

S.C.R.A.P. Challenge

Mission

Investigate how launch conditions and design changes influence flight distance.

Student Guide

Level 3

Questioning and predicting

1. Sketch a design for your rocket.

Think about:

Nose cone shape

Number of fins

Body length

Fin shape

Fin position

Fin size

Make sure you label all the parts of your rocket.

2. Choose **one** part of your rocket that you will change and test.

I am going to change _____

3. Form a **hypothesis**. What do you think will happen to the launch distance when you change that part of your rocket?



Australian Government

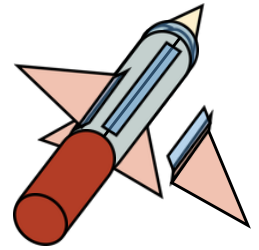


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Now, it's time to build and launch your rocket!



Testing and recording

In the table below, collect data about your launch trials, including any notes that might be helpful when evaluating your hypothesis.

Rocket description	Launch Distance Test 1	Launch Distance Test 2	Launch Distance Test 3	Launch Distance Mean *	Notes / Changes

*To calculate the mean for each rocket test, add the distances for test 1, test 2, and test 3 together, and then divide the answer by three (3).

Evaluating

1. Was your hypothesis supported? Why/why not?

2. Was this a fair test? Why/why not?

3. What improvements would you make if you did this investigation again?
