MOST* Greenhouse in a Beaker

Materials

- Light source (sunlight, sun lamp, etc.)
- 2 small thermometers
- 2 jars with lids
- Water
- Alka-Seltzer tablets

Instructions

1 Make a hypothesis. If we add heat to two jars, but only add carbon diozide to one, which jar will have a higher temperature reading (be hotter)?

2 Set up the light source 15 cm in front of the two jars. The jars should receive equal light.

3 Add 125 ml (about ½ cup) of water to each jar.

4 Place thermometers in each of the jars. Wait for the air temperature in each to remain constant. The temperatures in the jars should be similar, but they do not have to be exactly the same.

5 Record the stable temperature of each jar in the data table.

6 Turn on the light source.

7 Break two Alka-Seltzer tablets in half and drop a few pieces into ONE of the jars. Place the lids to cover the top of both jars but don't screw them on. (The second jar is your "control," so we won't add the CO2 from the Alka-Seltzer to it.)

8 Record the temperature of each jar every 30 seconds for three minutes using our tracking sheet below.

MOST*

Greenhouse in a Beaker

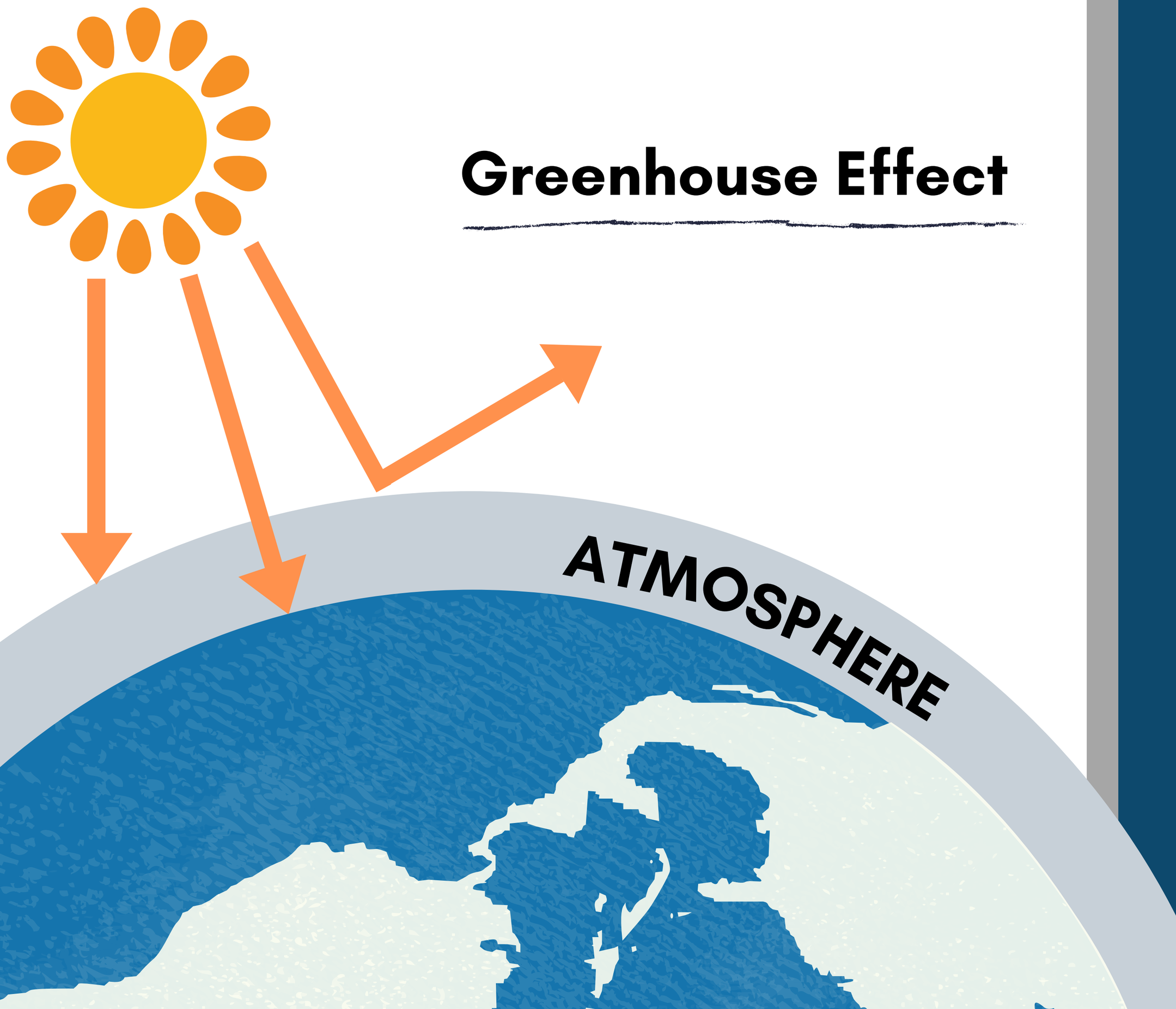
Review & Discussion Questions

1. Did you accept or reject your hypothesis?

2. What did the Alka-Seltzer add to the experiment?

3. Use your data chart to explain what happened. Why do you think this happened?

4. How does this demonstration relate to climate change? What effect does adding CO2 to the air have on the air's temperature during the day?



