

# AT HOME!

## PROJECT NO.1

### Mini-Rocket Explosion

As family days out are put on hold, we've been thinking how we can make your family days in as much fun as possible.

Eureka! is the UK's only hands-on museum just for children aged 0-11. Full of exhibits to explore, helpful staff to engage with, activities to do and buttons to press. Based in West Yorkshire, we have brought smiles to the faces of over 8 million visitors since 1992. As families can't come to us, we are keen to bring a sample of the Eureka! experience to you.

Our expert staff have come up with a series of experiments that can be done at home, all designed to inspire children to get hands-on, have fun, and learn about themselves and the world around them.

Get experimenting and send us or share your pictures and videos using #EurekaMuseum and we'll share on our social media feeds too.

**WE'RE ALL IN THIS TOGETHER!**



No.1

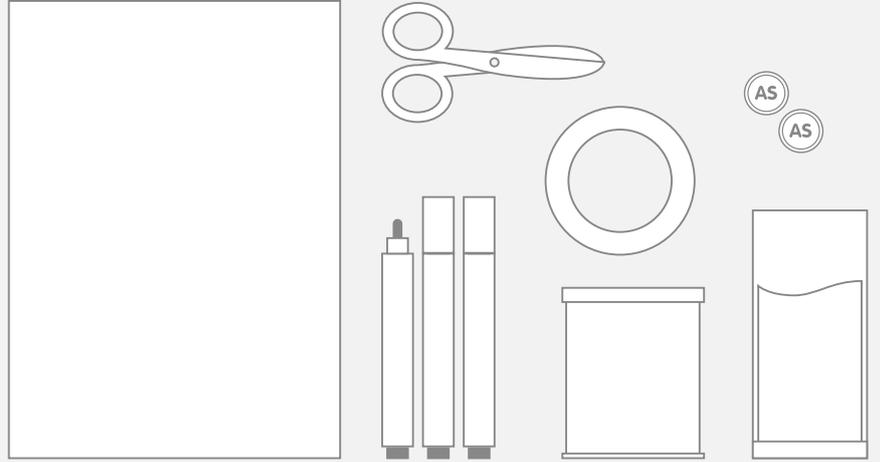
# ROCKET EXPLOSION



Create a mini-rocket explosion without using any fire.

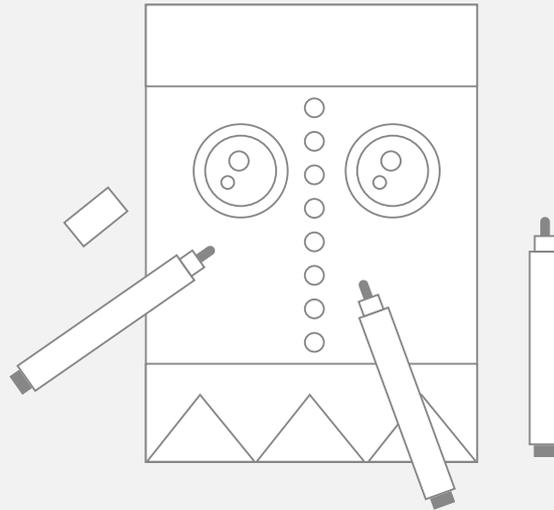
## YOU WILL NEED:

- Paper
- Felt tip pens
- Scissors & tape
- An empty container with a lid that can pop open, such as a coffee container, film canister, even a pringles tube
- Alka-seltzer tablets
- Water
- A big open space!



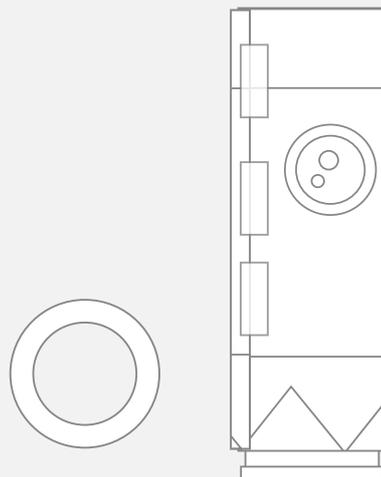
## STEP 1:

Decorate the paper to look like a rocket!



## STEP 2:

Tape one side of the rocket to the container, making sure that it is secure. Roll the rest of the paper around the tube and secure in place.

