



Number of weeks	Content of the unit	Assumed prior learning (tested at the beginning of the unit)	
6	<ul style="list-style-type: none"> Why are rivers important? How do rivers change downstream? Why do rivers change? – River processes What landforms do river processes create? What is the hydrological cycle? Why does the amount of water in a river change? Why do rivers flood? How are the impacts of flooding different in MEDC and LEDC's? Flood Case Study – Cumbria and Bangladesh What can we do to manage river flooding? Case study – hard vs soft engineering How can we manage rivers to provide our water Case study – Kielder Reservoir 	KS3 rivers unit	
Assessment points and tasks	Written feedback points	Learning Outcomes (tested at the end and related to subject competences)	
End of Unit Exam Questions	<ul style="list-style-type: none"> In line with assessment points Books marked 	<p>Case studies</p>	<ul style="list-style-type: none"> I can identify and give facts about an event or place I can identify and describe an issue facing a place I can apply a case study to describe causes, impacts and responses I can apply a case study to explain causes, impacts and responses I can explain how management can reduce the impacts of a problem / challenge. I can explain different opinions towards an event or process. I can explain the justification for a particular management strategy. I can evaluate different opinions towards an event or process. I can evaluate the impacts of a process or event for different stakeholders. I can evaluate the sustainability of management choices and provide further suggestions.
		<p>Making decisions</p>	<ul style="list-style-type: none"> I can give my own opinion or reaction to a picture, statement or situation. I can give reasons for my opinions. I can identify advantages of processes and events. I can identify disadvantages of processes and events. I can explain advantages of processes and events. I can explain disadvantages of processes and events. I can explain the justification for a particular management strategy. I can explain how management can reduce the impacts of a problem / challenge. I can evaluate the sustainability of management choices . I can explain the different stakeholder views on processes and management. I can suggest new ways to make a process more sustainable or how to manage a process or event.
		<p>Explaining processes</p>	<ul style="list-style-type: none"> I can identify features/sequences of processes and formations. I can identify advantages of processes and events.



		I can identify disadvantages of processes and events.
		I can describe the distribution of landforms, objects and events.
		I can describe the features of landforms, events and processes.
		I can describe the impacts of processes and events
		I can describe management strategies of events and processes.
		I can explain the formation of landforms and explain processes.
		I can explain the impacts of processes and events.
		I can explain the differences between landforms, processes and events.
		I can evaluate the impacts of processes and events.
		I can evaluate the management of processes and events.
		I can evaluate the impacts of processes and events on different stakeholders.
		I can evaluate the management of processes and events on different stakeholders.
		I can suggest new ways to manage a process or event.

Year 11 – Water on the Land

Lesson	Clear learning intentions	Clear success criteria	Hook	Presentation of content	Guided practice	Independent practice (homework)	Closure
--------	---------------------------	------------------------	------	-------------------------	-----------------	---------------------------------	---------



1	What are the key characteristics of rivers and how do these change over a river's course?	E/D - Define, identify and label river characteristics and the stages of a river. C/B - Describe how the characteristics of a river change as it travels downstream. A/A* - Begin to explain why the characteristics of a river change as it flows downstream.	Make a list of many rivers as you can think of (even better if you can say where they are)	PowerPoint Oxford Textbook Keyword Definitions Diagrams	Stick in keyword definitions. Glue in the diagram of the river profile and keyword definitions. Using the definitions above, label the different parts of a river profile. Check answers. Watch clip of Severn River. Students answer differentiated questions. Feedback. Long and changing cross profiles in rivers. Turn to page 102 of the green textbook. Copy Diagram E into your book. Label the Upper, Middle and Lower part of the river. Create a table to show the features of each stage of the river (Upper, Middle and Lower) Series of questions about cross profiles to ensure understanding. Can either discuss or students can answer in books. Exam Practise - How do rivers change downstream? (8 marks) How do rivers erode? Draw the diagram and label. Write the definitions underneath. Ask students to explain in their own words to the class to check understanding. Use the textbook to do the same with transportation processes (page 101)	Exam Practise Describe how a river erodes (3 marks) Describe how a river transports its load (3 marks) Explain the formation of a gorge (4 marks)	Tell me one characteristic of a river and which part of the river course it is in.
---	---	--	--	--	---	--	--



