

AGES Ages 5 - 10

## **SUBJECTS**

Ecosystem Science, Language Arts, Environmental Education

## **CONCEPTS**

Comparison of wildlife and human habitats

## **SKILLS**

Observation and reflection

MATERIALS None

## TIME NEEDED

1 hr 30 minutes total: 45 minute lesson, 15 minute optional activiy, and 30 minutes walking on the CDT if possible

## LOCATION

Indoor or outdoor with room to sit in a circle and space for students to explore

# **Background**

Many people think of wildlife as the large animals of the North American forests, such as grizzly bears and elk or the animals we see most often like squirrels or deer. However, wildlife includes all animals that have not been domesticated by people. We would expect there to be some wildlife on the Continental Divide Trail, but there's more than you might think! If you're not able to see the trail, there's more wildlife in your own classroom than you might think!

What may be surprising is that wildlife includes the smallest animal organisms - even those that can only be seen through a microscope. Spiders, insects, reptiles, amphibians, and most species of fish, birds, and mammals may be considered wildlife. Even when animals are silent or not visible, they exist somewhere around us. And, even in cities and towns, there is more wildlife than you might expect! Microorganisms that live on and in our bodies play a part in human survival and can also be considered wildlife. Some form of animal life is always near.

By investigating microenvironments or microhabitats, students will be able to generalize that wildlife exists...everywhere.

## **OBJECTIVE 1**

Students learn to compare human and wildlife habitats and identify differences and similarities. Additionally, students can match animal features with corresponding habitat.

## **OBJECTIVE 2**

Students are able to understand that wildlife is everywhere and see more life in the world around them.

**Credit:** The basis of this lesson comes from the Project WILD K-12 Curriculum & Activity Guide "Understanding Wildlife" lesson.

# Doing the Activity (30 minutes)

#### INTRODUCTION:

Provide a brief introduction to the Continental Divide Trail. Let students know it is a trail that runs over 3,000 miles from Mexico to Canada and point out on a map where it is closest to them. Tell students that the CDT crosses 18 distinct ecosystems, including habitats for 20 large mammals and countless other animals.

- An <u>ecosystem</u> is a community of interacting organisms and their environment.
- A <u>habitat</u> is a place where an animal lives. Different habitats are home to different animals

Ask students to describe their environment. What kind of landscapes are you in (even indoors)? Ask them what kind of animals they might expect to see in this place (5 mins).

Note: With this activity make sure to ask students to observe, but not touch or disturb any animals they see.

#### INDOOR OPTION

- 1. Invite students to explore the room looking for signs of wildlife. Even in the cleanest rooms, some signs of life can be found. It might be a spider web, dead insects near lights, or insect holes along baseboards and behind books. Have students record their observations with notes or drawings (15 mins shorter if indoors).
- 2. After the search. Have a discussion with students about what they might have found, then introduce the idea that people and other animals share the same environment. Sometimes people do not even notice that they are sharing the environment with other living things. Ask students if they can think of other examples of wildlife in their environment that they might find in the future (10 mins).

# **OUTDOOR OPTION:**

- Divide students into pairs and ask them to find animals or signs that animals have been there. Look for indirect evidence such as tracks, webs, droppings, feathers, and nests. Have students record their observations with notes or drawings (15 mins).
- Afterwards, sit down and discuss what everyone found. Discuss what students have learned.
  Emphasize that the experience shows that people and wildlife share the same environment (10 mins).
- Ask students what clues led them to find animals or animal evidence.
- Ask students to think about how and where they might use these observation skills going forward.

Note: Emphasize that the animals and evidence of animals found in your specific spot is just one ecosystem in a much broader landscape. Remind students that the CDT crosses over 18 distinct ecosystems that provide habitats to many types of animals.

# **Evaluation/Conclusion (15 minutes)**

Bring students back together as a full group for a final activity and reflection.

- Either as a group on a whiteboard or individually in notebooks, as students to draw a picture of a habitat and place as many animals as possible that would be found living in that place. If done individually, have students trade with a partner and see if they can add anything to someone else's drawing.
- 2. Identify and describe three things that people could do to increase the numbers and kinds of wildlife living in an area that has little evidence of wildlife.

# CDT Connection/Additional Activity (15 minutes)

#### MATCH THE ANIMAL TO THE CDT ECOSYSTEM!

See following page for printable materials for this activity.

**Option 1:** Print and cut out the photos to make animal and ecosystem cards. Mix the cards together and then ask students to pair the animals and ecosystems.

**Option 2:** On a whiteboard, write the ecosystem categories as headers. Name an animal and have students collectively or individually place the animal, either writing the name or attaching the printed photo.

**Note:** There will be more animals than ecosystems, so multiple animals will match to the same ecosystem card. Additionally, fee free to allow students to add more ecosystems if they believe an animal fits better in one that is not listed.

