**Directions:** Use this document as a guide with the .tns file on your TI-Nspire CXII calculator.

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| **Student Tasks:** | | |
| **Coding Challenge 6:**  Choose five mood messages from the list and write a program to display them, each on a different line, of the TI-Nspire CXII display. | | |
| **Coding Challenge 7:**  Combine your favorite mood color with your favorite mood message.  Write a program that displays both. | | |
| **Coding Challenge 8:**  Connect the temperature sensor to IN1 and write a program that creates a temperature object named my\_temp.  Measure the my\_temp object and store value in the variable named temp.  Display an appropriate prompt with the measurement value and units. | * Connect temperature sensor to port IN1   **Diagram  Description automatically generated** | |
| **Science Activity 10:**  Use the previous program to explore the temperatures around you.  -What is the temperature of the room?  -What is the temperature of your skin?  -How low of a reading can you measure?  -What is the temperature of an ice cube?  \* do not submerge sensor in liquid | | Record values here: |
| **Coding Challenge 9:**  Write a program using a for loop that will read and display ten temperature measurements.  Use sleep(2) to pause for two seconds in each cycle. | | |
| **Coding Challenge 10:**  Use a while loop to continuously monitor temperature.  Include an if conditional statement using appropriate temperatures to display the following text and LED color:  - "cool" - blue  - "just right" - green  - "hot" - red | | |
| **Final Coding Challenge 11:** Use the skills from all of the previous challenges to design and code your mood ring. Your program should display mood messages and colors over a range of finger temperatures.  Helpful tips:  -As a starting point, modify a copy of the previous program. Switch to that program editor page, and select [ctrl]+B, then [menu]->Actions->Create Copy.  - Include at least five if case intervals that change the mood color and message based on finger temperatures.  - Temperature intervals of about two degrees will help your ring respond to typical temperature measurements. | | |