

A Very Special Moon Mission

Rocket Science Project

What you will learn about:

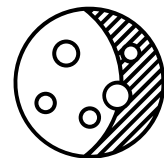
Mathematics and **engineering** as you build your rocket and design a steady and supportive launch pad.

Physics as gas from the chemical reaction builds up and produces 'thrust' when finally released.

Chemical Reactions between a base and an acid. We will learn about how this particular chemical reaction produces an important bi-product: carbon dioxide.

Equipment:

- * 2L Plastic Bottle
- * 1 sheet plain A4 paper
- * 1 sheet of coloured cardboard
- * 3 square sheets coloured paper
- * Decorations (pipe-cleaners, glitter, googly-eyes, etc.)
- * 1-2 cups vinegar
- * Paper towel
- * 1-2 tablespoons baking soda
- * Cork
- * Building blocks/Lego blocks
- * Scissors



Method:

1. Wrap a sheet of A4 paper around the bottle and tape together with sticky tape.
2. Twist one sheet of coloured cardboard into a cone shape and attach with tape to the base of the plastic bottle. This will form the 'tip' of the rocket.
3. Fold each square of coloured paper once into equal triangles and tape to the sides of the bottle to make the wings.
4. Decorate your rocket – be as creative and imaginative as you like!
5. Design your own launch pad using building blocks. Make sure it's steady enough to hold the upside down rocket ready for lift off!
6. Fill the bottle with 1-2 cups vinegar.
7. Take a piece of paper towel and cut it to 10cm².
8. Place one tablespoon of baking soda in the middle of the paper towel. Fold the paper towel so the baking soda is wrapped inside and hold it inside the mouth of the bottle.
9. Insert a cork into the mouth of the bottle –make sure it's in tightly!
10. Flip the bottle over and quickly place it on the launch pad. Watch as your rocket launches into space!

