MISSION 2 the sky

Flight Path - Speed

Once we let go of the balloon, the helium will lift it and the wind will push it through the sky. It is important to know the speed and direction of the wind so we can predict where to find our package when it lands.

Description

- We need to measure the wind direction and wind speed.

Task

- We will design a wind vane and perform an experiment that will let us determine which way the balloon will travel and how fast it will go.

Materials

1 balloon filled with helium
1 reel of kite string
1 weight (Fishing sinker/weight)
Rubber band or tape
Scissors

Process

1) Attach reel of kite string to balloon
2) Add weight (pencil) to string near balloon with tape until balloon rises slowly
3) Release balloon allow string to unroll
4) Count off 60 seconds
5) Stop the string from unrolling
6) Measure the distance from the balloon to the reel
7) Make calculation to determine distance

-You may do this several times and use the average

-- If windy, you may shorten time to 10 seconds and then multiply that by 6 to obtain "number of feet" for the calculation to the right.

Number of Feet from the Reel x 60 = X (Feet per Hour)

Feet per Hour / 5280 = Miles per Hour

Miles per Hour X 3 = Distance the Balloon with Travel in 3hrs

Conclusions/Results

What is the wind speed?
How far will the balloon travel in 3 hours?