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Comparing Super Kamiokande Attenuation Length to Proposed Hyper Kamiokande Detector[1] KARL AHRENDSEN, Buena Vista University — The highly successful Super Kamiokande Water Cherenkov detector has a proposed big brother, Hyper Kamiokande. In order to ensure that building Hyper Kamiokande will be of benefit to the physics community, simulations must be run on the detector. These simulation will help to determine what physical events it will be sensitive to and how large the detector will be built. The attenuation of light in these detectors is of particular interest to determine how many dividing walls are necessary for the Hyper K detector. Through simulations in WCSim, a program developed from the GEANT4 framework, the attenuation of light is shown to be comparable to Super K, if not a little longer. This serves as evidence that Hyper K as it is currently designed will be an effective tool for studying neutrino physics.

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