**LEWISBURG AREA SCHOOL DISTRICT**

**LESSON PLAN**

**Teacher Name: \_\_\_\_\_Van Wagner\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_AP Enviro**

**Topic: \_\_\_Tap Water tour Date of Lesson: \_\_Class #53**

|  |  |
| --- | --- |
| **LESSON ESSENTIAL QUESTION**: | Big Idea:Water continuously moves through the water cycle. Water is essential to living things. Liquid water makes earth a unique planet.Fresh water is finite.Essential Questions:-Where does pollution come from?-Is quantitative data/testing more useful that qualitative data/testing?-What are the advantages of collecting both qualitative and quantitative data? -Should science be restricted to quantitative research? |
| **STANDARD / LEARNING TARGET:** | **Core standards addressed with this lesson:****7.4.9.A:** Compare and contrast the effect of the physical systems on people across **regions** of the United States.**7.4.9.B:** Compare and contrast the effect of people on the physical region across **regions** of the United States.**7.4.12.A:** Analyze the global effects of changes in the physical systems.**7.4.12.B:** Analyze the global effects of human activity on the physical systems.**S11.D.1.3.3:** Explain factors (e.g., nutrient loading, turbidity, rate of flow, rate of deposition, biological diversity) that affect water quality and flow through a water system.**4.8.10.C.** Analyze how human activities may cause changes in an ecosystem. \* Analyze and evaluate changes in the environment that are the result of human activities. \* Compare and contrast the environmental effects of different industrial strategies (e.g., energy generation, transportation, logging, mining, agriculture). |
|  **ACTIVATING STRATEGIES**:(Anticipatory Set) | Bell Ringer: If your stream has a pH of 5.5, is this acidic, alkaline, or neutral?Answer: acidic |
| **KEY VOCABULARY**: | Atmosphere, troposphere, stratosphere, ozone, radiation,  |
| **RESOURCES:** | Teacher slide show, demonstration, and lecture.  |
| **TEACHING STRATEGIES**: | Students MUST wear goggles entire class.Complete tap water tour (do not do straw activity)Discuss results.Begin writing lab reports on stream results. |
| **EXTENDED THINKING ACTIVITY / ASSIGNMENT:** | Lab report to be written on your research |
| **SUMMARIZATION/ CLOSURE:** | Exit bell ringer- Of the 11 test we did in this lab only 1 was quantitative. Which one?pH |