



St Dominic's is a Roman Catholic Sixth Form College committed to the personal and spiritual growth of all its members based on Christian values, academic excellence and high-quality pastoral care

St Dominic's Sixth Form College

Geography Transition work 2025-26





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This pack will help you to consolidate your knowledge of GCSE Geography and prepare for the A Level Geography course. The first two physical geography topics, the water and carbon cycles, and one of the human geographic topics, globalisation, will help you prepare for the more indepth exploitation we will undertake in the curriculum.

1. Preparing to study Water and Carbon topics

Where is most of the world water held?

Study **Figure 1** which shows the major stores of water globally.

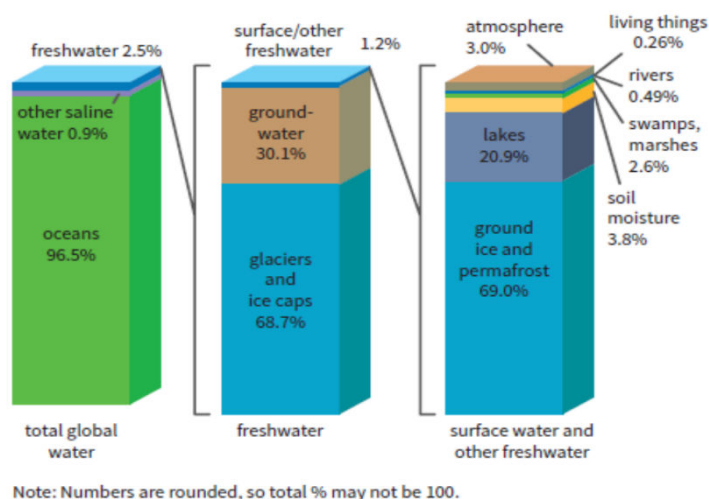


Figure 1

- 1) Using **Figure 1**, describe the distribution of water.



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2) Complete the gap fill below to explain how human activity is impacting the water cycle.

Deforestation	Soil drainage	Water abstraction
		
- Tropical rainforests in _____ America generate more than a _____ of the world's river discharge. - As there is rapid development due to demand for beef and sugar cane, _____% of the rainforest has been converted. - When forests are removed, the new vegetation has smaller leaves which means less water is used, there is less _____ and more surface runoff, leading to _____. - Decrease in soil water _____.	- Removes access water from the soil through pipes below the surface when the water _____ is high. - It is a very expensive system but good for poorly _____ soils as it can _____ yields – In Ohio, for every dollar spent on drainage the grower got back \$1.20-\$1.90. - However, this increase through flow so _____ lag time which can lead to flooding. - Top soil can be _____ and prone to wind _____. - Water from fields can find its way into local watercourses which increases algae growth due to nitrates, this causes an _____ in the ecosystem.	- This happens when the demand for water is too high – low _____ and _____ population or in an area with intense _____. - Water is pumped from the ground which decreases the _____ table, empty wells and _____ of salt water into the sea – In Malta, groundwater can no longer be used for _____ or irrigation due to being contaminated with sea water. The country has resorted to _____ using plants. - Rivers become dry and less _____. _____ activities are unlikely. - London – During the 20th century, the aquifers were exploited due to _____, leading to London dropping 88m below sea level.

Word bank:

Agriculture Imbalance Reliable Consumption
 Tourism Rainfall Increase Water
 Table High Erosion Storage
 Deindustrialisation Decrease evapotranspiration 10
 Flooding desalination dry Quarter
 South Drained intrusion



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Study **Figure 2** below, showing information about two drainage basins.

The Ochils in central Scotland	The South Downs in southern England
This photograph was taken in the Ochils in central Scotland in February. Much of the area is underlain by granite. The altitude is 600m. Temperatures have been around freezing for two months and there has been much lying snow on the surrounding summits. Soils are thin. There are some areas of heather moorland but the dominant vegetation is boggy grassland. 	This photograph was taken in July overlooking the Cuckmere River as it cuts through the South Downs. Surrounding land rises to about 150m. Most of the area is underlain by chalk. Within the area of the photograph the River Cuckmere has no tributaries. Deciduous woodland is much in evidence. However, the dominant land use is mixed farming. There is some arable land and grass is cut for hay. Recent weather had been warm and relatively dry. 

