

Instrument Validation

Per. 2

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Our project for Balloon Fest involves a device of what which will allow us and our peers to discover what occurs to heated water once it is placed into a differentiating outside temperature. We hypothesize that because pressure increases in altitude, and temperature decreases as a result of an increase in the atmosphere, that the once boiling water will swiftly cool and begin to condense. When the gondola begins to return to the Earth, the water inside of the jar will form cascaded from the glass walls and back into its original state before lift off.

Purpose;

The purpose of our experiment of what which our group complete in class was to discover what would occur if Sparta followed through with the project that we anticipated to complete. The experiment was designed so that our group would receive at least an ample amount of knowledge as to what we hope to occur on launch day.

Method;

First, we made use of a out-door stove and placed water into a kettle. The kettle was then placed onto the stove until it began to boil. During the warming of the water, our group prepared a small box with ice encasing the inside of the box. We made use of two thermometers and a syringe with a one-way valve and a glass jar.

One of our teammates then poured the remaining amount of steaming water into the glass jar, (approx. 200ml.) We quickly placed a thermometer inside the jar and waited about five minutes so we could correctly identify the temperature of the water.

After that information was discovered, we placed the airtight jar inside the box of ice. We previously discovered the temperature of the icebox.

In five-minute increments, we checked the temperature of the ice and the temperature of the water on the inside of the jar. We also jotted down brief descriptions of what was occurring inside the jar.

Data;

Our data for experiment proved to be very informative for our anticipations of the completion of our project.

Ice-The ice was a tangible substance we used to replace the temperature of the atmosphere.

Time Temp. of Ice Temp. of water Description

0 min 0 C 42 C steam

5 min 0 C 35 C condensation

10 min 0 C 24C © upon all jar

15 min 0 C 15C -----

20 min 0 C 10C -----

25 min -1C 8C -----

30 min -1C 5C -----

35 min -1C 2C -----

40 min -1C -1C -----

©= condensation

Malfunctions;

As a whole, our group didn't discover that many things wrong with our experiment. The temperature of the ice wasn't accurate for it continued to change However that is why we decided to make use of ice because the temperature of ice isn't set in stone and likewise with the temperature of the atmosphere.

Accuracy;

We presume that this experiment proved to be extremely informative and precise. Because we used like variables and took into account certain things that would occur in the actual launch. After repeating our experiment again we were able to find out that our experiment has great potential and if conditions are as expected our experiment will be a success

Conclusion;

In conclusion we have learned that our experiment when modified to be sent in a helium balloon that it should be able to take the measurements we would like