

Physical landscapes in the UK: River Landscapes - KO

Paper 1: Question 4

Terms	
Abrasion	Load hitting against bed and banks wearing it away.
Attrition	Load hitting into each other becoming smaller and more rounded.
Discharge	The amount of water at a point in the river.
Hard engineering	Man-made structures to control flooding.
Hydraulic action	The force of the water hitting the bed and banks wearing it away.
Saltation	Large rocks being bounced along the bed.
Soft engineering	Flood strategies that work with natural processes.
Solution	Erosion and transport: Load dissolved in the water.
Suspension	Load held in the flow of the river.
Traction	Large boulders that are rolled along the bed.

Key content		
Overview	Location of major upland/lowland areas and river systems	Upland areas in North and West. Lowland areas in South and East. River systems source in upland regions.
	Long profile	Shows source to mouth of a river, steepest at source and flattest at mouth.
	Cross profile	The cross-section of a point in a river. Narrow and shallow at source, wide and deep at mouth.
Processes	Erosion	The process of wearing away the rivers bed and banks. Vertical in upper course, lateral in lower.
	Transportation	Movement of material (load) in a river.
	Deposition	Material being laid down when a river loses its energy (inside of bend or when it meets the sea).

Key content		
Upper course	Interlocking spurs	Rivers wind around the hillsides creating hillsides that interlock with each other (like a zip).
	Waterfalls	A steep drop, where hard rock sits on eroded soft rock.
	Gorges	A steep sided valley at the front of a waterfall.
Middle course	Meanders	A bend in a river where the fastest flow is on the outside creating river cliffs and slowest on inside creating slip off slopes.
	Ox-bow lakes	A cut off meander where a river has taken a shorter quicker route.
Lower course	Leveés	A raised river bank – can be formed naturally or man-made.
	Flood plains	The wide, flat valley floor either side of a river where a river floods onto.
	Estuaries	Where a tidal river meets the sea, material is deposited creating large areas of mudflats.
River Tees		A river in the north-east of England.
Flooding	How physical and human factors affect the flood risk	Physical factors are natural things that can contribute to flooding e.g. rainfall and rock type. Human factors are things done by humans that contribute to flooding e.g. impermeable surfaces and deforestation.
	Hydrographs	These show the rivers response to a rainfall event.
	Hard engineering	Man-made structures to control flooding e.g. dams , embankments and flood relief channels.
	Soft engineering	Flood management that works with the natural processes of a river e.g. afforestation and flood plain zoning.
	Boscastle flood management	Boscastle flooded in 2004 so £12m was spent on river embankments, flood walls, widening and deepening the river and flood prediction/warning systems.