



# Virtual Field Trip

## THE ARCTIC



Welcome to the Arctic! Join us on a virtual field trip, exploring the sights and sounds of this unique ecosystem. We'll travel across the Arctic's diverse landscapes and seascapes to learn about the wildlife, people, and plants (yes, plants!) that make this region so special and important to people and places that are far away from it. As we finish our trip, we'll discover what threats the Arctic faces and how you can help protect it for generations to come.

### Before the Field Trip

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Prepare for the field trip by completing the following warm-up exercises:

#### **DEFINE**

Connect the dot from each science vocabulary word to its correct definition.

- |                   |   |
|-------------------|---|
| Biodiversity ○    | ○ Native or local to a particular area  |
| Polar ○           | ○ Predictable movement from one region to another   |
| Permafrost ○      | ○ Refers to the regions at the very north and very south of the Earth   |
| Noise Pollution ○ | ○ Fuels (such as coal, oil, and natural gas) formed in the Earth from fossilized plant or animal remains and burned to generate energy; the biggest drivers of climate change |
| Migration ○       | ○ All of the different kinds of life found in one area, including animals, plants, fungi, bacteria, and genetic material  |
| Fossil Fuels ○    | ○ Annoying or harmful noise in an environment   |
| Indigenous ○      | ○ A treeless plain of the Arctic region that has a permanently frozen layer below the soil surface  |
| Tundra ○          | ○ A permanently frozen layer below the ground found in very cold regions of the planet  |





**CONSIDER**

Because of where the Arctic is located, the region experiences seasonal changes and weather patterns unusual to most other places in the world. Freezing temperatures and periods without daylight can make it a challenging place to live, but the animals and people that call the Arctic home have developed adaptations that help them survive.

Think of one adaptation (physical or behavioral) that each of the following Arctic species might use to help them survive in the Arctic environment.



ARCTIC FOXES

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POLAR BEARS

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SEABIRDS

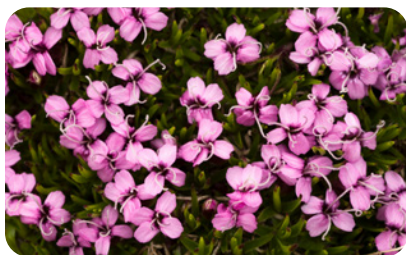
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PLANTS

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WALRUSES

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PEOPLE

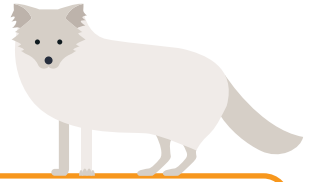
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**BRAINSTORM**

Before the field trip, answer these questions:

What do I know about the Arctic? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What do I want to find out about the Arctic? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**After the Field Trip**

After the field trip, reflect on your responses above and answer these questions:

What new information did I learn about the Arctic? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What changed about how I view the Arctic? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What am I interested in learning more about? \_\_\_\_\_

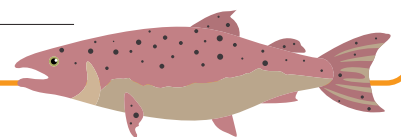
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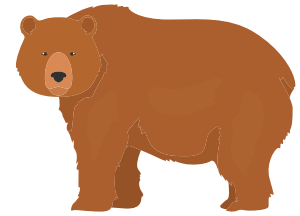
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What was my favorite part of the trip? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_





**COMPARE**

The Arctic is often associated with its ice, which exists in various forms. Beside each of the images below, describe that ice structure and what makes it unique.



GLACIER

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ICEBERG

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SEA ICE

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**RESEARCH**

Get to know the people of the Arctic.

There are roughly 400,000 Indigenous people living in the Arctic, and among them, over 40 different languages are spoken. Communities of Indigenous people work hard to care for the environment and carry out their cultural traditions. Their knowledge of the unique workings of the Arctic ecosystem is invaluable in understanding how to protect it.

Pick one group of Indigenous people of the Arctic and conduct research online to fill in the chart below.

Name of Arctic people: \_\_\_\_\_

LOCATION	
LANGUAGE(S) SPOKEN	
POPULATION SIZE	
INTERESTING FACT	
CONNECTION TO LAND/SEA	

**BONUS:** In addition to carrying out cultural traditions, Indigenous peoples of the Arctic are also creating new ones, such as the use of Kaktovik numerals.

○ What are Kaktovik numerals? How did they originate? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

○ Practice writing your age using a Kaktovik numeral:





### **CONNECT WITH YOUR COMMUNITY**

Now that you've traveled to the Arctic virtually, it's time to spread the word to others about all that you've learned regarding the importance of this region, its people, and its resources. Select one of the ways mentioned in the video (and listed below) that you can help protect the Arctic, then create a sign or poster to display at school or at home. Be creative; your visual should relate to your chosen audience and encourage them to take part in the action.

- **Be energy conscious.** Generating energy, for uses such as powering our cars and homes, is a big contributor of greenhouse gases. Help reduce climate change impacts by being energy conscious—unplug devices and turn off any lights when you're not using them. Walk, bike, or take public transit when possible, instead of using a car.
- **Watch your water use.** By saving water, you are saving the energy it takes to treat it before it is used.
- **Eat sustainably.** The process of packing and transporting food takes a lot of energy. Talk to your grown-ups about how you can support local farmers and try to purchase seafood from sustainable fisheries.

