



Investigation 5 Ramp champ

Girls and boys, start your engines!
Your task is to make your toy car travel as far as it can after leaving the ramp.

How far can you make your toy car travel? How will you measure this distance?

Who will be the class ramp champ?



Topics

Before you start the Investigation you need to know...

NA1 Count in onesp32

NA5 Read and write two-digit numerals.....p40

MGI Measuring length.....p96

MG2 How long is a metre?p98

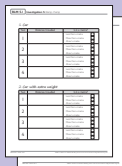
MG5 How heavy is it?.....p104

Teachers

- A comprehensive lesson plan, suggestions and resources are available in *iMaths I Teacher Book*.
- The BLMs for this Investigation can be downloaded from www.imathsteachers.com.au.



Internet access



BLMs 5.1-5.2



Coins or washers



Toy cars



Materials to make car ramps



Craft materials

1 Exploring ramps.

Talk about ramps. Make your own ramp and roll toy cars down it.

2 How far?

How far does your car travel after leaving the ramp? What is the best way to measure this distance? Why?

3 What will you change?

In groups, discuss what will make your car travel further after it leaves the ramp. Try some of these ideas to see what happens. What things made your car go further? What things made your car go faster?

4 Let it rip.

Roll your car down the ramp. Make sure you don't push the car. Measure the distance it travelled after it left the ramp. Do this four times.

Use **BLM 5.1** to record your results.

Make the car heavier. Roll the car down the ramp another four times. Record your results.

Investigate what happens if you make the ramp steeper. Record your results on **BLM 5.2**.

5 Reporting back.

Describe the results of the ramp tests.

What was your group's best distance? Explain why? Was this distance more or less than a metre?

Who is the class ramp champ, and why?

weblink

Go to imathskids.com.au – the Investigation 5 area contains the weblinks and BLMs that you need to complete this Investigation.

BLM 5.1 Investigation 5: Ramp champ

1 Car

Test	Distance travelled	Is it a metre?
1		Less than a metre <input type="checkbox"/>
		More than a metre <input type="checkbox"/>
		About a metre <input type="checkbox"/>
2		Less than a metre <input type="checkbox"/>
		More than a metre <input type="checkbox"/>
		About a metre <input type="checkbox"/>
3		Less than a metre <input type="checkbox"/>
		More than a metre <input type="checkbox"/>
		About a metre <input type="checkbox"/>
4		Less than a metre <input type="checkbox"/>
		More than a metre <input type="checkbox"/>
		About a metre <input type="checkbox"/>

2 Car with extra weight

Test	Distance travelled	Is it a metre?
1		Less than a metre <input type="checkbox"/>
		More than a metre <input type="checkbox"/>
		About a metre <input type="checkbox"/>
2		Less than a metre <input type="checkbox"/>
		More than a metre <input type="checkbox"/>
		About a metre <input type="checkbox"/>
3		Less than a metre <input type="checkbox"/>
		More than a metre <input type="checkbox"/>
		About a metre <input type="checkbox"/>
4		Less than a metre <input type="checkbox"/>
		More than a metre <input type="checkbox"/>
		About a metre <input type="checkbox"/>

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