Scheme of Work 2020 - 2021
Subject: Geography

Year Group: Year 12
Specification: AQA

Lesson No	Topic & Objectives	Big Question – What will students learn?	Key Activities & Specialist Terminology (Do Now Task / Starter/Tasks/Plenary	Planned Assessment	Homework or flipped learning resources DODDLE resources	Lit Num SMSC Codes
1	Water and Carbon Cycle - Natural Systems	What is a natural system and what are their inputs and outputs?	Starter: System definition 1. Label a diagram of a flood plain 2. What are feedbacks 3. Earth Systems introduction and complete the system sort sheet 4. Natural Systems questions and Exam Question "Outline the differences between and open and closed system" (4 marks) Plenary: Discussion	Exam Style Question	Seneca Leaning A summary of global water stores Further information on global water stores / hydrosphere and global water stores	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
2	Water and Carbon Cycle – The Hydrological Cycle	How does the Water Cycle Function?	Starter: Recap on the Water Cycle from GCSE 1. Video on hydrological cycle 2. Water Cycle sheet with questions 3. Exam Question: Name 3 types of storage List 3 processes that occur in the hydrological cycle and suggest what factors would cause them to increase and decrease Identify what percentage of the world's water is drinkable and explain why? Plenary: Outline the impact of long-term global temperature rise on the water cycle.			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9

3	Water and Carbon Cycle – Drainage Basins	What are the characteristics and inputs, stores, transfers and outputs of a drainage basin system?	Starter: Key Terms recap 1. Drainage basin recap 2. Input. Output, stores and flows organiser task 3. Exam Question: Explain how seasonality affects the water balance Plenary: Key Terms quiz	Exam Style Question		So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
4	Water and Carbon Cycle – Storm Hydrographs	What are hydrographs and what is water cycle variability	Starter: List 5 reasons why places flood 1. Storm Hydrograph sheet 2. Exam Question River flooding is a natural process. To what extent do you agree with this? 3. What might affect run off and hydrograph shape? 4. What might lead to variation in the water cycle? 5. What impacts do humans have? Plenary: Create a hydrograph		Complete hydrograph	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
5	Water and Carbon Cycle – Carbon Cycle	How does the carbon cycle affect global climate change?	Starter: Image relationship task 1. How do animals, fossil fuels and decomposers impact the carbon cycle? 2. The stores and flows of the carbon cycle 3. True or false Carbon Cycle facts Plenary: Content discussion			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
6	Water and Carbon Cycle – Carbon Cycle	What influences the carbon cycle?	Starter: Name 4 roles that living organisms play within the Carbon Cycle 1. Review of how natural process impact the carbon cycle	Exam style question	An article that summarizes many of the key aspects of the carbon cycle: Global carbon cycle	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9

			2. What is a carbon budget and what are its inputs and outputs 3. The carbon Cycle affect work sheet highlighting the impact of the carbon 4. cycle on climate, land, atmosphere and oceans. Plenary: Outline how changes in the carbon cycle can affect the ocean		The carbon cycle' A summary of changing carbon emissions and sinks since 1750: Global carbon emissions and sinks since 1750 (2013)	
7	Water and Carbon Cycle – Carbon Budget and Impacts	What is the nature of the impacts of changes in the Carbon Cycle?	Starter: Revision Questions 1. Carbon Budget at a global and local scale, looking at inputs and outputs and slow and fast cycles 2. Key terms of the carbon cycle 3. Impacts of the carbon cycle: The atmosphere Global climate The Land The Ocean 4. In depth look at Ocean salinity and its effect on the Carbon Cycle. Plenary: Content discussion			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
8	Water and Carbon Cycle – Climate Change	Is climate change natural or man-made?	Starter: Global Warming Questions 1. Look at evidence for global warming during the Quaternary Period. 2. Is Global warming due to increase CO2 emissions? 3. Are Global emissions increasing? 4. Graph description and causation review Plenary: Table completion and content discussion		Table completion if not completed during class time	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9

