

Getting Our Feet Wet - River Health Unit Outline

1. **Guiding Question - How does the city of Green River impact the health of the Green River?**
2. Initial Model - Green River
 - a. Data resources to add information to initial models
 - i. <https://waterdata.usgs.gov/state/wyoming>
 - ii. Wyadapt
 - iii. Google Earth
 - b. List data we could collect to answer the question
3. Investigate "What is Stream Health?"
 - a. Stroud Virtual Stream Study
 - b. Alice Ferguson Foundation Game: Macroinvertebrate Identification
 - c. Online Macroinvertebrate ID Quiz
 - d. Macro Research & Macro Mayhem
4. Game & Fish Classroom visit
 - a. Purpose of a river
 - b. History of the Green River
 - c. Man Made impacts on the river
 - i. Fontenelle Dam, The City of Green River, Flaming Gorge Dam
 - d. Scott's Bottom Restoration
 - e. Macroinvertebrates - Food Web importance
5. Field Day at the River - Student Handout
 - a. Two locations
 - i. Jamestown Park - upstream of the city of Green River
 - ii. FMC Park at
 - iii. Scott's Bottom - downstream of the city of Green River
 - b. Four stations
 - i. Water Chemistry – Temperature, pH, DO, Nitrogen, Phosphorus
 - ii. Turbidity & Stream Flow
 - iii. Collection & Identification of Macroinvertebrates
 - iv. Shoreline Observation and Plant Identification
 - c. Back in the classroom
 - i. Microscopy of river water
 - ii. Dissection scope with macros
6. Data sharing & follow up
 - a. Comparison of data from two locations
 - b. Model revision
7. Follow up classroom visit from Trout Unlimited

Ideas for the future:

- Biotic Index on/after Field Day
- Water treatment plant & Wastewater plant visit
- Data sharing from year to year
- ArcGIS project - app for data collection