

## A Short User's Guide to Using SmartGraphs Activities



SmartGraphs activities help students understand the meaning of graphs. Students complete each page in an activity in order to move to the next page. There are ten question types that you may see in an activity, and here is how to answer each one:

**Multiple Choice Question:** Click the little circle next to the answer you wish to choose and, when you are satisfied with your choice, click the *Check My Answer* button.

**Open Response Question:** Simply type in the box below the question.

**Numeric Response Question:** If asked for a number, use the number keys and perhaps a decimal point to answer. Do not use symbols for arithmetic operations (such as +, -, or /), and do not enter words representing measurement units (such as feet or meters).

**Label a Graph:** When asked to put a label on a graph, click the point you want to label, then double click inside the label box and type what you want the label to say. When done, use the *Enter* or *Return* key, or click outside the label box.

**Pick a Point on a Graph:** Click a point on the graph to answer this type of question. In most cases, you can only click points on a line (function), and not empty parts of the graph.

**Draw a Graph:** Click and drag to draw a continuous line, or, click a series of points which will be connected with line segments. If not satisfied with what you drew, click the *Reset* button and draw again.

**Construct a Line on a Graph:** Click one point on the graph, and then click a second point. A line will appear connecting the points. Drag the points until you are satisfied, and then click the *Check My Answer* button.

**Construct a Line of Best Fit:** Click one point on the graph, and then click a second point. A line will appear connecting the points. Drag the points until you are satisfied that the number displayed in the legend (the sum of squares of the distances of points from the line you created) is as small as possible, and then click the *Check My Answer* button.

**Provide the Slope of a Line:** Use the number keys and perhaps a decimal point to answer. Do not use symbols for arithmetic operations (such as +, -, or /), and do not enter words representing measurement units (such as feet or meters).

**Using a Motion Sensor:** Attach a Vernier Go!Motion sensor to a USB port. Click the *Start* button to begin collecting data, and the *Stop* button when you are done. Click *Reset* if you are not satisfied with the data and want to try again.