

| Can you? | I know what this is already! | I have some idea | No clue |
|--|-------------------------------------|-------------------------|----------------|
| Describe what we mean by the 'models' approach and the 'system framework' for geographical understanding | | | |
| Identify, describe and explain Stores, flows, elements, attributes and relationships | | | |
| Describe and explain common characteristics of systems | | | |
| Define isolated, closed and open systems | | | |
| Explain the difference between positive feedback and negative feedback | | | |
| Identify the four major subsystems of earth: Atmosphere, Lithosphere, Hydrosphere and Biosphere | | | |
| Recognise how all the subsystems are interlinked | | | |
| Describe the three forms water exists in | | | |
| Explain how evaporation and condensation cause cloud formation and precipitation | | | |
| Describe the distribution of water on a global scale | | | |
| Describe and explain the characteristics of oceanic water, cryospheric water, terrestrial water and atmospheric water | | | |
| Describe and explain the inputs, stores, transfers and outputs of a drainage system | | | |
| Describe and explain the global water cycle | | | |
| Describe and explain the water balance | | | |
| Describe and explain the characteristics of a hydrograph | | | |
| Explain the human and physical factors affecting a hydrograph | | | |
| Explain how deforestation, soil drainage and water abstraction affect the water cycle (at global and drainage basin scale) | | | |
| Explain the importance of carbon | | | |
| Explain the origins of carbon | | | |
| Describe and explain the global stores of carbon | | | |
| Describe and explain the transfer of carbon between the stores at plant, sere and continental scale | | | |
| Describe and explain the processes behind the transfers between the stores | | | |

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| Analyse the factors leading to change in the carbon cycle: wild fires, volcanic activity, hydrocarbon fuel extraction and land use change | | | |
| Describe and explain the impacts on the land, the oceans and the atmosphere | | | |
| Define the enhanced greenhouse effect | | | |
| Explain the positive feedback between carbon dioxide, warming of the atmosphere and a resulting 'wetter' atmosphere | | | |
| Explain the significance of water vapour and carbon as greenhouse gases | | | |
| Explain why there is a lag between increased emissions and resulting temperature increase | | | |
| Define mitigation | | | |
| Identify and explain a range of human interventions to reduce or prevent emissions. | | | |
| Describe and explain carbon capture and sequestration, changing rural land use, improve transport practices. | | | |