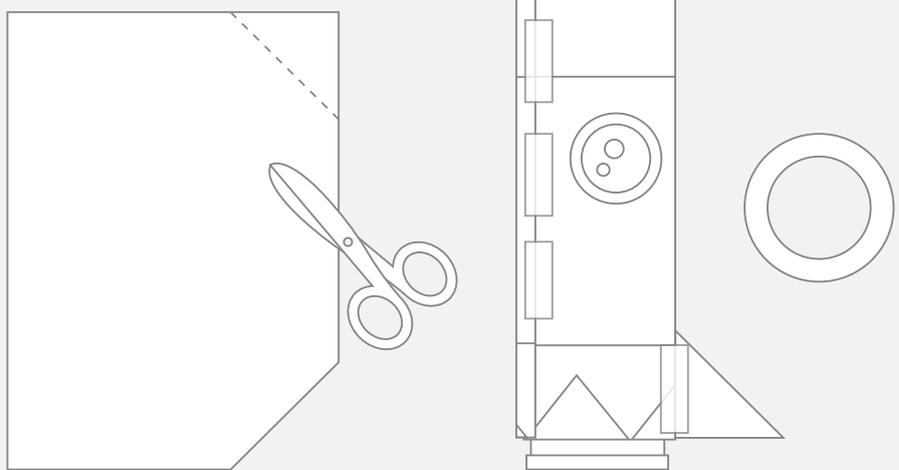


### Top Tip:

Leave some of the container poking out of the bottom of the rocket – this will make it easier to add the water and Alka-Seltzer later!

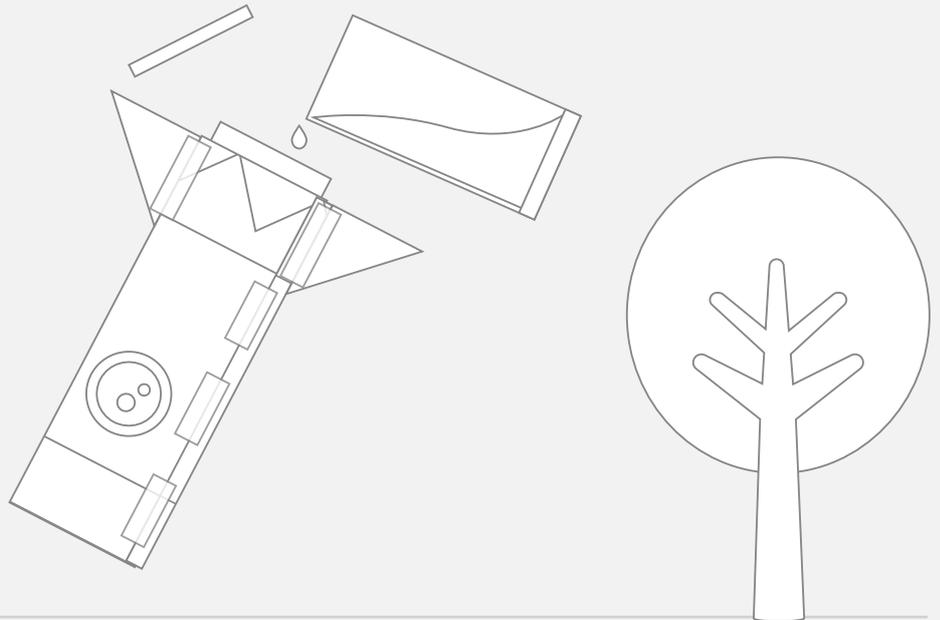
## STEP 3:

Cut two right-angle triangles for the fins of the rocket and a small paper cone for the top. Tape these onto the rocket.



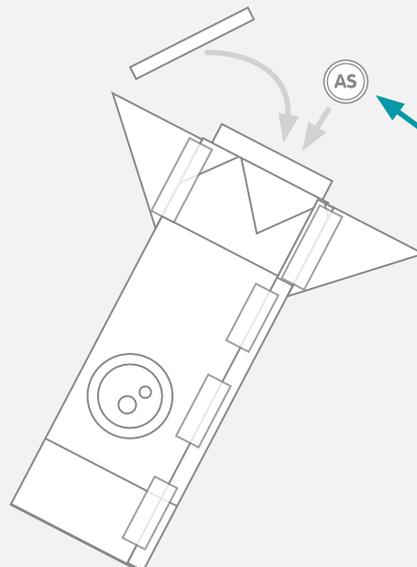
## STEP 4:

Move to a big open space to launch the rocket – ideally outside in the garden. Hold the rocket upside down and add water to the container to one-quarter full.



## STEP 5:

Add Alka-Seltzer to the container and quickly snap on the lid.



