Grades 3 - 5





Teacher Version

Time Suggestion: 50 minutes

Age Group: Grades 3-5 (8-11 years)

Areas of focus: Penguin & Puffin Coast and Polar Bear Point

MO Learning Standards: 3.R3.A.C, 4.R3.A.A., 5.R3.A.A., 3.R3.C.e., 3LS3B1, 3.ETS1A1, 4.ETS1A1, 5.ETS1A1Teacher

Teacher Suggestions: Prior to scavenger hunt: have a class discussion about habitats animals may live in (tundra, Arctic, Antarctic, rainforest, desert, etc). Fill out the KWL Chart provided for the activity https://docs.google.com/presentation/ d/1aGhvSJCEQoKwmNd-PIr1oN7rgRSBBbH3Xv3EwQlXcYw/ed t?usp=sharing

Before we get started, please watch this video from our Alaska Native partners in Gambell, Alaska. You will be able to see where our partners live, as well as learn how they share their home with polar bears. Go to this webpage to view video: stlzoo.org/alaska.

Directions: When you come out of The Living World (North Entrance), on the ground level, turn left and go past the grizzly bears. You will find Penguin & Puffin Coast. To the right of that is Polar Bear Point.

Materials: clipboard, paper, pencil, printouts, a way to project/share the Alaska video (link provided within)

**Optional: Teachers are welcome to suggest coats for Penguin & Puffin Coast- or have your students experience the temperature without coats to relate more to the habitat.

Disclosure: Some animals may choose to be inside during different times of the day. Encourage students to focus on what they can see (whether it be animals, habitats, signs, etc.).





Let's focus on: Polar Habitats

Know	Wonder	Learn
What do you already know about these animals and their habitats?	What do you want to know about these animals and their habitats?	What did you learn about these animals and their habitats?
There are no wrong answers but here are a few you may seeThey're coldAntarcticaPenguins live there	There are no wrong answers but here are a few you may see Does my country have a polar habitat? Do all penguins live in polar habitats? Could I survive in a polar habitat	 Penguins live in warm places too (South Africa, South America) Penguins and puffins both can live in polar habitats Penguins and puffins are NOT related Polar habitats often have ice for animals to use Penguins have "blubber" and special feathers to keep them warm in polar habitats



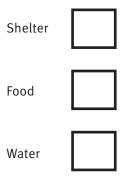
Habitats

A habitat is a place where an animal lives that provides them with the necessary requirements to live: shelter, food and water.

Think about your home! What do you have there that helps you meet those needs?

Before you start your Scavenger Hunt, you will walk past Grizzly Ridge. We have two grizzly bears who live there, Huckleberry and Finley. I challenge you to look into their habitat to see if you can spot these necessities!

Check each box as you identify the qualities that make up their habitat.





Did they have everything they need to live? Yes! Here at the Saint Louis Zoo, we make sure each animal has the necessary requirements to live happily.

Questions:

1. Before we get started, please watch this video about our polar bear Kali's story. View the video at: stlzoo.org/alaska. You will be able to see his natural habitat and the indigenous people of Gambel, Alaska, who coexist with polar bears.

Do you see the crossing sign with two bears on it? That means you're getting closer to the area where we'll have our scavenger hunt!

Check the box if you see the sign.



At the Saint Louis Zoo, you can see animals from all over the world!

We can learn how all animals have a role in the habitats they live in, how we are all connected, and how you can help them. You can still make a difference, no matter where you live. Why do you think learning about animals that live far away is important for us in Missouri?

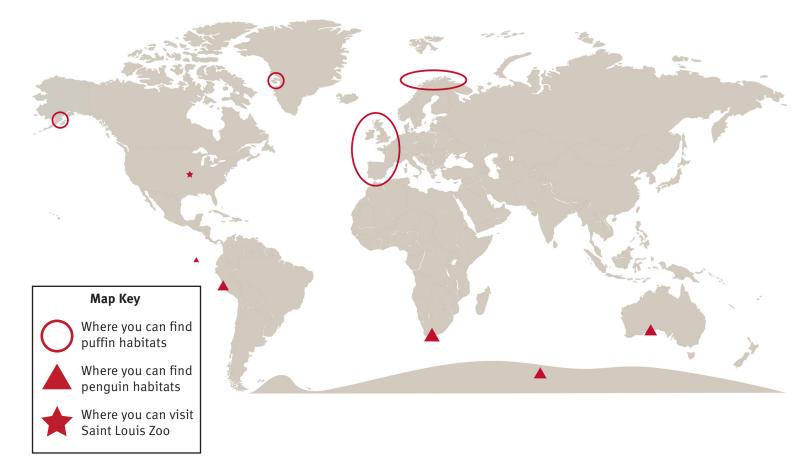
2. We've come to Penguin & Puffin Coast! We'll start with our Humboldt penguins. Notice where they are found! Do they live somewhere warm or cold? Mark the box below. *Hint: Use the signs around the habitat to help you.





