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

| Student Tasks: |
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| **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
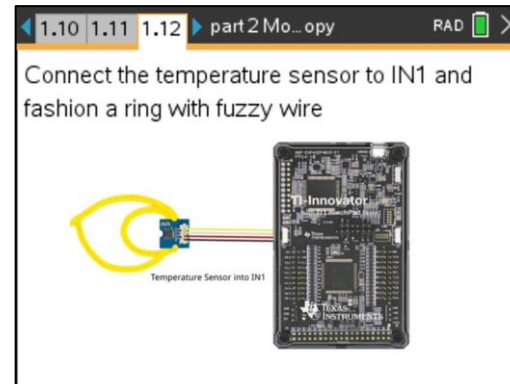
Science Activity 10: Use the previous program to explore the temperatures around you. -What is the temperature of the room? -What is the temperature of your skin? -How low of a reading can you measure? -What is the temperature of an ice cube? * do not submerge sensor in liquid	Record values here:

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.