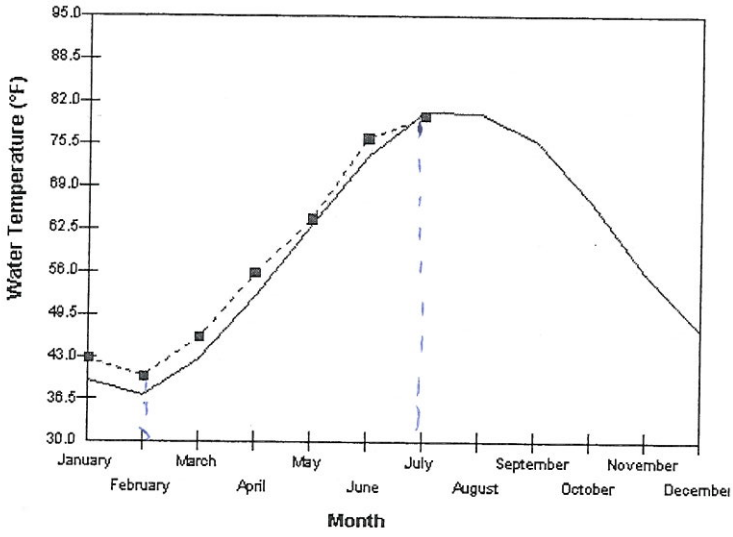
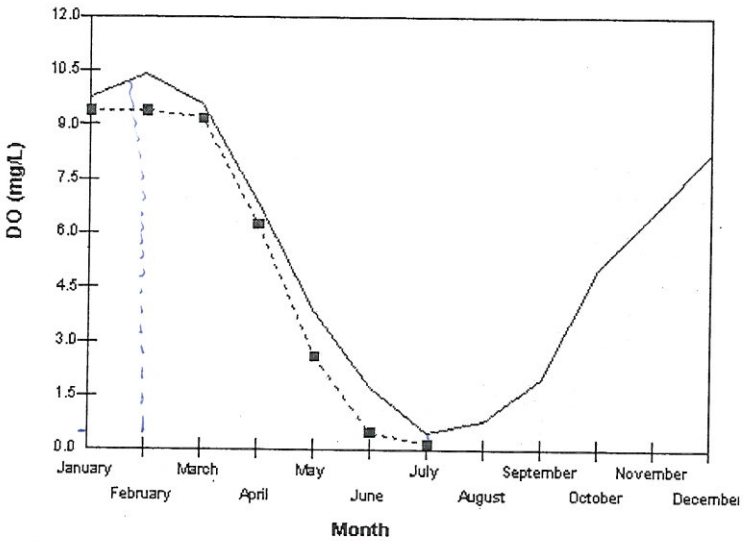
Name: _____ Date: _____ Period: ____

Chesapeake Bay Water Quality Measurements

Water Temperature Measurements



Dissolved Oxygen (DO) Measurements



Legend

Range 1986 to 2006 ---■--- 2008 ——— Mean

Graphs from: http://mddnr.chesapeakebay.net/bay_cond/bay_cond.cfm?param=bdo&station=CB52

1. Describe the mean temperature change between February and July.

(~38°F) (~80°)

80 - 35 = ~45°

2. Describe the mean dissolved oxygen (DO) change between February and July.

(~10.3) (~.4)

Approximately -9.9 mg/L

3. What conclusion can be drawn from the data about the relationship between temperature and DO?

As temperature goes up, DO goes down.

4. Alewife is a type of fish that lives in the Chesapeake Bay. Adult Alewife can survive in DO concentrations of 3.6 mg/L, however their eggs require a DO concentration of at least 5 mg/L. Which months do you think Alewife spawn (release eggs into the water)? Why?

January, February, March, or April because the DO levels are above 5 mg/L during these months.

5. How do human activities impact the temperature and DO of the Chesapeake Bay? What actions can you take to decrease the negative impacts on the bay?

Human activities produce greenhouse gases. These GHG's make the atmosphere warmer. As a result, the water temperature of the bay gets warmer. This will cause the DO levels to go down. Humans can come up with alternative sources of energy.