

## Water on the Land – Personalised Learning Checklist PLC

### Key

**Red-** I can't do this and need to study this area more. This is an area of weakness

**Amber** – I can do this but need further work.

**Green** – I can do this well. It is an area of strength

	<b>The Shape of river valleys changes as rivers flow downstream due to the dominance of different processes.</b>	<b>R</b>	<b>A</b>	<b>G</b>
1	I can explain the 4 types of river erosion: hydraulic action, abrasion, attrition and solution			
2	I know what vertical and lateral erosion are and where they operate from the source to the mouth of a river.			
3	I can explain the 4 processes of transportation: traction, saltation, suspension and solution.			
4	I can explain what deposition is and why it happens. I know how deposition changes downstream.			
5	I can explain why the long profile changes from source to mouth and know that there are 3 parts to a river: upper course, middle course and lower course.			
6	I know what the cross-profile of a river is and why it gets larger from source to mouth.			
	<b>Distinctive landforms result from different processes as rivers flow downstream</b>	<b>R</b>	<b>A</b>	<b>G</b>
7	I can explain how waterfalls and gorges are formed by river erosion.			
8	I can explain how meanders and ox-bow lakes are formed by river erosion and deposition			
9	I can explain how levees and flood plains are formed by river deposition			
	<b>The amount of water in a river fluctuates due to a number of reasons</b>	<b>R</b>	<b>A</b>	<b>G</b>
10	I can define discharge			
11	I can explain how discharge is affected by amount and type of rainfall, temperature, previous weather conditions, relief, rock type (impermeable, permeable) and land use			
	<b>Rivers flood due to a number of physical and human causes. Flooding appears to be an increasingly frequent event</b>	<b>R</b>	<b>A</b>	<b>G</b>
12	I understand the physical causes of flooding: prolonged rainfall, heavy rain, snowmelt and relief			
13	I understand the human causes of flooding: deforestation and building construction			
14	I know how the frequency of flooding has changed over the last 20 years.			
15	I know where flooding has occurred in the UK over the last 20 years.			
	<b>The effects and responses to floods vary between areas of contrasting levels of wealth</b>	<b>R</b>	<b>A</b>	<b>G</b>

16	<b>MDW Flood Case Study:</b> I can describe the effects and responses to flooding in Boscastle, Cornwall			
17	<b>LDW Flood Case Study:</b> I can describe the effects and responses to flooding in Bangladesh			
	<b>There is a discussion about the costs and benefits of hard and soft engineering and debate which is the better option</b>	<b>R</b>	<b>A</b>	<b>G</b>
18	I can describe the costs and benefits of hard engineering strategies: dams and reservoirs; channel straightening			
19	I can describe the costs and benefits of soft engineering strategies: flood warnings, preparation, flood plain zoning, 'do nothing'			
	<b>Rivers are managed to provide a water supply. There are a variety of issues resulting from this</b>	<b>R</b>	<b>A</b>	<b>G</b>
20	I know why there is an increasing demand for water in the UK.			
21	I can locate areas of water surplus and water deficit in the UK and can explain the need to transfer water.			
22	<b>Dam/Reservoir Case Study:</b> I can describe the economic, social and environmental issues of the Kielder Water reservoir.			
23	I can explain why water needs to be managed sustainably			