the rate of photosynthesis

Using the graph, estimate the time at which 50 percent of the leaf disks were floating on the surface. The point at which 50 percent of the leaf disks are floating will be you point of reference for future investigations Using the graph the estimated time that roughly 50% of the leaf disks were floating on the surface was around the 10th minute. At the 10th minute our number rose up to 26/50 leaf disks. What variable were you testing in this investigation? We were testing the leaf disks as the control.

The white light, and the water were the controlled variables. Explain why the leaf disks started to float after being exposed to white light. The leaf disks started floating after being exposed to white light because the process of photosynthesis is light- dependent. Light is required for the process of photosynthesis to begin and so the disks would not start floating unless they were placed under the sun, or in this instance the white light. 6. In this investigation, you measured the rate of oxygen production. How might you measure the rate of loss of carbon dioxide?

The rate of oxygen production was measured by the amount of dicks that stated to float at a certain time. After the disks have all floated to the top, the rate of carbon dioxide loss could be measured by how long it takes for the leaf disks to float back down to the bottom. Brainstorm possible environmental factors that could affect the rate of photosynthesis. Do research on one of these factors and write a short paper on your findings. Factors that could affect the rate of photosynthesis could be the duration of wavelength, high light intensity, or even air pollutants.

The topic we researched was ‘ High Light Intensity”. High light intensity happens beyond saturation point. Light intensity reduces the rate of

photosynthesis. This affect is called solarization. It can be caused byphoto-inhibition and photo-oxidation. Photo-inhibition and photo-oxidation occurs when shade leaves are abruptly exposed to bright light or when sun leaves are exposed to bright light with environmental stresses such as water deficit or extreme temperatures. Both occur when the energy absorbed by the photosynthetic reaction centers exceeds the ability to use that energy in metabolic activity.