

Name: _____ Date: _____

Creepy Silly Putty Data Analysis

Answer the following questions on a separate sheet of paper to turn in for grading. Remember to include labels and units on all graphs.

1. Create a bar plot in Excel of the silly putty viscoelasticity data you collected. Use an average formula to calculate the average creep rate for each concentration. Plot the average creep time (fall time) (y-axis) vs. borax concentration (x-axis). Make sure that each bar has a label indicating the borax concentration (low, medium, high).
2. Answer the following questions regarding your graphs and data:
 - a. Calculate the standard deviation of creep time for each sample concentration in Excel.
 - b. Looking at your silly putty data (standard deviation), do you see a large or small variation in the time it took the silly putty to fall to the table when you repeated the experiment for the same concentration? If you have a large variation, what factors could have caused this? Discuss this for each concentration.
 - c. Are the average creep times different between borax concentrations? Why or why not? Hint: What does the concentration of borax do to the viscoelastic properties of silly putty?