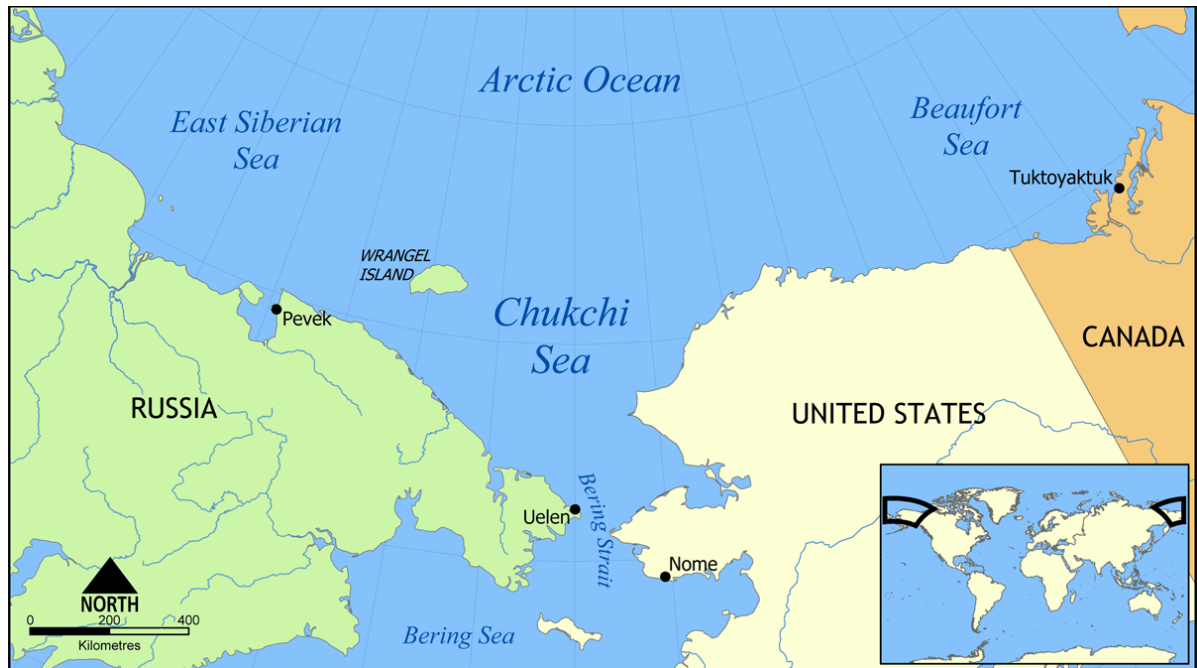


GEOGRAPHY

The Arctic Region



A map showing the Arctic region and Wrangel Island. Image credit: Wikipedia

Wrangel Island is in the Arctic region. It is a part of Russia and is now a protected nature reserve. Find the Arctic zone on a globe or map. Scientists usually define the Arctic as the area above the '**Arctic Circle**'. This is an imaginary line that circles the top of the globe. The Arctic consists of the Arctic Ocean and parts of Canada, Russia, the USA, Greenland, Norway, Finland, Sweden and Iceland.

The expedition in 1921 was trying to claim the island for the British Empire. This would not be an acceptable thing to do today. The expedition ship, the *Silver Wave*, set out from Nome in Alaska to sail to Wrangel Island.



Cape Waring, Wrangel Island. Image credit: Legion Media (www.rbth.com)



Questions for the class

- Can you find Wrangel Island on a map or globe?
- What sort of climate does the film seem to portray?
- How does it do this? What are the ways the film conveys a sense of the weather and the light?
- What are the sounds and colours of the film? Did you notice any wind sounds or the fur trim on the parka hood moving as if blown?

The Arctic climate is very harsh because it is so far north and temperatures on Wrangel Island remain below freezing for about eight months a year with lots of mist and fog, as well as snow in the winter. Wrangel Island is also particularly windy! Summers are short in the Arctic and the winters long.

The earth's tilt causes extreme cold and darkness in the Arctic winter but has the opposite effect in summer so there is more light and warmth. At midwinter it stays dark all day and the sun stays below the horizon, but in midsummer there are 24 hours of daylight and the sun doesn't set. A globe is very helpful in demonstrating this.

The Arctic environment consists of tundra and taiga, as well as sea, snow and ice. There are flat areas and mountainous parts.



Questions for the class

- What do the following words mean: tundra, taiga, permafrost, ice cap, and glacier?
- What does the Greek word *arktos* mean? Why has the Arctic been given its name from this word?

