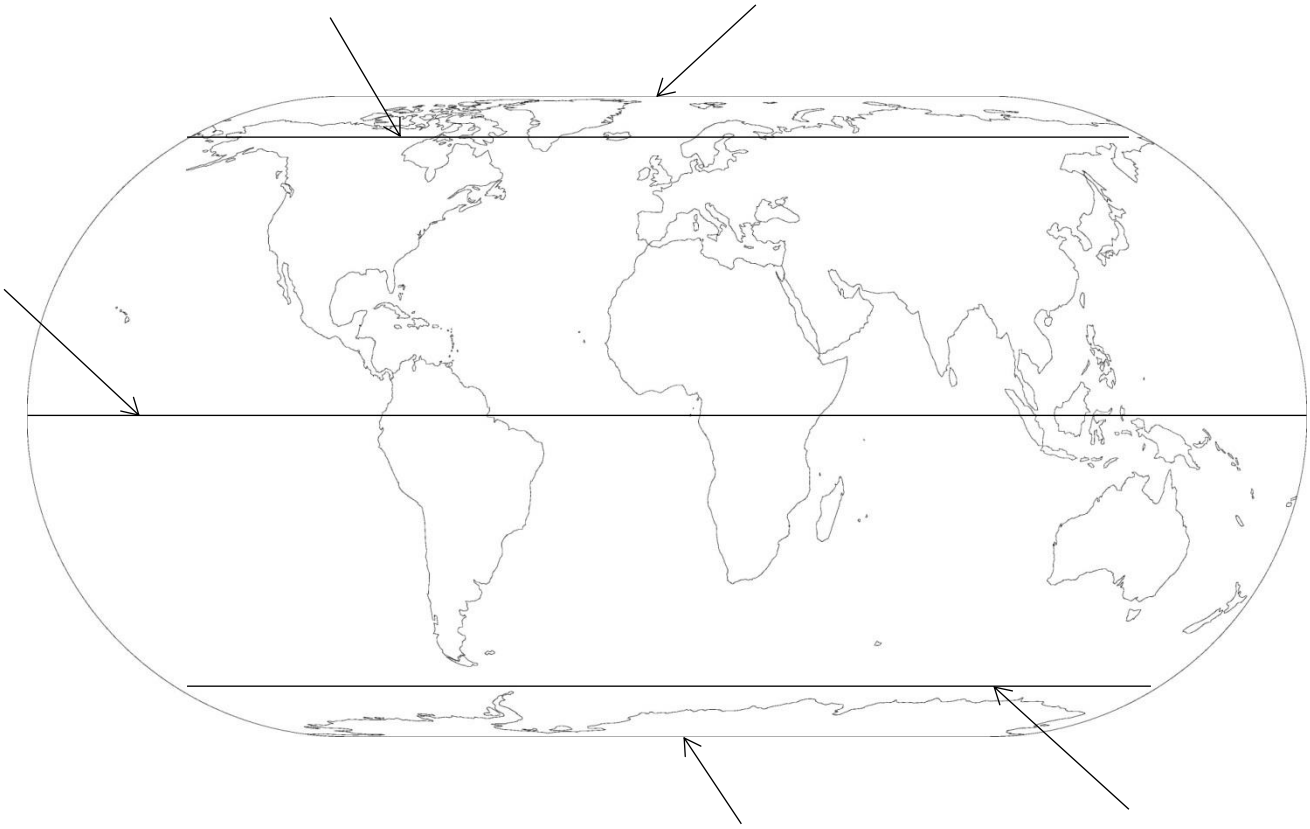
Quality First Education Trust

Wider Curriculum Unit Plan for Home learning		
Subject: Geography	**Unit:** Polar Environments	**Year:** 4

