



My Moon Campaign is the first joint effort of the Galileo Teacher Training Program (GTTP), one of the cornerstones of IYA2009, and World Space Week Association (WSW), globally celebrating space 4-10 October every year. In 2009 we are celebrating several important dates, the 400th anniversary of Galileo's observations, the 150 years of Charles Darwin's "Origin of Species" and the 40th anniversary of Apollo Moon landing. The Moon is the perfect target for this campaign as it presents a perfect link between all these important turning points in science history.

Our goal is to engage students in the study of several different aspects of the Moon, using whichever means they have available to reach this purpose: naked eye observations, small telescopes, binoculars, astrophotography, robotic telescopes, webcams, image databases, imagination, creativity, etc. and submit a report, present a project, an essay, anything that will make our natural satellite worthy of being called "My Moon" by the student.

Send us your class creation and win prizes! Please include the name of your school, class and your (teacher's) name. Also mention your location (city & country). There shall be only **one** entry per class. This means your class has to work as a team and/or make a team decision to send the best creation or make a compilation. Each class will receive a participation Certificate and as we will put up a **gallery** on our website, all entries will get global recognition!

Prizes that can be won:

- For teachers, as <u>World Teacher's Day</u> (5th Oct.) falls within World Space Week, we have a few \$500 Educational Awards available for the most creative use of space in the classroom.
- For students we have books, DVDs, models of first Apollo Moon Landing and the International Space Station and other prizes especially made available by the European Space Agency.
- For the class as a whole, you can participate in a <u>Virtual Telescope</u> (VT) session with guidance and presentation by Dr. Gianluca Masi. The Virtual Telescope will also have interactive sessions during <u>Galilean Nights</u> (22-24 October) another IYA cornerstone project.

All projects should be submitted by email to: gttp-event@worldspaceweek.org and info@galileoteachers.org

The deadline of entering into the competition is 10th of November: 23:59:59 (UT)

The following tasks are proposed:



1) **Observe the Moon**: by naked eye, small telescopes, robotic telescopes, webcams, cameras, image databases etc

Suggestion of resources to assist participants in accomplishing this task:

- ★ Guide on observing the Moon: http://stardate.org/pdfs/teachers/ObservingTheMoon.pdf
- ★ You are Galileo: http://www-irc.mtk.nao.ac.jp/~webadm/Galileo-E/index.php?Field%20note (scroll down to the section about the Moon)
- **★** UNAWE: What does the full moon look like http://unawe.org/joomla/index.php?option=com content&task=view&id=256&Itemid=136

<u>Suggestion of projects</u> to be submitted: Sketch of the Moon done by hand; Moon pictures; Pictures / Drawings; Tales; (more on exploring the Moon)

2) Exploring the Moon

Suggestion of resources:

- **★** Selection of activities using the user friendly image processing software Salsa J: http://www.handsonuniverse.org/ms/HOSS-TG2006.pdf
- **★** Explore the Moon with the help of astronauts using Google Moon: http://earth.google.com/moon/
- **★** Skywatchers guide to the Moon: http://nightsky.jpl.nasa.gov/download-showdoc.cfm/ObserveMoon.pdf?Doc ID=331&Doc Filename=ObserveMoon%2Epdf&InfoLogged=1&Anon=0

<u>Suggested Projects:</u> write an essay/produce a presentation on the importance of space explorations, make a drawing or a picture of the Moon as you observed it and identify features on the Moon, identify the Apollo Landing spots, measure Moon Craters and find one with the same size of your city; propose an exploration mission

3) Faces and phases of the Moon

Suggested Resources:

- ★ Why does the Moon have phases? http://nightsky.jpl.nasa.gov/download-showdoc.cfm/MoonPhases1.pdf?Doc ID=329&Doc Filename=MoonPhases1%2Epdf
- **★** Does the Moon Rotate? http://nightsky.jpl.nasa.gov/download-showdoc.cfm/MoonRotate.pdf?Doc ID=330&Doc Filename=MoonRotate%2Epdf
- **★** Virtual observatory: <u>www.stellarium.org</u> <u>http://www.shatters.net/celestia/</u>

<u>Suggested Projects:</u> Write a tale explaining the phases and faces of the moon. Write an essay/produce a presentation on what we know about the far side of the Moon. Build a model to help explain the phases of the moon and the synchronous rotation. Build an activity using Stellarium or Celestia to explain the different views of the Moon in different parts of the world.