Animals found on Wrangel Island include polar bears, arctic fox, reindeer, walrus, snow geese and thousands of migrating birds. It is the last known place on earth that the woolly mammoth lived, about 4000 years ago. There are a surprising number of plants that have adapted to grow on Wrangel Island - there at least 400 different species of plant!

About 4 million people live in the Arctic region including different groups of indigenous people, generally known as Inuit, although many non-native people also live there now. Ada was an Iñupiat and the Iñupiat people still live in the north of Alaska, USA.

Climate change and the Anthropocene

Scientists have identified that human behaviour is causing global temperatures to rise and the earth's climate to change. We are now living in the geological period described as the Anthropocene. This is very apparent at the earth's poles which show the effects of this human behaviour most starkly and are acting as an early warning system.

The ice of the Arctic contains around ten percent of the world's fresh water and when frozen this acts as a giant reservoir which reflects sunlight and helps to keep the region cool and the global climate stable. As temperatures rise, the ice starts to melt. Inuit and other Arctic people are worried that climate change is dramatically altering the environment and affecting their traditional way of life. Thawing ice can make travel in the Arctic difficult, cause floods and erosion and affect traditional hunting. Arctic animals such as polar bears and walrus also have to change their behaviours to adapt to the changing environment. Many indigenous people of the Arctic argue that climate change represents a threat to their human rights.



Questions for the class

- Are there things we can do to avoid or slow down climate change?
- Should we be concerned about other people (and animals) in the world who live far away from us?
- Is there something we could do in school that would make a difference?

Maps

Show the children some maps and explain what some of the symbols mean, how features such as landmasses, rivers and oceans are depicted and how a map is aligned with points of the compass. Ask them to draw and colour a map (or colour and annotate an outline) showing where the Arctic region is and label Wrangel Island. Label North, South, East and West. Write some facts about the Arctic and some sentences about whether they would or would not like to visit it and explain why!

Maps can be very beautiful and decorative as well as functional and there are quite a lot of artists who work with maps. Maps are often folded so that they can be carried around easily, but they can be a challenge to fold up again once they have been opened! One

very simple folding method using A4 paper is to fold into 3 concertina sections lengthwise, then fold this long rectangle into another 3 concertina sections to achieve a neat result. There is also a more complex fold called a Turkish fold, starting with square paper, more suitable for older children (for details please see the resources section at the end of this document).

Map Activity

- Using your knowledge of how maps use symbols, lines and colours to tell us about a place, make a map of somewhere you know well - this could be your local area at home, town or countryside, your street, your journey to school or school itself.
- How can you make this map look visually interesting as well as providing necessary information?
- Fold your map as instructed so that you can carry it easily.

Group activity

Expedition!

Put the children into groups of 4-6 with the following aims:

- Imagine you are a team of explorers going to the Arctic.
- Where are you going?
- Why are you travelling there? What is the purpose of your expedition?

It could be scientific to gather data or measure things, creative to make art, film or writing in response to a place, cultural to meet and talk to the people who live there, archaeological to look at evidence of past human lives, or for natural history to observe and protect wildlife, plants and animals. Or it could be for pure adventure and challenge in unknown environment! You could give each group a different purpose for their expedition or let them choose.

- Decide on a name for your expedition-team and then decide what roles will be needed in the team, for example, cook, navigator, mechanic, first aider, photographer etc, and who would take on each one.
- What equipment do you think you will need? The *Silver Wave* expedition took a team of dogs and a sled aboard the boat as well as a cat!
- How much food should you take?

Ask each group to make an 'expedition logbook' containing all this information – purpose, roles, who's who, tasks, equipment, an imaginary map (or an actual map of Wrangle Island) – with a cover and the expedition name. This could be as simple as handwritten A4 or A5 sheets bound or stapled together with a card cover, done as a more creative book-making activity or as an ICT activity.

Group activity

Shelter building challenge!

Provide a selection of materials such as ropes, cardboard boxes, blankets, PE equipment, whatever you can find - children are very creative! This can be done outdoors or in a larger indoor space. Put the children into teams of 4-6.

- Imagine you have arrived on an island, darkness is falling, a storm is brewing and you need a safe place to spend the night. Build a shelter that all your team can fit in together.
- Set a time limit for this activity, remind them they are working as a team and everyone needs to be involved. Photograph each shelter.
- Was it an easy task or quite difficult?
- Did you discuss your ideas first and make a plan together? Or did you start building and work it out as you went along?
- Did everyone take part equally or did some people take the lead and others follow? Was there any conflict within the team?

Use the photographs to make either group posters or a whole class display about successful teamwork.