

# Space and Night Sky Legends Resource Guide

## Astronomy in the Marketplace

You can find notes and discussion materials for this activity

here: <http://www.astrosociety.org/education/publications/tnl/08/08.html>

1. After some discussion of the fascination of astronomy, ask students to list some common consumer products that have been named after astronomical objects. Here are some examples to get the discussion going:

*Automobiles:* Ford Taurus, Mercury Comet, Dodge Aries, Ford Galaxie, GM Astrovan, Nissan Pulsar, Toyota Corona, Chevy Nova, and Subaru (which means Pleiades in Japanese; the Subaru logo at the front of each car actually shows a number of the stars in the Pleiades star cluster.)

*Other Products:* Comet cleanser, Milky Way and Mars candy bars, Pulsar watches, Quasar televisions, and Galaxy carpets (with a spiral galaxy as a logo).

2. After generating a short list in the class, ask the students to spend the next few days looking around their homes, in local stores and advertising, and in magazines and newspapers for as many astronomically inspired product and business names as they can find. You might see which class or group can produce the longest list. If you come up with a particularly impressive list, you might send a copy to the Astronomical Society of the Pacific. (We will award an "Astronomy is Looking Up" bumper sticker to the five longest lists we receive before July 1, 1987.)

3. The class can discuss why astronomical names have such an appeal for businesses and what quality of the product is being emphasized by use of astronomical names or images.

4. You can extend this activity and integrate it with language arts and art projects by having students devise their own astronomically named product. Students can write and illustrate an ad for the new product and the most creative ads can be displayed on the class bulletin board. Or better yet, have the students actually produce a package or sample of the new product using common household materials. Obviously, this will be easier for "Supernova Breakfast Cereal" than for a new "Miranda Sports Coupe".) Students can also be asked to write a paragraph extolling the virtues of their product (with emphasis on astronomical terms and images) and to give a brief presentation about the product to the class.

You might note that astronomers themselves have chuckled about these product names over the years. Several years ago, when a small, previously unseen galaxy was discovered relatively near our Milky Way, it was nicknamed "Snickers" because, compared to our Galaxy, it was just a peanut.

## Picture an Astronomer

Entire Activity: <http://www.astrosociety.org/education/astro/act1/astronomer.html>

Introduction: The media and our past experiences have shaped and created our expectations of people in various careers. Astronomers are often typecast as middle-aged, white, "nerdy" males by students and adults alike. However, astronomy is carried out by men and women in every

country and by people young and old. This activity is a wonderful way to call attention to, and discuss, our preconceptions about who "can" be an astronomer.

### **Birthday Moons**

Entire Activity: <http://btc.montana.edu/ceres/html/Birthday/birthday1.htm>

Summary: Students become familiar with lunar phases by locating and then graphing the Moon phase of their own birthdays. After listening and discussing lunar myths and legends they create their own Birthday Moon Stories.

### **Sun Clocks**

Instructions: [http://www.exploratorium.edu/science\\_explorer/sunclock.html](http://www.exploratorium.edu/science_explorer/sunclock.html)

### **Create a Constellation**

<http://207.73.100.22/lms/planetarium/activities/own-const.html>

or

<http://lawrencehallofscience.org/pass/passv05/PASSv05CreateConstell.pdf>

### **How High Up is Space?**

[http://www.astrosociety.org/education/activities/l11\\_How\\_High\\_Space.pdf](http://www.astrosociety.org/education/activities/l11_How_High_Space.pdf)

### **How Old Are You? (On Different Planets)**

[http://www.spacegrant.hawaii.edu/class\\_acts/HowOld.html](http://www.spacegrant.hawaii.edu/class_acts/HowOld.html)

Your birthday is actually a celebration of a trip made by Earth around the Sun one time. For each trip around our star we "age" one year... or at least that is how we humans express it. How "old" are you on the other eight planets in our solar system?

### **Invent an Alien**

You can find notes and discussion materials for this activity

here: <http://www.astrosociety.org/education/publications/tnl/01/halley2.html>

This activity is ideal to enhance a unit concerning the solar system for grades 4-8. It helps students learn about the planets and moons, uses their language and art skills, encourages use of library resources, and promotes creative thinking.

Objective:

To construct a model of an Alien Being that could exist on another planet or satellite in our solar system.

Materials:

Any common items found around the house.

Paper and pencil

The purpose of the activity is to encourage students to learn about the planets through an enjoyable project that encourages their creativity. The scientific accuracy of their Alien Beings may not be as important as the learning and reasoning processes they go through as they construct their alien.

Place the name of each planet or satellite the class will be studying (except the Earth) on separate slips of paper. Make enough slips so there is one for each student in the class. Place the slips of paper in a hat

or box and have each student pick a world. The students should not reveal to other members of the class which world they have.

Tell the students that their goal is to construct the model of an Alien Being that could live on the world they picked. These should be three-dimensional models made from any material they can find around the house. Give the students a week to ten days to complete the task. Ask them also to write half-page to one page descriptions of their Alien Beings, stating why they have the characteristics the students have selected. The day you assign the project is an appropriate time to discuss what some of the requirements are for a "Being" to exist on a given world. These should include:

a means to get food

possibly a way to move around the planet

a way to breathe

other means to sense the environment, equivalent to our five senses

other suggestions they may have, such as the effects of a gravitational pull that is much larger or smaller than we experience

You may find this is a good discussion to have again after they have researched the nature of their worlds, but before they actually start constructing their Alien Beings.

This activity will require that the students use the library resources available at the school and in the community to determine the characteristics of the planets. If possible you should examine what references the libraries in your area have. Good resources could include:

Encyclopedias (preferably no more than three years old)

Odyssey Magazine

National Geographic (see list below)

Recent books about the planets

On the day that the Alien Beings are due, they can be put on display around the room with the description in front of each one. The students should then have the opportunity to examine each other's Alien Beings to try to determine what planet they think each one comes from. This part of the activity can also be done as an oral presentation. (If the written descriptions are used during this part of the activity, students must be instructed to write them without naming their worlds.)

After the Alien Beings are reviewed, you might have the students talk about the difficulties they ran into designing life on other worlds and discuss with them the reasons our space probes have not found evidence of life elsewhere in the solar system.

### **Edible Rocks**

[http://www.spacegrant.hawaii.edu/class\\_acts/EdibleRocksTe.html](http://www.spacegrant.hawaii.edu/class_acts/EdibleRocksTe.html)

Use candy bars to represent and describe meteors.

### **NASA for Teens**

<http://www.nasa.gov/audience/forstudents/9-12/index.html>

<http://mynasa.nasa.gov/portal/site/mynasa/index.jsp?bandwidth=high>

### **Constellation Myths from Around the World**

<http://www2.semo.edu/mast/mlc/constellations.pdf>

and

[http://starchild.gsfc.nasa.gov/docs/StarChild/universe\\_level2/activity/star\\_art.html](http://starchild.gsfc.nasa.gov/docs/StarChild/universe_level2/activity/star_art.html)

**Making Constellations**

<http://casjobs.sdss.org/stripe82/en/proj/teachers/kids/constellation/lesson.asp>

**Astro Bingo**

[http://sciencespot.net/Media/solarsystem\\_bingo.pdf](http://sciencespot.net/Media/solarsystem_bingo.pdf)

**Constellation Word Search**

<http://sciencespot.net/Media/astroconst.pdf>

**Constellation Stories and Information**

<http://www.ianridpath.com/startales/contents.htm>