

Kinesthetic Astronomy References:

You can find complete teachers guides, student sheets, props, and written assessments for kinesthetic astronomy from the following sources:

From the Space Science Institute at UC Boulder.... The authors are Dr. Cherilynn Morrow and Mike Zawaski (Mike was my teacher!):

For basic information regarding kinesthetic astronomy... Sky Time Lessons

http://www.space-science.org/education/extra/kinesthetic_astronomy/KASkTimeAug04.pdf

For rotation, orbiting, day, night, tilt...zodiac, & reasons for the seasons:

http://www.space-science.org/education/extra/kinesthetic_astronomy/index.html

For written assessments...

http://www.space-science.org/education/extra/kinesthetic_astronomy/KAAssessmentSkyTimeAug04.pdf

For props:

http://www.space-science.org/education/extra/kinesthetic_astronomy/KAPROPSAug04.pdf

My lesson plans to the reason for the seasons:

Go to <http://www.sciencestandardslessons.org/>

Register; go to Grades 9-12...scroll down to **What's the reason for the seasons?**(That's mine!)

Family Guide to Sun +...

http://www.spaceweathercenter.org/resources/04/famguide_sun.pdf

Moondance (Use Van Morrison's "Moondance" music)

From:

Curriculum Unit - Phys Teacher Database Mar 1993, teaching, 178, Moon Dance A "Handy" Way to Teach Moon Phases, 306, Laboratory Performance Assessment, Timothy F. Slater and Joseph M. Ryan ...
educ.queensu.ca/projects/science_teaching/other/cur_unit/g12phys/data.html - 61k -

Phases of the Moon

Assign a different month to each group of students. Have them take an 11x17" sheet of black construction paper and divide it into a 7 x 5 grid. Tell them the date for the New Moon and have them construct the calendar for the entire month based upon the information they have learned. Use toothpicks or popsicle sticks to "carve" out the phases of the moon using Oreo cookies or Ritz crackers with cheese.

Sun, Earth, Moon Models: Science Kit & Boreal Labs

<http://sciencekit.com/modeling-the-moonand%238217%3Bs-motion-and-phases-kit-teacher-developed%2C-classroom-tested/p/IG0022869/>

Sample lesson plans:

http://www.cascaeducation.ca/CSA/CSA_Astro9/files/html/module3/lessons/lesson4/phasesMoon.html

Solar System Toilet Paper Roll Model:

<http://solar.physics.montana.edu/tslater/plunger/tissue.htm>

<http://www.astrosociety.org/education/family/materials/toiletpaper.pdf>

http://starryskies.com/try_this/toilet.paper.html

Other excellent hands-on astronomy teaching ideas:

Project Star: The Universe in Your Hands...

<http://www.kendallhunt.com/projectstar/>

Voyages Through Time Curriculum...

<http://www.motion.com/voyagesthroughtime.org/>

(Especially the Cosmic & Planetary Evolution Modules)

<http://www.voyagesthroughtime.org/cosmic/index.html>

<http://www.voyagesthroughtime.org/planetary/index.html>

Night Sky Network – Join for all sorts of materials for classrooms and outreach activities-FREE!!!

<http://nightsky.jpl.nasa.gov/>

Additional Astronomy Materials:

Find information related to NASA: missions, the search for life in the Universe, education... <http://www.nasa.gov/> and <http://spacescience.nasa.gov>

Sign up for free email updates and learn the latest developments in space science from NASA. <http://science.nasa.gov>

Sign up for free email updates about when to see the Aurora and many more topics about the Sun and its effects on Earth.

<http://spaceweather.com>

See the Moon's phase for any day from 1800- 2199.

<http://tycho.usno.navy.mil/vphase.html>

Learn the time for Sunrise/Sunset/Moonrise/Moonset for any day or location.

<http://mach.usno.navy.mil/> (click on "Data Services")

Solar and lunar eclipses, where to see them, and when

<http://sunearth.gsfc.nasa.gov/eclipse/eclipse.html>

Astronomy images.

<http://hubblesite.org/> (Photos from the Hubble Space Telescope)

<http://www.geo.mtu.edu/weather/aurora/images/aurora/jan.curtis/> (Aurora images)

<http://antwrp.gsfc.nasa.gov/apod/astropix.html> (Astronomy photo of the day)

This site is a great resource for learning about the contents of our Solar System.

<http://seds.lpl.arizona.edu/nineplanets/nineplanets/nineplanets>

Home page for the Mars Exploration Rover Mission & Phoenix Mission:

<http://marsrovers.jpl.nasa.gov/home/index.html> & <http://phoenix.lpl.arizona.edu/>

This fun site is devoted to airing out myths and misconceptions in astronomy and related topics.

<http://www.badastronomy.com/>

Starting point for finding good astronomy activities and lessons on the web

<http://www.astrosociety.org/education/activities/astroacts.html>

Download the first Kinesthetic Astronomy lesson: Sky Time and the materials for it.

<http://www.spacescience.org/> (click on "Resources for Educators" then "Kinesthetic Astronomy")

Purchase astronomy related items on-line.

<http://skyandtelescope.com/> and <http://astrosociety.org>

To buy "Earth" T-shirt (blue shirt with Earth's continents): Bob Summerfield at *Astronomy To Go*

email: Astro2go@aol.com, phone: (215) 831-0485, fax: (215) 831-0486