

BUILD A LEGO ROCKET CAR

Put your engineering and science skills to the test with this explosive experiment

SUITABLE FOR **CUBS**

1 Divide your young people into groups of four. Appoint a leader for each group and give the leader a piece of paper and a pencil.

2 Ask each team to design a racing car, which they will build out of LEGO. The car must be lightweight, so that it's fast, yet strong enough to hold an empty tacky glue bottle. For your driver, you could order your own Scout minifig from minifigs.me.

3 When the designs are complete, each team can choose the LEGO pieces they think they'll need for their cars.

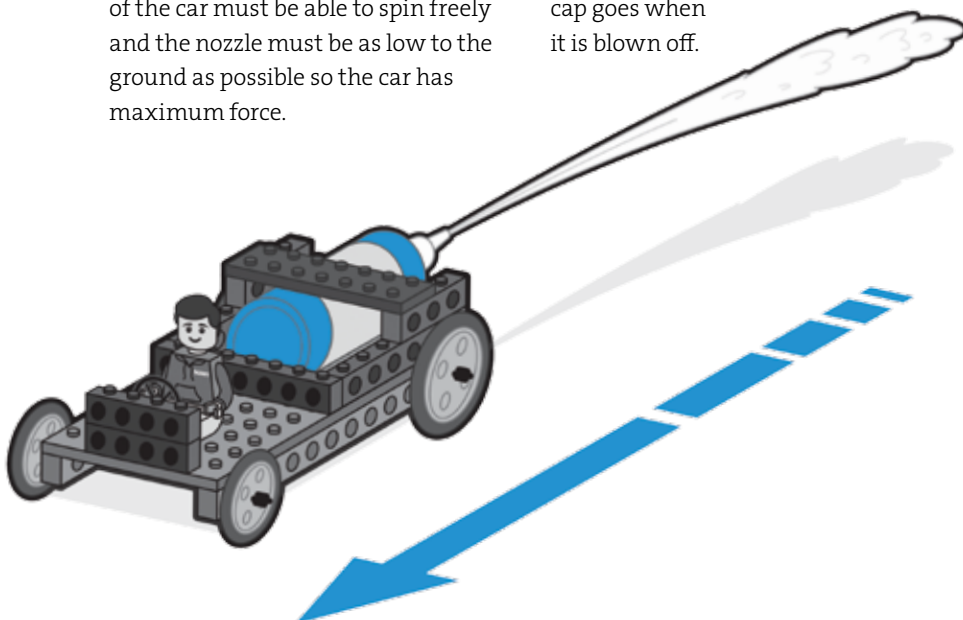
4 The car assembly begins! Attach a clean and empty glue bottle to the car with elastic bands. The wheels of the car must be able to spin freely and the nozzle must be as low to the ground as possible so the car has maximum force.

6 Get the Cubs to fill the glue bottle so it is two-thirds full with water. Drop in two Alka Seltzers; you may need to cut them in half to fit them into the bottle. Quickly screw on the lid and place the car on the ground.

7 Watch as the pressure builds and forces the cap off the bottle, propelling the LEGO cars forward.

8 Measure the distance each team's LEGO car travels. You could even film them and play back the best launches.

9 Have plenty of towels handy, as water will spray out of each rocket. And it's a good idea to keep an eye on where the cap goes when it is blown off.



TIME NEEDED

30 minutes

EQUIPMENT NEEDED

- LEGO – make sure there are plenty of wheels
- Clean and empty tacky glue bottles with removable caps
- Elastic bands
- Paper and pencils
- Alka Seltzers

THIS ACTIVITY LINKS WITH THE FOLLOWING BADGES



Cub My Skills
Challenge Award



Cub My Adventure
Challenge Award



Cub Artist
Activity Badge

OUTCOMES

Cubs will understand how to design and build a prototype and how a vehicle is powered by a chemical reaction. They'll learn that the way they build their cars affects the speed at which it travels.

OTHER SECTIONS FOR SCOUTS

Do the same activity but try different elements to power the vehicle, for example, Mentos and Diet Cola.

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