

Circular YANR-195

ALABAMA

WATER QUALITY CURRICULUM

Grades 4 – 12



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Overview

This module is about the quality of the water that we use on a daily basis, with an emphasis on water issues in Alabama. Alabama's water resources are one of the state's greatest assets. Fourteen major river systems and the geological diversity of the state contribute to the uniqueness of water in Alabama. Even our state seal features the rivers of Alabama. Although our state usually has plentiful *quantities* of water available, we need to realize that the *quality* of that water supply is also very important.

As our children will be the future stewards of our land, it is critical that we give them an awareness and appreciation of environmental issues. Our aim with the background information in each unit is to provide a good scientific background for environmental studies. While many of the topics discussed in this curriculum are popular issues in the news--water pollution, acid rain, use of pesticides, etc., often true scientific facts are separated from popular myths perpetuated by the media. We aim to stress the abundance of relatively good water resources in the state of Alabama and to highlight the progress, particularly in farming, in caring for our land and water supplies. Hopefully, our youth will be encouraged to be good future stewards of the earth's resources and their actions will be based on a clear understanding of environmental issues.

Designed for students in grades 4 through 12, this module is comprised of several individual units. Background information, student fact sheets, student work sheets, student activity sheets, and teaching notes are included in the units. The material is written for the child's level, with additional notes, desired outcomes and evaluations provided for the teacher/leader's benefit. These extra notes can be easily covered so that the material could be copied and given to the students. Because all units may not be taught or may be used in a different order, important vocabulary words (noted in bold print) may be repeated in different units. Although not specifically labelled, it is designed that Level A be used for elementary grades, Level B for middle school/junior high grades and Level C for senior high. Material in the various units could, however, be adapted for different ages if necessary. Several worksheets are included in Levels A and B to help emphasize the material. Level C focuses on the major concerns about water quality, i.e., controlling nonpoint source pollution; in addition, several fact sheets on other environmental issues are included. This level contains more technical information and the activities are designed to be more long-term projects suitable for a more advanced age group. Also included at the back of the curriculum is a glossary of all the vocabulary words defined and a Bibliography and Resource Materials section.

Units contained in this curriculum are:

Level A	Level B
The Water Cycle	Where Do We Get Our Drinking Water?
What Is Water?	The Treatment of Wastewater
How Water Is Used	How Our Water Becomes Polluted
Water In Alabama History	How We Can Conserve Water

Level C

Controlling NPS Pollution

Alabama Cooperative Extension System Fact Sheets: Miscellaneous Environmental Issues

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Bibliography and Resource Materials

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The purpose of this curriculum is to reinforce learning by providing hands-on activities. It is primarily designed for either a nonformal class setting (such as 4-H clubs) or as enrichment material for regular classroom use. Most of the materials needed for the activities were purposely designed to be both inexpensive and readily available. When using the curriculum, consider the ages of the students and the community and schools where you live. What are the relevant issues in your area? How can the students contribute towards environmental/water quality education in the community? Additionally, be sure to request the assistance of Extension specialists who can provide more information in specific areas. The role of the Extension System is to serve the needs of local communities through an education process. Both Extension county agents dedicated to 4-H programs and the staff at the University system are committed to providing the most current scientific information to the public.

Alabama Water Quality Curriculum

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Fuel Storage Tanks and Groundwater Contamination on the Farm
Hard Water Can Be A Nuisance
Help Protect Our Environment: The Flint Creek Watershed
How To Deal With Bacterial Contamination of Well Water
Important Water Quality and Quantity Issues Facing Alabama Agricultural Producers
Is Your Well Water Safe To Drink?
The Nitrogen Story (From Acclamation To Condemnation)
The Ozone Layer: What It Does For Us And How We Can Help Prevent Its Destruction
Pesticides and Water Pollution: Homeowners Can Make A Difference
Radon Awareness
Recycling Used Motor Oil
Results of the ADEM's Water Quality Inventory: 1992 & 1993 Report to Congress
The Role Soil Plays in Water Quality and Pollution Prevention
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