


Session title	Climate champions	
Key Q	How are wetlands affected by climate change & how do they help lessen the impact?	
Session description	Explore the causes of climate change and the impact this is having on wetlands. Take on the role of a leaf and discover how plants have an important role to play in absorbing carbon dioxide. What role do wetlands play in helping to 'prevent' climate change and what can we do to help improve the situation?	
Key Stage suitability	KS2	
Duration	1 hour	

Curriculum links	<p><b>KS2 Science:</b></p> <p><b>Year 3</b></p> <ul style="list-style-type: none"> <li>▪ Plants <ul style="list-style-type: none"> <li>○ Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</li> <li>○ Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant</li> </ul> </li> </ul> <p><b>Year 4</b></p> <ul style="list-style-type: none"> <li>▪ Living things and their habitats <ul style="list-style-type: none"> <li>○ Recognise that environments can change and that this can sometimes pose dangers to living things</li> </ul> </li> </ul> <p><b>KS2 Geography</b></p> <ul style="list-style-type: none"> <li>▪ Human and physical geography <ul style="list-style-type: none"> <li>○ Describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle</li> </ul> </li> </ul>	
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Learning outcomes	<b>All learners</b>	<b>More able learners</b>
	<ul style="list-style-type: none"> <li>▪ Understand the processes causing climate change</li> <li>▪ Know some of the impacts of climate change on wetlands</li> <li>▪ Know that plants absorb carbon dioxide and that this can help mitigate the effects of climate change</li> <li>▪ Know that wetlands store carbon dioxide</li> <li>▪ Know some of the steps they can take to reduce their impact</li> </ul>	<ul style="list-style-type: none"> <li>▪ Able to name carbon dioxide as a greenhouse gas</li> <li>▪ Understand the processes behind these impacts</li> <li>▪ Understand the processes leading to carbon storage</li> <li>▪ Understand the process of photosynthesis</li> <li>▪ Understand how these steps reduce the amount of carbon dioxide being emitted into the atmosphere</li> </ul>

Key vocabulary	<ul style="list-style-type: none"> <li>▪ Climate change</li> <li>▪ Photosynthesis</li> <li>▪ Stomata</li> <li>▪ Carbon Dioxide (CO<sub>2</sub>)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Greenhouse gases</li> <li>▪ Emissions</li> <li>▪ Pollution</li> <li>▪ Atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>▪ Drought</li> <li>▪ Evaporation</li> <li>▪ Biodiversity</li> <li>▪ Decomposition</li> </ul>
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Session Outline	Time
<b>Introduction</b>	5 mins
A quick introduction to the key question and what will be covered.	
<b>Section 1: What is climate change?</b>	10 mins
Learners investigate and explain what climate change is and what causes it through a simple activity using blankets to model the build-up of greenhouse gasses in the atmosphere.	
<b>Section 2: The impact of climate change on wetlands</b>	5 mins
Learners look at the impacts extreme heat (drought) and intensive rainfall can have on wetland environments and their wildlife.	
<b>Section 3: The role of wetlands in mitigating the effects of climate change</b>	25 mins
Learners take on the role of water, carbon dioxide, oxygen and sugars to model how plants absorb carbon dioxide and give out oxygen (through the process of photosynthesis). They discover that in wetlands the carbon is stored in the soil, helping to reduce the impacts of climate change.	
<b>Section 4: What can we as individuals do to help?</b>	10 mins
Learners explore how we can all make small changes to our lives to help reduce the impacts of climate change.	
<b>Plenary</b>	5 mins
We refer back to the key question, reviewing what we have learnt. There will also be time for learners to ask any remaining questions they may have.	