



# Lesson Plan

## Key Stage 3 Geography      Rivers

<b>Rivers – Introduction to fieldwork</b>	
<b>AIM</b>	Understand processes give rise to physical features and how they change over time. To communicate geographical information in a variety of ways.
<b>Curriculum Requirements</b>	<p><b>Subject Knowledge:</b> To name key features of river and understand how some aspects change over time.</p> <p><b>Physical Geography:</b> To describe and understand key aspects of a river</p> <p><b>Geography Skills and Fieldwork:</b> Use fieldwork to observe, measure and record; to present physical features in a range of methods including sketch maps and graphs.</p>
<b>Teaching objectives:</b>	<p>By the end of this lesson, the children will be able to:</p> <ul style="list-style-type: none"> <li>• Use appropriate equipment to measure the cross section and speed of a river.</li> <li>• Use Power's Index to describe the effect of river erosion.</li> </ul>
<b>Key vocabulary:</b> flow, erosion, deposition, riverbank, bedload, beach, cliff, cross section, river bed, silt, rapids, meander	
<b>Resources:</b> stop watches, ranging poles, tape measures, meter sticks, dog biscuits, clip boards, pencils worksheets, first aid kits,	
<p><b>Exercises</b></p> <p><b>Starter/hook 10 mins</b>– welcome to Vallis Vale. A short talk on history and natural history of Vallis Vale Safety talk for whole group:</p> <ol style="list-style-type: none"> <li>1. Stay with group</li> <li>2. Do not approach dogs and walkers</li> <li>3. Once hands been in water, keep away from face and wash before eating</li> <li>4. If fill wellies with water, do not complain (!)</li> </ol> <p><b>To measure cross section.</b> (25 mins) per team need – 2 ranging poles, 1 measuring stick + 1 tape measure. Students need clipboards, pencil and worksheets. Take group to site for measuring and put bags in safe place. Place each team in safe places at site where they can measure. Make sure each team knows roughly what they are doing. It's good to let them do a bit of working out for themselves, but guide if they really need help (!) Then when finished, ask them to plot results to show shape of river bed and discuss conclusion. Why is it not regular basin shape?</p> <p><b>To measure speed of flow.</b> (25 min) per team need – 2 ranging poles, 3 dog biscuits + stop watch. Students need clipboard, pencils and worksheet. Set up group with 1 team at each side and one in the middle. One person dog biscuit dropping at start pole and rest of team at finishing pole, 10 m downstream. Then do speed of flow three times. Enormous fun....</p> <p><b>Bedload</b> (30mins) students need clipboard, pencils and worksheet. Each team collects a set of 6 rocks at each side of the river and from the middle at the same site you did speed of flow. Ensure students do each part of river in turn so don't get muddled. Then the team goes through each pile to record what index each rock falls under. This should show where in the river you have erosion and deposition. Hope that the results are confirmed by the flow experiment!</p> <p><b>Sketch Map</b> (20 mins) students need pencil, clipboard and worksheet. Stand on bridge at confluence of Egford Brook and River Mells. Ask students to do a simple line drawing of river and features and add labels to show what is happening in front of them. They should know erosion and deposition by now....</p>	
<b>If weather is bad:</b> this can make using worksheets difficult and sketches impossible, but recording would be possible if weather proof clipboards are used. We would need 6	
<b>Differentiation</b>	<p>To stretch and challenge. Option 1.</p> <p>To support additional educational needs. Option 1. Extra TA support</p>
<b>Take away</b>	Data to use in classroom for follow up