Making a Histogram

Grade Level	8
Subject	Mathematics & Technology
Curriculum Objective	Mathematics 4.01 Collect, organize, analyze, and display data (including scatter plots) to solve problems.
Guiding Question	How can you use your calculator to create a histogram?
Lesson Summary	Students will become familiar with the calculator and the function keys used to make a histogram from a given list of data.
Activating Strategy	Students will be given a scenario such as: Mr. Yamaguchi's second period class has listed the distance each student lives from the school.
Cognitive Strategy	Use you graphing calculator to create a histogram of the home to school distances. Distances: 4, 2, 6, 1, 10, 3, 19, 5, 20, 1, 1, 9, 22, 15, 2, 4, 12, 8, 1, 4, 16, 3, 6, 7 Step 1: **Enter the data** Keystrokes: STAT ENTER ^ CLEAR ENTER • Then enter the data into L1. Input each number and press enter. Step 2: **Format the graph** • Turn on statistical plot. Keystrokes: 2ND [STAT PLOT] ENTER ENTER • Select the histogram and L1 as the Xlist. Keystrokes: y > > ENTER y 2ND L1 ENTER Step 3: **Graph the histogram** • Set the viewing window to be [0, 25] scl: 5 by [0, 12] scl: 1. Then graph. Keystrokes: WINDOW 0 ENTER 25 ENTER 5 ENTER 0 ENTER 12 ENTER 1 ENTER GRAPH Step 4: **Find the frequency** • Find the frequency of each interval. Keystrokes: TRACE > > > >

Summarizing Strategy	The first example will be done on the ELMO to show each student the correct steps to follow. We will pause after each step to ensure that the students are on the right step and generating the correct data.
Evaluation	• Student observations • Check progress • Show examples on ELMO
Resources	
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