



IS ROCKET SCIENCE EASIER THAN YOU THINK?

Audio slideshow transcript: Baking soda and vinegar rocket

BEN FORD:

For this rocket we're going to use stuff we've all got in the kitchen – baking soda and vinegar.

Firstly, put the nose cone onto the back of the bottle and fins onto the side to make the rocket more aerodynamic.

Now fill the bottle about a third of the way up with vinegar. Any kind of vinegar is fine, but I prefer white vinegar as it will make the least mess.

Make a so-called 'baking soda time-release parcel'. Put one or two large spoonfuls of baking soda into tissue paper. Fold the corners up and twist the wrap to hold the powder. When you put this parcel in the vinegar it will unravel slowly, stopping an immediate reaction.

Carefully put the baking soda parcel inside the bottle without disturbing it, then push the cork in firmly behind.

Now shake the bottle keeping it away from your face.

Quickly stand the rocket up on its fins, take a couple of steps back and wait a few seconds for the rocket to launch. When the vinegar and baking soda react, carbon dioxide is released creating pressure that builds up inside the bottle.

When the pressure gets high enough it will push the cork out and the rocket should suddenly lift off. The pressure will force all of the liquid and gas out of the rocket very fast.

This force will make the rocket lift off due to Newton's third law of motion – that every action has an equal and opposite reaction.