**Water Cycle Review notes 1-3**

**Systems and the Water Cycle**

**List the different elements of a system. Define Isolated, closed, and open systems.**

**Explain the concept of dynamic equilibrium. Draw two simple diagrams to show positive feedback and negative feedback.**

**Draw or find a diagram of the water cycle. Describe the processes within and identify flows and stores.**

**Define the four major subsystems of the earth: Atmosphere, lithosphere, hydrosphere, biosphere.**

**What three forms does global water exist in? Describe the distribution of water on earth in terms of: oceanic, terrestrial and fresh water.**

**Explain why there is a limited amount of water economically and physically accessible for human use. Why is groundwater so important around the world?**

**Global water stores**

**What are residence times? How do they vary for different water stores?**

**Explain the impact of past climate change on global water stores.**

**How do atmospheric processes (evaporation, condensation, cloud formation, precipitation) impact on water stores?**

**How has recent warming affected cryospheric stores? What will happen if warming continues?**

**Case Study: Greenland Ice Sheet.**

* **Produce an info sheet to explain what has happened to the amount of water on the ice sheet, how the lakes on the surface of the ice sheet contribute to further melting and what affect the meltwater is having on Greenland’s glaciers.**
* **Include a positive feedback loop.**

**The drainage basin system**

**Identify the inputs and outputs of the drainage basin system.**

**Draw a simple diagram of the hillslope water cycle. Annotate with info on effects of storms, farming, seasonal changes, deforestation and urbanisation.**

**Describe two different pathways for water through the drainage basin system.**

**What is the water balance? What is meant by evapotranspiration?**

**What is the soil water (moisture) budget? On a copy of a soil water graph label soil water utilisation, deficit, recharge and surplus.**

**Explain the role of and variations in interception, infiltration, percolation, throughflow and groundwater flow.**