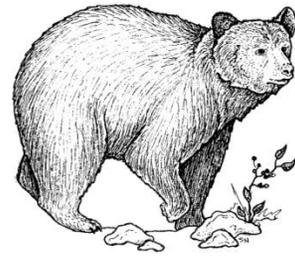


Lesson Two

The World of Bears



Key question

Where do the bears of the world live?
How is the Florida black bear different from other bears?

Conceptual frameworks topics

- I.C. Evolutionary history of bears
- II.A. Names of bear species
- II.B. Scientific classification of bear species
- II.D. Unique characteristics/behaviors of bear species
- II.E. Geographic distribution of bear species
- II.F. Habitat distributions of bear species
- II.G. Status of bear species

Subjects

Social Studies, Science, Language Arts, Mathematics

Time estimates

30-45 minutes per day for two days

Key vocabulary

Genus, species, subspecies, habitat, threatened, endangered

Supplemental video clip

[Time 6:13-7:54 of 60-minute video](#)

Objectives

As part of this activity, students will:

1. Name the eight species of bears.
2. Determine the geographic distribution of the world's bear species.
3. Identify the major habitats of the world's bear species.
4. Classify the world's bear species into groups based on different attributes.
5. Identify the status of each of the world's bear species.
6. Observe and describe differences between the Florida black bear and other bear species.



Lesson Two _____ The World of Bears

Materials

Essential:

Per class:

- One “The World of Bears” Poster
(Follow [hyperlink](#) on [Lesson Two’s webpage](#))

- One “The World of Bears” [Slide](#)

Per group of three to four students:

- One “The World of Bears” [Map](#)
- One set of “The World of Bears” [Summary Cards](#)
- One set of “The World of Bears” [Stickers](#)
- Glue stick or paste
- One pair of scissors
- One “The World of Bears” [Sorting Chart](#)

Supplemental:

Per group of three to four students:

- One envelope for Summary Cards and Stickers

Per student:

- One copy of the “The World of Bears” Poster
- Crayons or colored pencils

Background

The first bears evolved from ancestors called “bear dogs” and appeared in Europe about four to five million years ago. Fossilized bones of bear dogs can still be found in Florida today.

Currently, eight species of bears live in diverse habitats throughout the world. True bears inhabit every continent except Africa, Antarctica, and Australia. The giant panda of China and Tibet is a true bear, but the koala bear of Australia is not a

true bear, it is a marsupial. Three species of bears live in North America: the American black bear, two brown bear subspecies (the grizzly bear and the Kodiak bear), and the polar bear. Only one species of bear, the spectacled bear, also known as the Andean bear, lives in South America. In addition to the giant panda and the brown bear, three other species of bears live in Asia: the sun, sloth, and Asiatic black bears. The only species of bears found in Europe are the polar bear and the brown bear.

Although some species of bears, like the polar bear, primarily eat meat, others like the giant panda and the sun bear primarily eat plants, however ALL bears are omnivores.

While as of 2016, no bear species are listed as **endangered** (in danger of becoming extinct throughout its natural range), the giant panda is the most in danger of becoming extinct in the near future due to its low population numbers. The spectacled bear, sun bear, sloth bear, polar bear, and Asiatic black bear are threatened. **Threatened** species are species that could become endangered in the future. The populations of two of the world’s eight bear species, the American black bear and brown bear, appear to be stable. Between 1974 and 2012, the Florida black bear was listed as a state threatened species. Due to successful conservation efforts, it was removed from the list in 2012 and is protected under the *Bear Conservation Rule* ([F.A.C. 68A-4.009](#)). One factor threatening the



Lesson Two _____ The World of Bears

continued survival of the Florida black bear and many other bear species is habitat loss. Throughout the world, bears have already lost between 50 and 75 percent of their original habitat.

Advance preparation

1. Prepare sufficient copies of the "The World of Bears" Map, "The World of Bears" Summary Cards, "The World of Bears" Stickers, and "The World of Bears" Sorting Charts for each group of students.
2. To save time during the lesson, cut out "The World of Bears" Summary Cards and "The World of Bears" Stickers in advance and place each group's set of cards and stickers in an envelope.
3. Prepare a copy of "The World of Bears" Slide.
4. Make sure students are familiar with the use of Venn Diagrams for creating sets and subsets before beginning the lesson.

