Process THE CARBON CYCLE Reservoir Erupting volcano Photosynthesis Respiration Respiration Photosynthesis Respiration **Plants** Decomposition Ocean surface Food web Phytoplankton Soil organic Food web Weathering & erosion Sinking Coal, oil, gas Shellfish & corals Deep ocean currents Sedimentary Rock cycle CREDITS Deep ocean sediments

The Carbon cycle –reflection¹.

Consider the arrow photosynthesis.

The main primary result of the photosynthesis – the chemical details are complicated – is the CO_2 is converted to glucose ($C_6H_{12}O_6$).

Find the structure of glucose (e.g. slide 28 from class 1) and describe the electron structure at each of the carbon and oxygen atoms. Note that are only a few different types of carbons and oxygens in the molecules.

What are the bonding angle at the atoms?

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¹ Science Education Resource Center. Retrieved 31-7-2023 from https://serc.carleton.edu/download/images/56944/global_carbon_cycle_1427132279.jpg under CC BY-NC-SA licence