9	Water and Carbon Cycle – Synoptic and Skills Recap	What other factors could show climate change?	Starter: Complete hydrograph and analyse results. 1. How feedback loops affect the Carbon Cycle 2. How the greenhouse effect influences global warming Plenary: Content discussion			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
10	Water and Carbon Cycle – Climate Change and Mitigation	Who are the different players responding to climate change?	Starter: What is mitigation and how does it impact the carbon cycle? 1. Who are the players at a global, national and local scale? 2. What are the international agreements to influence carbon transfers (Kyoto Protocol etc…)? 3. How effective have these been? 4. Are Carbon emissions falling? A look at CO2 emissions globally and in the UK Plenary: What has the UK done to mitigate climate change?		Studying the effects of changes in the carbon cycle	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
11	Water and Carbon Cycle – Case Study – Amazon Rainforest	The Amazon Rainforest Case Study	Starter: Mind map about the Amazon Rainforest 1. Location of rainforest description 2. Carbon sinks and deforestation content 3. How human activity may affect the water and carbon cycle in the Amazon 4. Predictions 5. How to save the Amazon 6. Describe how the water cycle affects the climate of tropical rainforests. 7. Explain how interception is important to the rainforest water cycle?	Exam Style Question		So3, So5, So7 C3,C5, Sp2, Sp5, Sp9

			Plenary: Explain why we cannot rely on the Amazon rainforest to be a carbon sink in the future?			
12	Water and Carbon Cycle – Case Study – Amazon Rainforest	The Amazon Rainforest Case Study	Starter: Finish work task from previous lesson and expand mind map with acquired knowledge 1. Amazon recap 2. How drought affects the Amazon 3. Exam Question: To what extent is human activity affecting the water cycle and the carbon cycle in tropical rainforests? Plenary: What are some way humans have tried to mitigate deforestation in the Amazon?			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
13	Water and Carbon Cycle – Case Study – The Eden Basin	The Eden Basin Case Study	Starter: Key terms worksheet 1. Eden Basin facts and location 2. How Geology might affect channel flow? 3. Gradient and Topography 4. Land use in the Edin Basin Plenary: Give an example of a fieldwork investigation topic you could carry out in a local drainage basin			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
14	Water and Carbon Cycle – Case Study – The Eden Basin	The Eden Basin Case Study	Starter: Content recap 1. Edin Basin flood response 2. Task: Cost-Benefit analysis, using work sheets, on flood protection in the Eden Basin. Plenary: Produce a concept map to summarise your understanding of the Carlisle flooding event		Video clip of Met Office climate scientist exploring the idea of climate feedbacks (9 mins): 'Climate feedback' by Ben Booth (2009) Video looking at the Human Role in climate change (11 mins):	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9

					'Human role in climate change' Richard Alley (2008)	
15	**Assessment**					
16	Coastal Systems and Landscapes – Coastal Systems	What is a coastal system and what are its inputs, outputs and processes?	Starter: Key Words Test 1. Mind map of factors that affect the coastline 2. Flow diagram worksheet 3. Positive and negative feedback 4. Think, pair, share (what is the difference between landform and landscape) Plenary: Collage creation		A summary of the features of the lithosphere A summary of the features of the hydrosphere A summary of the features of the cryosphere A summary of the features of the atmosphere	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
17	Coastal Systems and Landscapes - Waves	How do waves impact coastal processes?	Starter: Wave definition 1. Content on waves 2. Wave diagram 3. Geofiles Coastal Processes worksheet Plenary: Distinguish between constructive waves and destructive waves (4 differences)			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
18	Feedback					

19	Coastal Systems and Landscapes - Waves	How do waves impact coastal processes?	Starter: Wave characteristics definition match-up 1. Global wave patterns 2. Destructive and constructive waves 3. Refraction with worksheet Plenary: Outline the sources of energy in a coastal system		Wave energy further reading/homework	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
20	Coastal Systems and Landscapes – The Coastal Zone	What is the Coastal Zone?	Starter: Constructive or destructive wave? 1. Look at high and low energy coastlines and the many zones of the coast 2. Exam question, using figure, regarding the relationship between wind and wave data Plenary: Where does the most erosion and deposition occur on the coastal zone? What types are present in these areas?	Exam style question		So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
21	Coastal Systems and Landscapes – Tides and Ocean Currents	How do Tides and Ocean currents create different landscapes and systems?	Starter: Key Word match-up 1. What causes tides? 2. Spring and Neap Tides (Video) 3. Ocean Currents Plenary: Exam question from past paper: Explain the contrast in the tidal ranges associated with figures.		Ocean currents and tides homework	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9