2	How are landforms in a river created by erosion and deposition?	<p>E/D - Identify features of the upper course, the middle and lower course of a river.</p> <p>C/B - Describe how waterfalls, gorges and rapids are formed by erosion in the upper course of a river. Describe how meanders, oxbow lakes and floodplains are formed by erosion and deposition in the upper course of a river.</p> <p>A/A* - Explain why the features of a river change downstream because of erosion, transportation and deposition.</p>	Ask geographical questions about the picture	<p>PowerPoint</p> <p>Table for landforms</p> <p>Pictures of landforms</p>	<p>Use pictures to recap last lesson - Which part of the river is this? How do you know?</p> <p>Go over homework questions. Show exemplar answers and get students to self-assess. WWW/EBI needed.</p> <p>Using the table and pictures of landforms, students need to take notes from a series of slides about landforms created and how they are created – V Shaped Valleys, Interlocking Spurs, Waterfalls and Rapids.</p> <p>Keyword match up. Check answers</p> <p>Watch the clip about meander formations, students answer differentiated questions based on target grade. Feedback to the class</p> <p>Draw and label the diagrams to show how meanders and oxbow lakes are formed. What would the cross-section of a meander look like? Draw the diagram and add the labels. Label the inside of the bend and the outside of the bend. Students answer differentiated stretch questions.</p> <p>Draw the diagram of the floodplain and add the labels. Students answer differentiated questions</p>	<p>Describe how v-shaped valleys are formed (3 marks)</p> <p>Describe how interlocking spurs are formed? (2 marks)</p> <p>Describe how waterfalls are formed. (4 marks)</p> <p>What landforms would you expect to see in the river's upper course? (3 marks)</p> <p>Describe the how oxbow lakes are formed (4 marks)</p> <p>Describe how waterfalls are formed (4 marks)</p> <p>Describe how interlocking spurs are formed (4 marks)</p>	True or False?
---	---	--	--	---	--	---	----------------



3	What is the hydrological cycle?	<p>E/D - Know the definitions of the key words of the water cycle. C/B - Describe the water cycle using process vocabulary. A/A* - Explain which factors can speed up or slow down the water cycle and affect how much water enters the river.</p>	<p>Exam Practise Explain the formation of levees (4 marks)</p>	<p>PowerPoint Diagrams of the hydrological cycle Diagrams of how the hydrological cycle progresses Oxford textbook Diagrams of the water cycle in the urban and undeveloped areas</p>	<p>Diagram of the hydrological cycle with keywords and definitions. Students need to correctly label the diagram (be aware that some words are used more than once) Check answers</p> <p>Diagram and jumbled description of how the hydrological cycle progresses Check answers</p> <p>Two other definitions – permeable and impermeable</p> <p>Think, Pair, Share How would each of these things affect how much water enters the river? Students need to be able to justify their answers How would these factors affect the speed of the hydrological cycle? Why?</p> <p>Factors that affect discharge – land use, relief, weather conditions, rainfall, rock and soil type. Use textbook to identify how the above affect how much water ends up in the river.</p> <p>Explain the processes by which water enters a river. (6 marks) Explain how humans affect the amount of water which enters a river. (3 marks)</p> <p>Storm hydrograph – Copy diagram and definitions of labels into books.</p>	<p>Imagine you are a town planner and the council has asked you for advice on how they can protect their town from flooding. Make a list of things that the council should do and shouldn't do to protect their town from flooding.</p>	<p>Describe the differences between the storm hydrographs for the 2 areas. Use the key words in your answer. Explain why the two graphs look different.</p>
---	---------------------------------	--	---	---	--	---	--