### Top Tip:

How much Alka-Seltzer you use is dependent on the size of your container:

- Small sized container such as a film canister: Half an Alka-Seltzer tablets
- Medium sized container such as coffee container: One Alka-Seltzer tablets
- Large sized container such as a pringles tube: Two Alka-Seltzer tablets

No.1

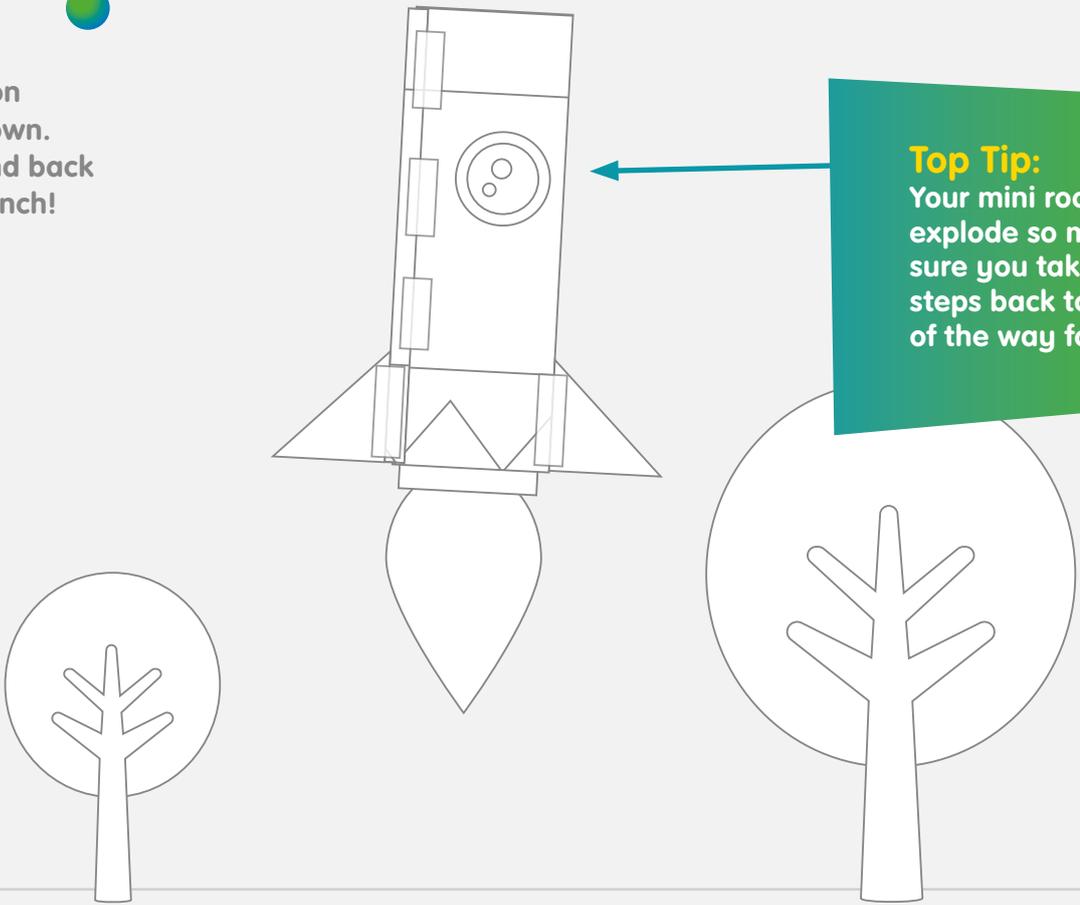
# ROCKET EXPLOSION

## STEP 6:

Place the rocket on the ground, lid down. Immediately stand back and wait until launch!

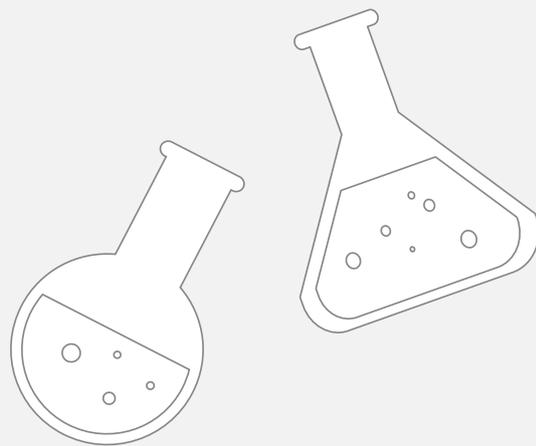
### Top Tip:

Your mini rocket will explode so make sure you take a few steps back to be out of the way for lift off!



## What's the science?

As the Alka-seltzer tablet mixes with water and fizzes this causes a chemical reaction, carbon dioxide is released inside the container. The pressure builds up inside the container until eventually the gas rushes out and pops the lid off. This demonstrates Newton's Third Law of Motion "Every action has an equal and opposite reaction". The gas rushing out of one end of the container (the action) causes your rocket to move in the opposite direction (the reaction).



**CHECK OUT THE LINK HERE FOR MORE INFO AND VIDEO:**

<https://www.alkaseltzer.com/science-experiments/rockets>

