



1 What is the Arctic?

Objective of this lesson:

- To understand where the Arctic is located and the many ways it can be defined

Time:

60 minutes

Age:

KS2 Years 4-6

Materials:

- Inflatable globe
- Hand-held legends
- Flag cards
- Arctic definition cards (treeline, temperature, political borders, geographical borders, culture)
- Coloured chains (red for temperature and green for treeline)
- Arctic brainstorm worksheet

National Curriculum

Objectives KS2:

- Use maps, globes to locate countries and describe features studied
- Understand geographical similarities and differences through the study physical geography of [...] a region within North America
- Identify the position and significance of latitude, longitude, [...] Northern Hemisphere, [...] Arctic [...]

Prior to the lesson

Ask students how they would define the Arctic and create a list of adjectives to describe the region.

Have students work in pairs or small groups to complete the Arctic brainstorm worksheet and share their ideas with the class.

Starter

Allow students time to explore the Giant Floor Map and make their own connections. Encourage them to look for familiar place names and geographic features. Ask students to determine the type of map they are looking at (physical) and what they think each colour represents.

Explain to students that the Giant Floor Map is a circumpolar map. Distribute the hand-held legends and allow students time to explore the map again and draw new conclusions.

Using the inflatable globe as a demonstration tool, have students name and locate the continents and find the United Kingdom. Then, turn the globe so that the North Pole is facing students (circumpolar view). Identify some of the countries and points of interest on the globe and have students find these places on the Giant Floor Map.

Where is the Arctic and what defines it?

Students should understand that the Giant Floor Map shows the northern part of the Earth. Complete a short review of latitude and longitude, explaining that coordinates are used to locate places on a map. Remind students that lines of latitude run east to west while lines of longitude run north to south. Select a volunteer to walk along a line of latitude and then along a line of longitude. Explain to students that there is a special dotted line of latitude on the map, called the Arctic Circle, that marks where the Arctic begins. Have one volunteer locate and walk along the Arctic Circle, then have the whole class link hands and stand on it. Ask students what they can observe from this position.

Have students take a few steps south and ask if they can spot the nearest line of latitude to the Arctic Circle (65 degrees north). Then take a few steps north, and ask students to identify the nearest line of latitude above the Arctic Circle (70 degrees north). Ask students to determine the latitude of the Arctic Circle (about 66.3 degrees north). This geographical border is one of the ways the Arctic is defined.

Next, have students sit around the edge of the map and explain to them that there are five main ways the Arctic is defined. They have just observed the first one (geographical border), but there are four others to consider. Can they think of any other ways to define the Arctic? Students are likely to suggest political borders. Ask students to name the countries shown on the Giant Floor Map and which ones, in particular, have territory in the Arctic. Distribute the flag cards for Norway, Sweden, Finland, Russia, United States, Canada, Greenland (Denmark) and Iceland and have students place the cards on each country on the map.





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Ask students how else the Arctic is defined. Explain that it is known for being very cold. Have a student read out the temperature card, defining isotherms and explaining that the Arctic's average summer temperature usually hovers around 10 C. Use the coloured chains to follow the red isotherm line on the map.

Review the three definitions of the Arctic that students have just learned. Ask students what they think the Arctic looks like. Ask them to remember the adjectives they used in the brainstorm activity. Do they imagine forests there? Explain that the treeline is another way to define the Arctic. Use the coloured chains to follow the green treeline on the map. Explain to students that due to climate change, the treeline has been moving further north. Ask students why they think this is happening and what effects it could have.

Who lives in the Arctic? Explain that the Arctic is inhabited by about four million people. In Canada alone, more than 100,000 people live in the Arctic. Many different cultures and groups inhabit the Arctic including northern Indigenous Peoples, such as the Inuit of Canada, Inupiat of Alaska, Yupik of Greenland, Saami of Scandinavia, Nenets of northwest Russia, Sakha (Yakut) of Russia and Chukchi of Siberia. There are several large cities in the Arctic in Canada, the United States, Norway and Russia. The Arctic and subarctic regions are far from the barren wastelands that people often imagine. Elicit from students that culture is another way the Arctic can be defined. Hand out copies of the culture card to students and discuss the various peoples that are represented.

Now that students have explored five different definitions of the Arctic, have them discuss the similarities and differences of each. Discuss which definition they think best defines the Arctic and have them use the map to explain their selection.

Plenary

In pairs, have students share three things that they learned from the lesson. Finally, ask them to think of one question they still have about the Arctic. Share some of these questions with the class.