Procedure and discussion questions

1. Introduce the lesson by asking students to name all the different kinds of bears they have heard of. Record all responses on a large chart or board. Next ask students where bears live. Finally, ask students to describe some of the differences they have observed between different kinds of bears they have seen through zoos, museums, books, or movies.
2. Display "The World of Bears" Poster and introduce and develop the terms species and subspecies. While the term

species is scientifically defined as a group of organisms that can interbreed and produce fertile offspring, at lower grade levels, you may want to use the term species to describe a group of related living things that have basic characteristics in common. **Subspecies** are scientifically defined as geographically isolated sub-groups of a species that have developed unique, distinguishing traits. At lower grade levels, you may want to define the term subspecies as a smaller, more specific category of a species. Ask students how many different species of bears exist in the world today. Explain that during this lesson, students will be working in small groups to learn more about the eight species of bears in the world, and three select subspecies of bears.

3. Divide students into groups of three to four and distribute to each group a "The World of Bears" Map, a set of "The World of Bears" Summary Cards, a set of "The World of Bears" Stickers, a pair of scissors, and glue. Refer to the Key on the "The World of Bears" Map and make sure students know how to locate continents and countries and identify different habitat types on the map. If necessary, introduce or reinforce the term **habitat** as an environment that provides an animal with the food, water, shelter, space, and other requirements it needs to survive. Cue students in to the orientation compass on the bottom right hand corner of the map and show students how to use the compass to find areas like "western Canada" or "southeast Asia."



Lesson Two _____ The World of Bears

4. Have groups distribute two to three Summary Cards to each group member. If "The World of Bears" Stickers have not already been cut up and placed in envelopes for each group, have students cut apart their stickers and sort them into small piles for each bear species or subspecies. Refer to the scientific names of each bear in parentheses on the Summary Cards. Explain that the first name represents the genus name, the second name represents the species name, and if a third name is present, it represents the subspecies name. For example, the Florida black bear is in the genus *Ursus*, the species *americanus*, and the subspecies *floridanus*.

5. Instruct students to carefully read the information on their Summary Cards and determine where their assigned bear species or subspecies live. Have them first locate the continents their bear lives in, then the countries (or states) the bear lives in, and then the particular habitats the bear lives in. Once the correct locations have been found for each bear, have students glue their assigned bears' stickers in the appropriate locations on their world map. Encourage students in groups to work together to make sure they have identified the proper locations for each kind of bear. Explain that all stickers for each kind of bear should be glued on the map. Remind students that some areas of the world will have many kinds of bear stickers in the same area while other parts of the world won't have any bear stickers. If students are concerned about covering up the names

of states, countries, or continents when they glue their bear stickers on the map, encourage them to glue their stickers in the white, blank areas of the map near each bear's location. They can then draw lines or arrows connecting each bear sticker with its correct location on the map.

6. Conclude Day 1 with a review of the distribution of the eight species of bears in the world [polar, brown, American black, Asiatic black, spectacled (Andean), sun, sloth, and giant panda] and three subspecies of interest (Florida black bear, grizzly bear, and Kodiak bear). Collect completed group maps and Summary Cards.

Day 2

1. Review the key ideas that bears today are found in all continents except Africa, Antarctica, and Australia and that different species of bears live in widely different habitats. Display the "The World of Bears" Slide and review the scientific names of the eight species and three subspecies of interest. Ask students why some bears have the same genus name while other bears have unique genus names. Introduce the idea of scientific classification and explain that scientists classify or group different kinds of bears according to their similarities and differences. Bears that are more similar to each other share the same **genus** name. Ask students to identify which species of bears share the same genus name (*Ursus* is the genus for the American black bear, Florida black bear, brown bear, grizzly



Lesson Two _____ The World of Bears

bear, Kodiak bear, polar bear, and Asiatic black bear). Explain that bears with unique genus names [sun bear, sloth bear, spectacled (Andean) bear, and giant panda] are more unique and different than their *Ursus* relatives. Next, ask students to refer to the Slide and identify the three subspecies of bears on the list (the Florida black bear, grizzly bear, and Kodiak bear). Make sure students understand that there are other subspecies of bears besides the three on this list, such as the Louisiana black bear.

