The Parachute Project

Your mission, whether you choose to accept it or not, is to find the best material to create a parachute. You have been provided with three different materials, lines, tape, and equally weighted loads. You may use ONLY the materials provided to you (with the exception of whatever tools you need to use to build your parachute). You will present your findings to the class. May the force be with you.

STEP ONE:

Construct three parachutes, one from each of the canopy materials provided. YOUR CANOPIES MUST BE THE SAME SIZE, SHAPE, AND HAVE THE SAME NUMBER OF LINES!!!

STEP TWO:

Take pictures of you and your partner with each of your parachutes.

STEP THREE:

Test your parachutes. From a high place, drop your parachutes and record how long it takes them to fall on the chart on the next page. INCLUDE THE TOTAL WEIGHT OF THE PARACHUTE AND LOAD, HOW HIGH YOU DROPPED IT FROM, AND HOW LONG IT TOOK TO FALL (use the timer on your phone/ipad).

STEP FOUR:

Once you’ve collected your data, calculate the wing load and rate of fall for each of your parachutes.

STEP FIVE:

Create a Google Slides presentation of your findings. Your presentation must include the following:

* Title Slide
  + Title of the project
  + Picture
  + Names of the group members
* One slide for each of your parachutes (must include the following for EACH parachute)
  + Picture of you and your partner with your parachute
  + Material the parachute is made from
  + Size
  + Weight
  + Wing load
  + Height it was dropped from
  + Length and rate of fall
* Conclusion Slide
  + Best material for creating a parachute
  + Two ways to improve the parachute

Name:

Date:

|  |  |  |
| --- | --- | --- |
| Material | | |
| Size of Canopy | Weight of Rig | Wing Load (g/sq. in.) |
| Height of Drop | Length of Drop | Rate of Fall (ft/sec) |
| Material | | |
| Size of Canopy | Weight of Rig | Wing Load (g/sq. in.) |
| Height of Drop | Length of Drop | Rate of Fall (ft/sec) |
| Material | | |
| Size of Canopy | Weight of Rig | Wing Load (g/sq. in.) |
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