**APES**

**December 19, Monday: B Day**

* Any more test corrections?
  + BE SURE your name is on your corrections sheet and turn this in with your ANSWER sheet
    - **KEEP the test copy!!!!!!**
* Take out your USGS Watershed, etc. packet
  + Be sure I have your answer sheet, or turn this in now if you did not complete the activity last class
* BE SURE I HAVE YOUR **Planet Earth WATER summary**

**WARM-UPS:**

Water Resources:

1. Define xeriscaping. What is the purpose of this landscaping strategy?

<http://livinggreen.ifas.ufl.edu/landscaping/xeriscaping.html>

1. Describe the relationship between ***LOST*** and ***EEZ***
2. Describe some successful water conservation methods.

**Be sure to View/Review the following – Thursday, we will begin working on the Stream Field study lab you received last week.**

* **Constructing Stream transects: (LOVE his accent!)**

[**https://www.youtube.com/watch?v=7gFzC\_bX7Tw&list=PLjBIbHqApIHF3gnA-iiZZRAbagluhkK5f&index=32**](https://www.youtube.com/watch?v=7gFzC_bX7Tw&list=PLjBIbHqApIHF3gnA-iiZZRAbagluhkK5f&index=32)

**OBJECTIVES:** The ***WATER ENVIRONMENT***

1. USGS watershed activity – complete the activity (you need your phones, or one of the desktops)
2. POWER POINT NOTES: 8.4: Lakes & Groundwater
3. Lab Activity (Hand-out you received last week – *Freshwater stream field study*)
   1. Questions so far (calculations)?
   2. Macroinvertebrates (part 6) – site for macro activity <http://www.esf.edu/outreach/k12/edunits/watershedadd.pdf>
      1. Summary Instructions on back of this page

**HOMEWORK:**

1. ***Continue your reading assignment in the TEXT***
2. **COMPLETE THE USGS WATERSHED AND BIOTIC WATER QUALITY OF A STREAM ACTIVITIES**
3. **BE SURE YOU HAVE COMPLETED YOUR TEST CORRECTIONS** 
   1. NEW FORMAT
      1. Write the number and the COMPLETE question for all incorrect responses
      2. ***Reference the power point slide that applies to the question***
      3. ***Write the complete correct answer – including the letter – for all missed responses***
         1. You will turn in your corrections sheet along with your answer sheet

**Vocabulary from 8.3 (Water Resources)**

LOST, EEZ, Sovereign rights, Territorial waters, Mariculture, Finfish vs. shellfish, Quota restrictions, Sustainable yield, Desalination, Xeriscaping

**Vocabulary from 8.4 (Lakes and Groundwater)**

Lentic, Lotic, Tethys Ocean, CITES Treaty, Littoral, Limnetic, Profundal, Oligotrophic, Eutrophic, Aquifer, Spring, Geyser, Artesian, Karst, Caves, Caverns, Stalactites, Stalagmites

http://www.iwla.org/conservation/water/save-our-streams/aqua-bugsStream Transect DATA

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Depth by transect measure | | | | | | | | |
| Width (ft.) | 0 | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 |
| Depth (ft.) | 0.25 | 0.5 | 0.5 | 1.0 | 1.25 | 1.5 | 2.5 | 2.0 | 0.5 |

**VOCABULARY**

Transect, Deposition, Oxbow lake, Riffles, Runs, Flats, Pools

**Using MACROINVERTEBRATES – BIOTIC stream assessment**

1. You will receive sample data (macroinvertebrates) from 3 streams (numbered 1-6)
2. Use the Macroinvertebrate key to identify the ‘bugs’/larvae
3. Use the Quality score worksheet to assess each macroinvertebrate’s “biotic value”
4. Multiply the biotic value by the number of each TYPE of aquatic insect sampled.
5. Divide this number by the TOTAL number of insects sampled for the stream.
6. Use the Suggested ranges of Biotic Water Quality Scores (NY) to assess the health of the stream.

Full set of instructions under “Preliminary Lesson”

Be sure you read the preliminary information in the Student’s Guide

<https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=01644000> USGS Catoctin Creek summary data