**Climate Change LAB – WORKSHEET**

1. According to the simulation, how are surface temperatures on Earth affected by cloud cover?

Clouds lower the earths temperature by increasing the amount of sunlight that is reflected back away from earth.

1. Based on the simulation, what happens to the temperature as the greenhouse gas concentration increases?

IR light is contained in the atmosphere and heats the earth.

1. Based on this lab, what would the effect on surface temperature be if greenhouse gases continue to increase beyond 2020 levels?

IR light would continue to stay in, and the earths temperature will continue to increase.

1. Using the claim, evidence, and reasoning format from data collected during the lab simulation, describe the potential impact of increased greenhouse gas emissions on global climate patterns.

Greenhouse gases trap IR light that heats the earth, as shown in the Simulation. Concentrations above 2020 will continue to heat the earth. Clouds do help cool the earth but the greenhouse gases counteract it. Continued emissions will continue to rise the earths temperature.

1. Given the model analysis of the effects of greenhouse gas concentrations on Earth's climate, propose a solution or set of solutions to reduce the impact of these gases on global warming. Consider both technological advancements and changes in human behavior in your response. How would your proposed solutions be implemented, and what challenges and benefits would you anticipate?

I feel that if there was any approach to this, it would be a drastic change. Eliminating emissions is a difficult thing to do, but if it was done wide spread, it would have a lasting affect on the earth. Making switches over from fossil fuels to renewable energy would be best. Phasing out cars for electric or even hybrid would reduce commissions. As well as holding larger corporations accountable. The issues that will be encounter is just the reluctance of people to make change, as well as what profits they would be losing.