**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. |