Figure 2

Complete the table below for each location:

	The Ochils in central Scotland	The South Downs in southern England
Describe how the discharge of the river shown would respond to a prolonged period (24 hours) of heavy rain.		
Describe what the storm hydrograph might look like for each. Rising limb? Peak discharge?		
Explain the main factors which have led to a flood in each area, e.g. rock type, drainage density, gradient, climate and land use.		



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The Carbon Cycle

Study **Figure 3** showing some of the components of the carbon cycle.

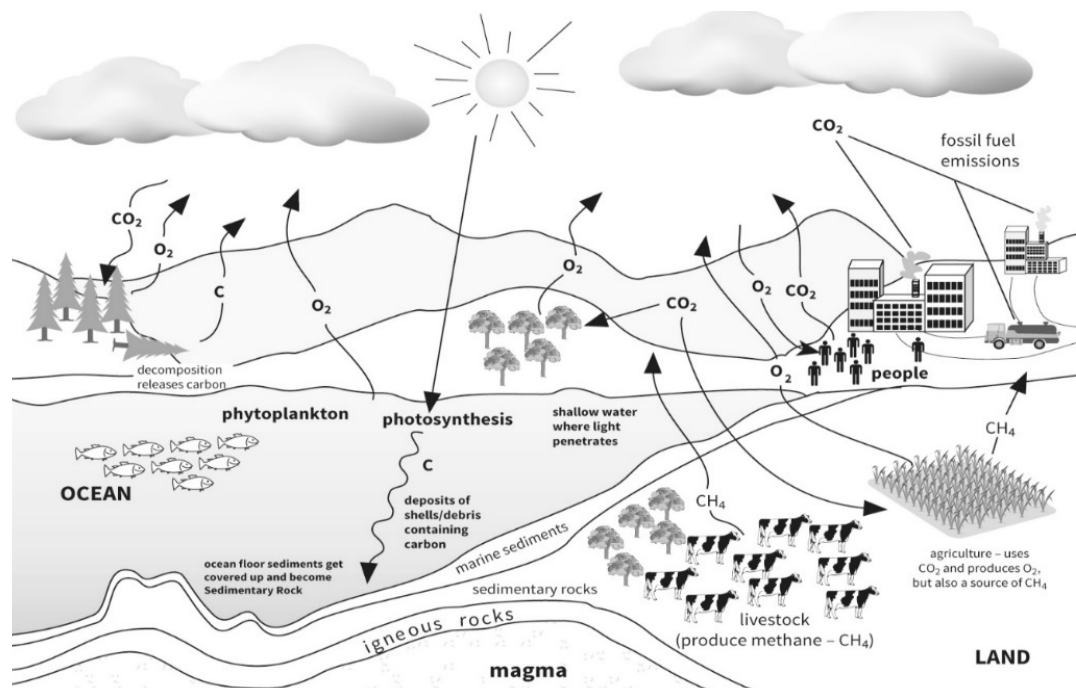


Figure 3

- 1) Which sources contributing to the enhanced greenhouse gas emissions are 'natural' and 'human'?

- 2) Why will it be difficult to limit global temperature increase to less than 2°C ?



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Study **Figure 4**, showing the movement of carbon between different stores.

