Mendell Primary School

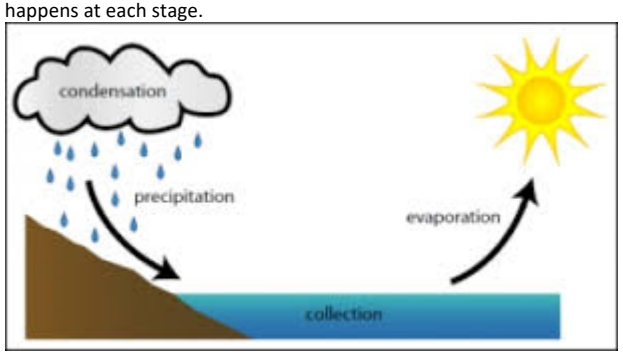
Aspire Challenge Achieve

Medium Term Plan Geography – Spring term

Year Group: 4	**Term:** Spring #2 2022	**Teacher:** Hannah Jones	**Subject lead:** Amy Harris	**Overview:** **Rivers** Understanding the stages and processes of a river. Studying rivers of the world and investigating the water cycle.	**Key End Points:** **By the end of this unit children will be able to:** - Name the five stages of a river - Name and explain the 3 key processes of a river - Name and locate 5 key rivers of the UK - Explain how the water cycle works	
Links to other learning: Science: The water cycle (evaporation)	**Relevant Prior Learning:** Y2 Flooding / Weather	**Relevant Future Learning:** Y6 Frozen Kingdoms – polar climates and landscapes	**High Quality Text:** Why water's worth it Lori Harrison	**Risk Assessment:** River Trip – see RA in lesson resources	**Misconceptions:** Common misconceptions about rivers and the water cycle include the belief that rivers start at the sea and flow inland! Many pupils also believe that water is only evaporated up into the atmosphere from the seas and oceans, yet in reality puddles, ponds, lakes and even the moisture from out of plants all contributes to the water vapour in the atmosphere. Pupils often carry with them their own stereotypical images of rivers: typically located in the countryside, with clear running water and banks lush with vegetation and wildlife. Yet the reality is that many urban rivers are channelled between concrete walls and heavily polluted.	**Teacher CPD:** - CPD factsheets provided in the resource folder for each lesson (please read all CPD prior to starting the lesson sequence)

	Learning Intention	Lesson Outline	Resources	Vocabulary	Lowest 20% Adaptations
1	I can identify the stages and journey of a river	**This is a Geography lesson. Geography is the study of places and relationships between people and their environments.** Explain to the pupils that the skills we are going to learn today are how to use secondary sources of information to help us think like a geographer and identify the stages of a river. Show pupils photographs depicting the River Dee in the three stages- the upper, middle and lower course with no contextualisation (see resources). Ask them where it might be? Pupils consider the following questions and how they would find the answers e.g. **Where does the river start? Where does it end? What creatures live in it? How do you cross it? How wide is it? Who uses it? How deep is it? How long is it? What can you see along the riverbanks?** Discuss as class. Explain how photographs show the River Dee, a local river from the upper course in Snowdonia, to the middle course in North Wales and the lower course running through Chester. Show children the slide on Powerpoint which shows the three stages of the river. Annotate this (either on interactive board or on whiteboard) as you give the following explanations: • The upper course of a river starts at its source. The source of a river could be a stream high in the hills or water emerging from a spring in the ground. The riverbed of the upper course is steep, narrow and rocky. The water travels quickly over the rocks, making the river turbulent and fast flowing. As the river flows downwards, it erodes the rock, forming a V-shaped valley with steep sides. Waterfalls, rapids, and gorges are also features of the upper course.	Lesson PowerPoint Blank river diagram Word of the week vocabulary slips	**River source** **Upper course** **Middle course** **Lower course** Estuary River mouth Erosion Precipitation floodplain Journey River Dee Snowdonia North Wales Chester Riverbank Shallow Deep vegetation	

