**Carbon Review Notes – Handouts 5 & 6**

**The importance if the carbon and water cycles and how they are linked. Mitigation .**

**El Nino is also an important connection between the water and carbon cycle.**

**What is El Nino and how does it affect the weather?**

**How has the carbon cycle influenced the water cycle in the Pacific Ocean?**

**What are the roles of water and carbon?**

**How are water and carbon linked?**

**Which is the most important connection? Explain this connection.**

**What is positive feedback?**

**What is negative feedback?**

**Use the systems diagram p3 of handout 5 to identify positive feedback examples of the impact of water and carbon on climate change.**

**Draw flow diagrams to illustrate these.**

**What examples of negative feedback have we examined in the water and carbon topic?**

**Draw flow diagrams to illustrate these.**

**Why is there a time delay between temperature change and changes in the level of carbon dioxide?**

**A summary from Tutor2U resources:-**

**How are human actions affecting the water and carbon cycles?**

* **Reducing natural vegetation**
* **Burning fossil fuels**
* **Urbanisation**

**What are the advantages and disadvantages for life on earth for the following:-**

* **Increased precipitation**
* **Reduced precipitation**
* **Higher global temperatures**
* **More intense, frequent and extensive tropical storm events**

**What is mitigation?**

**How can humans mitigate against climate change?**

1. **Carbon captures and sequestration**
2. **Changing rural land use - plantations, carbon farming**
3. **Modifying deforestation**
4. **Carbon offsetting**
5. **Improved transport practices including aviation practices and electric cars**
6. **Global governance – the IPCC (Intergovernmental Panel on Climate Change)**

**For the above you need to assess how effective they may be in reducing carbon dioxide levels globally and how practical they are to implement. You also need to consider again the main causes of change to the carbon cycle from handout 3 and make links as to where mitigation is most needed.**