

Marshmallow Mayhem

In the summer time there's always marshmallows knocking about so let's put them to good use and fire them out of a mini-cannon and learn a thing or two about forces too!

What do I need:

- 2 plastic cups
- Balloon
- Scissors
- Marshmallows

How do I do it?

STEP 1 - Put one cup inside the other so that your cannon body is nice and strong.

You'll need a bit of adult help as you cut through the two cups to make the body of your cannon.



STEP 2 - Flatten your cups down and cut through the end of the cups, as shown.



STEP 3 - Cut your balloon just at the point that it flairs out and stretch it over your cups.



STEP 4 - Load your cannon by popping your marshmallow in and pull the balloon skin back and get ready to fire.

STEP 5 - Make sure you're not pointing directly at anyone. Fire your cannon and enjoy the Marshmallow Mayhem!

What's going on?

Did you notice that you had to put in a little bit of effort when you pulled your balloon back? By putting in that effort you are added potential energy to your mini-cannon.

Feel how your balloon skin is now super-tight. That's because it has energy just stored up inside of it waiting to be released. As soon as you let go that energy swaps from being stored as potential energy in your balloon and changes into kinetic energy as your marshmallow goes flying across the room!



More Fun Please - Experiment like a real scientist!

- Experiment with adding more or less tension to your balloon.
- Measure the maximum height that your cannon can fire. How can this be improved?
- What's the best angle to get the maximum distance when you fire your mini-cannon?
- Also experiment with safe objects to see what makes the best ammunition for your mini-cannon?

