# Balloon powered car

## Year 2 science

### Australian curriculum Learning objectives

* [(ACSSU033)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACSSU033)[[1]](#footnote-1) Push or a pull affects how an object moves or changes shape.
	+ Literacy
	+ Critical and creative thinking
	+ Numeracy

### Resources required

* [Science Time – moving toys](http://www.youtube.com/watch?v=VnFvVeQkuis)[[2]](#footnote-2) video (duration: 14.11).
* [How to make a balloon powered car – directions and what happens[[3]](#footnote-3)](http://www.questacon.edu.au/outreach/programs/science-circus/videos/balloon-powered-car) (duration 3.39).
* [Instructions for making balloon powered car](http://www.capthat.com.au/sites/default/files/Balloon%20powered%20car%20instructions.docx)[[4]](#footnote-4) x class groups
* Craft resources - for teacher demonstration plus enough for group work required – possibly assisted by parent helpers/Year 6 buddies, due to sharp points of skewers:

| * 4 plastic lids from drink bottles
 | * Balloon
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| --- | --- |
| * Drill to pre-drill holes in lids
 | * Rubber band
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| * Corrugated cardboard (15 x 10cm)
 | * Masking tape
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| * Straight straw
 | * Scissors
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| * Bendable straw
 | * Plasticine
 |
| * 2 bamboo skewers
 | * Coloured pencils and decorations
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Lesson outcome: Students learn how the force of a push can be used to move a small object.

#### Lesson outline:

1. Teacher opens lesson with discussion about how we can make things move – discuss in relation to toys.
2. Play *Science Time – moving toys* videoto focus on how we affect the movement of inanimate objects.
3. Students break into groups to discuss the toys they have at home and the ways they move them.
4. Class watches *Balloon powered car* video.
5. Teacher demonstrates making the balloon powered car, with directions displayed on interactive whiteboard/board
6. Students are divided into groups, with helper.
7. Group work spaces prepared, with copy of directions taped to the table near to the craft supplies.
8. Students make balloon powered car, taking turns to build it.
9. Students play with car and discuss why it works.
10. Class as a whole discuss that when air from the balloon moves in one direction, it forces the car to move in the opposite direction.
11. Students draw the car in their workbooks and the air moving out of the balloon, using arrows to denote direction.

### Homework/extension

Students explore the question: Can you make your car go faster or further using the same amount of air? Students experiment with different sized wheels (supplied).

Students may make the balloon powered car at home with their families.

### Opportunity for further activity

Students to explore what small moveable toys can be powered by balloons.

1. <http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACSSU033> [↑](#footnote-ref-1)
2. <http://www.youtube.com/watch?v=VnFvVeQkuis> [↑](#footnote-ref-2)
3. <http://www.questacon.edu.au/outreach/programs/science-circus/videos/balloon-powered-car> [↑](#footnote-ref-3)
4. <http://www.capthat.com.au/sites/default/files/Balloon%20powered%20car%20instructions.docx> [↑](#footnote-ref-4)