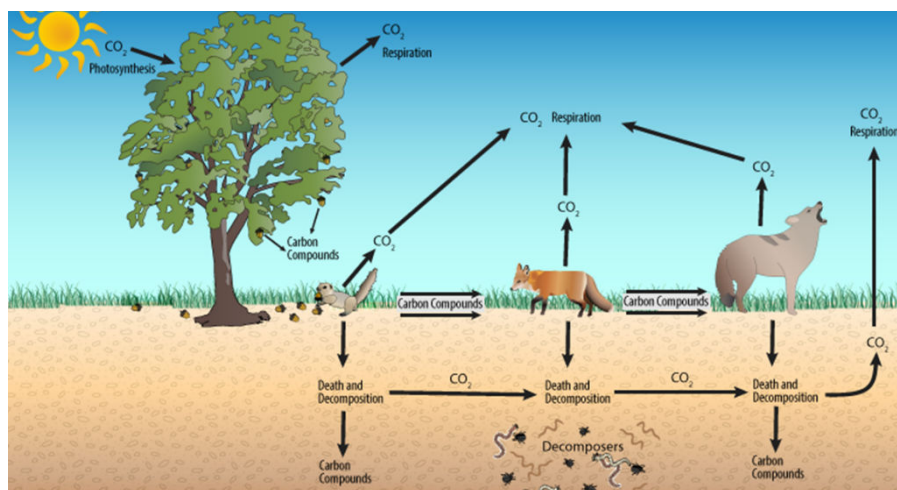


Figure 4

- 3) Using **Figure 4**, identify one store of carbon. _____
- 4) Using **Figure 4**, identify one input of carbon. _____
- 5) Using **Figure 4**, explain how carbon is transferred around the cycle.



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Study **Figure 5**, showing the ocean carbon pump.