					<p>Breakdown and go over the parts of the storm hydrograph. Discuss how to read the graph and what each piece means. Differentiated questions based on targeted grade</p> <p>Differences between the urban and undeveloped areas water cycle. Discuss factors that change the cycle to suit each environment. Differentiated questions.</p> <p>Impact of urbanisation – create a table showing the impacts of urbanisation on the water cycle.</p>		
--	--	--	--	--	--	--	--



4	What are the impacts of flooding in LEDCs and MEDCs?	<p>E/D - Identify impacts of flooding and categorise them into social, economic and environmental effects. C/B - Describe the impacts of flooding in an MEDC and an LEDC and the response to the floods using case study detail. A/A* - Compare and contrast the impacts and responses to a flood event in MEDCs and LEDCs and give reasons why there are differences.</p>	<p>What words describe what you see in this picture? What words could describe how people feel? What geographical questions could you ask?</p>	<p>PowerPoint Blank table for MEDC case study Case study for LEDC – Bangladesh Homework sheet</p>	<p>Flooding in an MEDC – Case Study – Cumbria Watch video clip, students to fill out case study sheet using information from the clip</p> <p>Exam Practice: Describe the effects of flooding in one MEDC you have studied. (8 Marks) Show students the marks scheme and talk about what is needed to answer the question. Make clear the question is only asking about the effects and that causes/responses aren't necessary Show example answer, what mark should it be awarded? Why? How could it be improved? Students attempt answer themselves.</p> <p>Watch clips about flooding in Bangladesh. Discuss the differences between the two floods. What could be attributed to the fact that one country is an MEDC and one is a LEDC?</p> <p>Exam Practice: Describe the effects of flooding in one LEDC you have studied. (8 Marks) Again, show mark scheme and discuss what the answer needs to include and what is unnecessary Answer question Students self-assess using mark scheme</p>	<p>Study Figure 3, which shows the locations of flood events in England between 2000 and 2007. Describe the locations of the flood events shown in Figure 3 (4 marks).</p>	<p>Why are the effects of flooding often worse in LEDCs than in MEDCs?</p>
---	--	--	--	---	---	--	--



					<p>Use a case study to describe responses to river flooding (8 marks) Students answer and peer mark using mark scheme</p> <p>Use a case study to describe responses to river flooding (8 marks) Use Figure 2 to explain why rivers flood (3 marks)</p>		
--	--	--	--	--	--	--	--



5	How can we manage rivers to prevent flooding?	<p>E/D - Identify ways in which a river can be managed.</p> <p>C/B - Categorise methods into hard engineering and soft engineering.</p> <p>A/A* - Evaluate different river management strategies using a cost benefit analysis.</p>	<p>For an MEDC (Cumbria, UK, blue book, p.106) and an LEDC (Bangladesh, green book, LEDC p.115)</p> <p>Write down:</p> <p>5 effects of the floods</p> <p>4 strategies for dealing with the floods (responses)</p> <p>3 facts or case study details e.g. amount of money it cost to repair the damage.</p> <p>2 differences in the responses</p> <p>1 similarity between the responses</p>	<p>Powerpoint</p> <p>Oxford textbook</p> <p>Hard and soft engineering worksheets</p> <p>Video clip</p>	<p>Using examples, you have studied, compare and contrast the Government responses to a flood event in an MEDC and an LEDC (8 marks)</p> <p>Recap question from last lesson, looking at responses this time. Go over success criteria to ensure students know what they need to focus on</p> <p>Read the exam question and the exam answer and look back at the mark scheme and success criteria.</p> <p>How many marks would you give each answer? Why?</p> <p>How could you improve the answers?</p> <p>Answer question</p> <p>Peer marking using the breakdown sheet</p> <p>Watch clip about Hoover Dam, as an example of hard engineering</p> <p>Write down the definition of hard engineering.</p> <p>Show students' series of slides on different types of hard engineering. Fill out what they are and advantages and disadvantages of each</p> <p>Write down the definition of soft engineering.</p> <p>Show students' series of slides on different types of soft engineering. Fill out what they are and advantages and disadvantages of each</p>	<p>Exam practice:</p> <p>Describe and explain how hard engineering can be used to prevent flooding. (6 marks)</p> <p>Compare and contrast the hard and soft engineering techniques which can be used to manage a river. (8 marks)</p>	<p>What type of engineering do you think is the most effective way to cope with flooding?</p>
---	---	---	---	--	---	---	---



