



SUPER POWER: Comets!

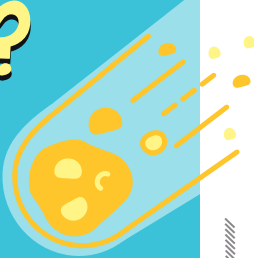
COMET CATCHER

LAB NOTES...

WHAT'S A COMET?

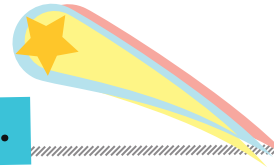
Comets are small, irregular pieces of the solar system. They can be made of rock, ice and dust, and they orbit the Sun, just like the planets. The difference between a comet and an asteroid is that comets are made of dust held together with ice, and asteroids are usually made of pieces of rock and different minerals, without any ice. Asteroids and comets have been around since the beginning of the solar system, which means that they can tell us a lot of information about what the universe was like in the past.

The Rosetta spacecraft was designed to catch a comet and after chasing it for several years was eventually able to land a robot onto a comet's surface.



TO MAKE YOUR COMET CATCHER...

1. Watch the video of Nanogirl making her comet catcher!
2. Cut your plain paper into a large square.
3. Fold in half to make a triangle with the open end at the top.
4. Take the left side bottom corner and fold across the triangle so the point sits about one third of the way from the top of the triangle on the opposite side.
5. Do the same with the bottom right corner, and you should have a shape with five sides (a pentagon). The points you folded across the middle should lie over one another, like a set of folded arms.
6. Turn the whole shape over. Fold the closest sheet from the top point down.
7. Turn the shape over again and fold the top point down tucking it into the pocket made by the folded arms.
8. Open up the middle to make a cup.
9. Using the scissors, snip a small hole in the small base of the cup.
10. Cut 40 cm of string, and thread one end through the little hole.
11. Tie a knot in the end of the string that's inside the cup.
12. Cut a strip of kitchen foil as large or small as you like
13. Take the un-knotted end of the string and lay in the centre of the foil strip.
14. Scrunch up the foil around the string. This will be your comet!
15. Hold the comet catcher by its base, flick up to launch the comet then try and catch it!



BUILD TIME
10
MINS

YOU WILL NEED

- Plain paper.....○
- String.....○
- Scissors.....○
- Kitchen foil.....○

TIME YOURSELF!

How many times can you catch your comet in 30 seconds?

Is this easier with a longer string or a different sized or shaped comet?

What else could you make your comet from other than foil?

Can you catch the comet if your eyes are closed?