Physics IA

Materials: plastic bags, scissors, string and a rock.

Process:

(1) Cut the plastic bags into triangles with different surface area.

(2) Use a pen to pole four holes on each corner of the triangles, and tie the string on the hole.(The string should remain the same length)

(3) Tie a rock on the other end of the four strings.

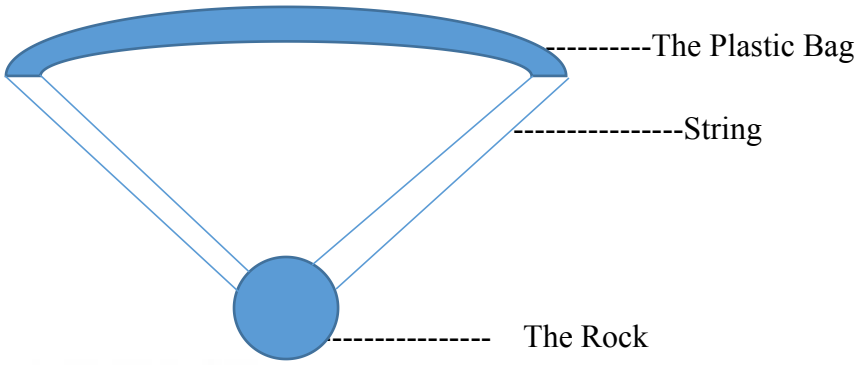
(4) Pick the rock to a certain height above the ground, and start the timer as the parachute is dropped. Stop the timmer as the parachute lands.

(5) Repeat step (2) to (4) for different size of triangles.

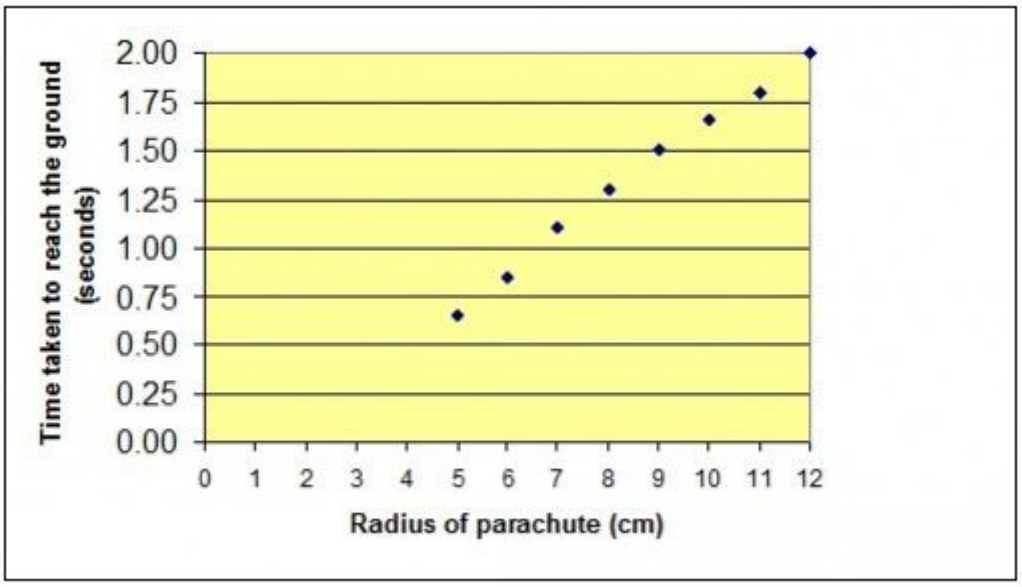
Objective:

To test the relationship between the surface area of the parachute and the speed of dropping.

Predict: The parachute with larger surface area will have a lower speed due to the higher air resistance.



Radius of parachute	Time taken to reach the ground (second				Average
cm	1	2	3	4	(seconds)
12	1.65	1.67	1.73	1.73	1.7
11	1.64	1.64	1.63	1.64	1.64
10	1.58	1.54	1.62	1.58	1.58
9	1.54	1.54	1.53	1.54	1.54
8	1.52	1.48	1.5	1.52	1.51
7	1.45	1.44	1.45	1.46	1.45
6	1.44	1.42	1.4	1.41	1.42
5	1.36	1.36	1.35	1.36	1.34



(These pictures of data are from the Internet, but once as I do my lab, I'll replace them with my own data and picture of my lab.)