

# KESTEVEN AND SLEAFORD HIGH SCHOOL

## Geography Scheme of Learning Year 8 – Term 4/Unit 4/Rivers and Flood Management

### Intent – Rationale

The intent of this topic is to develop knowledge and understanding of river processes and landforms. Students learn about the features of drainage basins and river profiles. They develop further their understanding of processes of erosion, transportation and deposition and understand how such processes are responsible for fluvial landforms. Students develop an understanding of the causes and impacts of floods and a range of flood management strategies are evaluated and justified. Finally using the named example of the Belo Monte dam in Brazil, students take on the role of stakeholders in debating the issue of whether the dam construction should be justified.

<b>Sequencing – what prior learning does this topic build upon?</b>	<b>Sequencing – what subsequent learning does this topic feed into?</b>
<ul style="list-style-type: none"> <li>• KS2 – Key aspects and topological features of rivers</li> <li>• Y7 T3 – Hydrological Cycle</li> <li>• Y7 T6 – coastal processes (erosion)</li> </ul>	<ul style="list-style-type: none"> <li>• KS4 (GCSE) – River Landscapes (processes, factors affecting flood risk and flood management)</li> <li>• KS5 – Water Cycle and water insecurity</li> </ul>
<b>What are the links with other subjects in the curriculum?</b>	<b>What are the links to SMSC, British Values and Careers?</b>
<ul style="list-style-type: none"> <li>• Science – Water Cycle</li> </ul>	<ul style="list-style-type: none"> <li>• SP – 2 – enjoyment and fascination in learning</li> <li>• M3 – debating the Belo Monte Dam</li> <li>• Careers – GB4b) communication – discussion of Belo Monte Dam, g) teamwork</li> </ul>
<b>What are the opportunities for developing literacy skills and developing learner confidence and enjoyment in reading?</b>	<b>What are the opportunities for developing mathematical skills?</b>

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FROM THE LIBRARY

- Flood management strategy table – allocating scores and adding figures to rank the data

## Geography Scheme of Learning Year 8 – Term 4: Rivers and Flood Management

### Intent – Concepts

What knowledge will students gain and what skills will they develop as a consequence of this topic?

#### Know

The features of a drainage basin  
The river processes of erosion, transportation and deposition  
Types of landforms found along a river  
Causes and impacts of river flooding  
Short-term and long-term flood management strategies to reduce flood risk  
What a dam is and how it can be multipurpose  
Reasons why the Belo Monte dam in Brazil was built.

#### Apply

Knowledge of a drainage basin to explain what happens to the height of the land and the river depth and width as it nears the sea  
Knowledge of river processes to explain where they occur along a river  
Knowledge of the types of landform found along a river to support description of a river's journey from source to mouth with key vocabulary  
Knowledge of flooding to categorise causes into physical and human categories  
Knowledge of dams to explain their advantages and disadvantages

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<p>Knowledge of the need for the Belo Monte dam to explain the impacts of its construction on people, the economy and society</p> <p style="text-align: center;"><b><u>Extend</u></b></p> <p>Knowledge of the benefits/disbenefits of flood management strategies to help justify a decision on which strategy is most effective and sustainable in the long-term? To justify ideas on whether the Belo Monte Dam should be built with reference to economic, social and environmental impacts.</p>	
What subject specific language will be used and developed in this topic?	What opportunities are available for assessing the progress of students?
<p>river basin, watershed, tributary, source, mouth, confluence, flood plain, evaporation, condensation, precipitation, surface runoff, precipitation, water table, impermeable, infiltration, transpiration, infiltration, hydrological cycle, erosion, transportation, deposition, hydraulic action, attrition, abrasion, solution, suspension, sediment, long profile, cross profile, meander, oxbow lake, valley, waterfall, gorge, flash flood, embankments, land use zoning, bastions, water storage basins, conflict issue</p>	<p>Assessment will take 3 main forms:</p> <ul style="list-style-type: none"> <li>• In starters, plenaries and during the lessons – formative assessment to reinforce prior knowledge e.g. word searches, bingo, memory recall, definition matches etc.</li> <li>• For homeworks -tasks that require students to research new knowledge. For example, the Belo Monte Dam. What? Where? Why? When?</li> <li>• Summative assessments: multiple-choice, one mark answers, extended answers in test or exam conditions or as end-of-unit tests.</li> <li>• Key word meaning and spelling tests are included as part of the focus on building a knowledge bank of geographical vocabulary</li> </ul>

