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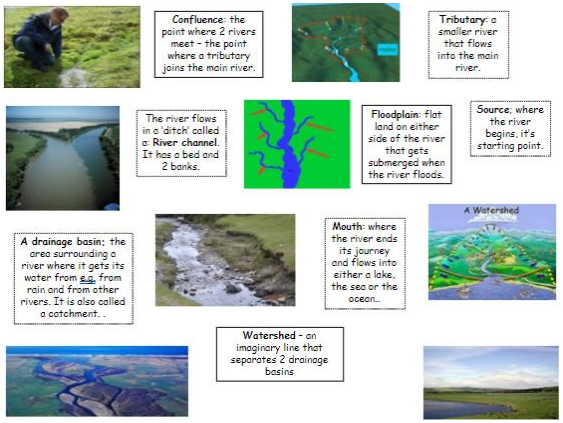
|---|---|---|---|---|---|---|---|
| **Subject** | Geography | **Year Group** | 7 | **Sequence No.** | 5 | **Topic** | What can we learn from the River Meden? |

| Retrieval | Core Knowledge | Student Thinking |
|---|---|---|
| What do teachers need **retrieve** from students before they start teaching **new content**? | What **specific ambitious knowledge** do teachers need teach students in this sequence of learning? | What real life examples can be applied to this sequence of learning to **development of our students thinking, encouraging them to see the inequalities around them** and 'do something about them!' |
| L1 when learning about rivers link back to Y7 topic 1 ask students whether this would be human or physical geography<br><br>Throughout the topic students will be expected to use the key terms learnt in L2 to describe features in and around a river<br><br>L3 label features on a diagram using knowledge from L2<br><br>Throughout the topic students use the knowledge learnt n L3 to explain how landforms are created along a river<br><br>L7 link back to L2-6 to describe and explain the journey of a river<br><br>L8-11 when studying river flooding link back to Y7 topic 1 and ask students whether this would be human or physical geography<br><br>L12-link to Y7 Topic 1 geological time scales. Ask students to consider which period they have been learning about. | **How water is moved around the planet/water cycle**<br>• Transpiration-when water evaporates off leaves from vegetation<br>• Precipitation-rain/hail/sleet and snow<br>• Evaporation, run-off, ground water, precipitation, transpiration (evaporation from the leaves of trees, infiltration, cloud formation<br><br>**Profile of a river and how a river changes**<br>• Start (source) to the end (mouth)<br>• Upper, middle and lower course of a river. These are the different sections of a river<br>• Key features and characteristics you would find within each section of a river.<br>  | Through this topic students will using their rivers knowledge to develop their understanding of their local physical geography as well as solving problems linked to river flooding. They will do this through the following activities.<br><br>• Throughout the topic the students link back what they have learnt about a text book river to see if it applies to their local one, the river Meden.<br><br>• Dragons den task-river management, students pitch an idea to help save a town from future flooding<br><br>• Learning how their current topic links to a real career- hydrologist<br><br>• Students to discuss whether building more houses in Warsop will put the area at risk of flooding.<br><br>• Students learn about how the River Meden is managed and whether its effective<br><br>• Opportunity for students to carry out fieldwork in the local area focusing on how people use the river and whether its having a positive or negative impact on it |

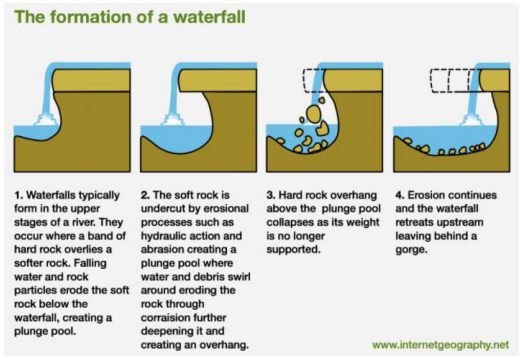
**3 processes take place within a river**

- Erosion-wearing away of material
- Transportation-movement of material
- Deposition-dropping of material

**Landforms created by erosion**

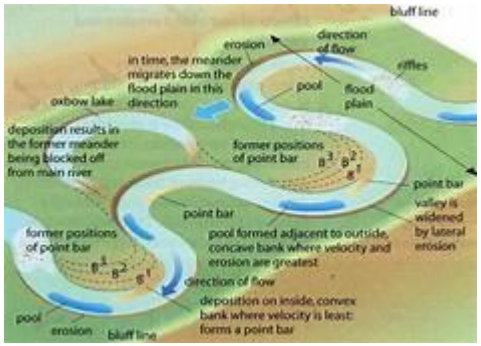
- V-shaped valleys Formation of a V-shaped valley Rivers begin high up in the mountains so they flow quickly downhill eroding the landscape vertically. The river cuts a deep notch down into the landscape using hydraulic action, when the sheer force of the water gets into small cracks and breaks down the sides of the river valley.

