Name: _____ Date: _____ Class: _____

Serial Dilution Experiment Sheet

Vinegar Serial Dilution

Materials:
5 clear glass containers
graduated cylinder
water
food coloring
Alka-Seltzer tablets
stopwatch
distilled white vinegar

Procedure:

1. Measure 100 mL of water and pour into one of the clear containers.
2. Add one drop of food coloring. Stir. (Blue makes the best contrast for visual acuity).
3. Add one Alka-Seltzer tablet, and use a stopwatch to measure how long it takes for the tablet to dissolve.
4. Record the time.
5. Create a data table with columns for concentration and time.
6. Repeat the above procedure using 100 mL of distilled white vinegar.
7. Repeat the procedures using the following solutions (1 solution per container): The 25% solution consists of 25 mL of distilled white vinegar and 75 mL of water, the 50% solution consists of 50 mL of distilled white vinegar and 50 mL of water, and the 75% solution consists of 75mL of distilled white vinegar and 25 mL of water.

Data Table

Water	Vinegar	Solution Volume	Percent Solution	Time to dissolve
100mL		100mL		
	25mL			
50mL				
	75mL			

Conclusion:

1. Explain how the changes in concentration changed the amount of time it took the Alka-Seltzer to dissolve.

2. How can you use this information when engineering your dye concentrations?