

Year 6 Spring 2: Frozen Kingdoms

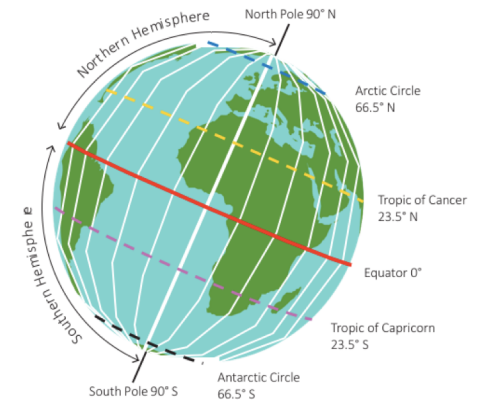
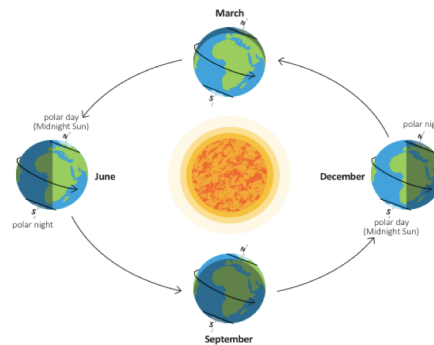
Subject Specific Vocabulary

Arctic Circle	An imaginary circle of latitude that lies 66.5° north of the equator. Everything north of this line is known as the Arctic
Antarctic Circle	An imaginary circle of latitude that lies 66.5° south of the equator. Everything south of this line is known as the Antarctic.
climate	The usual weather conditions that occur in a place over a long period.
biomes	A biome is a large region with a certain climate and certain types of living things.
Natural Resource	They are materials from the Earth that are used to support life and meet people's needs.
atmosphere	A layer of gasses surrounding the Earth's surface.
global warming	This is the gradual heating of the Earth's surface either caused naturally or by humans.
Greenhouse effect	The greenhouse effect is the way in which heat is trapped close to Earth's surface by "greenhouse gases."

Polar Regions

The Earth has two polar regions: the Arctic Circle in the Northern Hemisphere and the Antarctic Circle in the Southern Hemisphere. Polar regions have long, cold winters and temperatures mostly below freezing. The weather can be very windy with little precipitation.

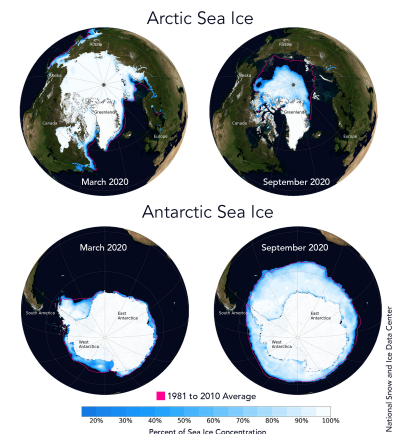
Polar day and night



Due to the tilt of the Earth, the poles experience nearly 24 hours of daylight during the summer months. This is called polar day, or Midnight Sun. In the winter, the poles experience nearly 24 hours of darkness. This is called polar night.

Climate change

Human activities such as burning fossil fuels and deforestation are releasing gases into the atmosphere that are causing the temperature of the Earth to rise and its climate to change. The Arctic landscape and wildlife are at risk due to this change. Scientists are concerned that the rising global temperature is causing the polar ice to melt. If the polar ice melts, sea levels and temperatures will rise, weather patterns will change and the polar regions will be damaged.



Arctic region

The Arctic region consists of the Arctic Ocean and the northern parts of Canada, Alaska, Russia, Finland, Sweden, Norway, Greenland and Iceland. Winter temperatures can reach -55°C and summer temperatures can reach 10°C . The Arctic region has a varied landscape including villages, villages become towns, and towns become cities.



polar bear

Polar landscapes

Much of the polar regions is covered with snow and ice all year round. Polar landscape features include glaciers, ice fields and icebergs.

Glacier

Glaciers are slow-moving masses of flowing ice, formed by the compaction of snow. They can vary in depth from 50m to 1500m.



Ice field

Ice fields are large areas of connected glaciers covering flat areas, such as valleys and high plateaus. They are made from compressed and frozen snow.



Iceberg

Icebergs are chunks of ice that calve, or break off, from glaciers and ice sheets and float in the sea. Wind and water erode icebergs into sculptural shapes.



Antarctic region

Antarctica is the world's fifth-largest continent and is covered in an ice sheet that is up to 4800m thick. It is the coldest, driest, highest and windiest continent on Earth. Temperatures can drop to -80°C , there is little precipitation, and wind speeds can reach 80km per hour. There are only two native species of flowering plants in Antarctica, but there is a rich sea life, including the emperor penguin, humpback whale and leopard seal. No people live permanently in the Antarctic. However, scientists stay for part of the year to carry out research and tourists visit in the summer months to see the landscape and wildlife.



emperor penguin



humpback whale

Natural resources in the Arctic

Natural resources in the Arctic include oil, gas, minerals, metals, fish, wood and freshwater. Arctic inhabitants use the natural resources available for fuel, food and to sell to other countries. However, many of the resources have not yet been touched as they are difficult to extract, especially those that underneath the frozen waters of the Arctic Ocean.



An oil rig drilling for deep sea oil in the Arctic circle.