

Frozen Kingdoms



These activities are for you to do at home. You can do all of them or choose the ones that you find most interesting.

Activities

1. Use the internet and other source materials to sketch and label a diagram of the Earth. Include the equator, Prime Meridian, lines of latitude and longitude, Tropics of Cancer and Capricorn and the polar regions.
2. Research and record the characteristics of each of the following climate zones: polar, temperate, desert, tropical and equatorial. Give examples of places within each climate zone.
3. Polar landscapes have many interesting natural features, including icebergs, glaciers, mountains, ice fields, tundra and boreal forests. Record a definition and description of each feature in a table.
- 4a. The Arctic is rich in natural resources, including oil, gas, wood, freshwater and hydropower. Draw a mind map to write a short description of each.
- 4b. Which of these natural resources are used, and which are largely untapped?
5. Many people are concerned about the impact of climate change on the polar regions. Gather evidence to find the answers to the following questions.
 - What is global warming?
 - What is climate change?
 - What are four causes of global warming?
 - What is the impact of climate change on the planet?
 - What is the impact of climate change on wildlife?
 - What are your thoughts and feelings about climate change?
- 6a. Polar animals include polar bears, emperor penguins, Siberian salamanders, Greenland sharks, emerald rockcod, walrus and Arctic terns. Compare two of these species, recording where they are found, their habitats and what they eat.
- 6b. Draw a detailed diagram of the two species that you compared. Add labels to identify their key features and adaptations.



- 7a.** Throughout time, there have been many explorations of the polar regions. Use the internet and other source materials to find out about polar explorers and their discoveries. Create a timeline to show significant polar explorations that took place between 1770 and 1920.
- 7b.** Choose one polar explorer that you find inspiring. Find out as much as you can about them and write a short biography about their life, motives for exploration, achievements and discoveries.
- 8.** Use online and other historical resources to find out what happened to the RMS *Titanic*. Write an account to explain what happened, including how polar features were instrumental in its downfall.
- 9.** Finish your home learning by writing a summary of the topic, explaining what you have learned about the polar regions, including their locations, wildlife, resources, indigenous peoples and threats.

Useful websites

Britannica Kids – Antarctica

Britannica Kids – Arctic Regions

Met Office – Climate zones

National Geographic Kids – What is climate change?

DKfindout! – Polar Exploration – Famous Polar Explorers

Britannica Kids – Polar Exploration

National Geographic Kids – Titanic Facts

Good reads

| Title | Author | ISBN |
|-------------------------------------|------------------|---------------|
| Arctic and Antarctic | DK | 9781405394628 |
| Research on the Edge: Polar Regions | Louise Spilsbury | 9780750289900 |
| Polar Climates | Cath Senker | 9781474738422 |
| Ecographics: Climate Change | Izzi Howell | 9781445165714 |
| Polar Explorers for Kids | Maxine Snowden | 9781556525001 |
| Story of the Titanic | DK | 9781409383390 |