6	How can we manage rivers to prevent flooding? (Three Gorges Dam case study)	<p>E/D - Identify ways in which a river can be managed.</p> <p>C/B - Categorise methods into hard engineering and soft engineering.</p> <p>A/A* - Evaluate different river management strategies using a cost benefit analysis.</p>	What are two advantages and two disadvantages of using dams to stop flooding?	<p>Powerpoint</p> <p>Video clip</p> <p>BBC article</p> <p>News article</p>	<p>Describe the route of the Yangtze River?</p> <p>Where is the Three Gorges Dam?</p> <p>Describe the location of the dam using geographical terminology.</p> <p>Differentiation – Put up a word bank for students to use</p> <p>Sentence starters for low ability</p> <p>Gap fill for those who need it</p> <p>Advantages and disadvantages of Three Gorges Dam – use the clip to fill this table in.</p> <p>Video moves quickly, will need to stop and start so students can get all the information</p> <p>Using the articles, students choose their questions based on their target grade</p> <p>Read articles and complete questions</p>	<p>Write your own definition for hard and soft engineering. (2 marks)</p> <p>List 2 hard and 2 soft engineering techniques and explain how they work. (4 marks)</p> <p>Discuss the advantages and disadvantages of hard and soft engineering. Use examples in your answer. (8 marks)</p>	Evaluate the success of the Three Gorges Dam. (8 marks)
---	---	---	---	--	---	--	---



7	How can we manage the UK's water supply?	<p>E/D - Use a map to describe which areas of the UK have a surplus or a deficit of water. Describe ways to reduce the demand for water. Describe a way to manage the UK's water supply.</p> <p>C/B - Explain why demand for water is increasing and why some areas of the UK are areas of water stress. Explain ways to reduce the demand for water. Explain a way to manage the UK's water supply using a case study.</p> <p>A/A* - Explain in detail why some areas of the UK are experiencing water stress. Evaluate ways to reduce the demand for water. Evaluate the ways in which the UK's water supply can be managed, using a case study.</p>	Use pages 112-114 in the text book to find the definitions of these words and write them in your book	<p>Powerpoint</p> <p>Oxford textbook</p> <p>Kielder Water Transfer Scheme case study notes</p> <p>Population Density map</p> <p>Rainfall map</p> <p>Water Stress map</p>	<p>Series of maps, skills practise, answering questions using figures.</p> <p>Differentiation – Questions targeted to grades. Students choose based on their grade</p> <p>Ways to reduce the demand for water – Class discussion or can get students to write in books if it seems necessary</p> <p>Stretch yourself: Are these actions possible on an individual, local or national scale? Which do you think would make the biggest impact? Why?</p> <p>Kielder Water – A Water Transfer Scheme. You need to make a fact file which covers the following points: Where Kielder Water is. Facts about the reservoir e.g. cost, when it was built. Why the reservoir was built here. How the water is transferred to where it is needed. Advantages of the project Disadvantages of the project.</p>	Using a case study, explain how countries can manage their water supply. (6 marks)	Using the textbook, answer questions 1, 2 and 3b (for 3b use the card sort and your advantages/disadvantages list)
14	End of Unit Assessment Prep	BTEOTL I will: Know how to answer those questions I find hardest.	Smith proformas...prioritise your skills and subject knowledge.	Dependent on group	Groups to select resources to help with skill/knowledge revision.	Revise for end of unit assessment	Tell me something you know now that you didn't know before.
15	End of Unit Assessment						
16	End of Unit Assessment run through	BTEOTL I will: Know my weaknesses for future revision	PLC up on the board. Pupils to note down strengths and weaknesses.	Model answers	Run through model answers with class. Class to annotate papers.	Prep for your "therapy"	Sharing...what are our biggest weaknesses?