2. Explain that during the second part of the lesson, students will be working in their same groups of three to four to learn more about the similarities and differences between different species of bears.

3. Re-distribute the "The World of Bears" Summary Cards to each group. In addition, give each group a "The World of Bears" Sorting Chart. If necessary, show students how to sort the Summary Cards into sets and subsets using the sorting chart. Explain that the outer rectangle represents the "Universal Set" and all Summary Cards should be placed there first. Next, each group should choose two different traits for Circles A and B. For example, one trait could be "Eats Honey" (Circle A) and another trait could be "Lives in Asia" (Circle B). Summary Cards for all bears that eat honey and do not live in Asia would be placed in Circle A, while cards for all bears that do not eat honey but do live in Asia would be placed in Circle B. Cards for bears that eat honey

and live in Asia would be placed in Section C (the intersection of Circles A and B) and cards for bears that do not eat honey and do not live in Asia would remain outside the two circles in the Universal Set (see [Figure 1](#) – Sample Sorting Chart).

4. Encourage each group to carefully review the Summary Cards and come up with its own ideas for sorting traits. Explain that they could use traits regarding the location, habitat, size, preferred foods, status, or even genus names for sorting. Let groups practice sorting their Summary Cards using two to three different pairs of traits.

5. After students have practiced classifying bears of the world, have them share some interesting similarities and differences between the world's bears that they discovered during the activity.

6. Next, ask students to identify ways the Florida black bear is similar to other kinds of bears and ways the Florida black bear is unique. Reinforce the idea that the Florida black bear is the only kind of bear native to Florida and is a subspecies of the American black bear.

7. Conclude the lesson with a discussion of the status of the world's bears. Review the terms **endangered** and **threatened** (likely to become endangered in the future). Make sure students realize that currently, the only two species of bears with stable populations are the American black bear and brown bear. Students



Lesson Two _____ The World of Bears

should also realize that the primary factor threatening the survival of the world's bears is habitat loss.

Modifications for younger or ESE/ESOL students

1. Provide each group with only one sticker for each species and subspecies of bear. Have students paste each sticker in only one of the areas each species of bear inhabits on the map.
2. Focus only on the eight species of bears and the Florida black bear subspecies. Eliminate the grizzly bear and the Kodiak bear from the activity.
3. Eliminate the introductory discussion on Day 2 regarding scientific classification and scientific names of bear species and subspecies.
4. Arrange the entire class in a circle seated on the floor. Use yarn or string to create a giant Venn diagram sorting chart on the floor inside the circle. Let different students choose traits of interest and practice sorting the "The World of Bears" Summary Cards in the giant floor chart as a whole-class activity rather than a small group activity.

Assessment suggestions

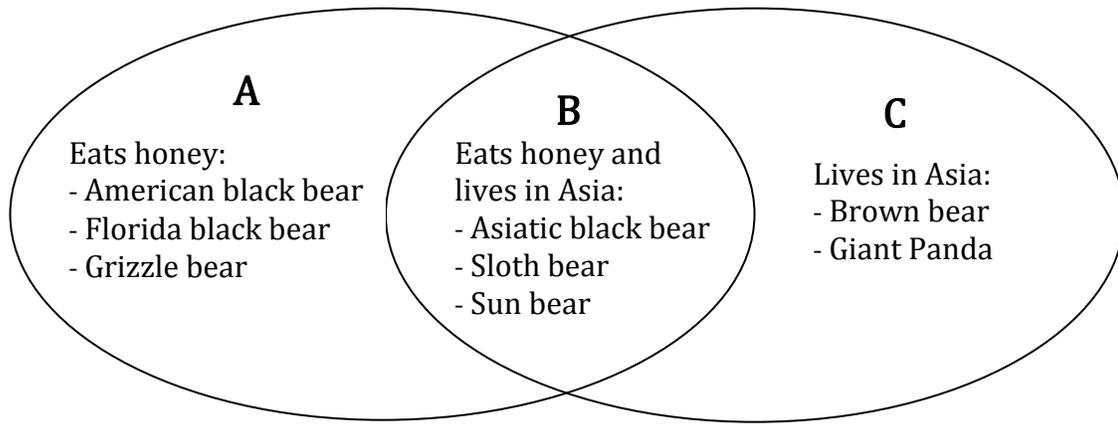
1. Have students name the eight species of bears.
2. Collect completed "The World of Bears" Maps from each group to determine if students accurately identified the geographic distribution of each bear species and subspecies.
3. Observe how student groups classify bear species based on different attributes and check the accuracy of summary card placement on the sorting chart.
4. Have students divide a sheet of paper into three columns labeled Stable, Threatened, and Endangered and classify the world's bear species and subspecies of interest into categories based on their status.
5. Ask students to compare the Florida black bear with one of the following species of bears: the brown bear, the polar bear, the sun bear, the sloth bear, or the giant panda. Have students write a paragraph in response to the following writing prompt: "The Florida black bear and the ____ bear are alike in some ways and different in other ways."

