



Activity	Key Skills			National Curriculum			EDEXEL, OCR, AQA		
	Measuring physical aspect of a river.	Biology/Geography Vocabulary	Annotated field sketches.	Geography	Biology	ICT	Geography (river channel and basin processes, fluvial land forms)	Biology (classification, pollution and effects)	ICT
River Ecology	*	*	*	*	*	*	*	*	*

Learning objective: Students will have experienced and be able to identify the ecological content of a river and what effect the physical and chemical processes of a river.

Description: This study looks at the physical, biological and chemical properties of a river. Students produce a field sketch of each site, and employ various field techniques to measure such factors as velocity, gradient and a profile, as well as kick sampling and chemical testing. They will aim to answer hypotheses asking about relationships between the species diversity and physical/chemical factors.

AIMS	FIELDWORK	ICT
<ul style="list-style-type: none"> To study the relationship between the physical, chemical and biological properties of the river. To discover how the level of pollution in the river can be measured using bio-indicators To measure the velocity, depth and width of the river. To analyse the biological content of the river focusing on adaptations. Keywords : Velocity, width, depth, bio-indicators, adaptation, species, chemical. 	<ul style="list-style-type: none"> Measure the width, depth, and velocity, at a number of sites. Use kick sampling and stone brushing to collect invertebrates. Measure the chemical aspects of the river, including pH, phosphate, nitrate and temperature. Annotated field sketches. 	<ul style="list-style-type: none"> Insert photos and diagrams. Produce kite diagrams illustrating results.