

Cyanobacteria: Not Just Green in Color!

Florence, Bryce

Greenhouse gasses, carbon dioxide emissions, and an increasing population; all part of this planet we all call home. As the carbon dioxide amounts in the atmosphere increase, and the oxygen levels decrease, what is there we can do? Should we keep trying to reduce carbon dioxide emissions globally, or look into increasing oxygen levels? My purpose for doing this experiment was to see if cyanobacteria could be the answer to our atmospheric oxygen level needs. If cyanobacteria had a use at an industrial level, where it would be used in large amounts, could it have a potential to produce oxygen consistently and in a high enough quantity? My hypothesis is: If I put a test tube of cyanobacteria in direct light for a week, then it will produce oxygen at a consistent rate. In my procedure I first purchased a sample of cyanobacteria. I then made nine new subcultures. The subcultures were nine milliliters (ml) of cyanobacteria solution. After that I then chose the healthiest culture, and put it under a white light. I used displacement to record the cubic centimeters of oxygen produced. The results showed me that, used on a large scale; cyanobacteria can indeed produce consistent and dependable amounts of oxygen.

Awards Won: