Name_____ Period _____ Date _____

৭ ৡ ৡ Data Analysis

Lesson 3: Measuring Differences
Measuring is one of the most important process skills used in a laboratory. Measuring is a more difficult skill than counting because measuring requires a person to understand and use numerical place value and estimation. Can you measure up and complete this investigation?

Doing the Science
1.   Start the Data Analysis Simulation by clicking on the "Sim" tab.
2.   Click on the "Measuring" button.
3.   Choose one of the factors (Fertilizer, Pesticide, Acid Rain, or Music) to study in this experiment by clicking on that particular button. Record this factor in Table 1.
4.   Click the "Apply Treatment" button (you'll do this three times overall).
5.   Click the "Results" button. Then click on one of the Flats, A, B, C, or D.
6.   Click on one of the plants in the flat you selected. Note and record in Table 1 which plant feature you are measuring on the plant (height or stem width). Measure the plant feature and enter that value into the data entry section on the right side of the screen. Click Enter, then select the next plant and repeat the measuring and entering process.
7.   When all of the plants in one flat have been observed, click on the next flat and repeat the process.
8.   When all flats have been measured, click the "Data Analysis" button to continue.
9.   Note and record in Table 2 the % Treatment and the Average value for each flat.

Table 1. Study Variables

What factor you tested:	
What plant feature you measured:	

Table 2. Experimental Data

	Flat A	**Flat B**	**Flat C**	**Flat D**
% Treatment				
Treatment or Control?				
Average Value				
Different from Control?				

Do You Understand?
1.   Discuss the results of your experiment.

2.   Write a conclusion for your study.