Art extension

Give each student a copy of the "The World of Bears" Poster and crayons or colored pencils. Let students color in their own posters of the world's bear species.



Lesson Two _____ The World of Bears



Does not eat honey and does not live in Asia: Kodiak, polar, and spectacled (Andean) bears

Figure 1. Sample Sorting Chart



Summary Cards



American Black Bear



Florida Black Bear



Brown Bear



Grizzly Bear

Lesson Two _____ The World of Bears

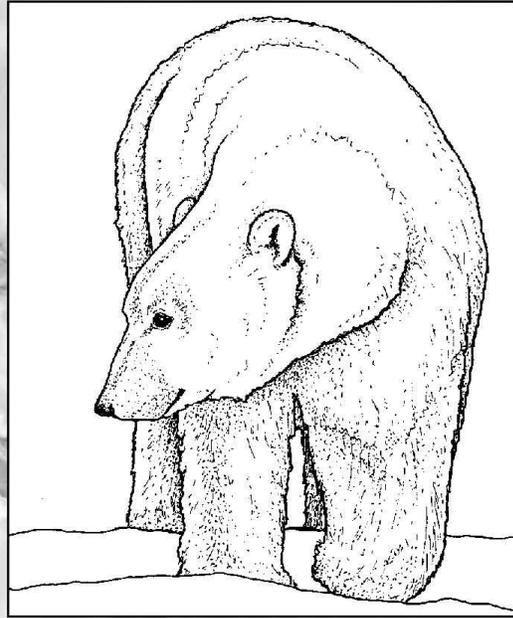
<p>Florida black bear (<i>Ursus americanus floridanus</i>)</p> <p>Location The Florida black bear is the only species of bear found in Florida.</p> <p>Habitat Forests and swamps</p> <p>Size 150-350 pounds 4.5-6.5 feet long</p> <p>Preferred Foods Berries, nuts, leaves, grasses, plant roots, palmetto berries and hearts, insects, dead animals, honey</p> <p>Status Stable: There are at least 4,000 Florida black bears in the wild.</p> <p>Interesting facts About 15% of Florida black bears have white patches of fur on their chests called blazes. Florida black bear cubs can play high up in trees for hours.</p>	<p>American black bear (<i>Ursus americanus</i>)</p> <p>Location North America into Canada, northern Mexico, the northeast, southeast, and western U.S.</p> <p>Habitat Forests, meadows, and swamps</p> <p>Size 140-400 pounds 4-6 feet long</p> <p>Preferred Foods Berries, nuts, leaves, grasses, plant roots, insects, fish, dead animals, honey</p> <p>Status Stable: There are about 300,000 American black bears in the United States, with about 850,000–950,000 in North America.</p> <p>Interesting facts Black bears have the largest ears of any bears. Black bears can find their way home from over 100 miles. The American black bear is the least aggressive of all bears.</p>
<p>Grizzly bear (<i>Ursus arctos horribilus</i>)</p> <p>Location North America in western Canada and five states in the U.S.: Alaska, Wyoming, Montana, Idaho, and Washington</p> <p>Habitat Forests and meadows, especially near streams</p> <p>Size 400-800 pounds 6-8 feet long</p> <p>Preferred Foods Salmon, dead animals, grass, leaves, nuts, honey, plant roots, berries, insects</p> <p>Status Stable: In 1800, there were about 100,000 grizzly bears in the U.S. Today, most grizzlies live in Alaska and Canada and are listed by the US Fish and Wildlife Service as a species of special concern. About 30,000 grizzly bears live in Alaska.</p> <p>Interesting facts The name 'grizzly bear' comes from the sometimes grizzled appearance to their brown fur having blonde tips.</p>	<p>Brown bear (<i>Ursus arctos</i>)</p> <p>Location Western North America, Europe and Asia. Outside western North America, most remain in Russia. The two subspecies in North America are the grizzly bear and the Kodiak bear.</p> <p>Habitat Tundra, forests, meadows, and along coastlines</p> <p>Size 300-800 pounds 6-8 feet long</p> <p>Preferred Foods Salmon, trout, crabs, moose calves, deer, dead animals, fruits, berries, plant roots</p> <p>Status In Alaska, Canada, Europe, and Russia they are stable according to the IUCN Redlist.</p> <p>Interesting facts Brown bears have a hump of muscle and fat over their shoulders. Brown bears have the greatest range of any bear species.</p>



