

Peatland and Water Quality (Science)

Brief Description

Pupils are given real-world data from a water quality survey on water courses on peatlands and create a bar graph from the results.

Timings	Activity	Notes	Resources
10 mins	<p>Establishing Previous Knowledge</p> <ul style="list-style-type: none">• What is pH measuring?• Why is pH of water important?• Briefly explain and simplify dissolved organic carbon, referring to it as 'Carbon content' in water.• Explain why pH and carbon content in water are important to measure for water quality• What does the measure of carbon content in water tell us?	For this class pupils are given a worksheet to work through. Could work through worksheet as the class progresses. When explaining and discussing pH, the pupils can answer the questions on pH or this could be completed later during the main activity.	<p>If pupils are unfamiliar with pH, do the Science I pH lesson (presentation) and workbook.</p> <p>pH videos can also be found on our youtube playlist if they will not work within the presentation:</p> <p>Worksheet provided with the lesson.</p>
10mins	<p>Introduction to the topic</p> <ul style="list-style-type: none">• Give a presentation to remind class about peatlands.• Describe how peatlands can be part of river catchments that feed into our drinking water reservoirs		See related presentations
5mins	Further Discussion	Explain that a real-world survey was carried out to assess water quality on rivers near peatlands in Dumfries and	

	<ul style="list-style-type: none"> • Show the pupils the data collected from a water quality survey on rivers within a peatland catchment • Why do we want to make a bar chart? • Share the learning intentions 	<p>Galloway. The data collected from the survey is on the worksheet.</p> <p>Give out success criteria table</p>	
40 mins	<p>Main activity</p> <ul style="list-style-type: none"> • Work through the worksheet answering all the questions • As a class go through the process of creating a bar chart. 	<p>If pupils are new to bar charts, you can create one as a class on the board. Ask each pupil their favourite colour and show them how the results would be plotted on a bar chart.</p>	<p>Colours to draw bar chart. Or objects to make a bar chart with.</p>
20 mins	<p>Plenary</p> <ul style="list-style-type: none"> • Discuss the bar charts and the results with the class. Ask the pupils some questions about the bar charts. – what does it mean for the water quality? • Pupils to go through success criteria 	<p>The bar charts are showing as carbon content increases, pH decreases.</p>	