

Project WILD is principally sponsored at the national level by the Western Regional Environmental Education Council, a non-profit organization of representatives of departments of education and natural resources agencies in 13 western states; and the Western Association of Fish and Wildlife Agencies, an organization of the state agencies responsible for wildlife in the western United States and Canada. Associate organizational sponsors include the National Wildlife Federation, Defenders of Wildlife, Environmental Protection Agency, The Wildlife Society, U.S. Fish and Wildlife Service, American Fisheries Society, Canadian Wildlife Federation, Centre for Environment Education (Ahmedabad, India) National Centre for Educational Materials (Iceland), and Umea University (Sweden).

The Project WILD Aquatic Education Activity Guide has been developed through a cooperative agreement with the U.S. Fish and Wildlife Service. By this agreement, these materials can be made available to all state fish and wildlife agencies. Funding for the development of these materials has been provided with partial support from monies made possible through the Wallop-Breaux Amendment to the Sport Fish Restoration Act. This federal legislation provides support for aquatic resources education to increase public understanding of, and responsibility toward, the nation's water resources and aquatic life forms.

Project WILD has been endorsed by the National Council for the Social Studies and is consistent with the recommendations of the National Science Teachers Association. Project WILD has been awarded the President's Environment and Conservation Challenge Award for Education and Communication. This presidential gold medal recognizes Project WILD as a program that best exemplifies the cooperative, innovative spirit of the new environmental era in education and communication.



project WILD
 Colorado Division of Wildlife
 6060 Broadway
 Denver, CO 80216

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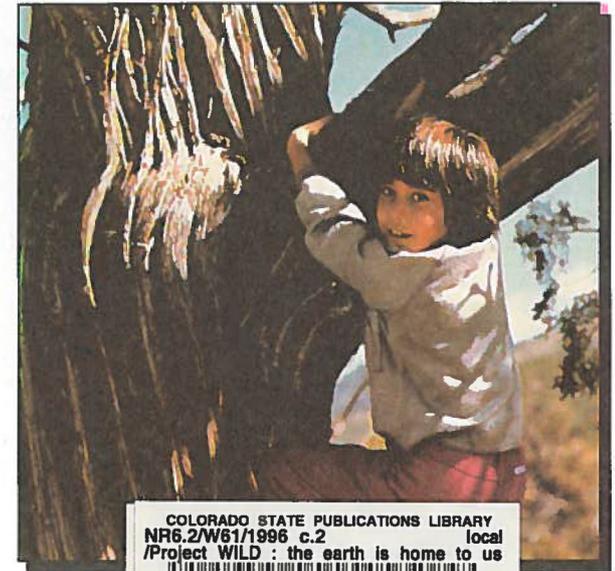
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*The Earth Is Home
 To Us All*



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Environment Education
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What is Project WILD?

Project WILD *Wildlife in Learning Design* is an environment and conservation education program emphasizing awareness, appreciation and understanding of wildlife and natural resources. Project WILD is interdisciplinary, supplementary and hand-on, and can be used to teach basic learning skills in science, social studies, language arts, math, art, music and physical education.

With its unbiased approach to basic wildlife management practices, Project WILD teaches young people how to think about wildlife, not what to think. Kindergarten through 12th grade students learn basic concepts about wildlife, its needs, and its relationship and importance to people and the environment. The program helps develop problem-solving and decision-making skills in determining responsible human actions.

Why Project WILD?

As the human population increases, our planet grows more crowded every day. Natural and wild places are rapidly diminishing . . . and so is wildlife.

Project WILD is based on the premise that wildlife is important; in fact, wildlife is vital to the quality and sustainability of life on earth. Wildlife is not only important for its own sake, it is part of the interconnected web of life when one strand is removed, the entire web is weakened. Wildlife is an indicator of environmental quality.

Project WILD Goal

The goal of Project WILD is to assist learners of any age in developing awareness, knowledge, skills and commitment to result in informed decisions, responsible behavior and constructive actions concerning wildlife and the environment upon which all life depends.

Project WILD is . . .

- ❖ *exciting instructional strategies*
- ❖ *carefully developed teaching materials*
- ❖ *powerful techniques for teaching basic skills*
- ❖ *used and useful in language arts, math, social studies, science, art, physical education, health, and music classrooms*
- ❖ *exemplary "science, technology, and society" instructional activities*
- ❖ *effective methods for teaching problem-solving and decision-making*
- ❖ *concept-oriented*
- ❖ *designed for diverse teaching and learning styles*
- ❖ *extensively reviewed, tested, and evaluated*
- ❖ *balanced and fair on value sensitive issues*
- ❖ *praised by professional educators, wildlife biologists, parents, and students*