Summary Cards continued



Kodiak Bear



Polar Bear



Sun Bear



Sloth Bear

Lesson Two _____ The World of Bears

<p>Polar bear (<i>Ursus maritimus</i>)</p> <p>Location The frozen wilderness of North American and European arctic in Canada, Norway, Sweden, Denmark, Russia, and Alaska</p> <p>Habitat Tundra and bare ice of the Arctic</p> <p>Size 660-1300 pounds 8-11.5 feet long</p> <p>Preferred Foods Seals, walruses, dead whales and fish, rodents, reindeer, berries</p> <p>Status Climate change has caused polar bears to become a threatened species.</p> <p>Interesting facts Polar bears are the best hunters of all bears. They can swim 60 miles without resting. Polar bears have black skin and clear hollow hairs.</p>	<p>Kodiak bear (<i>Ursus arctos middendorffi</i>)</p> <p>Location 3 small islands in Alaska: Kodiak, Shuyak, and Atognak</p> <p>Habitat Forests and meadows, especially near water</p> <p>Size 500-900 pounds 9 feet long</p> <p>Preferred Foods Fish, especially salmon, some berries, small mammals</p> <p>Status Fifty years ago Kodiak bears were almost extinct. They are now a protected species and their population is growing, there are about 3,500 in Alaska (Stable).</p> <p>Interesting facts Kodiak bears, sometimes called the Alaskan brown bear, are the largest brown bears in the world. Tourists come from all over the world every year to watch Kodiak bears fish for salmon.</p>
<p>Sloth bear (<i>Melursus ursinus</i>)</p> <p>Location Four countries in Asia: India, Sri Lanka, Nepal, Bangladesh</p> <p>Habitat Forests</p> <p>Size 120-300 pounds 4-6 feet long</p> <p>Preferred Foods Termites, ants, sometimes honey, berries, fruits</p> <p>Status Sloth bears are threatened. They are often killed by people because they damage crops. Population estimates range from less than 10,000 bears to more than 20,000 bears. These bears are difficult to count.</p> <p>Interesting facts Some people call the sloth bear the “vacuum bear” because it sucks termites from their mounds. Sloth bears carry their babies on their backs.</p>	<p>Sun bear (<i>Helarctos malayanus</i>)</p> <p>Location Southeast Asia including Bangladesh, Burma, Thailand, Laos, Cambodia, Vietnam, Malaysia, Sumatra, Borneo and southern China</p> <p>Habitat Tropical forests</p> <p>Size 60-140 pounds 4.5 feet long</p> <p>Preferred Foods Fruit, mushrooms, honey, sometimes termites, lizards, frogs, bees</p> <p>Status Sun bears are threatened due to large-scale deforestation throughout their range.</p> <p>Interesting facts Sun bears are the smallest bears in the world. Sun bears have very long tongues for licking up honey.</p>