22	Coastal Systems and Landscapes – Sediment sources, cells and budgets	What are Sediment cells, sources and budgets?	Starter: Key Word match-up 1. Sediment Cells in Britain 2. Flipped learning regarding sediment sources and budgets 3. South Downs sediment cell case study Plenary: Content discussion		US Geological Survey information on sediment cells and budgets A guide to completing an investigation into longshore drift	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
23	Coastal Systems and Landscapes – Geomorphological Processes	What are the different processes of weathering, erosions and mass movement in coastal environments?	Starter: Key Word match-up 1. Types of weathering 2. Types of erosion 3. Types of transportation and deposition Plenary: Multiple choice quiz			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
24	Coastal Systems and Landscapes – Erosional Landforms	How are erosional landforms created?	Starter: Erosion mind-map 1. Erosion GCSE Revision 2. Discordant and concordant coastlines 3. Examples at Lulworth Cove, Dorset and Flamborough Head on the Holderness Coast Plenary: Holderness coast annotation and labelling of features			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
25	Coastal Systems and Landscapes – Erosion of a Headland	How and why is a headland formed?	Starter: What formed first? Naming of features and their sequence of formation 1. Sequence arranging regarding the erosion of a headland 2. Highlighting of processes and landforms 3. Exam question: Using an example, describe a landform, other than a cliff, that has been created by marine erosion and explain how it was formed.	Exam style question		So3, So5, So7 C3,C5, Sp2, Sp5, Sp9

			Plenary: Picture reveal competition.			
26	Coastal Systems and Landscapes – Depositional Landforms - Beaches	What are the sediment inputs and outputs on beaches?	Starter: Play-Doh headland creation and write a brief sequence of erosion from feature to feature. 1. Sediment Inputs and outputs 2. Beach microfeatures and diagram Plenary: Sea cliff to surf zone feature ordering.		Video clip discussing factors affecting coastal erosion and resultant landforms How erosional landforms are linked with the impacts of climate change British Geological Society's case studies of coastlines affected by erosion with interesting information and images	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
27	Coastal Systems and Landscapes – Depositional Landforms	What are spits, tombolos, barrier islands and bars	Starter: Mind-map on current knowledge of any coastal depositional landforms 1. Formation of a spit, Spurn Head, Holderness Coast 2. Formation of tombolos, Chesil Beach, Dorset Coast 3. Formation of a bar, Slapton Sands, Devon 4. Formation of Barrier Islands, Scolt Head, Norfolk Plenary: Spit, bar or tombolo guessing game		To acquire information on International examples of landforms.	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
28	Coastal Systems and Landscapes – Sand Dunes	What are the conditions required for sand dunes to develop?	Starter: Homework presentation/discussion 1. Exam Practice: Describe the characteristics of spits and explain their formation 2. Key word match-up 3. Where do sand dunes develop mind map (psammosere)	Exam style question	Fact file creation on the Sefton Coast: Basic details, location, size, vegetation, erosion rates and human pressures	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9

			4. Embryo dunes, Foredunes, Yellow dunes, Grey dunes, Dune slacks and mature dunes Plenary: Card organisation to produce a correct order			
29	Coastal Systems and Landscapes – Salt Marshes	What are the characteristics of Salt Marshes	Starter: Salt Marshes mind-map 1. Succession in the halosere (saline environment). 2. Salt marshes video 3. Factors affecting salt marsh 4. Salt Marsh Zonation 5. Threats to salt marshes 6. Case Study: Keyhaven Salt Marshes 7. Geofile Case Study work sheet Plenary: Name 3 advantages and disadvantages of Salt Marshes		Summary of saltmarshes Estuarine environment beyond the UK: saltmarshes in the USA Videos giving aerial views of estuarine mudflat and salt marsh landscapes at Morecambe Bay.	So3, So5, So7 C3,C5, Sp2, Sp5, Sp9
30	Coastal Systems and Landscapes – Sea Level Change	What are the causes of Sea level change, contemporarily and historically?	Starter: Photo discussion 1. Ice Core Data, Submergent coasts, Eustatic and Isostatic changes 2. A Study of Britain and its Isostatic change Plenary: How do you think historic sea level rise has affected communities?			So3, So5, So7 C3,C5, Sp2, Sp5, Sp9