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Period 6

Balloon Fest Blue Dinosaur Procedure

Purpose:

The purpose of our experiment is to measure the differences in temperature readings as our hot air balloon ascends and experiences differences in latitude.

Materials:

- ✓ A hot air balloon
- ✓ Helium
- ✓ String
- ✓ A gondola
 - ❖ Materials present in the gondola:
 - ❖ Barometer
 - ❖ Labpro
 - ❖ Camera
 - ❖ Thermometer

Procedure/Setup:

- ✓ The hot air balloon:
 - ❖ Get the hot air balloon and fill it up with helium.
 - ❖ Make sure to have previously calculated the lift and the amount of helium necessary for a successful flight.
 - ❖ Attach on the string to the balloon.
 - ❖ Make sure that the string is properly placed around the winder with every hundred feet marked with Sharpie marks and flags.
 - ❖ Attach the gondola.
 - ❖ Check for leaks in the hot air balloon, rips in the string, the connection of the gondola, and fixation of all the equipment in the gondola.
- ✓ The gondola:
 - ❖ Place the labpro all connected neatly in the bottom compartment of the wooden gondola.
 - ❖ Check that the labpro has batteries. (Note: Keep a fresh pack of batteries in case.)
 - ❖ Make sure that the labpro is properly programmed to the DataMate Program and functioning.
 - ❖ Next, place the barometer, already connected with labpro, in one corner, safely attached with a piece of Velcro.

- ❖ Next, place the thermometer in the opposite corner of the barometer, safely attached with a piece of tape.
- ❖ Put the camera in the top smaller compartment, making sure that it is turned on, its lense protruding through the wooden plate, and all set on the video option.
- ❖ After making sure everything is all set and working, connect the gondola with the hot air balloon with the aid of the string.
- ❖ Again, check that the string is taut, without any rips, properly measured in every hundred feet with flags.
- ❖ For the measures, record in Fahrenheit with every fifty feet.

Return of the balloon:

- ✓ Upon the return of the balloon, take the gondola and stop the recording equipment.
- ✓ With the help of wires, connect the labpro to the computer/lap-top.
- ✓ Using LoggerPro software, get the data and make graphs.
- ✓ Lastly, prepare the power-points.