Summary Cards continued



Asiatic Black Bear



Spectacled Bear



Giant Panda

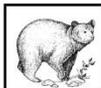
Lesson Two _____ The World of Bears

<p>Spectacled (Andean) bear (<i>Tremarctos ornatus</i>)</p> <p>Location Andes Mountains and foothills of five countries in western South America: Venezuela, Colombia, Ecuador, Peru, and Bolivia</p> <p>Habitat Mountain forests and mountain grasslands</p> <p>Size 180-350 pounds 4-6 feet long</p> <p>Preferred Foods Berries, fruits, palm nuts, bromeliads, corn, rodents, insects</p> <p>Status The spectacled bear is threatened. There are less than 20,000 wild spectacled bears left in the world.</p> <p>Interesting facts Spectacled bears have white circles of fur around their eyes so they look like they are wearing glasses. Spectacled bears make nests in trees.</p>	<p>Asiatic black bear (<i>Ursus thibetanus</i>)</p> <p>Location Southern Asia including Pakistan, Thailand, China, Korea, Japan, and Taiwan</p> <p>Habitat Forests on hills and mountains and tropical areas</p> <p>Size 200-490 pounds 4-5 feet long</p> <p>Preferred Foods Insects, honey, nuts, fruits, berries, bamboo shoots, dead animals, small mammals</p> <p>Status The Asiatic black bear is threatened.</p> <p>Interesting facts Asiatic black bears are great swimmers. The long hair around their necks almost looks like a lion's mane.</p>
	<p>Giant panda (<i>Ailuropoda melanoleuca</i>)</p> <p>Location Only found in two parts of Asia: China and Tibet</p> <p>Habitat Cold, damp bamboo forests in mountains</p> <p>Size 170-300 pounds 4-5 feet long</p> <p>Preferred Foods Bamboo stems, leaves, sometimes fish, rodents</p> <p>Status The giant panda is threatened. About 1,850 still live in the wild. Many surviving wild giant panda subpopulations have fewer than 50 individuals</p> <p>Interesting facts The giant panda is the national symbol of China. They spend 16 hours a day eating.</p>



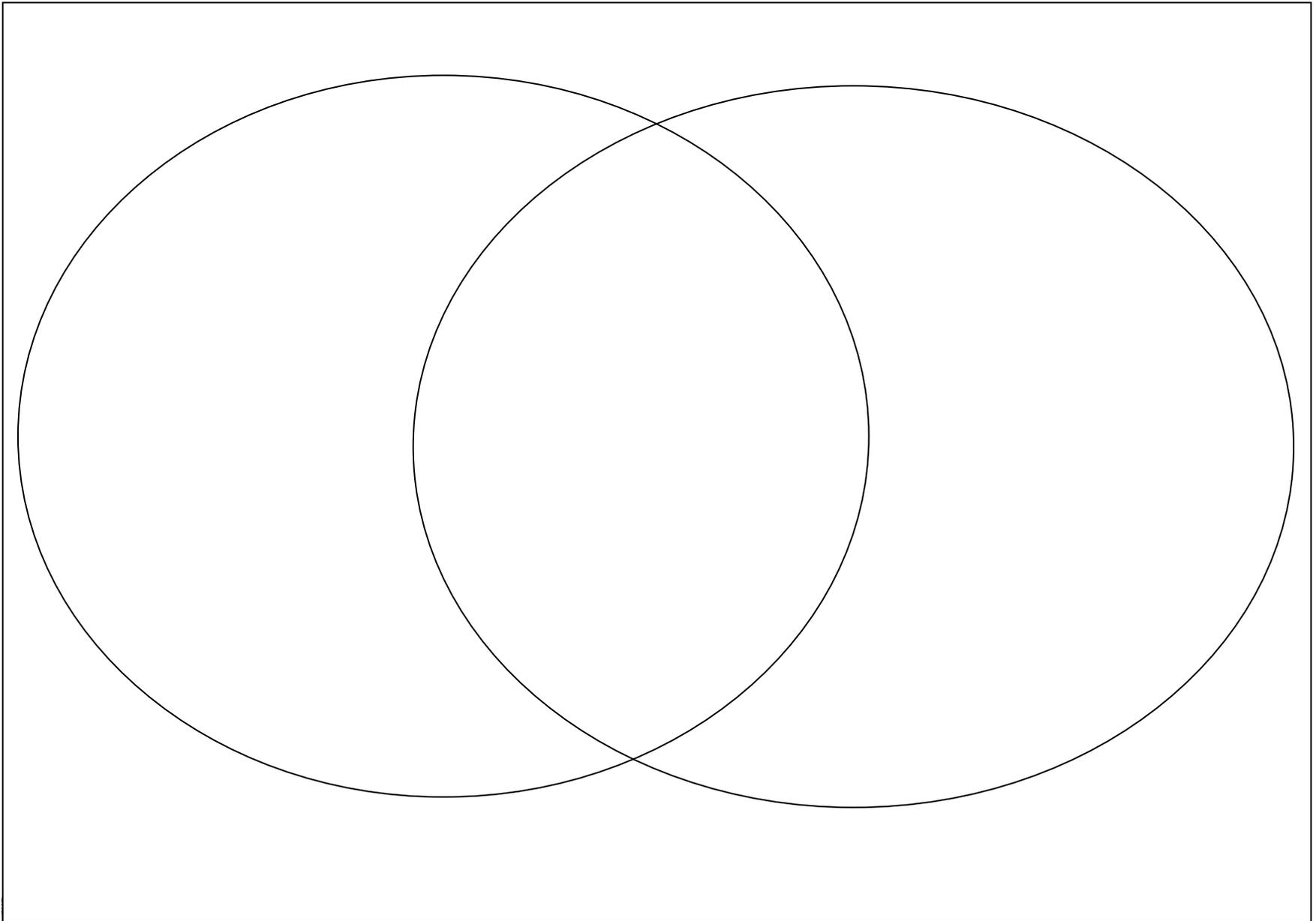
Stickers

 American Black Bear	 American Black Bear	 American Black Bear	 American Black Bear	 American Black Bear	 Florida Black Bear	 Brown Bear	 Brown Bear	 Brown Bear
 Grizzly Bear	 Grizzly Bear	 Grizzly Bear	 Kodiak Bear	 Polar Bear	 Polar Bear	 Polar Bear	 Polar Bear	
 Sloth Bear	 Sloth Bear	 Sun Bear	 Sun Bear	 Sun Bear	 Asiatic Black Bear	 Asiatic Black Bear	 Asiatic Black Bear	
 Asiatic Black Bear	 Asiatic Black Bear	 Spectacled Bear	 Spectacled Bear	 Spectacled Bear	 Spectacled Bear	 Giant Panda	 Giant Panda	

 American Black Bear	 American Black Bear	 American Black Bear	 American Black Bear	 American Black Bear	 Florida Black Bear	 Brown Bear	 Brown Bear	 Brown Bear
 Grizzly Bear	 Grizzly Bear	 Grizzly Bear	 Kodiak Bear	 Polar Bear	 Polar Bear	 Polar Bear	 Polar Bear	
 Sloth Bear	 Sloth Bear	 Sun Bear	 Sun Bear	 Sun Bear	 Asiatic Black Bear	 Asiatic Black Bear	 Asiatic Black Bear	
 Asiatic Black Bear	 Asiatic Black Bear	 Spectacled Bear	 Spectacled Bear	 Spectacled Bear	 Spectacled Bear	 Giant Panda	 Giant Panda	



Sorting Chart



Slide

Common name	Scientific name
American black bear	<i>Ursus americanus</i>
Florida black bear	<i>Ursus americanus floridanus</i>
Brown bear	<i>Ursus arctos</i>
Grizzly bear	<i>Ursus arctos horribilus</i>
Kodiak bear	<i>Ursus arctos middendorffi</i>
Polar bear	<i>Ursus maritimus</i>
Sun bear	<i>Helarctos malayanus</i>
Sloth bear	<i>Melursus ursinus</i>
Asiatic black bear	<i>Ursus thibetanus</i>
Spectacled bear	<i>Tremarctos ornatus</i>
Giant Panda	<i>Ailuropoda melanoleuca</i>



Lesson Two _____ The World of Bears

THE WORLD OF BEARS _____



Bears of the World Map

The Florida Black Bear Curriculum Guide

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