

Name of Workshop: Greening Your Curriculum GYC 101

Name and Course: Scott Murdoch BIO 111 - General Biology I

Title: **The Water Cycle and Us**

Learning Outcomes Covered in Course and by this assignment: Diagram how **raw materials, producers, consumers, and decomposers** are interrelated in the **flow of energy** and the **cycling of materials** through an ecosystem.

I will try to use this assignment in Fall 2013. The assignment focuses on how water is cycled through ecosystems and, in particular, large cities. The assignment has been developed to reveal the underlying aspects of water supplies and treatment facilities around the world and how they may affect natural habitat. The availability fresh, clean water is vital to life and is often overshadowed by more outstanding environmental issues. It is pertinent, timely, and useful for students, especially finding out about Chicago's water supply.

Assignment:

The Water Cycle and Us

In small groups of 4 or 5 students prepare a 5 minute multimedia or powerpoint presentation on the Water Supply and Waste Water Treatment of one of the following cities on Earth:

New York, NY; Chicago, IL; Wichita, KS; Denver, CO; Phoenix, AZ; Calcutta, India; Sydney, Australia; Oslo, Norway

The presentation should include the current details on the following:

1. Fresh Water Supply : Incoming Water

How much water is used? How many people does it supply? Are there chemical or contamination problems associated with the water? What are these problems? Is the water cleaned or purified? How? How is the water distributed to the people? Is there a shortage or surplus of fresh water? Has the supply changed recently? Are there any future plans for this city's water supply?

2. Waste Water Treatment: Outgoing Water

Where does the waste water go? Is it treated? Are there problems associated with sewage? Where is the waste water released? Are there any health risks associated with the waste water? Are there any future plans for the waste water treatment of this city?

After all the groups present, the class will discuss the water cycle and how it relates to and has been altered by human beings and potential sustainability issues as populations continue to increase.

Assessment: A Grading rubric developed for the presentations and discussion will be used for assessment.