Project WILD Guides

The core of Project WILD is its activity guides designed for educators. Each guide contains activities that are presented in lesson-plan format, including objectives, methods of teaching, background information, references available, a list of materials needed, and ways to evaluate learning. The guides help incorporate wildlife-related concepts into the classroom curriculum, and each activity is designed to teach one or more of the following concepts:

- ❖ *awareness and appreciation of wildlife*
- ❖ *human values and the wildlife resource*
- ❖ *wildlife and ecological systems*
- ❖ *wildlife conservation*
- ❖ *cultural and social interaction with wildlife*
- ❖ *wildlife issues and trends, alternatives and consequences*
- ❖ *wildlife, ecological systems and responsible human actions*

Each guide also includes a grade level, subject topic and skill index as well as a glossary of terms. Activities are designed for indoors and outdoors and can be used by nature centers and youth groups as well as classroom teachers. Each activity is designed to stand on its own, so instructors may pick and choose. The materials were written by classroom teachers and other educators, resource agency personnel, representatives of private conservation groups and other community representatives. The activities were extensively field tested and the program is being monitored and evaluated on a long-term basis. Project WILD is sponsored by the Colorado Division of Wildlife.

AQUA WORDS

OBJECTIVE

Students will be able to describe a variety of ways and reasons why water is important to people and wildlife.

METHOD

Students brainstorm water words, make word trees with those words and write poetic statements about water.

BACKGROUND

Water is central to all life and life activities. Plants and animals must have water to survive. Water represents about 75% of a person's body weight and covers nearly 75% of the earth's surface. Nearly everything on earth can be directly or indirectly traced to a connection with water. Rocks channel water into streams, streams and rivers carry water across the land. Ponds, lakes, rivers and swamps often hold water in place. Trees draw water from the soil and transport it up into the leaves and out again into the air. Clouds are airborne carriers of water across the sky.

Wildlife needs water for survival. The water must be clean and free of toxic contamination.

Humans use water for many purposes other than drinking. Care must be taken to protect water quality.

Water is a source of beauty and recreation. It is the basis of a massive planetary transportation system. Water grows our food, cools our cars, and is one of the first things on the list of substances the astronauts take into space. The driest desert has water—and there are about 230,000 cubic miles of water in the oceans. The tiny plants that live in the earth's oceans—phytoplankton—produce one-third or more of our oxygen, a gas vital to vertebrate respiration.

The major purpose of this activity is for students to increase their appreciation of the importance of water.

MATERIALS

writing materials

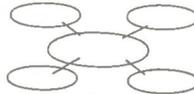
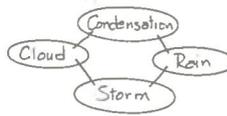
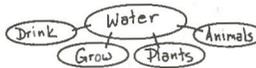
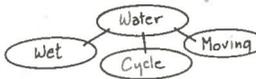
PROCEDURE

1. **OPTIONAL** Have the students bring in photographs from magazines that show water. Ask them to look especially for pictures that show how living things depend upon water. Display these photographs and use them as a basis for discussion.

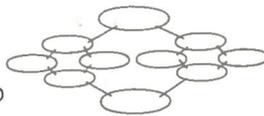
2. Ask students to think about some of the ways they have used water that day. The pictures (if collected) may be used to get them started. Emphasize how all living things are ultimately connected to water. Water is important. All life depends upon water in some way.

3. Using a long strip of butcher paper or spacious empty chalkboard for recording, ask the students to list at least 100 words that have something to do with water. Ask them to think of words about water, including its importance to people and wildlife. Keep students stretching into new areas by suggesting examples and categories of ideas if they get bogged down. **NOTE:** For younger students, use pictures or a combination of words and pictures.

4. Using the list of words that were recorded, ask the students to create word trees of water-related words. Begin with a simple word tree like this. **NOTE:** You could give them this example for a start if they need it.



Finally, if possible, ask the students to create even more complex word trees like these:



5. When students have finished several word trees, have them look at what they have done and create one or two poetic definitions of water or water-related concepts. These could begin "Water is..." or "Water is..."

For example, using the word tree condensation cloud rain storm, you might get "Water is green clouds condensing into a land summer storm."

If not definitions, the students could simply create sentences or even paragraphs about water.

6. When students have completed their poetic statements, have them write them onto various shades of blue, aqua, gray, white, and green construction paper cut to graphically fit the feeling of their idea. Arrange these cut outs on a wall or window in an aesthetic fashion. **NOTE:** Some students have arranged them in the shape of a stream, river, pond, lake or ocean. Others have formed the water cycle from their words and images. Some simply have written each of their words on a piece of paper shaped like a water drop.

