#### **QUICK START GUIDE**

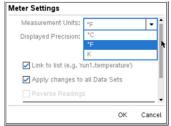
# Temperature Change With a Vernier Temperature Probe and TI-Nspire™ CX II Graphing Calculator



### Connect the probe and set measurement units:

- » Connect the TI graphing calculator and a Vernier Temperature Probe.
- » Change the temperature to Fahrenheit, if desired.
- » Move the cursor to the temperature display bar and click. Then change Measurement Units to °F.





#### Set the duration:

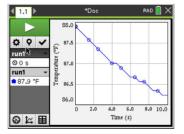
- » The default sample duration is 180 seconds. Update this to your preferred duration, e.g., 10 seconds.
- » Select the **Duration** display box in the lower left corner to change the number of samples.





# Start an experiment showing a decrease in temperature:

- » Place the metal tip into your heat source and wait for the display to stop at a constant temperature.
- » Remove the sensor and select Play.
- » Data collection will run for 10 seconds, after which a graph of temperature versus time will be displayed.
- » Select Play to rerun the experiment. This will overwrite your original data.





# Other experiment examples:

Run variations of this experiment by collecting data for 10 seconds to show:

- » A constant increase in temperature
- » A constant decrease in temperature
- » A constant exponential growth

# Sample questions:

» If the experiment continued for 100 seconds, what would be the expected temperature?
What is an appropriate domain and range for this experiment?

