Objectives and key words	
Knowledge: • I know the main features of a drainage Basin • I know the processes of erosion • I know the processes of transport • I know the causes of deposition • I know how the erosional features are created • I know how the deposition features are created • I can identify river features on an OS map • I can draw flood hydrograph and label its key features • I can explain what happens to a river when it rains • I know what a flood is and what causes it • I know impacts of floods (Cockermouth, Workington or Carlisle) • I know what we can to manage river floods • I can formulate a hypothesis around infiltration rates (and interception) • I can measure infiltration rates • I can draw a graph showing my data • I can draw appropriate conclusions about infiltration rates based on my data	Key Words (Tier 1, Tier 2, Tier 3): Abrasion Hydraulic Action Attrition Solution Tributary Meander Confluence River Cliff Water Fall Saltation Suspension Traction Solution Upper Course Flood Plain
NC link code: A2, C4, C8, C10, C11, D1, D3	
Prior learning: - Water cycle from Resources unit Prior learning from KS2: Some have already looked at upper, middle and lower courses, physical features, how a river is used and how people are affected by rivers. Some have knowledge of using OS maps.	Future learning: -Changes downstream (Bradshaw model) -Changes in land use impact on river behaviour -Climate change impact on rivers -Discharge changes downstream -How river load changes down stream
Hypotheses/objectives for lessons	Geographical skills
LO1 What are landscapes (toolkit) LO2 the characteristics and key vocabulary of the drainage basin LO3 the physical processes in the formation of a river landscape LO4 the erosional landforms in a river landscape LO5 the depositional landforms in a river landscape LO6 What can we tell about rivers from an OS map and using grid references LO7 What happens to a river when it rains LO8 What were the causes and impacts of a local flood (Cockermouth, Workington or Carlisle) LO9 How can we defend against river flooding LO10 Investigation into river velocity and / or infiltration rates	OS map skills Hydrograph and data (numeracy) Field work techniques ICT (Excel) Enrichment opportunity: Infiltration and / or velocity of a river study.

Misconceptions
Differences between processes of erosion and transport Drawing appropriate graphs for fieldwork
Success/Assessment
• Opportunities through Blooket to assess vocabulary from the key word list • Vocabulary definition quiz • HW activities via Educake • An AFL activity on River processes and features • An extended question, summarising ideas from the topic and prior learning:
Employment skills and career opportunity
Aiming high Creativity Leadership Listening Presenting Problem solving Literacy Numeracy Independence Communication Teamwork Staying positive Career link: Geoscientist https://www.unifrog.org/student/careers/keywords/geoscientist
Pedagogy approaches (and homework suggestions)
LO1 What are landscapes (toolkit) See CSB for the resource pack/P103/103 KS£ text
LO2 the characteristics and key vocabulary of the drainage basin Students use drainage basin sheet to try and label as many features as they can. Go through PPT with them identifying different features and then then complete original features sheet correctly. Complete Word search with descriptions Identify as many features on the Gatesgarth OS map
LO3 The physical processes in the formation of a river landscape P106/107 Carpark catch phrase to recap last lesson (MvF or LvR) Students cut and try to match up the Processes of erosion (label/diagram/description). Check what they have with PPT Mixed up transport and students try to match. Check and correct against the PPT
LO4 the landforms in a river landscape)110/111 Anagrams to start Water Fall Work through PPt and animation / Complete the water fall diagram together Meanders Work through PPt and animation / Complete the meander diagram together and Ox bow lake
LO5 STARTER – Careers (geoscientist) to be able to identify river features on OS maps and Aerial photos P56 Skills Books work through activities
LO6 What can we tell about rivers from an OS map and using grid references PPT OS Maps Students start to think about Hypothesis for river velocity fieldwork and what they are going to do (method) ENRICHMENT – INFILMEANDERS INVESTIGATION – RIVER ELLEN
LO7a (can be moved for best weather) Students use fieldwork write up as assessment Complete field work on River Ellen
LO7b Go through drainage basin system ppt and use the work sheet and graph paper to draw Hydrograph. Suggest why the lag time may be different in different river basins

LO8 KS3 Geog P118/119 complete activities Other resources in file
LO9 KS3 Geog P118/119
LO10 Students use data from field work and use it to draw appropriate graph. Students offer reasons for their data and explain why it is happening.