

**Blue Gold – Path to Water Conservation**  
**High School Description and TEKS Overview**  
**3 – 3 ½ hours in Length, Inside/Outside**

During this lesson students learn that water is a non-renewable resource, and make informed choices regarding the source, use, management and conservation of water after participating in hands-on activities that focus on the urban water cycle process and human water consumption. The identification of nitrogen, phosphorous, and sulfur found in wastewater and its effect on the ecosystem will be discussed. Students will participate in a model of the urban water cycle, predicting the effects of water usage in the future and how their use of water can be a factor. Legislation regarding water use in Texas and water economics will be discussed.



**Environmental Systems TEKS**

The student knows the interrelationships among the resources within the local environmental system. (6.A)

Relate how water sources, management, and conservation affect water uses and quality (6.B)  
Document the use and conservation of both renewable and non-renewable resources as they pertain to sustainability. (6.C)

Identify how changes in limiting resources such as water, food, and energy affect local ecosystems. (6.D)

Analyze and evaluate the economic significance and interdependence of resources within the local environmental system. (6.E)

The student knows the relationship between carrying capacity and changes in populations and ecosystems; compare exponential and logistical population growth using graphical representations (8.A)

Identify factors that may alter carrying capacity such as disease; natural disaster; available food, water, and livable space; habitat fragmentation; and periodic changes in weather. (8.B)

Calculate changes in population size in ecosystems. (8.C)

