Teacher Notes

Introduction to Data Entry on the Nspire

Grade: 7th grade level

Purpose: To reviewing plotting and graphing points as an introduction to the Stats feature of the handheld.

Materials:
A set of small cut outs of a variety of shapes. These can be purchased at any arts and crafts store. 3-D foamies from Michaels are a suggestion. Sturdy cut out stickers can also be used. Some examples are below. Selecting foamies related to an upcoming celebratory time of year is best.

Half sheets of graph paper.
Pencil
Handheld

Directions:
Each student is given one foamie. Select shapes according to each student's ability and give one shape to each student. Instruct the students to place their shape in the first quadrant and to carefully trace along the outside edges. After tracing the outside, remove the shape and instruct the students to label each critical point of the shape with a coordinate point. When the students have finished their lists of points, instruct them how to enter this data into the handheld. If the student has identified their coordinate points correctly and entered them into the handheld correctly, they will see a drawing of their shape. Directions to enter and graph the data on the handheld are included. Also included is a picture of the handheld keys and their locations.

Directions to plot points in the coordinate plane.

1. From the home screen use the NavPad to scroll to 3: Lists and Spreadsheets press enter.

2. A spreadsheet will appear similar to the one to the right, except with no data entered.

	A	B	C	D	
◆					
1	111	444			
2	222	555			
3	333	666			
4					
5					

A1:B2 | 111

3. Scroll up next to the letter A to name the cell. For students just learning the coordinate plane I recommend naming the A column "*x*" and the B column "*y*" to represent the horizontal and vertical axis in the first quadrant.

4. Scroll down to row 1 and enter in the "*x*" column all the *x*-coordinate values.

5. When finished entering the *x*-coordinates scroll to the "*y*" column to enter the *y*-coordinates. When all data has been entered, all *x*-coordinates have matching *y*-coordinates, then you are ready to graph your data to see your picture.

6. The picture below shows you what the Nspire is capable of modeling. To get the split screen quickly with the entered data in the spreadsheet, press menu. Scroll down to 3: Data, then right click and scroll down to 5: Quick Graph, press enter.
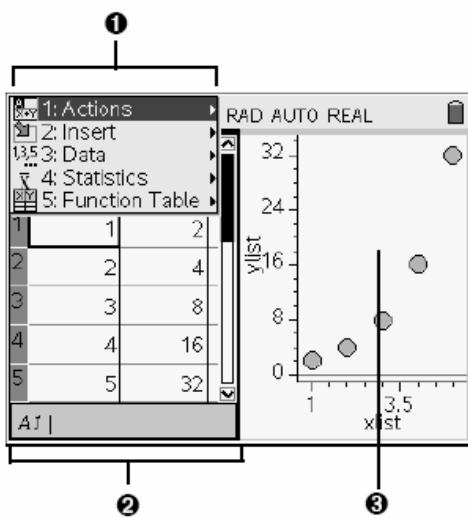
❶ Lists & Spreadsheet menu (available when a Lists & Spreadsheet work area is active) Press (menu) to display the menu.

❷ Sample Lists & Spreadsheet work area

❸ Lists & Spreadsheet data shared with another TI-Nspire™ application

7. Your curser is now active in the graph screen. To have the handheld plot both the vertical and horizontal data, scroll down towards the horizontal axis until you see "click to change variable", at which time you will click the button in the center of the NavPad. At once you will see your two heading options. Highlight the *x* and hit enter. Repeat for the vertical axis, except select the *y*.

8. Once you have successfully identified your axis, your shape will come alive. To connect the dots of your shape select menu, 1: Plot Type, 6: XY Line Plot, enter. You will see the plotted points now connected with lines.

9. If students have entered a point incorrectly have them fix the point in their list by selecting ctrl, then the left side of their NavPad to move the cursor to the left screen. When a coordinate is changed in the list, the plotted point will move to reflect the change. The list and graph are dynamically connected.

esc Removes menus or dialog boxes from the screen.

tab Moves to the next entry field.

ctrl Provides access to the function or character shown above each key.

Makes the next character typed upper-case.

Turns on the TI-Nspire handheld.

Displays the home menu.

menu Displays the application or context menu.

clear Clears (erases) the entry line or deletes the selected object.

Displays the catalog for entering commands.

Evaluates an expression, executes an instruction, or selects a menu item.

Click button
Selects an object on the screen.

NavPad
Press ◀ ▶, ▲, or ▼ to move the cursor.

ctrl +

or

Press and hold
to display the grab cursor so you can grab an object on the screen.