Xeriscape

**Grade Level:** adaptable for all grade levels

**Time:** four – 90 min. blocks

**Concept:** Conservation of natural resources

**Generalization:** Saving water is an important issue in Florida. Learning to landscape in a way that conserves water and protects the environment is called xeriscape (zeer eh scape). This lesson plan will help students to practice problem solving, learn about the 7 principles of xeriscape, and design a basic landscape project.

**Objectives:** Students will:
   1. work in groups to research the xeriscape methods of planting.
   2. design a yard using the information learned.

**Material/Resources:**
- pencils
- erasers
- colored pencils and pens
- xeriscape pamphlets
- websites
- xeriscape landscapers

**Procedures:**

**Initiating Activity:** At least one month in advance of your lesson, line up a speaker from a Water Management District or a landscaping firm, have students write letters requesting xeriscape information using the resources listed, check out and bookmark appropriate websites.

**Opening Activity:**
1. brainstorm student’s knowledge of xeriscape through the use of a KWL chart.
2. introduce the word “xeriscape” (Xeriscape combines the Greek word xeric (meaning dry) with the word landscape to form a term for a planted area that doesn’t need much water.

**Strategies:**
1. Students will work in groups of four (recorder, researcher, material gatherer and reporter).
2. Groups will know that their job is to create on paper an environmentally friendly landscape.
3. Groups will have paper, plain and grid, markers, crayons, pamphlets and books available for their use, and have appropriate websites bookmarked.
4. Set up a schedule for use of computer and a time line for project completion.
5. Discuss expectations for completed project and set up a rubric for grading.
6. Speaker will be scheduled for one block.
7. Brainstorm various ways that project can be compiled. For example: diorama, collage, graphs and plotting, cutting and pasting pictures into a yard scene, booklets of usable xeriscape plants and shrubs.
**Culminating Activities:**
1. Students will present their final xeriscape project to the class.
2. Projects and reports can be put on display in media center.
3. Students can put their newfound knowledge into practice by creating a xeriscape landscape project for their school grounds or their home.
4. These activities can be recorded through the use of journals.

**Evaluation:** Students will receive a combination grade using the established rubric, a presentation grade from the teacher and from their peers and teacher observation.

**National Geography Standards:**
Standard 1: Students know and understand how to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.
Standard 2: Students know and understand how to use mental maps to organize information about people, places, and environments in a spatial context.
Standard 16: Students know and understand the changes that occur in the meaning, use, distribution and importance of resources.

**Sunshine State Standards:**
SS.B.1.3.1: The students use various map forms and other geographic representation, tools and technologies to acquire, process, and report geographic information.
SS.B.2.3.6: The student understands the environment in various world locations.
SS.B.2.3.4: The student understands how the landscape and society change as a consequence of shifting from a dispersed to a concentrated settlement form.
L.A.A.2.3.5: The student locates, organizes, and interprets written information for a variety of purposes, including classroom research, collaborative decision making, and performing a school or real-world task.
L.A.B.1.3.1: The student organizes information to the type and purpose of writing.
SC.G.2.3.1: The students learn that some resources are renewable and others are nonrenewable.
SC.G.1.3.4: The student knows that the interactions of organisms with each other and the non-living parts of their environments result in the flow of energy and the cycling of matter throughout the system.
SC.H.1.2.5: The student knows that a model is different from the real thing, but can be used to learn something about the real thing.

**Resources:**

Speakers:
University of Florida Extension Services – master gardeners get points for volunteer hours
Home Depot or Lowes
Local gardening clubs and nurseries
Pamphlets:
~ A guide to Environmentally Friendly Landscaping
~ New and Revised Xeriscape - plant guide (intermediate and up)
~ Let’s Design a Xeriscape (elementary)
St. Johns River Water Management District
http://sjr.state.fl.us

~ Xeric Landscaping with Florida Native Plants
Florida Native Plant Society
PO Box 6116
Spring Hill, Fl. 34606
813-856-8202

Florida Nurserymen and Growers Association
5401 Kirkman Road, Suite 650
Orlando, Fl. 32810
407-345-8137

Web sites:
National Geographic Society
http://nationalgeographic.com/gaw
lesson plans for Geography Awareness Week

Southwest Florida Water Management District
2379 Broad Street
Brooksville, Fl. 34609
800-423-1476
http://www.swfwmd.state.fl.us
virtual watershed excursion, xeriscape information, free teacher materials, Splash (intermediate lesson plans)

South Florida Water Management District
http://www.sfwmd.gov
student corner, free materials, great environmental information

St. John’s Water Management District
http://sjr.state.fl.us
general information/water resource education, free materials, information on xeriscape

US Geological Survey
http://www.usgs.gov
great posters, information on maps, volcanoes, earthquakes, and research projects

Where in the world are you?
Check it out on www.terraserver.com
Florida Department of Environmental Protection (DEP)
Bureau of Aquatic Plant Management
3917 Commonwealth Blvd. MS# 710
Tallahassee, Fl. 32399-3000
www.dep.state.fl.us
current environmental issues, park information

Sarasota Bay NEP
5333 N. Tamiami Trail #103
Sarasota, Fl. 34234
Brochures, pamphlets

Florida Yards & Neighborhoods
program of the Florida Cooperative Extension Service of the University of Florida
http://hammock.ifas.ufl.edu