

WATER!

Every Drop Counts

Water Education

Water is the basis of all life on Earth. It nourishes us and all living things on the planet. It is necessary for people to understand the importance of clean water and why we need to conserve it. Without this understanding, it's easy to make decisions that will hurt our supply of water.

The following list of activities illustrates for students the properties of water, how it affects the landscape and how we use water.

These activities are intended to be part of a Kentucky-specific, standards-based units of study to provide comprehensive learning opportunities to students. Each activity is aligned with Kentucky's Program of Studies for Grades Primary - 12.

Additional Resources

Using multiple sources of information will help students to develop and practice informational reading skills and will give them more thorough background information. Students are also encouraged to visit the Kentucky Division of Water website at www.water.ky.gov and the Environmental Protection Agency website at www.epa.gov to find information about water resources.

The Kentucky University Partnership for Environmental Education (KUPEE) is made up of the environmental education center directors at each of the eight state universities. These centers provide a tremendous amount of information and resources for teachers. Visit the KUPEE website at www.kupee.eku.edu to find the center in your region. Local conservation district staff also can provide resources pertaining to water. Some districts have groundwater or Enviroscope models you can use or may be able to assist in field trips and classroom visits.

Other resources for teachers include Project WET (Water Education for Teachers) www.projectwet.org and Project WILD Aquatic www.kdfwr.state.ky.us then follow the education & outdoor activities link. These are curriculums for teaching about water and aquatic habitats.

Water, an extraordinary compound

Activity 1: (Academic Expectations 2.1, 2.2, 2.4) Have students explore the physical characteristics of water by comparing water with other clear liquids.

(Goal: This activity will help students understand that the position of an object can be described by locating it relative to another object or the background.)

Water Cycle

Activity 1: (Academic Expectations 1.12, 1.13, 2.23, 2.1, 2.2, 2.3) Have students make puzzles showing the water cycle at work and have them share with their classmates.

(Goal: This activity will help students understand and communicate the change in position of an object with visual arts.)

Teacher Guide

Activity 2: (Academic Expectations 2.1, 2.2, 2.4) Have students make a mini-model of the water cycle using 2-liter soda bottles to observe evaporation, transpiration, condensation, precipitation and infiltration taking place. (Goal: Students will collect water data by using a variety of observation techniques and measurement tools to observe evaporation, condensation and precipitation.)

Activity 3: (Academic Expectations 1.2, 1.3, 1.4, 1.15, 2.3, 5.2, 6.1, 6.3) Have students learn the water cycle by acting out its parts.

(Goal: Students will identify each part of the water cycle and how the parts interact.)

How do we use water?

Activity 1: (Academic Expectations 1.2, 2.1, 2.2, 2.3, 2.24, 2.25) Through observation, discussion and research, students will report on the needs of plants and animals.

(Goal: Students will understand the different ways components work together and affect each other.)

Activity 2: (Academic Expectations 2.8, 2.9, 2.30, 2.33, 5.4) Have students develop a survey to use to collect and analyze information about how much water their families use during a typical day at home.

(Goal: Students will understand that consumer actions influence the use of resources and impact the environment.)

Activity 3: (Academic Expectations 2.19) Have students participate in a water crossing contest in which they must move their possessions (represented by a hard boiled egg) across a span of water.

(Goal: This activity will help students understand how water features like rivers or lakes can impact human migration.)

Watersheds

Activity 1: (Academic Expectations 2.1, 2.2, 2.3, 2.5, 2.8, 2.9, 2.19, 2.30, 2.33, 5.4) Have students create mini-watershed models that show examples of point and nonpoint water pollution sources and natural filters in a community.

(Goal: Students will develop strategies for managing resources as it relates to consumer decisions.)

Activity 2: (Academic Expectations 2.8, 2.9, 2.19) Teach students about reading and drawing topographic maps and watersheds by taking them outside school and mapping their local micro-watershed.

(Goal: Students will understand how human/regional relationships have a geographical influence.)

Activity 3: (Academic Expectations 1.3, 1.7, 2.1, 2.2, 2.3, 2.9, 4.2, 5.1, 5.3, 6.2, 6.3) Have students map school grounds to plot predicted and actual drainage patterns.

(Goal: Students will gain an understanding of the concept of watersheds and how the community fits into it.)