

How has glaciation shaped the landforms of the Northern Hemisphere?

Video summary	Before watching the video	During the video
<p>Professor Iain Stewart considers how the Northern Hemisphere was once covered in ice - a major factor in shaping the landforms seen today.</p> <p>A visualisation of the Gulf Stream is shown to explain the significance of this air current to the temperature of the UK. The film then focuses on <i>El Capitan</i> in the Yosemite National Park, California. The region demonstrates the impact of ice on the landscape and how glaciers erode the rock to create U-shaped valleys.</p>	<p>Locate where Yosemite National Park is. Task students with describing the location of Yosemite National Park within the USA.</p> <p>Discuss with students what they already know about glaciated landscape and whether they can identify any landforms.</p> <p>Ask students where glaciated landscapes can be found in the world and show a map of where they are. Are there any surprising locations?</p> <p>Introduce key terms such as:</p> <p>Glacier: A slow-moving river of ice.</p> <p>V-Shaped Valley: A narrow steep-sided valley.</p> <p>U-Shaped Valley: A wide steep-sided valley with flat bottom.</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.</p> <p>Useful questions might include:</p> <ul style="list-style-type: none"> • What happened three million years ago? • What does it mean by ice advancing and retreating? • What is El Capitan? • What features and landforms can you see? • Why do people climb El Capitan? • What is a U-Shaped Valley?
After watching		
<p>Look back at the landforms shown in the clip and investigate how they were formed. Students should draw step-by-step diagrams of the formation of a U-Shaped Valley and a V-Shaped Valley. Other real-life examples could be looked at including Nant Ffrancon valley in Wales. V-Shaped Valleys are formed by rivers, this could lead to students looking at the differences between landforms created by glacial and river processes.</p> <p>Take a closer look at El Capitan and the processes that formed it. This could be explored through online mapping, enabling students to measure the height and look at the landscape in more detail.</p>		

Curriculum notes	Where next?	Links
<p><i>This topic appears in Geography at KS3 (Glaciation) and KS4 / GCSE (Glaciated landscapes) in England, Wales and Northern Ireland and National 4/5 in Scotland.</i></p>	<p>Use VR Glaciers to explore glaciated landscapes. A range of glaciated landscapes can be explored, including California.</p> <p>VR Glaciers enables a 360-degree view of a location and the ability to move through the landscape to see how glaciated landscapes change.</p> <p>https://vrglaciers.wp.worc.ac.uk/wordpress/</p>	<p>KS3 Glaciation: https://www.bbc.co.uk/bitesize/topics/zpcqxb</p> <p>Glaciated landscapes: https://www.bbc.co.uk/bitesize/articles/z83qwnb</p> <p>Glacial processes and landforms: https://www.bbc.co.uk/bitesize/guides/zxn87hv/revision/1</p>