01.b Greenhouse effect Ecology Science Experiment

In this fun and easy ecology science experiment, we're going to explore and investigate the greenhouse effect.

Materials:

- three equal jars
- water
- ice cubes
- plastic freezer bag
- 3 thermometers
- baking soda and alcohol vinegar

Instructions:

1. Prepare **3** equal jars filled with.
2. Pour about a 200 mL of cold water into three equal jars.
3. Add five ice cubes to each jar.
4. Mark the water level with a marker
5. In the second bottle put baking soda and alcohol vinegar
6. Wrap the **two** jars in a plastic bag that represents a greenhouse
7. Leave the jars in the sun for at least an hour.
8. Place a thermometer in each jar and measure the temperature
9. Monitor and record changes in which jars the ice will melt faster and what happens in the jar that represents the greenhouse.
10. At the end of the experiment, measure and record the temperature of the water in jars at the same time. Compare obtained temperatures.

Use the questions to monitor and describe observed changes in the glass. Sketch the experiment timeline.

1. What does a plastic bag represent?
2. What do ice cubes represent?
3. What happens to the ice in the jars?
4. Is there a difference in the speed of the changes in the jars?
5. Is there a difference in the measured temperature in the jars? Explain.

Predictions:

Make one or more hypotheses about what could happen in this experiment.

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Results:

Table with the measurement results:

Time/min	0	1	3	5	10	15	30	...	45	ice cube condition	water level
1 **t /°C** (a jar with water+bag) + ice open											
2 **t /°C** (jar with water+ ice+bag) close											
3 **t /°C** ((jar with water+ ice+bag+CO_2 close											

Draw a graph and sketch the experiment

Conclusions: Are the hypotheses confirmed/explain?

Draw a sketch that shows the greenhouse effect all causes and effects: