

Blast off!

Why do this?

Children love watching things fly. This activity enables children to make and launch their own rocket using the force from their own breath.

Curriculum links: forces, pushes and pulls, space, flight

Suitability

Years 1-3

Practical details

This activity has been prepared using CLEAPSS guidance. If in doubt, or for further information, contact CLEAPSS.

Safety

- Ensure the shooter is pointed away from other faces when blown

Equipment per child

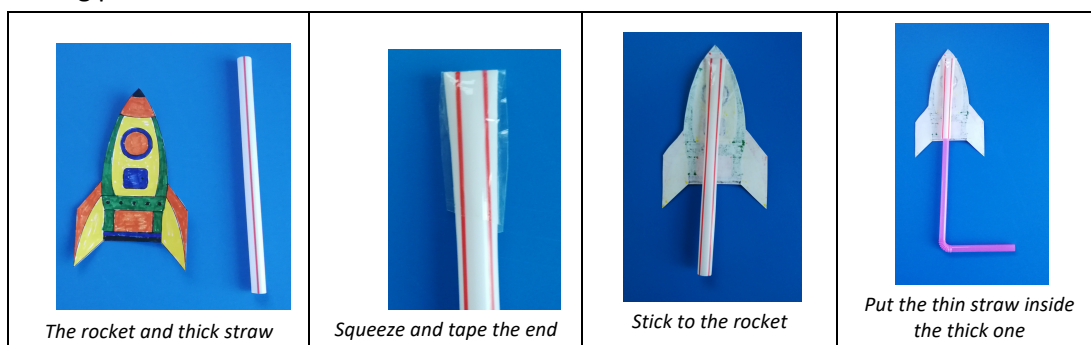
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|--|-----------------|
| • 1 thin bendy straw | • Sticky tape |
| • 1 thicker straw (eg milkshake straw) | • Scissors |
| • Rocket template | • Coloured pens |

Notes

1. Seal the end of the straw with the least amount of tape possible, otherwise the rocket will nose dive
2. An alternative to a thicker straw, is a small piece of paper (approx. 5 cm width), the same length as the rocket, wrapped around a pencil and taped together. Remove the pencil before folding/taping the end

Procedure

1. Colour in the rocket template and then cut it out
2. Cut a piece of the thicker straw to approximately the same length as the rocket
3. Pinch the end of this straw together and put a piece of sticky tape over the end to tape it securely shut
4. Test there are no air leaks by blowing into the straw
5. Tap this straw to the back of the rocket. Ensure the closed end is at the top of the rocket
6. Slide the thin straw into the thicker straw and angle the rocket ready for launching
7. Blow a big puff of air into the thin straw and watch the rocket take off



Expected observations and results

The rocket flies into the air when air is blown down the thin straw.

Possible further activities

- Blow hard and softly and observe what happens
- Change the launch angle of the straw
- Try modifying the thicker straw or the rocket template and observe what happens to the rocket's flight path

Background notes

Air is made up of tiny gas particles. These particles push against surfaces they meet. When air is blown down a straw it travels to the end. If the end is sealed, it has nowhere to go. The air pushes against the sealed end, pushing the straw off taking the rocket connected to the sealed straw with it.

