

The Solar Detectives

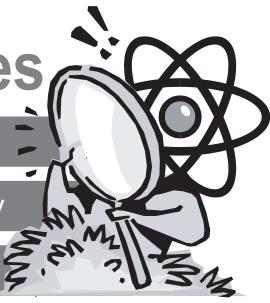
Case 3:

The performance challenge

Investigating the science,

maths and technology

behind engineering



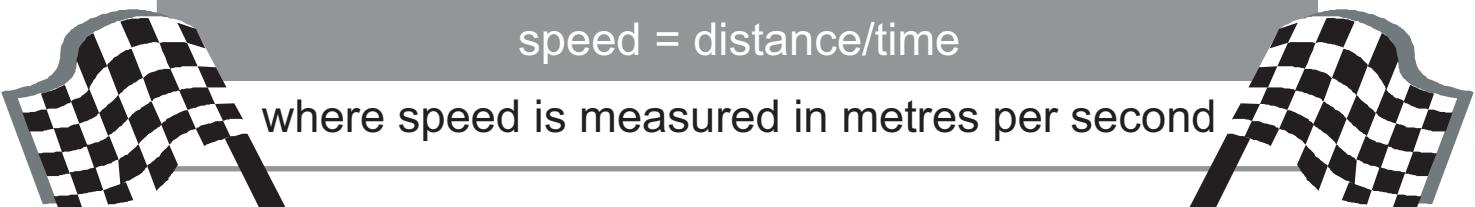
Having built a working model solar racer you are now going to measure its performance and compare and share your model with other models built by your classmates.

First find out how quickly your car can travel by measuring how far it travels in ten seconds.

You will then be able to calculate this as a speed measurement using the equation.

$$\text{speed} = \text{distance}/\text{time}$$

where speed is measured in metres per second



To do



- You should measure the speed of your buggy more than once (at least 3 times) and calculate the average speed.
- Now compare your results with other solar buggies, how do the results compare?
- Your next job is to analyse the speed results for the different buggies
- Why do you think that the speeds of the buggies are different?
- Make a list of the things that you think can affect the performance of the solar buggies.
- Using the same kit how could you go about improving the performance of your buggy?

