

Water Force Challenge!

Water chutes are fun - but what can you discover about their speed?

Student Introduction

- ▶ At Blackgang Chine you will see three water chutes.
- ▶ Two are uncovered and one is covered.
- ▶ Using science, you'll complete an experiment to work out which is fastest and why!



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- » To make sure that this is a fair test, only one variable should change (be different). Can you identify one key variable just by looking at the chutes? Write it in the space below:

Which of these variables might affect the speed down the chutes?

- Air resistance
- Weight
- Amount of water on chute
- Whether it's a boy or girl
- Age of rider

- » Today you will be looking at the effect of air resistance (whether the chute is covered or open). This means that you should try to keep all of the other variables the same.

- » You will need the following equipment:
 - ✓ Pencil
 - ✓ Stop watch
 - ✓ Recording table
- » Choose one of the uncovered chutes to watch, and the covered chute. Then follow this method:
 - ✓ Time the same person going down each of the two chutes three times
 - ✓ Work out the average time by adding up



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Chute	Time in seconds			
	1st run	2nd run	3rd run	Average
Covered				
Uncovered				

Findings

What did you find out?