## **Intent – Concepts**

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Lesson title	Learning challenge	Higher level challenge	Suggested activities and resources
1. Drainage basin	To be able to describe the features of a drainage basin	To be able to explain what happens to the height of the land and the river depth and width as it nears the sea	Powerpoint 1 Starter – recap Water (Hydrological Cycle) from Y7 using mini whiteboards and dominoes Clip <a href="http://www.bbc.co.uk/news/uk-england-london-14878646">http://www.bbc.co.uk/news/uk-england-london-14878646</a> and slide showing David Walliam’s charity swim down the River Thames. Geog. 1 Page 84-85 Answer questions 1-6 Plenary – key word match
2. River processes – erosion, transportation and deposition	To know the river processes of erosion, transportation and deposition	To be able to explain where these processes take place on a river.	Powerpoint 2 Starter: Show images of places along a river and students state whether they are found in the upper, middle or lower course Through clips, worksheet and Geog. 1 4 <sup>th</sup> edition pages 88-89, students make notes on processes of erosion, transportation Wordsearch – students design these providing clues for key words to consolidate learning of many new key terms
3. Features of a river	To be able to identify landforms along a river	To be able to write a paragraph to describe the journey of a river from the source to the sea using key vocabulary	Powerpoint 3: Starter – key word Bingo! Video with worksheet questions to answer Geog. 1 4 <sup>th</sup> edition pages 88-89 to support understanding Homework - Carry out some independent research on a river of your choice. If possible find out: <ul style="list-style-type: none"> <li>• The location of the source</li> <li>• The location of the river’s mouth</li> <li>• Countries the river flows through</li> <li>• How people are using the river?</li> <li>• Any interesting landforms or places along the river?</li> </ul> Slide to be presented and river labelled on a world map

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4.Flooding	To be able to describe causes and impacts of flooding	To be able to explain how and way the causes of flooding may be due to physical or human causes	<p>Powerpoint 4</p> <p>Starter: Images of flooding with questions such as ‘how do people feel about it? And ‘Do you think it is anyone’s fault?’</p> <p>Show clips/images of Lincolnshire floods in 2019.</p> <p>Causes of floods brainstorm and students to annotate image to show the physical/human causes of flooding using page 95 in Geog.1 4<sup>th</sup> edition OS map skills recap (from Y7 and questions on worksheet using page 97 of Geog. 1 4<sup>th</sup> Edition textbook.</p> <p>Plenary – write a quote for an image of flooding</p> <p>Homework – research Belo Monte dam - What? Where? Why? When?</p>
5. Flood management strategies	To be able to describe a range of short-term and long-term flood management strategies	To be able to evaluate the flood management strategies by considering cost, practicality and effectiveness and to justify a decision on which strategy is most effective and sustainable in the long-term?	<p>Powerpoint 5</p> <p>Starter: Anagrams of who helps in a flooding crisis</p> <p>Slides presented showing images of management strategies.</p> <p>After discussion students complete a table showing advantages and disadvantages of the strategies and consider whether they are short-term or long-term.</p> <p>Geog.1 4<sup>th</sup> edition pages 98-99 to support ideas</p> <p>Task – students give scores in a table to assess cost, practical use, effectiveness and sustainability to support their decision of which strategy is the most suitable and which is the least? They justify their ideas.</p>
6. Flood management: dams	To be able to describe what a dam is its purpose	To be able to explain how and why dam construction has advantages and disadvantages	<p>Powerpoint 6</p> <p>Think – Pair – Share: Show image of a dam.</p> <p>Key questions:</p> <ol style="list-style-type: none"> <li>1) What is the purpose of a dam? What can it provide?</li> <li>2) In which part of a river should a dam be built and why?</li> </ol> <p>Feedback from students.</p> <p>Clip and images of Ladybower Reservoir in the Peak District</p> <p><a href="https://www.bbc.co.uk/programmes/p0114809">https://www.bbc.co.uk/programmes/p0114809</a></p>

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			<p>Gap fill task answering questions above            What is a risk with dam building? Clip of dam which was damaged at Whaley Bridge in Peak District in 2019.  <a href="https://www.youtube.com/watch?v=F7Q_4qvtxYU">https://www.youtube.com/watch?v=F7Q_4qvtxYU</a>            Brainstorm homework research on Belo Monte Dam.            Show clip and give out handout <a href="https://www.youtube.com/watch?v=K-seAAIsJLQ">https://www.youtube.com/watch?v=K-seAAIsJLQ</a>            Homework:            Read through the Guardian newspaper article about the Belo Monte Dam in Brazil.            Highlight key words            Look up the meaning of any words you do not understand            Answer the questions in full sentences and stick the sheet in.</p>
<p>7 and 8. Belo Monte Dam</p>	<p>To be able to describe the Belo Monte and know the impacts of its construction on people, the economy and society</p>	<p>To be able to present in role as a stakeholder the viewpoint about the construction of the Belo Monte Dam</p>	<p>Powerpoint 7/8 (2 lessons)            Starter: What is going on here? Image of a human banner on the site of the Belo Monte dam            Homework check from last lesson – newspaper article questions            Teach me tell me more Belo Monte discussion (see SL for resource)            Introduce the dam debate and the stakeholder roles and start preparing/researching role. All resources in T drive.            Role:            _____            _____  <b>Indigenous Juruna people</b>  <b>Government Officials</b>  <b>Mining Company Representatives</b>  <b>Conservation Group</b>  <b>Unemployed people in Sao Paulo</b>  <b>Directors of global steel company</b>            _____            _____            Clip – what is the message? <a href="https://www.youtube.com/watch?v=oij0Pha3_m0">https://www.youtube.com/watch?v=oij0Pha3_m0</a>            Debate - Your group of <b>five/six</b> will represent one of the stakeholder groups above and will be participating in a live TV news debate. At the debate you will be stating</p>

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			<p>your opinion about the Belo Monte dam building project and justifying your reasons for or against its construction.</p> <p>Students present in their groups and are then asked questions.</p> <p>Out of role at the end there is a vote – should the dam be built?</p>
End of topic assessment			