



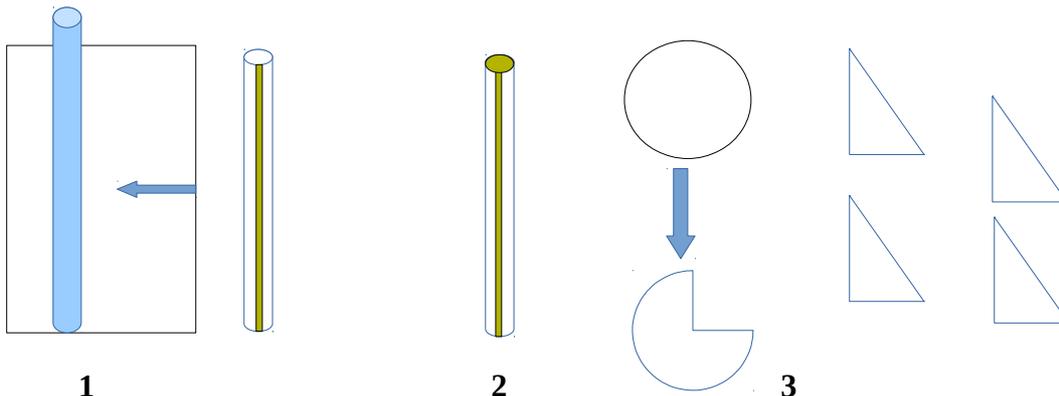
Make a Paper Rocket

Equipment:

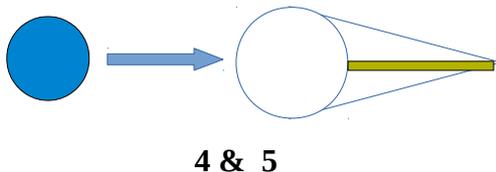
- 1 x rocket template (A4 page with circle diameter ~12cm and 4 triangle shaped fin outlines)
- 1 x Plain A4 paper
- safety scissors
- selotape
- playdoh/putty/blutak
- 1 x rocket launcher pipe
- 1 x compressed air rocket launcher

Instructions:

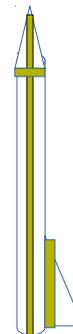
1. Roll one piece of A4 paper around the launcher pipe to create a long tube. Tape the entire length of A4 paper to hold in place.
2. Tape one end of the paper tube to seal it completely.
3. Cut out the circle and 4 fins from the template. Cut out the wedge in the circle to be left with a Pac Man.



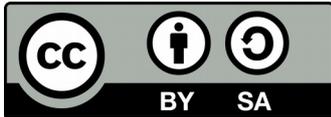
4. Roll the Pac Man into a cone and tape into place. Sealing all edges and holes.
5. *Optional:* Push a 1-2 cm sized blob of playdoh into the end of the cone. This acts as ballast and stabilise the rocket in flight.
6. Tape the cone onto the paper tube, sealing all edges well with tape.
7. *Optional for older children:* Cut the fins into a different shape
8. Tape the fins on and decorate your rocket.
9. Launch it.



4 & 5



6 & 8



This resource pack was created by
Dr Rebecca Wilson www.drrebeccawilson.co.uk

Launch Instructions

1. Tighten all fittings on compressed air rocket launcher prior to use.
2. Make sure firing valve is closed.
3. Place rocket onto firing tube.
4. Use foot pump to pump up pressure to **no more than 50 psi**. [**NB: If launching indoors, use no more than 20 psi.**]
5. Get participant to change launch angle. Or keep the angle at $\sim 45^\circ$
6. **Turn your face away from the launcher** and open the valve.

Hazards:

If rocket fits too tightly on the launch pipe it may explode on launch. Therefore always launch the rocket with your face turned away from the launcher. Make sure the paper rocket can be put on and off the launch pipe with ease.

Tips:

If a rocket fails to launch there is a leak in the rocket. Get the participant to tape all the seals and try again.