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).
- 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?



