# gravity

## Year 7 science

### Australian curriculum Learning objectives

* [AC SSU118](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACSSU118%22%20%5Co%20%22View%20additional%20details%20of%20ACSSU118)[[1]](#footnote-1) Earth’s gravity pulls objects towards the centre of the Earth.

### Resources required

* [Gravity music video](http://www.youtube.com/watch?v=u7KpH9_I2Dw&feature=relmfu)[[2]](#footnote-2) captioned on Youtube. (Duration: 4 minutes.)
* [What is gravity? video](http://www.youtube.com/watch?v=p_o4aY7xkXg&cc=1)[[3]](#footnote-3) captioned on Youtube. (Duration: 1 minute.)
* [Physics suite101 website](http://carol-wells.suite101.com/science-experiments-for-kids-learning-about-gravity-a279805)[[4]](#footnote-4)

Lesson outcome: Students learn about the force of gravity and develop an understanding of its importance.

#### Lesson outline:

1. Introduce lesson with gravity music video.
2. Teacher asks students what key ideas they have learnt from the clip and collates these on the board as a reminder.
3. Students break into small groups and work on the following key words: mass, energy, attractive force, gravitational force, proportional. Students collate meanings and write a mini script to be presented to class – the goal being a simple definition of the terms.
4. Teacher collates definitions on IWB or board and class discuss definitions until they come to a consensus of meaning.
5. Show second clip to students for reinforcement of key concept. Ensure that you stop that clip at the 1:04 mark so as to not confuse them with information about energy and photons.
6. Facilitate class discussion based on clarifying your students’ understandings of gravity. Play second clip again and pause frequently check student level of understanding (this is a fast moving clip).
7. Explain that you can demonstrate the force of gravity right in the classroom. Work through a series of gravity-focused demonstrations which involve the students. Example demonstrations can be found at [Physics suite101](http://carol-wells.suite101.com/science-experiments-for-kids-learning-about-gravity-a279805).
8. After each demonstration, ensure that students have understood the key concept and are able to write a short explanation of what happened and the significance of gravity in the demonstration.

### Homework/extension

Students design their own experiment which demonstrates the force of gravity.

### Opportunity for further activity

Students could develop a presentation which explains the force of gravity to their peers or to a younger year at the school. A requirement of this presentation would be to include multiple interesting demonstrations.

1. <http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACSSU118> [↑](#footnote-ref-1)
2. <http://www.youtube.com/watch?v=u7KpH9_I2Dw&feature=relmfu> [↑](#footnote-ref-2)
3. <http://www.youtube.com/watch?v=p_o4aY7xkXg&cc=1> [↑](#footnote-ref-3)
4. <http://carol-wells.suite101.com/science-experiments-for-kids-learning-about-gravity-a279805> [↑](#footnote-ref-4)