

Class: _____ Date: _____



Global Warming Lab

Goal: Use two plastic containers to simulate the effects of humans on global climate change.

Materials:

- two clear containers
- two clear lids with holes
- two sets of “event cards”
- one electric light
- tape
- paper inserts (*blue, green, silver*)
- two thermometers
- one stopwatch

Procedure:

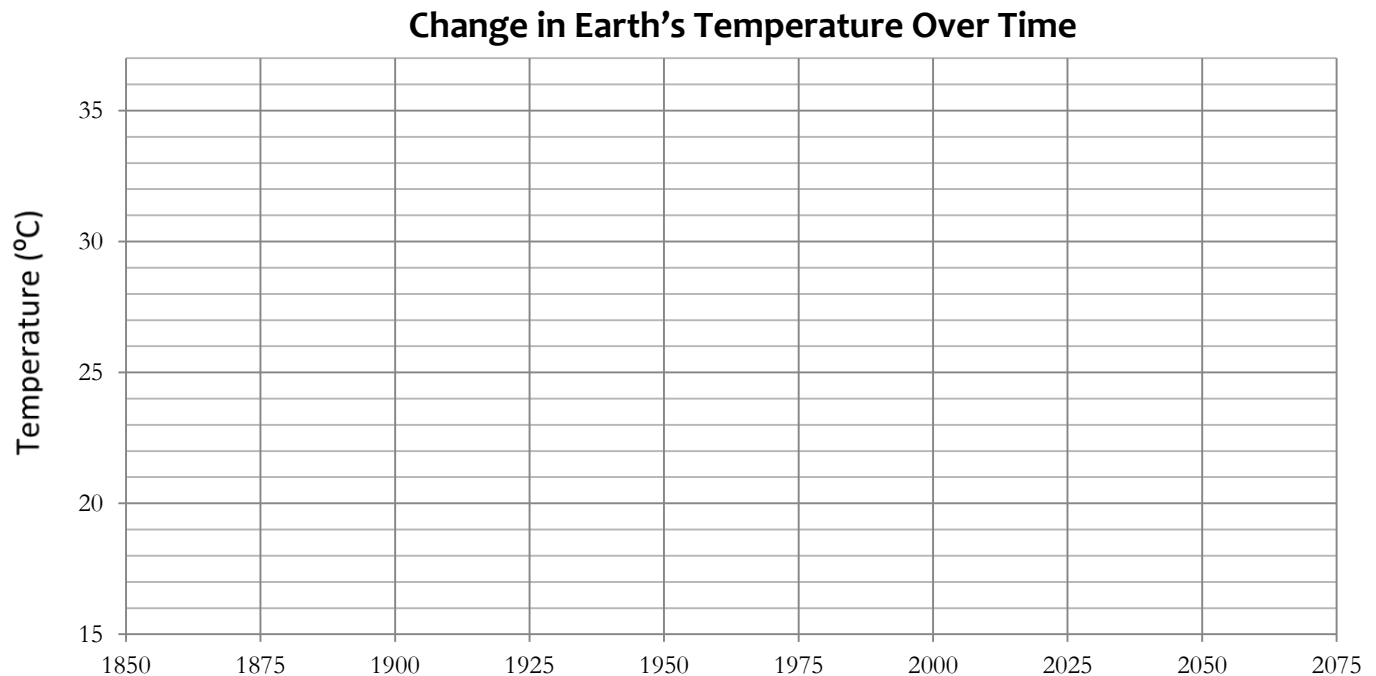
1. Assign two of your four group members to monitor each Earth.
2. Make sure the paper inserts are inside the clear containers (blue on bottom).
3. Make sure you are able to read the thermometer inside each container.
4. Make sure the clear lid has been taken off your containers.
5. Make sure the electric light hangs about 6 inches above the containers. Turn on light.
6. Make sure both containers receive equal light. Leave the light on for the rest of the lab.
7. Both sides should flip over their first event card starting with the year 1850. Please note that until the year 2000, both sets of cards are the same. Later, they become different.
8. Read your card and follow the instructions. Record your data below.
9. During the lab, make sure all four group members collect data from both Earths.

Data:

[illegible]

Graphing:

(Use two different colors to graph the temperature in both containers.)



Post-Lab Conclusions:

1. What happened to the temperature of Earth when greenhouse gas emissions (ex. CO₂) increased?
2. The amount of light never changed. So why did the containers heat up?
3. What did (a) the light, (b) the plastic containers, (c) the tape, and (d) the silver inserts each symbolize?
4. When pollution was increased did the temperature of Earth increase immediately?
5. What happened to Earth #2 when laws were passed to limit greenhouse gas emissions?
6. How is Global Warming an example of the Tragedy of the Commons?