3. Look at this map. The Saint Louis Zoo is located in North America. Where do penguins live? Use the "Where in the World" board located inside of Penguin & Puffin Coast. Click the different buttons to see where the different penguins and puffins are located.

Choose three penguins or puffins to label on the map where you can find them: *Fiordland, Galapagos, Chinstrap, Adelie, Gentoo, African, Erect-crested, Magellanic, Macaroni Yellowed Eyed, Royal, Atlantic Puffin, Tufted, Honed, Rhinoceros Auklet*



Penguins are types of birds. What is something birds make for their babies to live in? If you thought about nests, you'd be right!

Humboldt penguins make their nests from guano. What is guano? Look at the blue signs around the exhibit to help you!

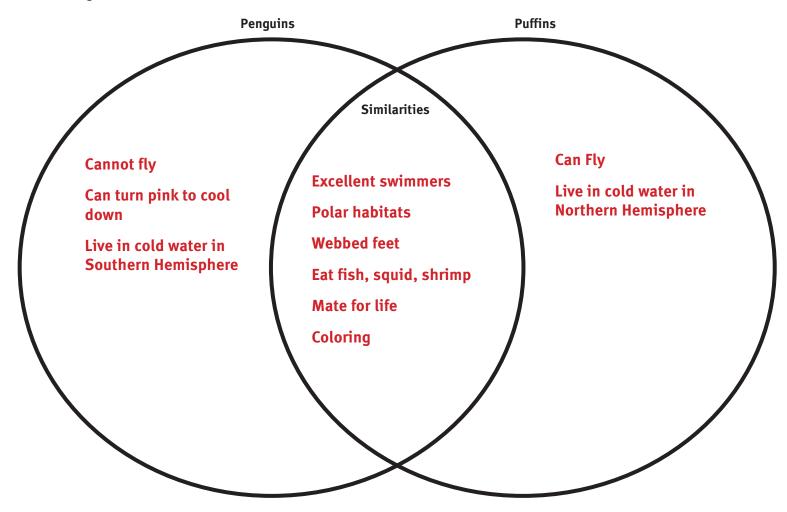
Fill in the blank:

Guano is _____





4. Next up are our puffins! What do you notice that puffins and penguins have in common? What is different about them? Use the "Secrets of Liquid Life Style" and "No,They're Not Related" boards in Penguin & Puffin Coast to guide you with the Venn diagram.



5. Do you know what penguins and puffins eat? Here are two hints: Penguins and puffins live near water, and what does it smell like in here?!

Draw a picture below or write down what penguins and puffins eat.



6. Keepers look at animal behavior to make sure the animals are healthy. If the keepers see an animal behaving in a strange way, something may be wrong with them or their habitat. The keeper will jot their observations down on paper to monitor t he changes.

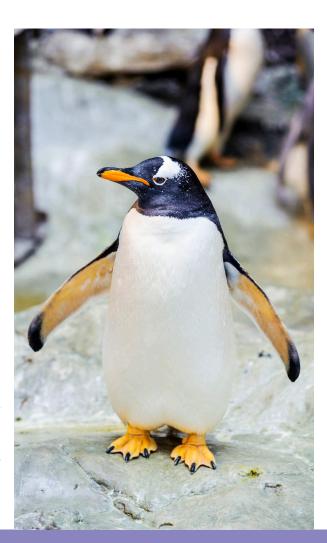
When you go inside Penguin & Puffin Coast, observe the habitats and how the penguins interact in them. Pay close attention to qualities that the habitat has. Use the bullets to help you remember your observations. Then find a partner, and fill in the remaining bullet points with his or her responses.

Rocky	Eat from rock-like bucket	They like to swim	Partner Response
Lots of water	Rockhopper penguins have yellow	Dive into water	Partner Response
Penguins stay in groups	Puffins are small	Partner Response	Partner Response

Share with your partner what you observed from inside Penguin & Puffin Coast. What did you notice about their habitat?

What were the penguins doing?

Did you see a keeper? If so, what were they doing?



Let's wander over to Polar Bear Point! Follow the path through Penguin & Puffin Coast to arrive (to the left of Penguin & Puffin Coast, toward the Conservation Carousel). When you watched the video, "Voices from the Arctic" from Gambell, Alaska, what did you learn about life in the Arctic/Gambell?

They hunt for the majority of their food, including polar bears. They are a

small, close knit community. Their cultural practices are still very much alive

and very important.

Why are polar bears so important to the people of Gambell? They've sustainably harvested marine mammals, including polar bears, for

thousands of years. Their mascot is named after a polar bear.

How is life changing in the Arctic/Gambell?

They are seeing less ice year after year in Gambell which is alarming

because they use ice to hunt their food, similar to polar bears. Without the

ice to support seals, polar bears are struggling to find food which affects

Alaska Native people including the people in Gambell.

Are there things we can do to help the Arctic?

We can help by reducing the amount of energy we use. Riding our bikes

instead of driving, turning off lights and eating a more plant-based diet all

help . We can also continue to listen to Alaska Native People and learn from

their stories to help us find more ways to help.







7. **Enrichment** can cause animals to move around more, use their senses more and keep their brains busy. We use enrichment to keep the animals' minds and bodies healthy at the Saint Louis Zoo. An example of this is giving our polar bear, Kali, a block of ice to smash! In his natural habitat, Kali would need to smash through ice to get his prey (seals). Think to yourself, do you have enrichment in your home or school?

Math manipulatives, pencil/paper, talking to a friend (Think of basic

human behaviors: we eed to socialize, create, and think. Tools that help us

do this could be considered enrichment).



Observe Kali's habitat at the Zoo. Below you will fill out the chart with your observations.

Draw or write the enrichments you observe.	Why might Kali use this as enrichment?
Ice Blocks	Kali smashes through ice in the wild to catch prey (seals under the ice)
White Barrels	Kali might use this to practice gripping onto something (such as prey) & practice smashing
Blue Ball	Play behavior and exercise
Pools	Kali uses these to swim as he would in the ocean (part of his natural habitat) Keepers put items at the bottom to encourage him to swim.



Now it is your turn to create enrichment for Kali! Design an enrichment item below that Kali would be able to use in his pool. Remember, enrichment is used to help a zoo animal practice skills it would in their natural habitat. Just like our keepers, keep in mind what wild polar bears do in the wild when designing. They are big and strong and like to chew, so be sure what you're giving him is safe to play with, just like when you play with your dog at home. When you are finished, share with a partner and explain your enrichment.

8. Since St. Louis, Missouri, can have hot summers, you might be wondering how Kali stays cool. Here at the Saint Louis Zoo, Kali has several options!

In his habitat, he has an ice machine that is always running. His keepers will sometimes give him Popsicles, too! These are not like Popsicles at home. They are specially made for a bear's diet. His habitat has an indoor area, which he has access to all day with air conditioning.

Do you do any of these things to stay cool, too? **Circle** things you do. **Put a star** by things Kali does to keep cool in his habitat.



- 9. Can you help polar bears? Sure, you can! You can help polar bears no matter where you live! Here are ways you can help:
 - Celebrate International Polar Bear Day (February 27).
 - Ask your family about supporting the Saint Louis Zoo WildCare Institute.
 - Turn off lights when you're not using them.
 - Recycle!
 - Take the "Trash-Free-Lunch" Challenge!(explained below)
 - Listen and learn from our native partners by watching the videos at stlzoo.org/Alaska.

Take the Trash-Free-Lunch Challenge

- Using less trash helps keep our environment clean for us and animals.
- If you pack a lunch: use a plastic container instead of a plastic bag.
- Don't use plastic straws for drinks. (Try getting reusable ones or paper straws.)
- Use metal utensils instead of plastic ones.
- Try using a cloth napkin.

How are you going to help polar bears?

Continue researching about polar habitats and ways to preserve them	
Set timers while playing video games to conserve energy	
Ask my family to support Saint Louis Zoo WildCare Institute	

Congratulations! You have come to the end of the scavenger hunt!

What cool knowledge did you learn today? Everything!

Vocabulary Notes:

1. Habitat: the natural home of an animal, plant, fungi or micro-organism.

- 2. Enrichment: Improving an animal's habitat with toys or puzzles.
- 3. Sustainability: Using resources for what we NEED, so we are able to share with others in the future.

(Remember to fill in your L for what you learned in your KWL Chart in the back of your packet)

Resources:

https://www.stlzoo.org/visit/thingstosee and do/the wild/penguin puffinco ast

https://www.stlzoo.org/animals/about the animals/mammals/carnivores/polar-bear/kali

*If you and your students enjoyed the, "Pole to Pole Scavenger Hunt", try registering for our "Pole to Pole Program", found here: https://www.stlzoo.org/education/schoolgroups/virtual-field-trips