Hi there!

I'm glad you're using this resource. Continue to check our website (realsciencechallenge.com) to find more resources. And, sign up for our newsletter to receive updates on materials that will be available soon.

I spend countless hours writing, researching, editing and generating graphics/charts for each question. I want to continue creating useful content for you to use - however, I also want to ensure my work is fairly compensated.

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What is allowed:

- photocopying our content for your students to use.
- posting a copy of our content (ie. questions, rubrics) on a password protected site for your students to access and/or complete.
- copying our questions into your tests or assignments. Please give credit in this case.

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- Distributing and/or posting our content online (for example, on social media or a blog.

Thank you for supporting us. And, we look forward to helping you with your teaching practice. Please feel free to reach out to us if you have any questions or suggestions.

Sincerely,

Kent
REAL Science Challenge Founder
Science Department Head (Burnaby South Secondary)

Graphing Rubric

Emerging	Developing	Proficient	Extending
● Axes are not labeled clearly, or scale is consistent ● Title may not be included; ● Graph does not maximize space provided.	● Data is incorrectly represented (ie. bar graph is used) ● Axes are labeled clearly; scale is consistent ● Title included; ● Graph maximizes space provided.	● Data is represented by correct graph type (ie. Line graph is used) ● Axes are labeled clearly; scale is consistent ● Title included; ● Graph maximizes space provided.	No opportunity for extending in this exercise.

Argument-Writing (CER) Rubric

Emerging	Developing	Proficient	Extending
● Only answer (ie. claim) is provided	● Answer is provided ● An analysis of the data is provided.	● The correct answer is provided (ie. Melbourne, Australia). ● An analysis of the data is provided. ● An explanation connecting the data to the answer is provided.	No opportunity for extending in this exercise.

Sample Proficient Response

The data in Table 1 corresponds to Melbourne, Australia. According to the data, monthly temperatures are highest during the months of January and February and then start to decrease. The lowest monthly temperatures are in June and July, and then gradually increase. This is because Australia is in the southern hemisphere and, therefore, they experience summer during the months of December to February and winter during the months of June to August.

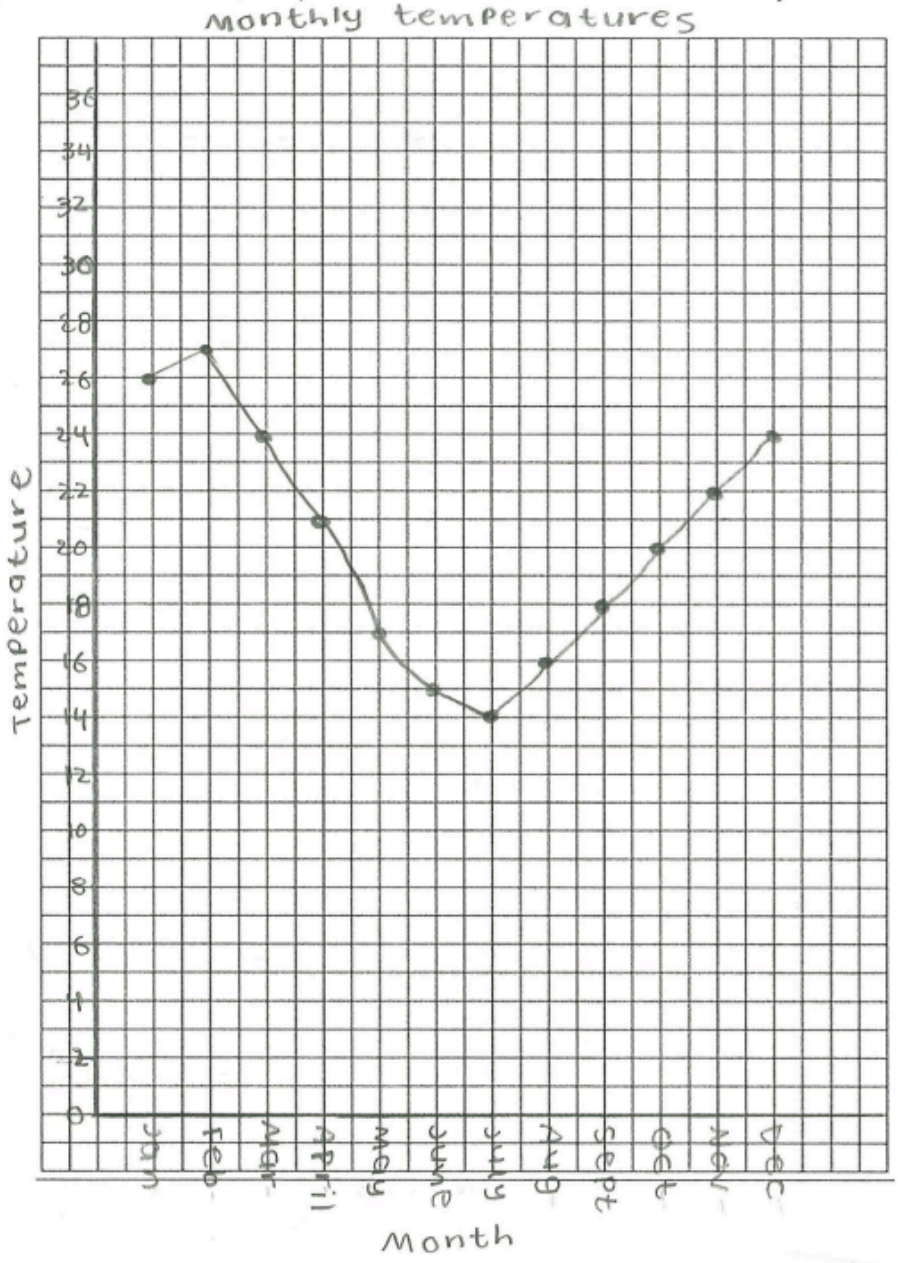
Quiz – Measurement & Graphing

Curricular Competency	Questions	Emerging	Developing	Proficient	Extending
Comprehending & Analyzing	7				

7. Graph the following data using the format (ie. line graph or bar graph) that is the most appropriate. Be sure to label and title your graph, use pencil and ruler to draw, and provide a consistent scale on both the x- and y-axis.

Monthly Temperatures (Average Daily High)	
Month	Temp
Jan	26
Feb	27
Mar	24
Apr	21
May	17
Jun	15
Jul	14
Aug	16
Sept	18
Oct	20
Nov	22
Dec	24

Table 2



Quiz – Measurement & Graphing

Curricular Competency	Questions	Emerging	Developing	Proficient	Extending
Communicating	8				

8. Using the map below, answer the question below

A - Vancouver, BC
B - Los Angeles, California
C - Cancun, Mexico
D - Lima, Peru
E - Melbourne, Australia.

Question: Which of the five cities on the map above do the monthly temperatures on Tables 2 correspond to? Explain using the CER (Claim, Evidence, Reasoning) framework.

- Claim - "Table 1 corresponds to <city 1> while Table 2 corresponds to <city 2>"
- Evidence - "According to Table 1..... . According to Table 2..."
- Reasoning - "The temperatures in Table 2 correspond to <city 1> because..."

I think that Melbourne, Australia corresponds to table 2. According to table 2, the temperature drops when it's May to August which is around summer because Australia is usally cold during the summer. The temperatures in table 2 correspond to Melbourne, Australia because for example, Vancouver, BC is usally cold during around January because that's when it usally snows but, on the graph, it says that January is more warm and hot so, this tells you that Vancouver, Bc does not correspond to Table 2. Melbourne, Australia is usally hot and warm so, if you look at the temperatures, most of the months like January and February are usally hot.