Fourth Grade Science Fair Project

Parachutes: A parachute is a device used to slow down an object's fall

Design Criteria: The goal is to have a stable parachute flight, avoiding oscillating, and a fully opened canopy for maximum lift and smoothest descent.

Parachute Variables:

- Canopy Shape
- Length of Suspension Lines
- Number of Suspension Lines
- Vent Holes
- Canopy Size & Surface area (calculated by finding the area of the canopy)
- Weight of Payload

PURPOSE (This is the question to the experiment.)	Choose a question. Examples are: Which Parachute works most effectively? Slowest? Carries greatest weight? Prevents breakage of the payload?
PROCEDURE (This is the list of steps In this experiment)	Choose a Parachute Variable to test. Only one experimental variable should be changed & tested at a time. Students build three parachutes, or more, varying one of the variables at a time and then record the descent time of each for comparison.
MATERIALS (List or drawing of materials)	Collect materials needed for experiment: Timer, Payload (weights, beans, uncooked egg, uncooked pasta…), Suspension lines (Strings, Cord, Fishing line...) Canopy material (Paper, Newspaper, Plastic, Cloth, Burlap…)
HYPOTHESIS (Educated guess to what might happen)	Make a Hypothesis before experimenting. Examples are: I think the parachute that will be able to carry the heaviest weight and land with the least damage to the payload is… I think the parachute that will take the longest time to descend is…
OBSERVATIONS (Actual data)	Experiment and collect data: 1. A table or chart of the time of descent of varying parachutes 2. Pictures taken during the experiment.
CONCLUSION (Answer to the initial question)	Write a Conclusion. My experiment proved that the best parachute is… Parachutes are important because … The test was a fair and controlled experiment because…

Questions? Email Sally Fitzgerald at sfitzgerald@thacherschool.org