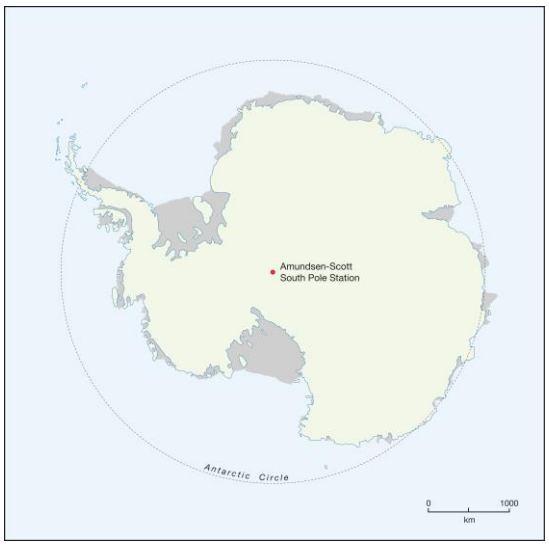
Session	
Session 1	**Where are polar environments?** • Using the map (Resource 1), locate and label the Arctic circle, the Antarctic circle, the North Pole, the South Pole and the equator. • Looking at the images (Resource 2), can you identify what the area around the North Pole is like? Is it frozen sea or land? Look at the pictures and information on this website to help you. • Look at the images (Resource 3) and watch this video. Answer these questions: What are the pictures of? What might they be for? How do you think they are linked to our topic? What questions do you have about polar environments?
Session 2	**Where are the warmest and coldest places in the world?** • Sort these words into two groups using the headings **Weather** and **Climate**: rain, polar, wind, desert, sunshine, fog, temperate, frost, tropical, snow. Watch this video and read the information below about the difference between climate and weather to help you. • Whilst watching this video, make notes about the different climates there are around the world. • Use your notes to write a paragraph explaining why the North and South Poles are so cold and have permanent areas of ice.
Session 3	**What is life in Greenland like?** • What do you think life will be like for people living in the Arctic? Why do you think this? Write down your ideas and your reasons. • Watch this video and make notes about what you notice about life in Greenland. • Complete the table (Resource 4) or create your own to show the similarities and differences between life in Greenland and life in London.
Session 4	**What causes climate change?** • Climate change describes how our planet's average temperature, rainfall, wind and other weather conditions have changed over a long period of time. Watch this video to help you gain a deeper understanding of what global warming is. • Read the bullet points (Resource 5) for information to see the impact humans are having on climate change. • Complete the Diamond 9 activity (Resource 6) by ordering the contributors to climate change from greatest impact to least impact. Give reasons for your choices.
Session 5	**How and why are polar regions changing?** • Watch this video to observe how the ice in the polar regions has changed over time. • Use the websites listed (Resource 7) to research the question: How and why are polar regions changing? • Decide on the three greatest risks/threats to the polar regions due to Climate Change and create a poster.
Session 6	**What do you think the polar regions will be like in 2050?** • What has been the most interesting/surprising thing you have learnt about Polar environments? Record your answer and give reasons why. • Read the statements (Resource 8) linked to polar environments and climate change. Choose 3-5 of the statements to respond to by stating whether you agree or disagree with them and explaining why. • Add any other reasons that you may have about how and why polar regions are being affected.

Resource 1



Use this map to help you, if needed:

Resource 2



Resource 3

Resource 4

Life in London and Greenland	
Similarities	**Differences**

Resource 5

• It can be caused by natural events, such as a volcanic eruption or human activity, e.g. burning fossil fuels and deforestation.

