

COMPARING CREATURES

Grades 2–3 Lesson

OBJECTIVE: Through a compare-and-contrast exercise, students will develop an understanding of adaptations that help three animals survive in their native habitats in the wilds of China.

TIME REQUIRED: Two 20-minute parts. *Optional:* Additional time to view the movie *Born in China*.

MATERIALS: Globe or world map; “China’s Animals: Fast Facts” printable; “Comparing Creatures” printable skills sheet

STANDARDS

SCIENCE

- NGSS/2-LS4.1 Make observations of plants and animals to compare the diversity of life in different habitats.
- NGSS/3-LS4.3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

ELA

- CCSS.ELA-LITERACY.SL.2-3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners.
- CCSS.ELA-LITERACY.RI.2-3.4 Determine the meaning of general academic and domain-specific words and phrases.

SOCIAL STUDIES

- NCSS: Culture; People, Places & Environments

PART 1: HABITATS

1. Call on a volunteer to locate China on a globe or world map. Point out some of the diverse types of regions located in China, such as the vast Gobi Desert in the north, central mountain forests, and snow-covered Himalayas in the west.
2. Explain what a **habitat** is. (The place and natural conditions in which a plant, an animal, or another organism lives.) Give students an example of a habitat, such as a pond, and the animals that live there, such as frogs, fish, and birds. Find out what types of creatures students think might be found in each of China’s regions/habitats.
3. Provide three examples of animals that live in China and the habitats where they can be found:
 - giant panda/central mountain forests
 - golden snub-nosed monkey/central mountain forests
 - snow leopard/western mountains, such as the Himalayas
4. Follow up by showing images of each animal found on pages 8–16 of the *Born in China Educator’s Guide*. Point out features of each animal and its habitat.

PART 2: ADAPTATIONS

1. Discuss the idea of **adaptations**—features that help an organism survive in its habitat. Share the following examples of adaptations with students:
 - Giant pandas have strong jaws to crush the tough stalks of plants called bamboo—their main food source.
 - The hands of golden snub-nosed monkeys are covered in fur. They act like mittens to protect the monkeys from the cold.
 - Snow leopards have large paws that act like snowshoes. They help the animals walk across the snow without sinking.

2. Share the information on the “China’s Animals: Fast Facts” printable to provide more facts about pandas, golden monkeys, and snow leopards.
3. On your chalkboard or whiteboard draw three columns and label them: *animal*, *habitat*, and *adaptations*. Write down *giant panda*, *golden snub-nosed monkey*, and *snow leopard* in the animal column. As a class, have students identify the type of environment (habitat) each animal lives in and the features (adaptations) that help them survive in those habitats.

Skills sheet: Hand out the “Comparing Creatures” skills sheet. Walk students through the instructions, and then have them work in pairs to complete the activity. (Answers below include information from the “China’s Animals: Fast Facts” printable.)

Giant Panda Features—covered in fur; eats bamboo; lives in mountain forests; thumblike bone; strong jaws; vulnerable species; lives where it’s cold; eats plants; thick, warm coat.

Golden Snub-Nosed Monkey Features—covered in fur; lives in mountain forests; endangered species; climbs trees; blue face; orange hair; eats mainly plants; short nose; long tail; thick, warm coat.

Snow Leopard Features—covered in fur; black-circled rings; lives in rocky parts of mountains; endangered species; paws act as snowshoes; hunts other animals; lives where it’s cold; jumps long distances; long tail; thick, warm coat.

Shared Features—(will include a combination of the above, depending on which two animals students choose.)

BORN IN CHINA MOVIE TIE-IN

BEFORE VIEWING

1. April 22 is Earth Day. Ask your class: *What is Earth Day?* (Answer: It’s a day when people hold events to show their support for protecting the environment.) Explain that to help celebrate Earth Day, students will be watching a movie called *Born in China*. Ask: *Based on the movie’s title, and what you’ve learned, what do you think the film will be about?* (Answer might be: A journey into China to learn about families of animals that live there.)
3. Have students recall the three animals—giant pandas, golden snub-nosed monkeys, and snow leopards—they learned about in the lesson. Inform students to keep an eye out for these creatures as they watch the movie.

AFTER VIEWING: Ask the following post-viewing questions to assess students’ understanding of the film.

1. Describe the type of family each animal has. Are there any similarities? Differences?
2. What problems affect each family’s survival in the wild?

EXTENSIONS

You can find dozens of STEAM extension activities in the *Born in China Educator’s Guide* and *Activity Packet*. Here are some examples:

- Get students moving while they discover China’s creatures by holding an “Animal Field Day”; see pages 20–24 in the *Born in China Educator’s Guide*.
- Get creative by having students use their art skills to complete the “Panda Storyboard”; see page 18 in the *Born in China Activity Packet*.



CHINA'S ANIMALS: FAST FACTS

Giant Panda



Giant pandas are a type of bear. They are known for the black and white markings on their fur. Pandas live in the snowy mountain forests of central China. They have woolly coats to help them stay warm in their cold habitat. Although pandas climb trees at all ages, adults tend to spend most of their time on the ground.

Pandas eat mostly **bamboo**. They have strong jaws to crunch through this plant's tough stalks. Pandas also have a thumblike bone in their wrists. They use it to hold bamboo stalks as they eat.

Giant pandas are **vulnerable** in the wild. This means they are likely to become **endangered**, or at risk of becoming extinct. The main threat to pandas is loss of their habitat from farming, logging, and growing cities.

Golden Snub-Nosed Monkey



These monkeys live in mountain forests. They share some of this habitat with giant pandas. The monkeys spend almost all of their time in the treetops. They eat bark, seeds, and **lichen** (a plantlike fungus). They also eat leaves, buds, fruit, insects, birds, and bird eggs.