## **BACKGROUND ON THE CDT**

The Continental Divide National Scenic Trail (CDT) is one of the most significant trail systems in the world. Established in 1978, it spans over 3,000 miles from Mexico to Canada, traverses five states and connects countless communities along the spine of the Rocky Mountains. The CDT runs across New Mexico for 820 miles where it weaves through the present-day and ancestral lands of numerous Native American tribes including the lands of the Chiricauhua Apache, Pueblos, Western Apache, Ute, Diné (Navajo), and Zuni tribes. 740 miles of the trail are in Colorado as well as the highest point, Grays Peak. The Arapaho name for both Grays and Torrey's peaks is Heeniiyoowuu. Wyoming has nearly 550 miles of the CDT including the Great Divide Basin - the only place the Continentnal Divide splits and rejoins. Together Montana and Idaho then host 980 miles of the CDT before it reaches Canada.

What is the Continental Divide? A continental divide is the location on a continent where drainage on either side of the divide drains into different oceans. In the U.S., the Rockies are the line that separates drainage into the Pacific Ocean on the west side and the Mississippi River on the east side.

# **CDT Ecosystems**

Beyond providing a scenic experience for human users, the Continental Divide Trail serves as an opportunity to prioritize the conservation of a network of wild lands that create a united landscape corridor along the spine of the continent. Connecting the diverse landscapes and ecosystems of the trail establishes habitat continuity for migratory animals and protects the important ecosystems of the American West. If you would like to see a map of the trail and major ecosystems, our Atlas of the CDT provides more information and maps.

# **ACTIVITY MATERIALS:**

# **Wildlife Photos for Printing**



BALD EAGLE. Photo by Johnny Carr



WILD HORSES. Photo by Matt Berger



GILA MONSTER. Photo by Matt Berger



HORNED LIZARD or HORNY TOAD. Photo by Matt Berger



MOUNTAIN GOAT. Photo by Dahn Pratt



ROCK PTARMIGAN. Photo by Matt Berger



GRIZZLY BEAR. Photo by Matt Berger



ELK. Photo by Matt Berger



DEER. Photo by Matt Berger



BIGHORN SHEEP. Photo by Whitney LaRuffa



BISON. Photo by Steven Shattuck



NORTHERN LEOPARD FROG. Photo by Johnny Carr



PORCUPINE. Photo by Robert Walker



FOX. Photo by Dahn Pratt



RATTLE SNAKE. Photo by Dahn Pratt



WOLVERINE. Photo by Thomas Gathman



TIGER SALAMANDER. Photo by Matt Berger



MOOSE. Photo by Matt Berger



POLICE CAR MOTH. Photo by Robert Walker



MARMOT. Photo by Matt Berger



PINE MARTEN. Photo by Matt Berger



PIKA. Photo by Johnny Carr

# **Ecosystem Photos for Printing**



**Arizona-New Mexico Mountains** - Interspersed ranges known for large ponderosa pines and more species of birds and animals than any other place in the Southwest. Photo by Amanda Wheelock



Apache Highlands - Mountain ranges dubbed "Sky Islands," covered in pine and conifer forests, rise abruptly from surrounding basins of grassland and shrub. Photo by Matt Berger



Northern/Canadian Rockies - Entirely glaciated as recently as 11,400 years ago, this region is defined by high mountain ranges separated by intermontane U-shaped basins. Photo by Guthrie Alexander



**Middle Rockies** - Abrupt elevation changes of 3,000 ft - 4,000 ft define a rugged landscape of sagebrush grasslands, coniferous forest, and sub-alpine meadows. Photo by Dahn Pratt

Mountain Meadows - Along the Divide, especially on lower elevation ridgelines, meadows dot the landscape between forests. These meadows are filled with wildflowers in the summer and rich communities of grasses and shrubs. Photo by Amanda Wheelock



**Wyoming Basins** - A sea of sagebrush with unusual rock formations, sand dunes, and sagebrush communities including the Great Divide Basin. Photo by Matt Berger



Alpine Lakes - As snow melts from the mountains, alpine lakes fill and are home to countlless aquatic species and provide water for many others. Photo by Dahn Pratt



**Aspen Forests** - Aspens grow in a range of places from talus slopes, to deep soils, to dry ridges, to streamsides. Photo by Francesca Governali



**Southern Rockies** - An ecoregion spanning diverse forest types, steep elevation gradients and some of the highest peaks in the contiguous U.S. Photo by Dahn Pratt



Conifer Forests - Coniferous (pine, spruce) forests can be found all along the Divide, often at higher elevations. Photo by Amanda Wheelock



**Riparian Zones** - The areas along a river or stream, especially those in the desert and canyons, provide much needed moisture and offer a cool place for many animals. Photo by Dahn Pratt