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Parallel Lives: Finding Shackleton's Ship

#Endurance22

Endurance22
Resources

Teacher Notes 2

In this resource, we look at tracking the Agulhas II and what modern day maps and GIS tell us. We think about how navigation is different to that in Shackleton's time.

Key Questions

- What is the Agulhas II?
- What do we know about Endurance22 expedition?
- What is GIS and how can it help us track the ship?
- How does this differ from Shackleton's journey?

Parallel Lives: Lesson 1. Setting out (link to ppt presentation)

Parallel Lives: Lesson 2. Maps and GIS Presentation for Lesson 2 (link to ppt presentation)

Getting Started

Recap learning from previous session about evidence and the expeditions in 1914 with Shackleton and the 2022 expedition to find the wreck of the Endurance. In the previous activities, the use of websites such as www.marinetraffic.com gave us an insight into the use of GIS to track shipping around the world. Explain that in this session we will explore some of the maps available and how useful they are.

The presentation gives a screenshot from www.marinetraffic.com on a given date soon after Agulhas II left Cape Town, showing the shipping in the South Atlantic. Use this image to enquire about what pupils know about the evidence being presented and gauge their level of understanding. Recap some of the key geographical vocabulary. Knowing the date that the Agulhas left Cape Town, pupils can try and guess where the ship might be on that map, using their knowledge of scale to assess how far the ship may have travelled in that time.

You could comment on the amount of activity and ongoing trade that takes place every day around the world, where the busiest ports appear to be and how it is more congested near the coast. Of course, due to the scale of the ship size shown on the map it appears to be far more crowded than it actually is in the oceans due to shipping, although it is busy.

Use the second slide to recap the story and information so far.

Slide 3 shows the position of the Agulhas on a given date. Check that pupils are clear about what this shows. Ask pupils if they can explain what GIS means.

Geographic information system (GIS) is a computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface. This enables people to more easily see, analyse, and understand patterns and relationships. The Global Positioning System (GPS), is a satellite-based radio navigation system. Ships can be tracked, and their positions uploaded to electronic maps with accuracy to within metres. GPS is a system of 30+ navigation satellites circling Earth. We know where they are because they constantly send out signals. A GPS receiver in your phone listens for these signals. Once the receiver calculates its distance from four or more GPS satellites, it can figure out where you are.

Slide 4 zooms out to show this location better. We can see where the ship is in relation to other continents that we can identify.

Slide 5 zooms in again to a large-scale view. Explain the difference between large and small-scale map views. Discuss how visually helpful this map is and why? It doesn't show any relative land masses for example to easily understand where the ship is. Discuss as well that the web site says that the information states how the position was last updated about 15 hours ago and ask pupils what this means and why it matters.

Slides 6-8 Explore the idea of scale and what the map shows. Use the key too to identify the different kinds of shipping.

Slide 9 Back in Shackleton's day there was no such thing as Sat nav or GPS. Being a navigator was a highly skilled job using specialist hand-held tools and using natural signs around you as well. While we can track the progress of the Agulhas II today, no one had any idea where Endurance was or where the sister ship, the Aurora was either when that expedition was in progress. The crews of these ships could not communicate with each other, they could not send any messages back home to the fans or even to their families.

We know that the Agulhas II weathered storms and reached the Weddell Sea, but no one had any idea about the progress of Shackleton's Endurance or of the Aurora.

Possible Activities

Then and Now

- Using a Venn diagram, identify some similarities and differences between navigation in Shackleton's time and today.

Letter Home

- Write a letter imagining yourself as a crew member setting out on the expedition to a member of your family and think what you would say to them, knowing you would not be seeing them for a very long time, with no means of communication. As you know you can't send it very easily once the journey starts, you are writing a letter to give to them as you leave port.

Shipping Forecast

- Use a web site showing marine traffic, such as www.marinetraffic.com and explore the pattern of modern-day shipping. Use the key to ask questions and answers them about the most popular routes. Where do the tankers seem to come and go from the most? Which are the busiest shipping lanes and why? Why is there not so much marine traffic in the Southern Ocean? Is there more traffic in the seas around Antarctic than you were expecting? Why do you think that is?

Resources:

Parallel Lives Maps 2 ppt.

The story [Royal Geographical Society - Geography resources for teachers \(rgs.org\)](http://www.rgs.org)

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National Curriculum Links

History

Key Stage 1

Pupils should :

- use a wide vocabulary of everyday historical terms.
- ask and answer questions, choosing and using parts of stories and other sources to show that they know and understand key features of events.
- understand some of the ways in which we find out about the past and identify different ways in which it is represented.

Key Stage 2

Pupils should:

- note connections, contrasts and trends over time and develop the appropriate use of historical terms.
- regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance.
- construct informed responses that involve thoughtful selection and organisation of relevant historical information.
- understand how our knowledge of the past is constructed from a range of sources.

Geography

Geography

Key stage 1

Pupils should develop knowledge about the world, the United Kingdom and their locality. They should understand basic subject-specific vocabulary relating to human and physical geography and begin to use geographical skills, including first-hand observation, to enhance their locational awareness.

Pupils should be taught to:

Locational knowledge

- name and locate the world's seven continents and five oceans

Human and physical geography

- use basic geographical vocabulary

Geographical skills and fieldwork

- use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage
- use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far; left and right], to describe the location of features and routes on a map
- use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features;

- devise a simple map; and use and construct basic symbols in a key.

Key Stage 2

Pupils should extend their knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America. This will include the location and characteristics of a range of the world's most significant human and physical features. They should develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge.

Locational knowledge

- identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle,

Human and physical geography

describe and understand key aspects of:

- economic activity including trade links

Geographical skills and fieldwork

- use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world.

Other Links

Critical thinking about evidence supports the wider curriculum and enquiry practices.

Next Steps

Catch up with the Endurance22 Expedition by watching this podcast.

Research some other skilled navigators from the past. Captain Worsley on board Endurance was a skilful navigator and map-reader, but centuries before that, explorers were making perilous journeys to distant lands by sea. How did they do it?

Web Links

- Digimap for Schools www.digimapforschools.edina.ac.uk
- Endurance22 [Royal Geographical Society - What we do \(rgs.org\)](http://www.rgs.org/about/the-society/what-we-do/teachers/endurance22/)
- Subject Animation Shackleton [Royal Geographical Society - Geography resources for teachers \(rgs.org\)](http://www.rgs.org/schools/teaching-resources/subject-knowledge-animation-shackleton/)
- Teaching about Shackleton <https://www.rgs.org/about/the-society/what-we-do/teachers/endurance22/>
- Endurance22 Expedition <https://endurance22.org/>
- Marine tracking www.marinetraffic.com
- Time Zones [Time Zones in Antarctica \(timeanddate.com\)](http://timeanddate.com)

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- Prime Meridian [What is the Prime Meridian and why is it in Greenwich? | Royal Museums Greenwich \(rmg.co.uk\)](#)
 - GPS [GPS.gov: Marine Applications](#)
 - How does GPS work? [How Does GPS Work? | NASA Space Place – NASA Science for Kids](#)
 - BBC News [Shackleton's Endurance: The impossible search for the greatest shipwreck - BBC News](#)
 - History Hit [Endurance22: The Search for Shackleton's Lost Ship \(historyhit.com\)](#)