

## Armagh Planetarium and International Year of Astronomy

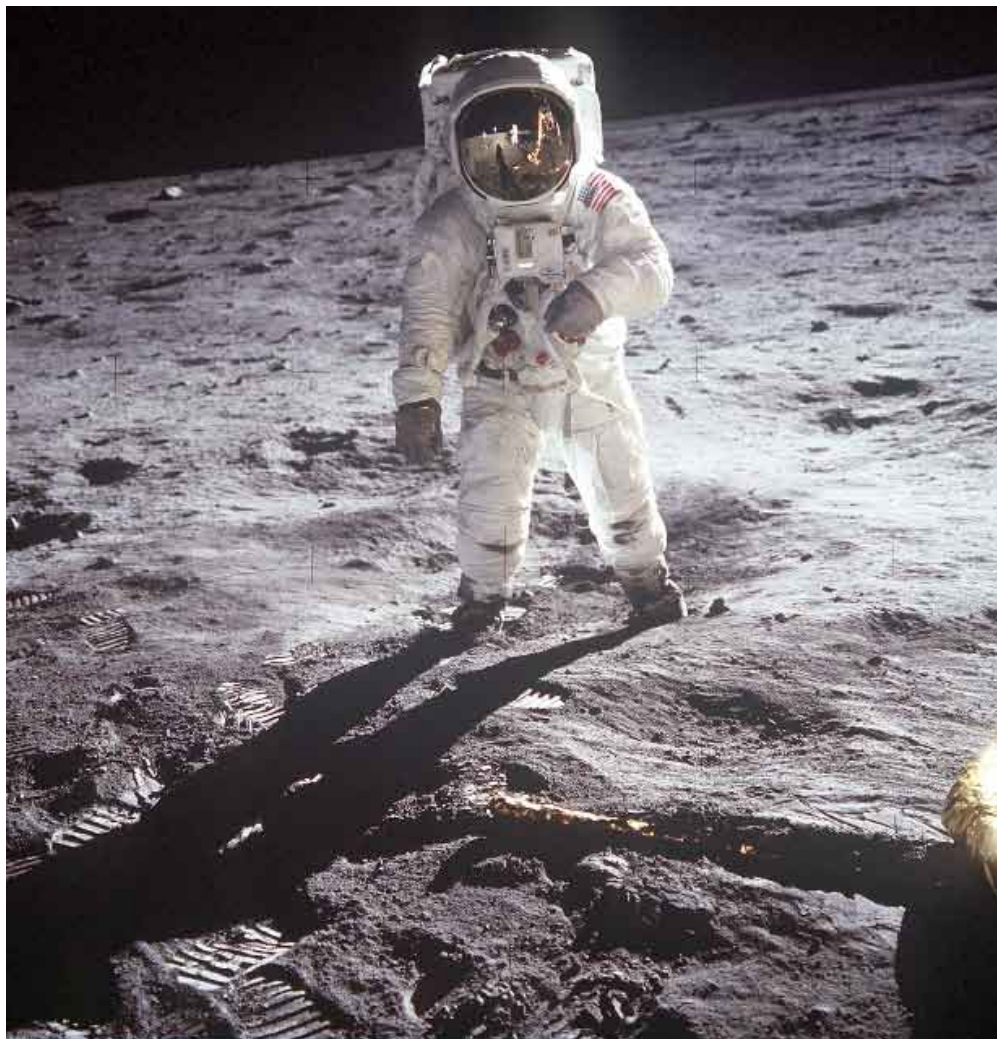
The year 2009 is set to be an exciting period for all things astronomical as over 135 collaborating nations are set to celebrate the International Year of Astronomy. The official opening ceremony took place in Paris on the 15th and 16th of January and launched a year during which numerous local, national and international events will be taking place. This year of 2009 was selected as it marks the 400th anniversary of the first use of an astronomical telescope by Galileo Galilei. If you would like more information about IYA 2009 international events log on to <http://www.astronomy2009.org>.