4) Size of the Moon and the eclipses

Suggested Resources:

- **★** Why do eclipses happen http://nightsky.jpl.nasa.gov/download-showdoc.cfm/Eclipses.pdf?Doc ID=327&Doc Filename=Eclipses%2Epdf
- Earth x Moon Scale
 http://outreach.as.utexas.edu/marykay/solarsystem/ScaleModels.pdf
- **★** Virtual Observatories: www.stellarium.org, http://www.shatters.net/celestia/

Suggested Projects:

Write a tale explaining why eclipses happen. Write an essay/produce a presentation rebuilding the history of men perception of what eclipses are. Build a selection of digital images using Celestia or Stellarium reproducing a solar and a lunar eclipse from different points of observation on Earth, Moon and Sun.

5) The Moon's importance for life on Earth

Suggested Resources:

- **★** Information about different hypothesis on how was the Moon formed: http://teachertube.com/viewVideo.php?video id=58945&title=How the Moon Was Formed
- What if the Moon didn't exist http://www.astrosociety.org/education/publications/tnl/33/33.html
- **★** Rare Earth http://en.wikipedia.org/wiki/Rare Earth hypothesis

Suggested Projects:

Write an essay/produce a presentation spotting the relevant aspects of our natural satellite that makes it so important to life on earth. Write an essay/produce a presentation exploring the possibilities of life existing elsewhere in the Solar System.

6) Moon exploration in our daily lives

Suggestion of resources:

- **★** Space in daily life http://www.esa.int/esaHS/ESA4Z2QV16D education 0.html
- ★ Space in daily life in images http://sci.esa.int/science-e/www/object/doc.cfm?fobjectid=37866
- **★** Inventions benefiting health http://space.about.com/od/toolsequipment/ss/apollospinoffs.htm

Suggested Projects:

Produce a video in your school selecting everything whose development started in space exploration. Write an essay/produce a presentation on the impact of Astronomy and Space Exploration in our daily lives.



7) Careers and technology transfer in Space Exploration

Suggestion of resources:

- Careers in the Space Industry http://www.space.gc.ca/pdf/educatorjob space.pdf?404=1&ref=http://www.google.com/search?hl=en&q=careers+in+space+explor ation&rlz=1l7GGLL pt-PT
- ★ Look to the future: Careers in Space http://mgs-mager.gsfc.nasa.gov/Kids/careers.html
- ★ Space and Technology Transfer

<u>Suggested Projects:</u> Write an essay / produce a presentation on all possible careers a student might choose related to space exploration. Write an essay/produce a presentation on how industry largely benefits from space exploration.

Two suggestions for background information on the Moon:

Discovery Space School: http://science.discovery.com/videos/space-school-moon.html

Wikipedia: http://en.wikipedia.org/wiki/Moon

Note: We have suggested only a few good resources there are many other good sources that you can use in this activity. If you find a particular nice one that you want to share this us, go ahead and send us an email! We appreciate that.

During World Space Week the "My Moon Campaign"-forum will be opened to connect classrooms from around the world giving students the opportunity to interact with astronomers and space scientists. The My Moon Campaign coincides with Galilean Nights where over three nights students, astronomers and enthusiasts will share their knowledge for the Universe by encouraging as many people as possible to look through a telescope.

During the event students will be encouraged to participate in several nice projects:

- The "Great World Wide Star Count" a project to encourage everyone to go outside, look skywards after dark, count the stars they see in certain constellations, and report what they see online in a global effort to monitor the ecological effects of light pollution.
- You are Galileo, a project devoted to excite participants in the recreation of Galileo's discoveries.
- Astrophotography Campaign
- And many other very challenging ideas

Also we really appreciate when you send us pictures of how your class was having fun during World Space Week. How to do that, you can find here: http://www.worldspaceweek.org/photos.html