

## Analyzing data using Vernier DataQuest® (Tutorial F2)

[http://www.atomiclearning.com/k12/en/movie/85870/play\\_window?type=Tutorial&sid=2410](http://www.atomiclearning.com/k12/en/movie/85870/play_window?type=Tutorial&sid=2410)

[00:00:00.00]

The Vernier DataQuest application has numerous tools for analyzing data that you've collected. I'll collect some

[00:00:08.00]

data by first pressing the Home key, and then selecting the Vernier DataQuest icon at the bottom. This inserts

[00:00:16.00]

the application into a new document. I'm using the Easy Temp Temperature sensor, so I'll plug it into my handheld's

[00:00:24.00]

mini USB port. I'm currently in Meter View, the Meter tab is selected on the left side, and I see a read out from

[00:00:35.00]

my connected sensor over to the right. Before I begin collecting data, I'll use the prediction tool to draw a prediction

[00:00:44.00]

of the data that I'm going to collect. To do this, I'll first need to select the Graph view by moving the pointer

[00:00:52.00]

to the Graph view icon on the left side, and pressing the click key to select it. I'll then press the Menu key, choose

[00:01:01.00]

Analyze, Draw Prediction, followed by Draw. That gives me a pencil tool that I can use to draw my prediction. I'll

[00:01:14.00]

move the tool to the lower left corner, and press the click key to add a point. Next I'll use the touchpad to draw

[00:01:23.00]

a line towards the upper right corner. I'm predicting the temperature data I'm collecting will increase over time.

[00:01:31.00]

I'll then press the click key again, to add a second point.  
Next I'll press the Esc key, to remove the pencil tool.

[00:01:42.00]

To begin data collection, I'll use the Touchpad to highlight  
the Start Data Collection icon in the lower left corner.

[00:01:50.00]

It looks like a little Play button. Now I'll press the  
click key, and this will begin taking measurements and

[00:01:59.00]

adding data points. Once I'm done collecting data, I can  
just press the click key again. I can see that the data

[00:02:08.00]

was successfully captured. And now I can compare the collected  
data to the prediction that I drew. In Graph view, I can

[00:02:17.00]

start analyzing the data I've collected. I'll press the  
Menu key, and then select Analyze. The next menu shows

[00:02:28.00]

us a list of tools we can use to analyze our data. I'll  
choose Statistics. In the dialog box that opens up I can

[00:02:38.00]

see information about the temperature data I collected,  
including the minimum, maximum, and mean temperature. Once

[00:02:48.00]

I've viewed this information, I can press Enter to close  
the dialog box. I can always view that information again

[00:02:56.00]

at any time right in the Graph View, by moving the pointer  
over to the left side and pressing the Click key to open

[00:03:05.00]

Stats. Then, I can use the down arrow to scroll and see  
all of that information. I'll press the Menu key again,

[00:03:16.00]

choose Analyze, and this time, choose Curve Fit, I want a linear regression, so I'll choose Linear. In the dialog

[00:03:30.00]

box that opens up, I can view the information. Once I've viewed this, I can press the Enter key to close the dialog

[00:03:38.00]

box. I can always view the regression information again at any time in the Graph View, by moving the pointer over

[00:03:46.00]

to the left side and pressing the Click key to open Fit Linear. Sometimes there might data that you'd like to omit.

[00:03:57.00]

This may occur at the beginning or end of your data run. You have the option to strike data inside or outside a

[00:04:07.00]

defined region. First I'll define a region by moving into the graph, and pressing and holding the click key for a

[00:04:16.00]

little longer than a second. Then I can drag across the touchpad to create my region, and press the click key again

[00:04:25.00]

to define it. Now I'll press Ctrl, and then Menu, choose Strike Data, and for my example, I'll choose Outside Selected

[00:04:40.00]

Region. The data outside the region is then omitted. I can see this more clearly by changing to Table view, I'll

[00:04:50.00]

move the pointer to the icon toward the upper left corner, and press the click key. In Table view, we can now see

[00:04:59.00]

the data points crossed out. These points are no longer considered in the analysis.

[00:05:08.00]