


Session title	Water cycle, wetlands and me	
Key question	What role do we play in the water cycle?	
Session description	Explore the part played by evaporation and condensation in the water cycle. Investigate the permeability of different surfaces to reveal the human impacts on this process. What role can wetlands play in cleaning water and preventing flooding?	
Key Stage	KS2	
Duration	60 mins	

Curriculum links	<p>KS2 Science</p> <ul style="list-style-type: none"> Recognise that environments can change and that this can pose dangers to living things Identify the part played by evaporation and condensation in the water cycle. <p>KS2 Geography</p> <ul style="list-style-type: none"> Describe and understand key aspects of physical geography. 	
Learning outcomes	All learners...	More able learners...
	<p>Will be able to identify that wetlands are part of the water cycle</p> <p>Will be able to describe a positive and a negative human impact on the water cycle</p> <p>Will be able to explain that natural habitats absorb flood water better than man-made surfaces.</p>	<p>Will be able to give two examples of the positive effects of wetlands in the water cycle</p>
Key vocabulary	Evaporation, precipitation, flooding, condensation.	

Session Outline	Time
Introduction	10 mins
Learners are given a brief intro to WWT Martin Mere and are introduced to the key question: What role do we play in the water cycle?	
Activity 1: Cloud in a bottle demonstration	5 mins
The session leader creates a cloud by reducing the pressure in a lemonade bottle, with the help of a child volunteer to operate the pump. Where does the water cycle begin?	
Activity 2: Water cycle role play	15 mins
Learners take part in the water cycle whole group role-play. The children are the water in the oceans. With the help of our sun on a stick, they 'evaporate' then condense, to rain on the hillside and flow back down a river to the sea where they started. We then introduce pollution to the river, which the children see accumulating in the oceans. What can we do about this?	
Activity 3: Investigation	10 mins
Learners test surfaces outdoors for absorbency. In pairs, they predict what will happen when a measured amount of water falls from the same height onto grass, soil, gravel and tarmac. They then discuss whether their predictions came true	
Activity 4: Predicting and observing the consequences of human activities	15 mins

<p>This is followed-up with a demonstration using our model mountain, where it rains a lot (water spray bottles). Here are two towns in the foothills: Greenville with lots of habitats, and Greytown, with lots of hard surfaces. Which one floods? Children make predictions as before, then see if they were correct.</p>	
<p>Activity 5: Visiting the wetland</p>	<p>15+ mins</p>
<p>Learners visit a wetland habitat and experience the porous peaty soil, which absorbs and stores water.</p>	
<p>Plenary</p>	<p>5 mins</p>
<p>Learners think back to the key question and share what they have learned.</p>	