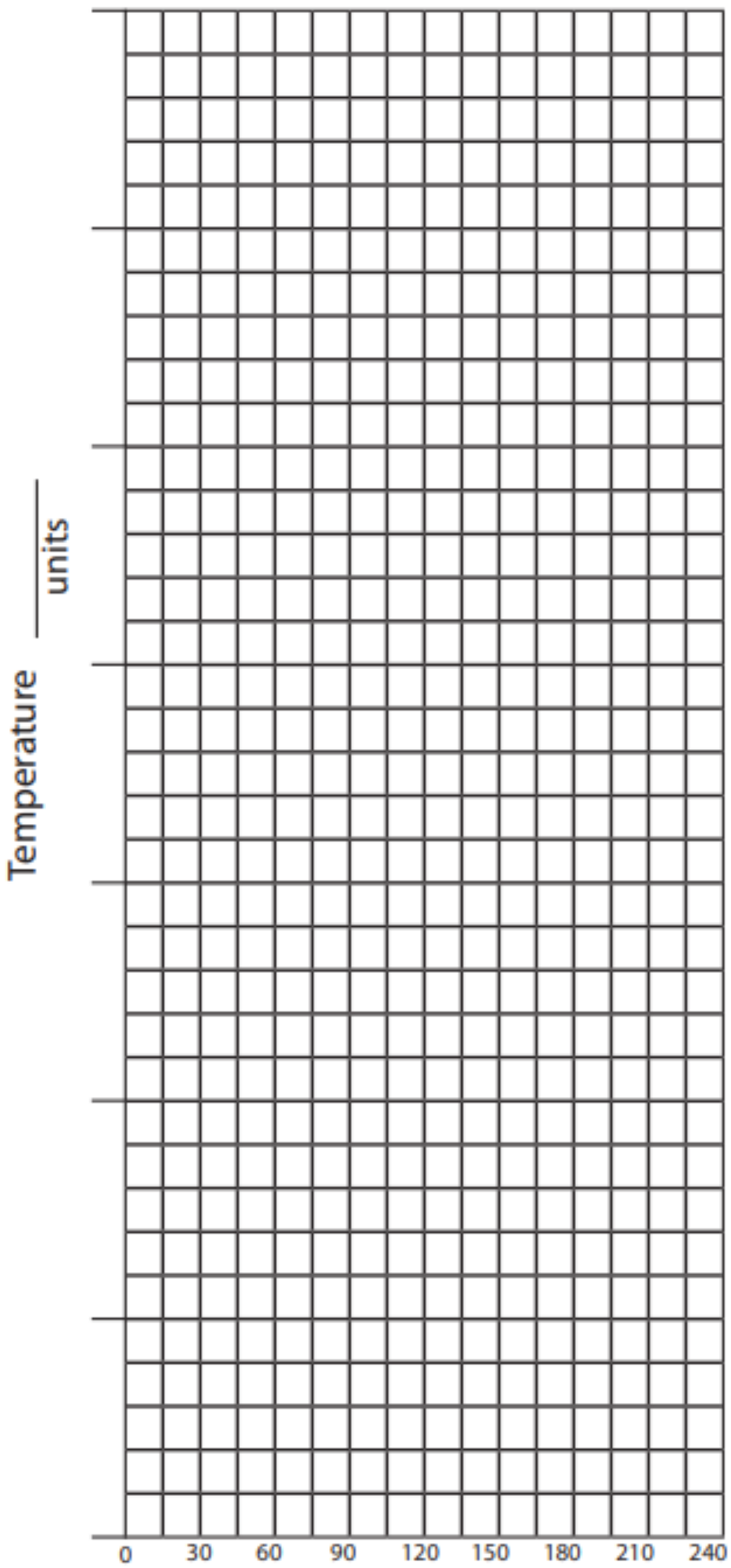
Greenhouse in a Beaker

Title:

Green House in a Beaker
Graph and Data Sheet

Name: _____

Date: _____



	Beaker 1 without CO_2	Beaker 2 with CO_2
Beginning Temp. No Light		
30 seconds		
1 minute		
1 min 30 sec		
2 minutes		
2 min 30 sec		
3 minutes		

Design your Key: