

# Educating the Public from K-12 to Adults on the Importance of Water Resource Management using Hands-on Activities

Gary L. Hawkins, Ph.D., Water Resource Management Specialist and Laura W. Goss, Lowndes County Extension, 4-H

## Abstract:

Water resource education occurs at many different levels. This ranges from K-12 education to teachers to adults. At the University of Georgia (UGA), the authors have been working for years to educate the public on water issues ranging from the water cycle to soil erosion and deposition to improving soils for water resource management. The water cycle is one of the standards at the elementary school level. The authors have use an 8X10 foot display of the water cycle to teach students the different phases of the cycle, how they interact and how they are connected. Not only are the different parts of the cycle explained, but the facilitators also play a game with the students to help them better connect everyday items with the water cycle. In the middle school, soil erosion and deposition is an important standard. The authors have developed and presented a complimentary presentation with some examples and slides to the 6th grade students to help reinforce what the teachers were teaching. To better provide the teachers with water resource materials and ideas, the authors have worked with the regional educational service agency (RESA) to conduct water resource trainings which includes hands-on activities to provide the teachers with activities they can use to help the students better understand water resource concepts as well as contribute to their STEAM courses. Adult education consist of water festivals where the authors have used hands-on activities to explain the causes and effects of pollution on water resources. Rainfall simulators have been used at farmer based meetings to show and explain the effects of cover crops and groundcover on the reduction of erosion and water infiltration. On this poster you can see some of the different ways we use at UGA to connect people from students to adults with water resources.

## K-12 Education

Educating youth can focus on many different topics and can use many different tools. Some of these topics and tools are:



**Topics:**  
Watersheds  
Pollution Prevention  
Water Cycle  
Groundwater  
Erosion and Deposition

### Tools:

Enviroscape  
(NPS and Water/Wastewater)  
Rainfall Simulator  
8' X 10' Water Cycle  
Groundwater Model  
Erosion and Deposition Presentation  
Stream measurement Kit



1. Educating the youth in a school setting allows us to provide targeted presentations that helps complement what the teachers are covering in class.
2. Education of Teachers during trainings helps us provide ideas and hands-on activities to help the teachers have different ways to teach the standards
3. Providing presentations helps both cover the specific topics while also providing additional information for teachers to use year after year.

## Farmer/Agent/4-H Education

Educating famers and Extension Agents typically covers specific topic mainly focused on erosion control and water resources. Some of the tools used for this type of education includes:



The rainfall simulator helps explain the importance of keeping the soil covered to reduce erosion and conserve water resources.

Invitations to programs like 4-H2O allows us to spread information about water resources to 4-H kids as well as agents.



Working with different groups to help host and present at farmer field days provides an opportunity to relate and disseminate information on different ways to protect water resources

## Community Education

Educating the community on water resource topics allows our information to spread wider than the Extension Office. Some of the tools used for this type of education includes:

Using the Enviroscape and groundwater model at community festivals provides an opportunity to educate youth and adults.



Coordinating and presenting at Stormwater trainings provides an opportunity to get UGA Extension's name in front of City/County officials and consultants.



Providing presentations and hands-on education for groups like the Garden Clubs helps educate on water issues and well as other environmental issues.



**Summary/Conclusion:** There are many different groups that ask for and need water related education. Some of these are listed above. Providing the needed education requires many different hands-on tools and we at UGA Extension use many of these tools to help better educate the students, teachers, farmers, agents and citizens on the importance of protecting water resources.