EXTENSION

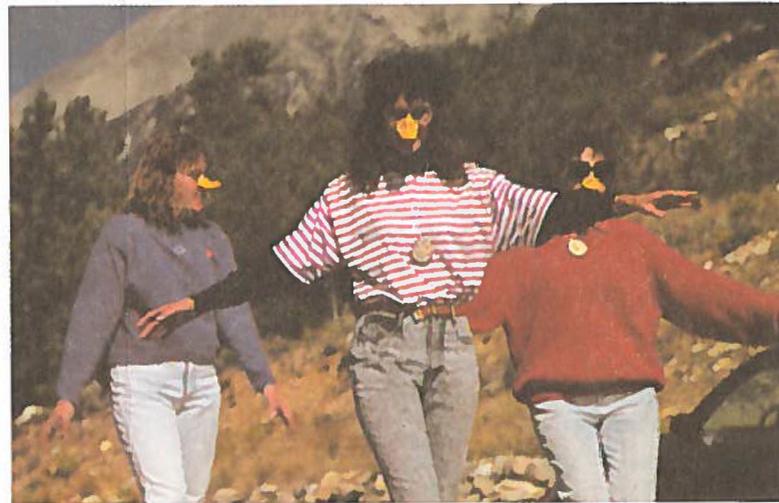
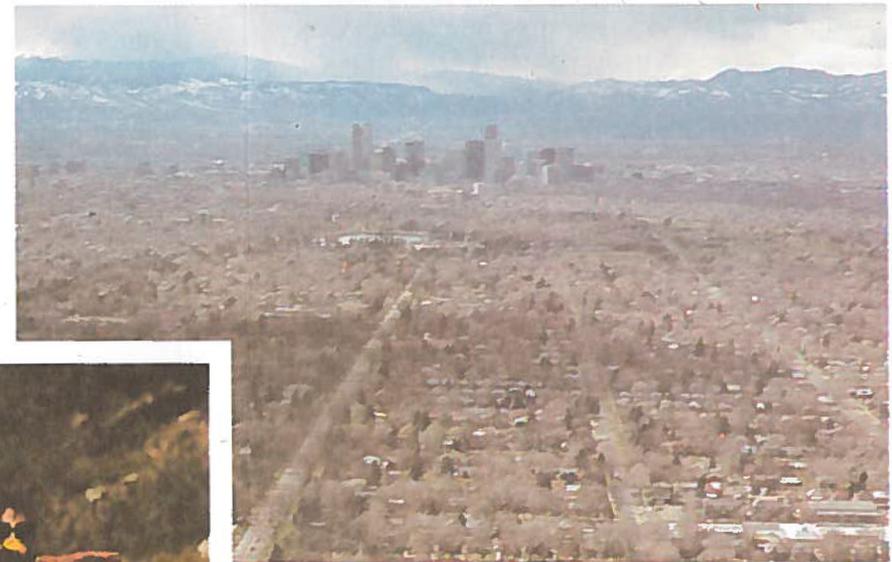
Create a class book with each student's page included. Students write their poetic definition at the bottom of the page and then illustrate their idea—for example, with water colors—at the top of the page.

EVALUATION

1. Tell three ways you use water. Tell how plants use water. Tell how animals use water. Explain why water is important.

2. Write and illustrate a short story about the importance of water.

Age: Grades K-8
 Subjects: Language Arts, Science
 Skills: analysis, discussion, listing, writing
 Duration: one or two 20 to 45 minute periods
 Group Size: any
 Setting: outside
 Conceptual Framework Reference: 1.A, 1.A.1, 1.A.2
 1.A.3, 1.C.1, 1.C.2, 1.C.3
 Key Vocabulary: water
 Appendix: Ecosystem



Colorado and Project WILD

Project WILD Activity Guides are available free of charge to participants in Project WILD workshops. Many Project WILD workshops can also be taken for graduate level credit. WILD II Workshops are offered through Project WILD, as well, allowing Project WILD trained educators to delve deeper into a variety of topics such as aquatic ecology, alpine ecology, bat ecology, haz-



in the classroom.

Project WILD in Colorado has also developed two intensive, hands-on action programs, the Rivers of Colorado Water Watch Network and the WILD Colorado Habitat Grant Program that provide opportunities for students and teachers to take positive actions on behalf of wildlife and out shared environment.

For more information about Project Wild workshops and programs in Colorado or to schedule an inservice workshop for your school, district or preservice teacher training, call the **Project WILD Information Line: (303) 291-7520** or fill out the application below.

Project WILD
Colorado Division of Wildlife
6060 Broadway
Denver, CO 80216



Project WILD
Colorado Department
of Education
201 E. Colfax
Denver, CO 80203



Become one of the thousands of educators in Colorado who have participated in an **outstanding, dynamic, exciting, and fun Project WILD workshop, and GO WILD!!!**

Project WILD Workshop Application

Name _____

Address _____

City _____ Zip _____

Phone (____) _____

Grade level and Subject (If teachers) _____

- I would like to attend the next available workshop in my area.
- My district is interested in hosting an in-service.

RETURN TO: Project WILD
Colorado Division of Wildlife
6060 Broadway,
Denver, CO 80216