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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.

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)

Contact Kent at realsciencechallenge@gmail.com
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Traditional Grading - Marks Book

Assignments & Homework	Tests & Quizzes
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Pro: efficient

Con: Doesn't give a lot of information regarding the aspects of science education that a student is strong or weak in

BC Curriculum (6 Curricular Competencies aka. skills)

Curricular Competencies

Students are expected to be able to do the following:

Questioning and predicting

- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest
- Make observations aimed at identifying their own questions, including increasingly complex ones, about the natural world
- Formulate multiple hypotheses and predict multiple outcomes

Planning and conducting

- Collaboratively and individually plan, select, and use appropriate investigation methods, including field work and lab experiments, to collect reliable data (qualitative and quantitative)
- Assess risks and address ethical, cultural and/or environmental issues associated with their proposed methods and those of others
- Select and use appropriate equipment, including digital technologies, to systematically and accurately collect and record data
- Ensure that safety and ethical guidelines are followed in their investigations

Processing and analyzing data and information

- Experience and interpret the local environment
- Apply First Peoples perspectives and knowledge, other **ways of knowing**, and local knowledge as sources of information
- Seek and analyze patterns, trends, and connections in data, including describing relationships between variables (dependent and independent) and identifying inconsistencies
- Construct, analyze and interpret graphs (including interpolation and extrapolation), models and/or diagrams
- Use knowledge of scientific concepts to draw conclusions that are consistent with evidence
- Analyze cause-and-effect relationships

Evaluating

- Evaluate their methods and experimental conditions, including identifying sources of error or uncertainty, confounding variables, and possible alternative explanations and conclusions
- Describe specific ways to improve their investigation methods and the quality of the data
- Evaluate the validity and limitations of a model or analogy in relation to the phenomenon modelled
- Demonstrate an awareness of assumptions, question information given, and identify bias in their own work and secondary sources
- Consider the changes in knowledge over time as tools and technologies have developed
- Connect scientific explorations to careers in science
- Exercise a healthy, informed skepticism, and use scientific knowledge and findings to form their own investigations and to evaluate claims in secondary sources
- Consider social, ethical, and environmental implications of the findings from their own and others' investigations
- Critically analyze the validity of information in secondary sources and evaluate the approaches used to solve problems

Applying and innovating

- Contribute to care for self, others, community, and world through individual or collaborative approaches
- Transfer and apply learning to new situations
- Generate and introduce new or refined ideas when problem solving
- Contribute to finding solutions to problems at a local and/or global level through inquiry
- Consider the role of scientists in innovation

Communicating

- Formulate physical or mental theoretical models to describe a phenomenon
- Communicate scientific ideas, claims, information, and perhaps a suggested course of action, for a specific purpose and audience, constructing evidence-based arguments and using appropriate scientific language, conventions, and representations
- Express and reflect on a variety of experiences, perspectives, and worldviews through **place**

Pro: Provides a broader picture of what a student can or cannot do

Con: time consuming to assess and report on each competency regularly throughout the term.

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Combining Competencies

BC Curriculum (6 Curricular Competencies aka. skills)

Questioning & Predicting	Planning & Conducting	Processing & Analyzing	Evaluating	Applying & Innovating	Communicating
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Burnaby South Science Marks Book (currently**)**

Questioning & Predicting	Planning & Conducting	Processing & Analyzing	Evaluating, Applying & Innovating	Communicating
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Burnaby South Science Marks Book (next year**)**

Questioning & Predicting Planning & Conducting	Processing & Analyzing	Evaluating Applying & Innovating	Communicating
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“Questioning & Conducting”	“Comprehending & Analyzing”	“Connecting & Applying”	“Communicating”
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What if we simplify more....”

Questioning & Predicting Planning & Conducting	Processing & Analyzing	Evaluating Applying & Innovating	Communicating
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Questioning & Predicting Planning & Conducting	Processing & Analyzing Evaluating Applying & Innovating Communicating
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“Science Labs”	“Science Concepts”
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Con: too simplified - doesn't give much information as to what students are good at and what they are weak at.