

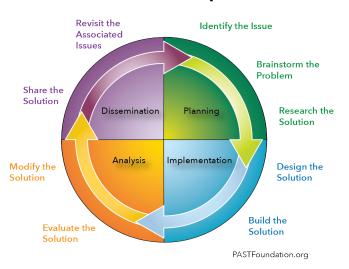




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Present Drop



Problem Scenario: Since we are socially distancing this year, we need to find a way to drop off presents from a distance.

Challenge: Create a parachute that gently drops the presents closest to the target

Materials:

Paper	Scissors	Plastic bags, tissue paper, fabric etc
Paper clips	Tape	Markers
String	Hole Punch	Small gift that you would like to deliver

Brainstorm: Work together to answer the following questions:

- 1. What makes an object good at falling slowly and accurately?
- What types of materials can be used for a parachute?
- 3. How can we build a parachute that is able to deliver a box to a target on the floor?

Design/Build:

- Start by finding a small gift that you would like to deliver with your parachute. A toy car or figurine will work nicely.
- Now that you know how heavy your present will be, you will need to design a parachute that is able to hold your present and get it to fall on a cut out target.
- Use different materials like, plastic bags, tissue paper, string, and fabric to create a parachute.
- Once you have created a parachute you are happy with, hole punch it and tie strings to its edge. Tie the other ends of these strings to your gift you will be delivering.

Test:

Build a target for landing by cutting a circle out of paper (about the size of a CD) and drawing rings on it with marker.

Place your target on the floor and stand on a chair or on stairs above your target. *You will want to release your parachute from the same height every time.

Is your parachute falling straight down or is it gliding down to the target?

Did it land close to the target?

Modify: Here are a few modifications you can make!

Test different parachute materials.

Try out different weights of gifts with the parachute. You don't want your gift to break on the way to its new owner!

Make multiple parachutes and see which one continually does the best at falling slowly and accurately.

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