

Video summary	Before watching the video	During the video
<p>Exploring the polar biome and how plants, animals and people have adapted to live in this biome.</p> <p>Presenter Ferne Corrigan locates the two polar regions and describes the climate in this biome. She describes how Antarctic grass has adapted to survive the freezing conditions in polar regions, and how polar bears have also adapted to live in the Arctic.</p> <p>The <i>Inuit</i> people of North America survive the harsh conditions by using the environment and animals around them.</p> <p>Finally Ferne considers how humans are increasingly exploiting the natural resources of the polar regions.</p>	<p>Look at a map of the polar biome. Ask students to give a locational description of the polar biome. What countries and continents are found within the polar biome?</p> <p>Ask students about the types of animals that they think might live in the polar biome and what type of climate they live in. Students could make predictions, which they could then add to once they have watched the film.</p> <p>Introduce key terms such as:</p> <p>Permafrost: Ground that remains frozen for at least two years in a row.</p> <p>Lichen: A composite organism formed by a relationship between a fungus and a cyanobacteria. They can be seen in many forms.</p> <p>Exploitation: The act of taking unfair advantage or using natural resources for economic gain.</p> <p>Insulation: A way of trapping heat, for example fur acts as an insulator.</p>	<p>You may wish to stop at relevant points during this short film to pose questions and check understanding or wait until the end. Useful questions might include:</p> <ul style="list-style-type: none"> • Where is the polar biome located? • What is the climate like in the polar biome? • What is it like in the winter? • Why are the polar regions known as cold deserts? • What plants can be found in the polar biome? • How are plants adapted to living in the polar biome? • How is the polar bear adapted to living in the polar biome? • How are penguins adapted to living in the polar biome? • Who are the Inuit? • How do humans use the polar biome?
After watching		
<p>Ask students to look back at their predictions, were they right about what they thought they would see in the polar biome? Students could complete a spider diagram to note down the basic information about each of the polar biome: vegetation, climate, animals and human uses.</p>		

Give students an image of the Emperor penguin and ask them to annotate it with the adaptation, for example their watertight feathers. Discuss with students how the adaptations enable it to survive in the climate of the polar biome. Students could carry out the same activity with the polar bear. This could then lead students to designing their own plant or animal that could live in the polar biome.

Discuss the human uses of the polar biome. Ask students whether they think those uses are good for the biome or if they will cause issues. Students could then rank the uses from most damaging to least damaging using their opinion and then writing up their decision.

Curriculum notes	Where next?	Links
<p>This clip will be relevant for teaching Geography at KS3 and GCSE.</p> <p>This topic appears in OCR, Edexcel, AQA, WJEC KS4/GCSE in England and Wales, CCEA GCSE in Northern Ireland and SOA National 4/5 in Scotland.</p>	<p>Compare the polar biome to a contrasting biome such hot deserts.</p> <p>Students could compare:</p> <ul style="list-style-type: none"> • Animals • Vegetation • Climate • Human uses <p>A case study could be built for the polar biome focusing on either the Arctic or Antarctic. This could form a research task which students could then present to the class.</p>	<p>Distribution of ecosystems: https://www.bbc.co.uk/bitesize/guides/ztcch39/revision/3</p> <p>Climate: https://www.bbc.co.uk/bitesize/articles/zqqvf82#z4vh6g8</p> <p>Characteristics: https://www.bbc.co.uk/bitesize/guides/zwvh82p/revision/1</p> <p>Antarctica and polar regions: https://www.bbc.co.uk/bitesize/topics/zsk4r2p</p>