**Water and Water Pollution Webquest/Virtual Lab Activity -**

***Objective – 3.6 in your IBESS course content outline***

1. Watch the animation for the water cycle. Draw a flow chart of the Water Cycle. Define all of the terms in the water cycle. Write which processes are transfers and which are transformations.

<http://polaris.umuc.edu/cvu/envm/hydro/hydrologic-flash.html>

2. Where is our water? Describe Earth’s Water Budget(Objective 3.6.1 in your IBESS syllabus)

3. Sketch a map or global water resources. Write a paragraph describing what you are seeing in the map in terms of water supply for the world. Where are there freshwater shortages? Is there an abundance of freshwater anywhere?

4. Define sustainability –

5. Look up a case study about a freshwater resource read the study and cite the source below. Describe and evaluate the sustainability of freshwater resource usage. (This is from Objective 3.6.2 in your IBESS syllabus)

***Objective 5.1 in your IBESS syllabus***

6. **Define** the Term Pollution –

7. **Distinguish** between point source and non-point source pollution. Provide and example of each.

***Objective 5.8 in your IBESS Course Outline***

8. What is the pH scale?

9. What is the pH of rain water? Why?

10. How does acid rain form? Why is it so harmful?

You can read the “elementary but cute” Tale of Lucy Lake from the EPA’s website - <http://www.epa.gov/acidrain/education/site_students/lucy1.html>

11. What biochemical cycle is responsible for acid rain? Watch the animation below (make sure your volume is turned down)

[**http://academic.cengage.com/biology/discipline\_content/animations/sulfur\_cycle.html**](http://academic.cengage.com/biology/discipline_content/animations/sulfur_cycle.html)

**12. Complete the Assessing Water Quality Virtual Lab**

<http://glencoe.mcgraw-hill.com/sites/dl/free/0078802849/383929/BL_09.html>

The entire procedure is on the left hand side. Print off your Journal Questions and the Data Table you completed. Label these and attach them to this sheet.

***Objective 5.2 in your IBESS Course Outline***

13. What is Dissolved Oxygen? How can we measure it? -

14. Define the term BOD (Biochemical Oxygen Demand) –

**15. Complete the How can Water Pollution be detected Virtual Lab**

<http://www.glencoe.com/sites/common_assets/science/virtual_labs/CT03/CT03.html>

The entire procedure is on the left hand side. Print off the Journal Questions and Data Table when you have completed the lab. Label these and attach them to this sheet.