

Design Challenge: A Parachute



The Problem

Your task is to design and build a parachute to find out if it can support weight.

Plan Your Design

With a partner, think of different ways to make a parachute. Keep a list of your ideas. What kind of materials will you need? Where can you get these materials? Look over your list. Which ideas do you think will work best? Choose one.

Draw a diagram of your plan for a parachute. Label all its parts.

Have your teacher check your diagram before you proceed.

Build Your Design

Build your parachute to support a weight — just like the real thing.

Test Your Design

Test your parachute by running along with it trailing behind you to see how it will perform in the air.

Attach a weight to the parachute. Just for fun, you might try attaching a toy figure to the shroud lines.

Fold the parachute by picking it up from the centre of the canopy and prepare to launch it by hand.

Take your parachute outside and throw it as high as you can. Observe its descent. Can your parachute support weight? What do you observe if your parachute can't support weight? What do you observe if your parachute can support weight? Can your parachute do what you want it to? You can make changes to the design of your parachute. Don't forget to note the changes on your plan.

Note: You may find that your parachute shakes back and forth as it falls. You can fix this by cutting a small hole in the centre of the canopy.

Communicate

Demonstrate your parachute for a partner and explain how it works. Be sure to describe any modifications you made to your parachute and how they helped improve its performance.

PARACHUTE DESIGN

Name: _____

Drawing of your parachute

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Trial #1

Time to Descend	Description of Descent
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Trial #2

Time to Descend	Description of Descent
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What could you improve?

Why would you improve that?
