

Pre and Post Lessons/Activities

Starry, Starry Night – Grade 1 & 2 `Imiloa Field Trip

Teachers, please use this guide for recommended website lessons and activities to use with your classes before and/or after your field trip.

***Print and duplicate these card sets to use with your students in a “Concentration” –style game to help student recognize star patterns and exercise memory and concentration skills.

Constellation flash cards link:

http://www.science-teachers.com/constellation_flashcards.htm

***Learn how to use the easily recognizable winter constellation, Orion, to locate other bright stars and constellations. This will help you share with your students how to navigate the star patterns seen in the night sky at this time of year.

Constellations in the Winter Sky link:

http://science-teachers.com/space/winter_constellations.doc

***This is a good resource for finding and using the North Star for navigation. It also highlights how stars look as they appear to travel across the night sky around the North Star, with some neat pictures that could be used for coloring.

How stars move across the night sky and how to locate the North Star link:

http://science-teachers.com/space/north_star/HowtoFindtheNorthStar.doc

***Use this PowerPoint as an excellent complement to teaching the use of the North Star by open ocean navigators.

PowerPoint: How to Find the North Star link:

http://www.science-teachers.com/space/north_star/NorthStar.ppt#259,2,How to Find the North Star

***Use this Student Activity Pack as a “teacher resource” to help you ask good questions as you teach about using the North Star to navigate. It also has some excellent diagrams you might want to include with the PowerPoint presentation listed above, or on an overhead projector.

Navigation and North Star Student Activity Pack – Comprehension Questions for Finding and Using the North Star for Navigation link:

http://www.science-teachers.com/space/north_star/studentpack.doc

***This lesson uses the Jack and Jill nursery rhyme to motivate students to observe the Moon and introduces them to the fact that there is a repeating pattern in the order of the phases of the Moon. It also highlights the fact that the Moon is sometimes visible in the daytime to dispel the misconception that the Moon is only visible at night.

Jack and Jill in the Moon Lesson link:

<http://www.madison.k12.wi.us/planetarium/jacknjill.pdf>

***This is an interesting and informative website about Moon gardening with facts about how the moon controls such things as ocean tides, groundwater tables, the movement of fluids in plants and more...use scientific thinking and experiment with your classes to test these ideas for “planting by the Moon!”

Planting by the moon – general – link:

<http://www.plantea.com/planting-moon-phases.htm>

***This site highlights the Hawaiian names for the lunar phases and makes connections to how Hawaiians use the moon for navigation, planting, fishing and gathering.

Hawaiian Moon Phases link #1:

<http://www.instanthawaii.com/cgi-bin/hawaii?Weather.moon>

***This is another site highlighting the Hawaiian names for the moon phases and indications for planting and fishing. It has good explanations of the meanings of the moon phase names given by Hawaiians.

Hawaiian Moon Phases link #2:

<http://www.angelfire.com/sports/huntfishmaui/moon.html>

***This third site about the Hawaiian moon phases explains the division of the 30 day moon cycle into three 10-day weeks called anahulu, highlighting the Ho`onui, Poepoe, and `Emi anahulu presented during the field trip experience at `Imiloa.

Hawaiian Moon Phases link #3:

<http://apdl.kcc.hawaii.edu/~oahu/stories/days.htm>

***This site is recommended for the “Create Your Own Constellation” lesson because it uses accurate star field charts for the different seasons: Winter, Spring, Fall, and Summer to do what our ancestors did—use their human ability to recognize patterns as well as their imaginations. It could be adapted to have the students also give their constellation a Hawaiian name in addition to an English name.

Create Your Own Constellation link:

<http://www.coldwater.k12.mi.us/lms/planetarium/activities/own-const.html#Materials>

***This lesson emphasizes basic scientific skills: observation, data collection, data display and interpretation, generation of good questions and hypotheses, and identifying sources of error. It can be done in your classroom on an ongoing basis with minimal time and equipment!

Movement of the Sun Lesson link:

http://gisgeek.pdx.edu/pps/lesson_plans/bruce/BER1%20Movement%20of%20the%20Sunl.doc

***This lesson will show you how to recreate the Moon Phases experience your students had during their field trip to `Imiloa in your classroom for reinforcement and extension. They will discover why moon phases occur and “see for themselves” using models just like scientists!

Moon Phases Activity link:

http://www.learner.org/teacherslab/pup/act_moonphase.html

HCPS III Standards:

Grade 1:

SC.1.2.2: Describe a variety of changes that occur in nature

S.C.1.1.1: Collect, record, and organize data using simple tools, equipment, and techniques safely.

Grade 2:

SC.2.1.1: Develop predictions based on observations

SC.2.1.2: Conduct a simple investigation using a systematic process safely to test a prediction.

Nā Honua Maui Ola Guidelines:

Learners #3: Sustain respect for the integrity of one’s own cultural knowledge and provide meaningful opportunities to make new connections among other knowledge systems.