## Hi there!

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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.

Therefore, below are the terms and conditions for use of our materials.

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.

What is not allowed:

- Selling our content.
- Repackaging our content in your own materials and then selling it. NOTE: giving credit to us still does not make this okay.
- 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)

## SAMPLE DATA ANALYSIS (PART A)

Celery	
Day	Plant Structure Rigidity (%)
0	100
2	96
4	88
6	76
8	60
10	50

- 1. Explain what is happening to the celery using what you learned about cell organelles.
- 2. A piece of celery was found in the back of the fridge. Its Plant Structure Rigidity was measured at 85. How long has the piece of celery been in the fridge?
- If both a carrot and celery were placed in the fridge at the same time and for the same duration, draw a graph that shows the Plant Structure Rigidity of a carrot. How does it differ from that of celery? Explain.

## SAMPLE DATA ANALYSIS (PART B)

Celery	
Day	Plant Structure Rigidity (%)
0	100
2	96
4	88
6	76
8	60
10	50

Carrot	
Day	Plant Structure Rigidity (%)
0	100
2	99
4	97
6	93
8	85
10	69

4. Assume the table on the right shows the Plant Structure Rigidity of a carrot left in the fridge over time. Which vegetable maintains its structure rigidity better over time? Use the CERR (Claim, Evidence, Reasoning, Rebuttal) framework to craft an argument.

## **Sample Exam Question**

Art and Bill both attempt to move identical 40 kg crates across identical rough surfaces. Art exerts an 80 N force by pushing with a stick. Bill exerts an 80 N force by pulling on a cord. Bill's crate slides across the ground, but Art's will not move.



Explain this observation, using principles of physics.

Taken from BC Physics Provincial Exam (June 1997)