Waterfalls.

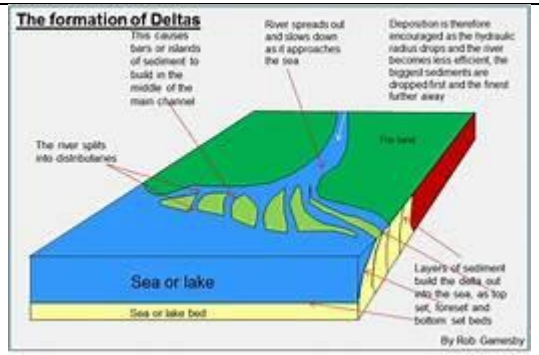



**Landforms created by deposition**

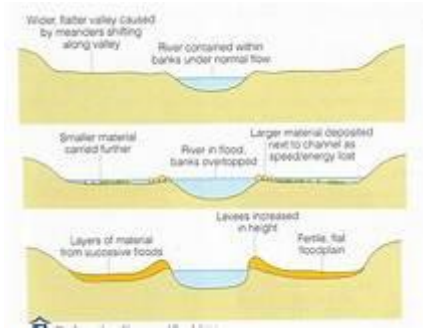
Meanders




Deltas




Levees



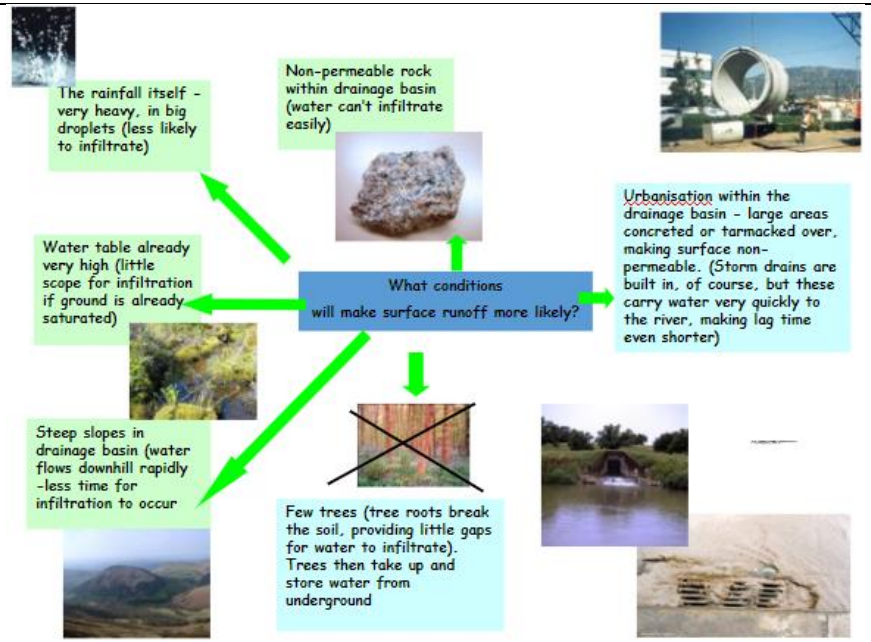

Erosional landforms in the upper course, depositional in the mid to lower course.

**River Meden**

Upper course: An unusual source, the river rises as two main streams to the north of Huthwaite, above the 200-foot-fairy steep area.

**Causes of flooding**

Surface runoff can increase the chances of flooding – (also known as overland flow) is the flow of water that occurs when excess water from rain, meltwater, or other sources flows over the earth's **surface**. This might occur because soil is saturated to full capacity, or because rain arrives more quickly than soil can absorb it.




**River management**

Soft engineering, Schemes set up to work with the natural processes along the river to reduce the effects of flooding.

- Soft engineering: afforestation, water meadows and evacuation. Hard-dredging, channel straightening and flood barriers.
- 😟 Some take a long time to before they start working, some don't stop a flood, they reduce the impacts, and some are expensive.

Hard Engineering: Generally defined as a controlled disruption of natural processes using man-made structures.

- Dams, river straightening, dredging, river widening
- ☹ Expensive, ruin natural habitats and can stop natural processes