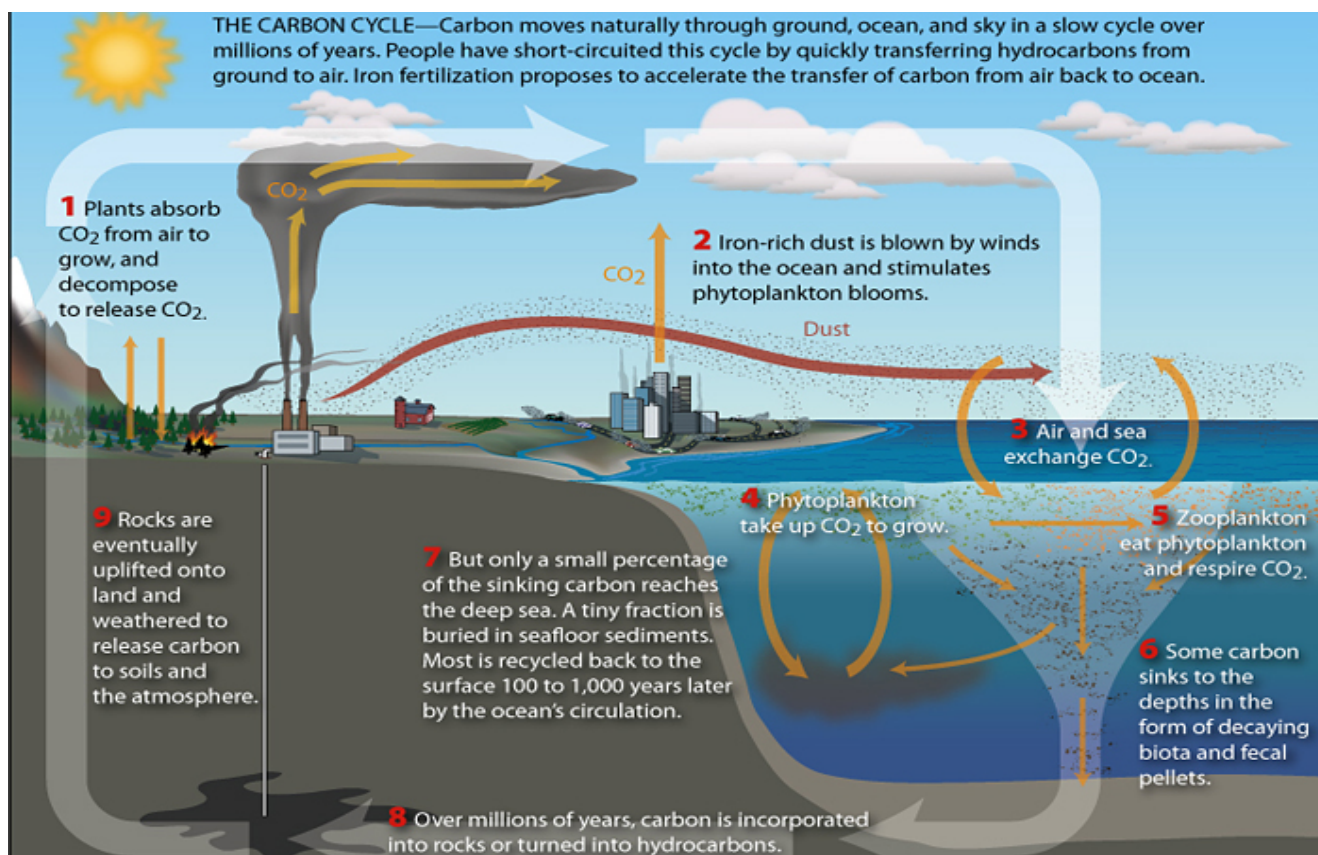


Figure 5

6) Using **Figure 5**, what animal takes in CO_2 from the atmosphere? _____

7) Using **Figure 5**, explain how carbon is transferred between the atmosphere and hydrosphere.



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8) Using **Figure 5**, explain how carbon is transferred between the hydrosphere and lithosphere (rocks).

9) Using **Figure 5**, explain how carbon is transferred between the lithosphere and atmosphere.

The Amazon Rainforest.

Figure 6, a map showing the location and changes in the Amazon Rainforest.

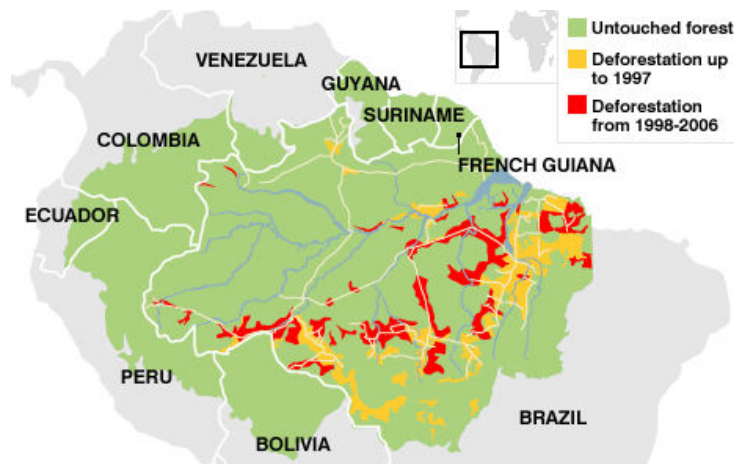


Figure 6



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1) Using **Figure 6**, describe the location of the Amazon and analyse the changes shown.



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3– Globalisation

Enquiry questions

- 1. What are the causes of globalisation and why has it accelerated in recent decades?**
- 2. What are the impacts of globalisation for different countries, different groups of people and cultures and the physical environment?**
- 3. What are the consequences of globalisation for global development and the physical environment and how should different players respond to its challenges?**

Globalisation is the process by which people, culture, finance, goods and information transfer between countries with few barriers.

Your task is to research the numerous players, attitudes and actions that have been responsible for promoting globalisation and to assess the winners and losers in increased globalisation.



THE WORLD BANK

1. Who are these Organisations (above) and what role do they play in globalisation?



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2. How do trade blocs affect globalisation? What are trade blocs and what trade blocs do these logos represent?



19. What role do TNCs play in the globalisation process? What is a TNC, what TNCs are shown here and how many can you list? Can you find the world's top 10 TNCs?



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3. Using the diagrams to help, what are the main arguments against globalisation?



4. Finally, to what extent was the spread of this caused by globalisation and to what extent is the cure reliant on globalisation?
