

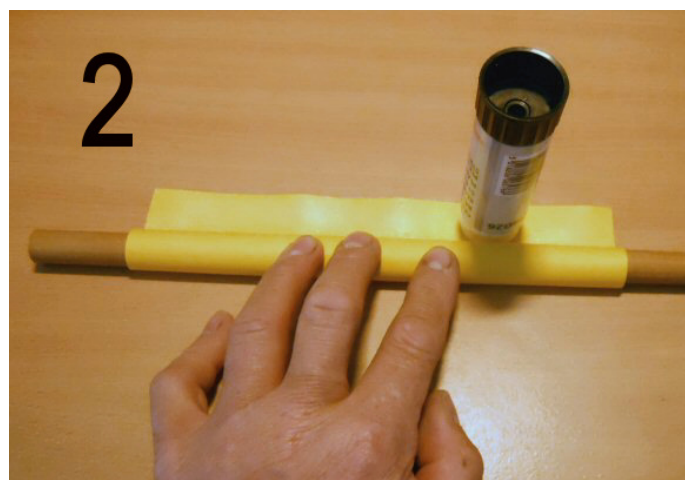
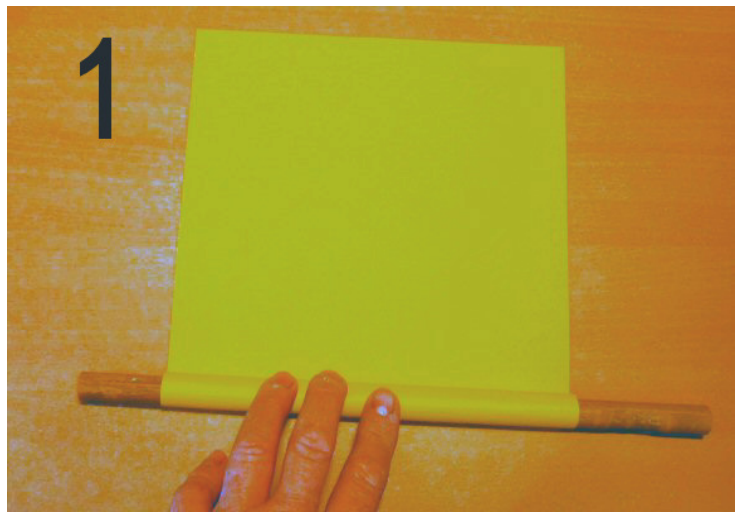
Making Rockets

BODY:

- 1 Roll paper round the rod
- 2 Glue the edge
- 3 Press in the nose-cone
- 4 Tape round the nose-cone to seal it

FINS:

- 5 Fold a strip of paper and cut into 2 or 3
 - 6 Fold the tabs and glue main surfaces
 - 7 Glue tabs onto rocket and trim to shape
- Fire rocket from air-powered launcher



Making a Rocket Launcher



Pipe insert fitted in position in the drilled bottle cap

PARTS:

Many of the parts needed may be found in a scrap box, or from a friendly plumber or electrician. For youth groups the bulk quantities makes 10 launchers for around £15.

- 1 **Lemonade bottle.** The best size is a 1-litre bottle, which recovers well after being stamped on; eg Coke, Lucozade, Tesco Sport drink etc. Make sure it has a normal size screw cap so it can be replaced easily when it splits.
- 2 **Flexible plastic conduit** or washing machine outlet hose about 20mm bore; eg Screwfix 50443 black or 38177 white, 10m for £5. Polythene tubing could also be used.
- 3 **Pipe insert/stiffener**, to fit inside the flexible conduit chosen. Screwfix 33270 (pk 10 for £3.50) for 20mm MDPE works with the above conduit.
- 4 **Barrier pipe / plastic tube**, about 30cm (from most DIY outlets about £3 for 2m)
- 5 **Duct tape** – small amount to wrap round the joints.

METHOD:

- 5 Drill the bottle cap, preferably using a Forstner bit or wood drill, or open out a smaller hole to the right size for the pipe insert.
- 6 Fit the pipe insert in the drilled bottle cap, and push on the flexible conduit. Wrap the pipe insert first with some duct tape if it is too loose a fit.
- 7 Put a 30cm length of barrier pipe in the other end of the conduit and wrap round with duct tape to joint and protect the edge of the conduit.

LAUNCHING:

- 8 Slide a rocket over the pipe
- 9 Hold down the conduit near the bottle with one foot
- 10 Aim the rocket in a safe direction away from people and animals, then stamp hard on the bottle
- 11 Pop the bottle back to its proper shape before trying again. You can just blow into the tube if it's clean!

Have Fun with your rocket – but do it safely!