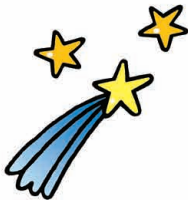
Armagh Planetarium is holding some special events to celebrate this unique year. Please log on to our web site [www.armaghplanet.com](http://www.armaghplanet.com) or call +44 (0)28 3752 3689 for more information about events that will be held at Armagh Planetarium. If you would like more information about events held nation wide which are associated with IYA 2009 log on to: <http://www.astronomy2009.ie>

One exciting opportunity for schools is the ability to make use of the Faulkes Telescope Project. The Faulkes Telescope project allows schools to book time on one of a series of large robotic telescopes that are located around the world. This project allows any school that registers and books time the opportunity to conduct an in-depth view of the Solar System and beyond. Log on to find out more information at: <http://faulkes-telescope.com>

2009 is also a momentous year in astronomy as it marks the 40th anniversary of the Apollo 11 astronauts landing on the Moon. The Apollo series of Moon landings are one of the most historic events in last century and if you are interested to learn more about the Moon landings for your pupils there is no better place to start than at NASA's home website. [http://www.nasa.gov/audience/forstudents/5-8/features/F\\_Apollo\\_35th\\_Anniversary.html](http://www.nasa.gov/audience/forstudents/5-8/features/F_Apollo_35th_Anniversary.html)



**Neil Armstrong standing on the moon**  
This historic event took place 40 years ago this year.



## Cosmic Collisions



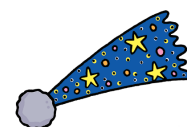
The Cosmic Collisions workshop is a mixture of a presentation and practical experiments, which is designed in conjunction with the primary school curriculum. In Cosmic Collisions students are taken on a tour of the Solar System before exploring the effects and results of collisions in our Solar System. Students will develop their knowledge of the Solar System as well as widening their understanding of the principles of forces.

The workshops are intended to be “hands on - minds on” and students will have the opportunity to interact with pieces of space history by seeing our meteorite collection. The workshop will encourage students to ask questions and they will also carry out their own experiment to discover how craters are formed. A school visit to Armagh Planetarium includes a workshop, a show in the Digital Theatre and a visit to our exhibition area. If you would like more details or to book a visit please call 00353 (0)28 3752 3689.

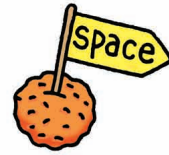
To get you started here are some useful links with activities you can do with your class before attending Armagh Planetarium.

- Downloadable worksheets on Comets and Meteors which will be helpful to give your class some knowledge on this topic:  
[http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Space\\_Science\\_Adventure\\_Is\\_Waiting\\_Activity\\_3-5.html](http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Space_Science_Adventure_Is_Waiting_Activity_3-5.html).
- This link provides a fun game to help your class get to grips with the Solar System:  
[http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Go\\_to\\_the\\_Head\\_of\\_the\\_Solar\\_System.html](http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Go_to_the_Head_of_the_Solar_System.html).
- This link is full of videos and activities to explain gravity to school children:  
[http://ksnn.larc.nasa.gov/k2/s\\_whatGravity.html](http://ksnn.larc.nasa.gov/k2/s_whatGravity.html).

If you would like any more information please call the DPS co-ordinator Orla O'Donnell on +44 (0)28 3752 3689 or email [orla@armaghplanet.com](mailto:orla@armaghplanet.com).



## Class Room Experiment



This is a super simple experiment that you can do with your class to explain gravity. Gravity can be related to the energy and forces strand of the Social, Environmental and Scientific Education curriculum for Primary Schools. The Solar System and understanding gravity are both important elements of the Cosmic Collision workshop.

### What is Gravity?



Gravity is an invisible force that here on Earth pulls every thing down. Gravity keeps us on the ground. There is not as much gravity in space and that is why everything (including people) floats about.

Because gravity pulls everything down it means that regardless of an object's mass it will hit the ground at the same speed. So this means, if I drop something very heavy and something very light at the same time from the same height they will both hit the ground at the same time.

### You will need

Two plastic 500ml water bottles, one empty and one full.

### The experiment



Hold your arms out with a bottle in each hand.  
Ask the class to predict which bottle will hit the ground first.  
Then drop the bottles at the same time.



### Results

Both bottles will hit the Earth at the same time thus proving there is gravity at action on Earth.

Why not get your class to select a series of classroom items and repeat the experiment. You could even drop the objects from a greater height, for example standing on a chair.

### Analysis

Ask your class why they think gravity is so important?