The monkeys' thick orange fur keeps them warm in their cold habitat. It even covers their hands like mittens. Golden monkeys have pale blue faces and flat noses. Some scientists think a flat nose prevents **frostbite**, when freezing temperatures damage tissues. The monkeys' tails are almost as long as their bodies.

Golden monkeys are endangered. They face habitat loss from farming and land development. People also hunt the animals for their golden fur, which is used in traditional medicines.

Snow Leopard



Snow leopards live in the mountains of western China. Their habitat is rocky, cold, and dry. The cats have a thick coat of fur that is white to yellow in color. The coat is covered in gray speckles as well as black-circled rings called rosettes. The pattern acts as **camouflage**, which helps them blend in with their surroundings. It also helps the leopards sneak up on animals they hunt, such as wild goats and sheep.

A snow leopard can jump almost the length of a school bus. Its tail is almost as long as its body, and helps the leopard balance as it leaps. The cats can also wrap their tails around them like a scarf to stay warm. They have short, round ears that hold in heat. A wide nose warms cold outside air as they breathe. Their large paws act like snowshoes to keep them from sinking into the snow.

Snow leopards are endangered. They face **poaching** (illegal hunting) for their coats. Their bones are also traded for use in traditional medicines. Another threat is farming, which has caused the cats' habitat to shrink. Farmers also hunt snow leopards to protect their livestock.

Name: _____ Date: _____

COMPARING CREATURES

Giant pandas, golden snub-nosed monkeys, and snow leopards look and act quite differently. But they do have some things in common.

Directions: Pick two of the animals. Write their names as headings in the Venn diagram. Then choose items from the “Animal Features” box that describe each animal. Write the features in the part of the diagram belonging to the animal. Place any features both animals share in the area where their circles overlap.



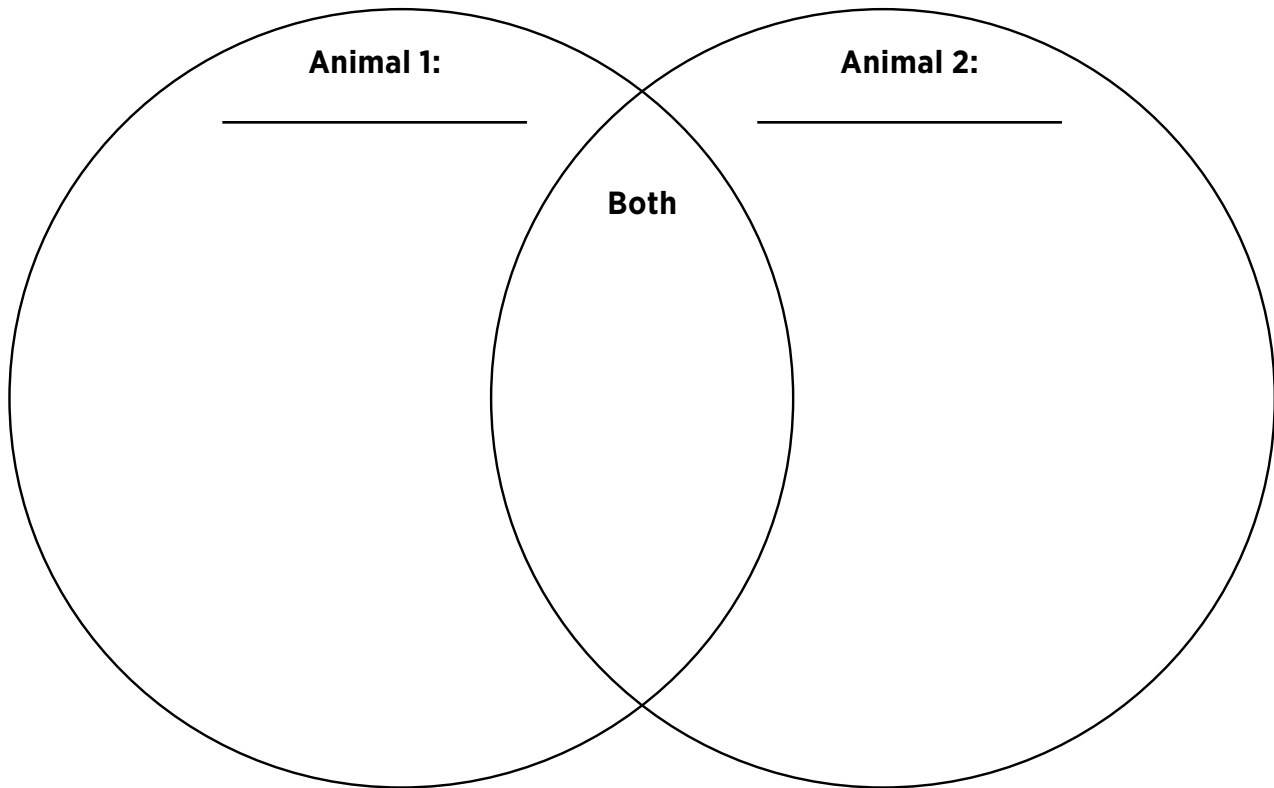
*giant
panda*



*golden
snub-nosed
monkey*



*snow
leopard*



ANIMAL FEATURES

covered in fur

black-circled rings

eats bamboo

lives in mountain forests

lives in the rocky parts
of mountains

thumblike bone

strong jaws

endangered species

vulnerable species

paws act as snowshoes

hunts other animals

climbs trees

lives where it's cold

blue face

jumps long distances

orange hair

eats plants

short nose

long tail

thick coat