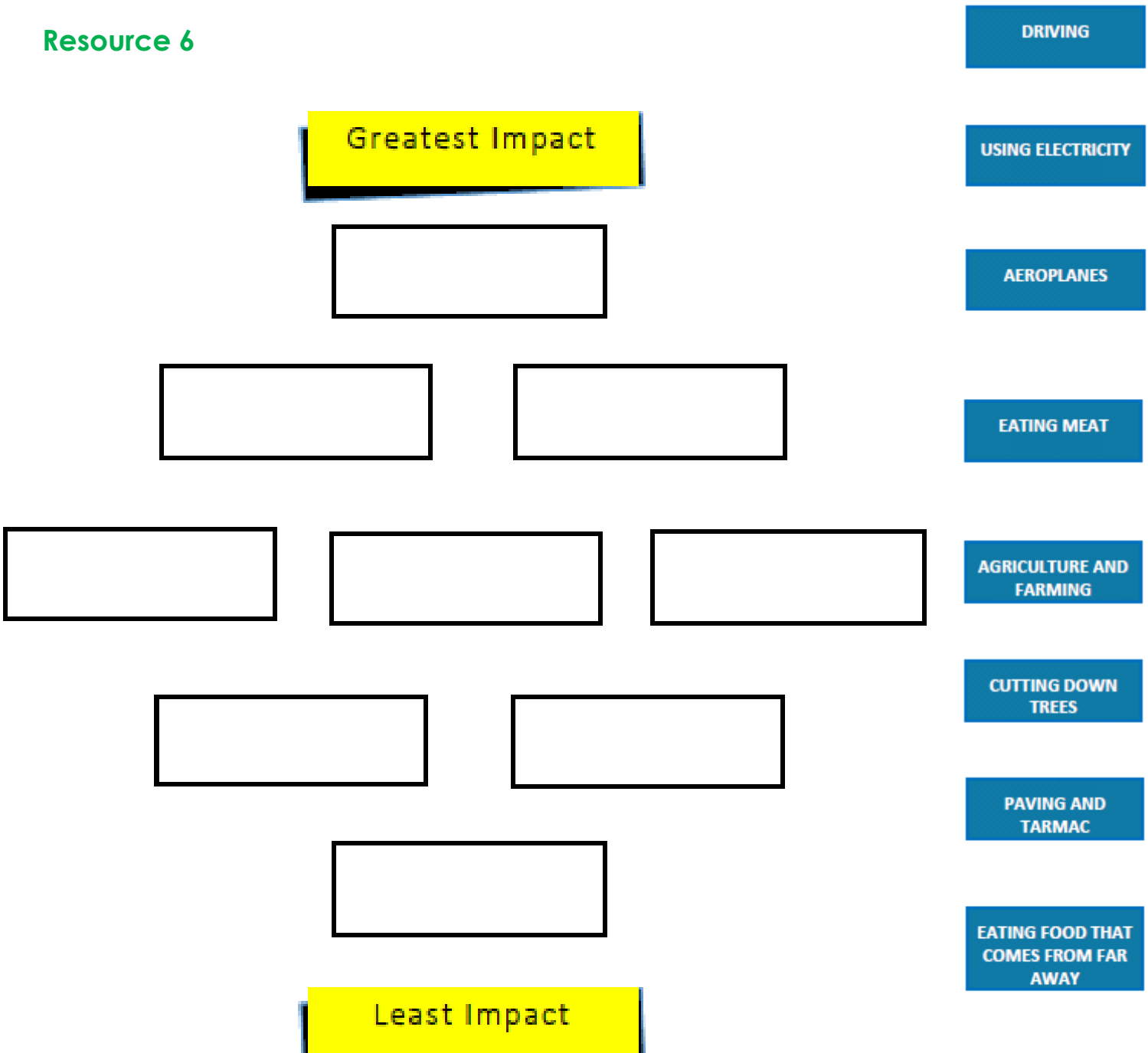
• The Earth's climate has changed many times over thousands of years. However, over the last 50 years, we – humans – have caused the planet to warm much more quickly by our everyday activities releasing too much carbon dioxide and other greenhouse gases into the atmosphere.

• The Earth is getting warmer, both on land and in the oceans. Between the years 1880 and 2012, the average world temperature rose by 0.85°C. This might not sound much, but even a small increase in temperature can have a huge impact on the planet and upset the delicate balance of our climate system.

• We are seeing changes as to how heat is moved around the world by the oceans and air and rising sea levels.

• If we continue to add greenhouse gases to the atmosphere at this rate, it is thought that temperatures will continue to increase by between 1.4°C and 5.8°C this century.

Resource 6



Resource 7

https://arcticwwf.org/work/climate/
https://climateclassroomkids.org/
https://www.natgeokids.com/uk/discover/geography/general-geography/what-is-climate-change/
http://tiki.oneworld.org/global_warming/climate_home.html
https://www.eschooltoday.com/climate-change/effects-of-climate-change.html
https://www.coolkidfacts.com/polar-climate-facts/
https://climatekids.nasa.gov/arctic-animals/
https://www.greenfacts.org/en/arctic-climate-change/

Resource 8

1. In less than 40 years, sea ice has already decreased by half. If climate change continues at the same rate, the Arctic Ocean will be ice free by 2040.

2. Communities in Greenland might lose their traditions as shrinking ice packs and more severe weather has made travel and hunting across the ice increasingly difficult and dangerous.

3. The majority of animals, such as polar bears, seals and sea birds, who live on or near the ice, face losing their homes and food sources, and they may disappear forever.

4. Melting glaciers will cause sea levels to rise, having a devastating effect on coastal habitats.

5. A warmer Arctic will impact the climate across the whole world.

6. Our actions in the UK affect what the Arctic will be like in 2050.