Movement through the air

Scientific Method
And
Speed and Motion

Name: _____

List three words that describe the way the parachute fell

Does the way we release the parachute effect how the long the parachutes falls

Controlling Variables:
What are variables?

How can we control them?

We can control variables to try and learn what we can get the parachute stay up in the air longer or aim it better. What are some ways we can change the variable of the canopy so that it would make the parachute stay up in the air longer or aim better?

We are choosing to change the variable _____

and keep _____ and_____
constant or the same.

Your mission:

To help us you learn more about how things move in the air/wind, we have designed a lesson in which "your group is an R&D team at the local parachute factory. Your task will be to work with your team to design and test a parachute that will stay in the air for as long as possible while falling straight enough to fall in a designated landing zone.
The CEO of you company will show up on the second day of your work on the project and lead the testing of you parachutes. The performance test will take place off the stage drop from the top on a meter stick. The team that has the parachute that stay in the air the longest after being dropped from a height specified by CEO will win

What are we going to build?

How long do we have to build it?

What two things does the parachute have to be able to do?

What is a Parachute?

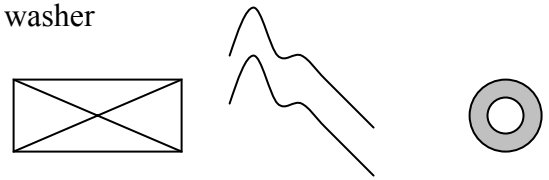
What are some different parts of a parachute?

Proto Type instructions:

What is a Proto type?

Why do we need Proto types?

1. Use the specifications below to build your original prototype parachute.
While you're building the prototype, think about and discuss in your group what you could change about the components of the parachute to make it "better."
a. Specifications/procedure for building the prototype
parachute white plastic sheet two 100 cm pieces of string one washer



b. Cut a 50 cm × 25 cm rectangle from your white plastic trash bag.
c. Cut two 100 cm lengths of string.
25 cm
50 cm 100 cm
d. Tie one side of each string to neighboring corners of the rectangle.
e. Place both strings through the washer.
• Tie the free ends of each string to the diagonal corner of the rectangle, so that the strings cross to form an □X□.
• Try it out by dropping it from the ceiling and observing it as it falls to the floor. Record your observations and any initial measurements.