

Session title	Climate champions	
Key question	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. Investigate the role of wetlands in helping to 'prevent' climate change. What role does photosynthesis play and what can we do to help?	
Key Stage suitability	KS3	
Duration	1 hour	

Curriculum links	KS3 Science and Technology: Science - Investigate the effects of pollution, for example, water, air, land, sound etc. and specific measures to improve and protect the environment, for example, renewable energy, efficient use of resources, waste minimisation, etc - Explore the importance of biodiversity, how it impacts on our lives and how it is affected by human activity KS3 Environment and Society: Geography - Investigate how physical processes operate to create distinct and diverse environments - Investigate the impact of conflict between social, economic and environmental needs, both locally and globally		
Learning outcomes	Most learners	More able learners	
	Understand the processes causing climate change Know some of the impacts of climate change on wetlands Know that wetlands store carbon dioxide Know that plants absorb carbon dioxide and that this can help mitigate the effects of climate change Know some of the steps they can take to reduce their impact	Able to name carbon dioxide as a greenhouse gas Understand the processes behind these impacts Understand the processes leading to carbon storage Understand the process of photosynthesis Understand how these steps reduce the amount of carbon dioxide being emitted into the atmosphere	
Key vocabulary	Climate change Photosynthesis Stomata Carbon Dioxide (CO₂) Mitigation	Greenhouse gases Emissions Pollution Atmosphere Carbon sink	Drought Evaporation Biodiversity Decomposition

Session Outline	Time
Introduction	5 mins
Learners are introduced to the key question and what will be covered	
Activity 1: What is climate change?	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	
Activity 2: The impact of climate change on wetlands	5 mins

Learners look at the impacts extreme heat (drought) and intensive rainfall can have on wetland environments and their wildlife	
Activity 3: The role of wetlands in mitigating the effects of climate change	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) helping to reduce the impacts of climate change	
Activity 4: What can we as individuals do to help?	10 mins
Learners explore how we can all make small changes to our lives to help reduce the impacts of climate change	
Plenary	5 mins
We refer back to the key question, reviewing what we have learnt. There will be time for learners to ask any remaining questions they may have	