Most predators also are hunted by larger animals. A fox is a predator; it hunts and eats rodents like mice. A fox is also hunted by wolves, so a fox is prey to a wolf. A predator that is not naturally hunted by another animal is called an apex predator. A bear is an apex predator because it is not naturally prey for another animal.



When sources of food are low, some predators will become scavengers, eating the animals that have already been killed by another predator. Other animals like the vulture will eat animals that have been dead for a long time. The vulture has a very strong stomach and can digest rotten meat without getting sick. Scavengers help prevent the spread of diseases that can come from rotting animals.

REQUIREMENT 4

Describe how humans interact with your chosen animal's ecosystem.

Human interaction with animals can be both positive and negative. U.S. President Theodore Roosevelt was known as the conservation president and established several areas of the United States as national parks. National parks provide large areas for wildlife to go undisturbed by humans. There are areas of national parks that see millions of visitors, but these areas are usually just a very small portion of the park's total area. National parks provide us with opportunities to see the natural wonders of our country and hopefully learn how we can continue to protect and preserve them.



Humans also have a negative impact at times. Roadways in the Florida Everglades cut off natural migration and hunting patterns for native animals. The roadways also cause a hazard for animals, like the Florida panther, to cross. Some negative interactions can be changed, however. When new roadways were built in the Florida Everglades, engineers constructed several overpasses to create wildlife crossings. Wildlife crossings are large ground-level areas that panthers and other wildlife can safely use, giving them greater access to the hunting ground.

REQUIREMENT 5

Discover how wildlife management benefits your animal.

Managing wildlife involves knowing and tracking the population of an animal, understanding its ecosystem, and identifying ways to keep wildlife in balance. For example,



let's look at what happens to an ecosystem without enough predators. When there aren't enough predators, the number of animals hunted by those predators increases. Those animals start to use more of the ecosystem's natural resources, like vegetation. If their population continues to increase, there may not be enough natural resources in the ecosystem to sustain the animals; those natural resources may even die out completely. What do you think might happen to the animal population as a result?

Wildlife management works to ensure the balance of the ecosystem in several ways. One method protects certain species of animals and ecosystems by creating areas of protected lands and at times working to get the land to a more natural state. Another way uses hunting laws that restrict the time of year certain animals can be hunted and the amount a hunter can take. All of these pieces are important to keep wildlife in balance.