

Lesson One: Curious continents

Key Questions:

- Where is Antarctica?
- What is Antarctica 'made of'?
- What time is it at the South Pole?

Subject Content Area:

- Locational Knowledge: Antarctica's place on the Earth and on a map
- Place Knowledge: Understanding Antarctica's size and composition
- Physical Geography: Seasonal/geographical variations over time, and different forms of land and terrain

The module begins with a lesson that engages pupils' prior knowledge of the seven continents (Asia, Africa, Europe, North America, South America, Australasia and Antarctica) and their associated locational knowledge. 'Curious Continents' aims to get children thinking about Antarctica and continents in terms of the dynamics of the Earth's time and different types of landscape. Teachers need to equip pupils with an understanding of the locality of Antarctica as one of the world's continents. During this activity, teachers can elicit pupils' misconceptions explaining that Antarctica is a landmass and not an ice sheet or iceberg! In comparison pupils may believe that the 'North Pole' is a landmass – whereas this is just an ice sheet over the Arctic Ocean. They can explore the ways landmass and oceans are depicted in a variety of sources such as in an atlas, Google Earth or satellite maps. This lesson provides an initial assessment of their understanding and serves to provide a 'base-line' of understanding which will be built on to create progressive understanding by the end of the unit.

Downloads

Curious Continents (PPT)
Factsheet PDF | MSWord

Starter:

In 'thinking pairs', ask children to consider (see fact sheet):

- Where is Antarctica?
- What is Antarctica 'made of'?
- What time is it at the South Pole?

Teachers should share ideas and recording findings on an Interactive White Board (IWB) or jotters to form baseline assessments. They can then go on to explain how pupils' misconceptions e.g. might not be correct, for example, explaining that Antarctica is landmass and not an iceberg.

Introduce the terms: 'latitude' and 'Antarctic circle' (see PT)

Organise the children into 'thinking pairs' and pose the question: What time is it at the South Pole? (See fact sheet)

Explanation: Go to Time and Date website go to Time and Date.com
<http://www.timeanddate.com/time/time-zone-antarctica.html>

24 hours of sun: Go to Youtube website and watch *24 hours of Sunlight*
<http://www.youtube.com/watch?v=2nc6nhtaEt4>

Main:

Now pupils have established the locality of Antarctica and begun to understand some of the key vocabulary they will look at applying this to a range of geographical sources of information.

Pupils will explore the ways this landmass and associated oceans are depicted in a variety of sources.

Tasks:

1. Find the Antarctic Circle in an Atlas
2. Identify a physical feature of Antarctica on two different lines of latitude
 - a. Longitude & Latitude Activity & plotting on a map (whole class): Go to Discovering Antarctica website:
http://www.discoveringantarctica.org.uk/multimedia/flash/5_racetopole.html
 - b. Google Earth and Satellite maps:
 - i. Go to Maps of World website:
http://www.mapsofworld.com/lat_long/antarctica-lat-long.html
 - ii. Go to World Atlas website:
<http://www.worldatlas.com/webimage/countrys/an.htm>
3. Engage children in a 'Curiosity Challenge' where children create a written response (e.g. Poster) 'What we already know' and 'What we would like to find out' display linked to unit. Teacher could then collate responses and as a class explore the most popular on the following websites:
 - i. General Research and Quiz (baseline assessment): Go to Discovering Antarctica website: <http://www.discoveringantarctica.org.uk/>
 - ii. More about mapping: Go to Classroom Antarctica website: <http://classroom.antarctica.gov.au/exploring/mapping>

Plenary:

Complete a 'what we already know' and 'what we would like to find out' display linked to unit.

Homework opportunity:

Introduce all children to the web-links above and set homework tasks linked to what they want to find out. They are to find the answers to the questions posed which didn't get answered by the group's exploration in class.

Depending upon time left, teachers can introduce Shackleton to the pupils and give out the 'parents pack' linked to Shackleton's Antarctic Adventure. Go to WGBH website:

http://main.wgbh.org/imax/shackleton/pdf/familygd_hi.pdf