		• The middle course is where the landscape flattens. The river becomes wider and deeper, and the water moves more slowly. The river curves from side to side, forming bends called meanders. As the water erodes the riverbanks on the outside curves of meanders, it carries soil, silt, sand and stones and deposits them on the inside of the bends. As the river moves towards the lower course, meanders become larger. Sometimes, the main river cuts across the meander to form an oxbow lake. • The land becomes very flat in the lower course, where the river nears sea level. At the river mouth, some rivers run into wide estuaries. Silt is deposited in the estuary and washed into the sea at high tide. Where the silt is not washed away, it creates a landform called a river delta. The river ends its journey by flowing into the sea. Children to annotate the blank diagram of a river with the words mouth, source, upper course, middle course and lower course. Children are to write a short explanation of the characteristics of each course in their own words. Share the following video clip with children to introduce the concept of rivers in more detail: Rivers - BBC Bitesize **Word of the week: River source –** Pupils to explain the meaning of this in books.			
2	I know how rivers can change the landscape over time	**This is a Geography lesson. Geography is the study of places and relationships between people and their environments.** Explain to the pupils that the skills we are going to learn today are use secondary sources of information to help us think like a geographer and identify how rivers can change the landscape over time. **Enquiry question: How do rivers change the landscape over time?** Present pupils in small groups images of rivers that have been affected by weathering, transportation etc (see resources) Ask children to discuss and infer what they think might have happened to the rivers? Share the following video link with the pupils: https://www.youtube.com/watch?v=ymTAKdFeV14 Using key vocabulary, model using a 'tuff tray' and play sand. Use the sand to create a river path across the tray which has some turns and meanders. Position near a hose pipe and create a flowing river and model the three processes. Pupils to complete a small, labelled drawing and paragraph in their books to explain the three processes of erosion, deposition and transportation. **Word of the week: erosion –** pupils to explain the meaning of this in books.	Word of the week vocabulary slips Lesson PowerPoint Erosion, deposition and transportation poster Tuff tray Play sand Hosepipe	**Erosion** Deposition Transportation Landscape Weathering Highland Flatland Meanders Estuary Narrow channel Wide channel	Pupils to use class river posters s visuals to provide peer support for the three processes of river change.
3	I can identify key rivers within the UK and explain the impact of their flooding	**This is a Geography lesson. Geography is the study of places and relationships between people and their environments.** Explain to the pupils that the skills we are going to learn today are to use map skills to help us think like a geographer and identify rivers including to find out about and explain the impact of rivers flooding. Starter – provide pupils with a blank map of the UK (recap four countries of UK from Yr1). Children to use Digimaps to locate the following rivers and mark them on their maps: River Thames, River Mersey, River Dee, Great Ouse and River Severn. Explain to the pupils that the focus for today is on rivers flooding and the impact this has on our society. Ask the children to discuss: **What happens when a river breaks its banks? What do you think causes flooding?** Challenge the theory that rivers only flood as a result of prolonged rain. Explain that it is also due to the topography of the landscape, and morphology of rocks and soils. Human activity also plays its part; with growing urbanisation often comes an increased likelihood of flooding. **do pupils think the impact of this flooding is?** Share the power point on flooding (see resources) with the pupils to show how a flood begins and the impact of flooding. Pupils to create a flowchart to illustrate this and explain the impact of flooding. (See teacher CPD document for suggested flowchart to model ideas and see resources for pupil WAGOLLS for this)	i-Pads Blank map of UK Word of the week vocabulary slips Flooding power point Pupil flowcharts Pupil WAGOLL work examples	**Floodplain** Flooding River Severn River Thames River Trent River Wye River Great Ouse Riverbank Topography Rock morphology Urbanisation Precipitation	Support adults to complete pre-teach with pupils to model how to use atlases/i-pads to locate key rivers in UK.

		Word of the week: floodplain– pupils to explain the meaning of this in books.			
4	I can use fieldwork skills to observe, measure and record features of the River Mersey	**This is a Geography lesson. Geography is the study of places and relationships between people and their environments.** *RIVER VISIT TO RIVER MERSEY* ADDITIONAL ADULTS AND RISK ASSESSMENT NEEDED. Explain to the pupils that the skills we are going to learn today are to use and apply a range of fieldwork skills to collect data from our local River Mersey. Prior to this lesson read the teacher CPD document on visiting a river for fieldwork (see resources.) Prepare children for the visit by investigating the area of River Mersey to be visited using Ordnance Survey (Digimaps) and google maps. Recap how to identify 4 figure grid references (memory flashpoint) 4 figure grid references - YouTube Discuss what is expected of the children during the visit by sharing the river visit recording sheet (see resources) On location, direct the children to carry out the investigations described and record their findings. Back in the classroom, share and compare the children's data and record photographs/work undertook in books, especially the data collection. Challenge children to find patterns in their data and interpret it e.g. Our data shows that the river widens as it flows downstream' or 'The water flowed quicker in the rockier upstream areas.'	Clipboards Waterproof Tape measures Metre sticks River sampling worksheets Stopwatches Ordnance survey map of local river (use Digimaps) Float, such as an orange or plastic ball Pens/pencils	**Fieldwork** River Mersey Sampling Ordnance survey Upstream Downstream Riverbank Riverbed Flow Tributary Erosion sediment data Observe Measure Record Physical/human features	Support adults to support pupils in smaller groups and provide 1:1 fieldwork support when collecting data.
5	I can describe the process of the water cycle	**This is a Geography lesson. Geography is the study of places and relationships between people and their environments.** Explain to the pupils that the skills we are going to learn today are use secondary sources of information to help us think like a geographer and identify the processes of the water cycle. Remind the children of the work completed in science during Spr1 (Changes of state). **Word of the week: precipitation –** pupils to find out and explain the meaning of this in books. Share the following video with the pupils to explain the processes of the water cycle: What is the water cycle? - BBC Bitesize Model a diagram of the water cycle including the four stages of condensation, precipitation, collection and evaporation and add explanations using feedback from pupils during discussion to summarise and describe what happens at each stage.  Complete the water cycling labelling diagram (see resources) as a class to show the order of the four processes and add to working wall as a support aid for children. Pupils to complete a labelled diagram of the water cycle to show the four processes and write an explanation underneath describing each of the four stages.	Word of the week vocabulary sheets Water cycle labelling diagram	**Evaporation** Precipitation Condensation Collection Water cycle Rain Sleet Snow Clouds Sea Journey	Support adults to provide pre-teach discussion about the water cycle using visual aids to help explain each stage and how they inter link.