Name:_____

Lab: Foul Water MAKEUP ASSIGNMENT

Remember: As per GHHS Policy, you have two days for each day absent to makeup assignments.

Background:
Water entering a wastewater treatment plant can have a wide variety of contaminants. Most treatment falls into one of three categories: mechanical (phase separation), biological and chemical. In this lab, you will be competing with other lab groups to produce the cleanest water using purely mechanical treatment methods, primarily a few forms of filtration. The "foul water" that has been created by Mr. Rush/Ms. Magee includes pollutants such as vegetable oil, coffee grounds, cooking grease, sediment, motor oil, and other assorted liquids and solids that can find their way to wastewater treatment plants.

Prelab Questions:
1. What are the three major types of water treatment at a wastewater treatment facility?

2. Give one example of each of the treatment types you listed in question #1.

3. Define filtration.

4. Define filtrate.

What We Did in Class:
Students engaged in a competition to see which lab group could best clean a sample of dirty water. It was messy and fun, with the winning group earning mastery points on the exam. Aren't you sad you missed it?

Analysis Questions:
Watch the video https://www.youtube.com/watch?v=FvPakzqM3h8 and answer the following

5. How much wastewater does New York City produce every year?

6. What is the first stage in wastewater treatment?

7. What is the purpose of pretreatment?

8. Where is retrieved material from pretreatment sent?

9. What is the purpose of the grit chamber?

10. What is the purpose of the primary clarifier?

11. Secondary treatment is dependent on what organisms?

12. What are the three main options for the disinfection stage of wastewater treatment?

13. Identify the two forms of effluent release.

14. There are over _____ thousand wastewater treatment plants in the U.S.

15. What have you learned from this makeup lab?