

CRITICAL THINKING

Deepening Student Thinking in Science

The Critical Thinking Consortium has created two documents to support science teachers at all grade levels in their efforts to nurture student thinking and increase student engagement in science. The resources provide practical and teacher-friendly *Tips for Teachers* that address the following:

Promoting critical thinking in science:

1. What is critical thinking? What does critical thinking look like in the classroom?
2. Why promote critical thinking in science?
3. When should we invite critical thinking?
4. How can I support critical thinking in science?

Resources:

1. Promoting Critical Thinking in Science (<http://connex.stao.ca/expert-elements/critical-thinking/promoting-critical-thinking-in-science>)
2. Tweaking Questions and Tasks to Deepen Scientific Thinking in Science (<http://connex.stao.ca/expert-elements/critical-thinking/tweaking-questions-and-tasks-to-deepen-scientific-thinking-in>)

For additional information and teacher resources visit: www.tc2.ca (<http://www.tc2.ca/>)

Tweaking questions and tasks to deepen critical thinking in science:

Examples illustrate how common tasks and questions in science can be enriched using suggested strategies.

Related Catalysts

[Entrepreneurship & Design Thinking: A Journey >](#)

[Water Documentaries >](#)

[Connecting Through Concepts - A Pathway to Scientific Literacy >](#)

[Innovative Eco-friendly Arcade >](#)

[Design-Build - exploring the fundamentals of structural design >](#)

[Build a Water Desalination System >](#)

[Clean Water? - SCH 3U >](#)

[SPH4U - Conservation of Momentum and Energy >](#)

[Grade 5 Probability Games in Scratch >](#)

[SBI 4U - Evaluating with an Expository / Pictorial Essay - "The Big Question" >](#)

[Grade 5 Energy Transformations: Elastic Powered Cars >](#)

[Maria's Travels: 3-Pockets Inquiry Based Learning into the SBI 4U curriculum >](#)

[Where Have All the Flowers Gone- and Bees and Butterflies >](#)

[Spiral Learning in SNC 2P >](#)

[STEM & Makerspace Mindset in grade 7 >](#)

[The Sound Project >](#)

[Asking the Big Questions: Bioethics in Biology >](#)

[Pseudoscience - Evaluating Evidence >](#)

[Learning About Evolution Through Evidence Analysis >](#)

[Home "Toxic" Home assignment - SNC 1D chem project >](#)

[Pneumatics/Hydraulics >](#)

[VSEPR - taking a PBL approach >](#)

[Grade 7 - Heat in the Environment >](#)

[Grade 9 Electricity - Cascading Challenges >](#)

Water Pollution - SCH3U >

Biodiversity and Critical Thinking in Senior Biology >

Rube Goldberg and Critical Thinking in Senior Physics >

Animals and Critical Thinking in Grade 2 >

Mars Rover Rock Collector and Crusher - Systems in Action Unit - Grade 8 >

NEXT (</expert-elements/critical-thinking/promoting-critical-thinking-in-science>)

CHAPTERS

- 1 Promoting Critical Thinking in Science (</expert-elements/critical-thinking/promoting-critical-thinking-in-science>)
- 2 Tweaking Questions and Tasks to Deepen Scientific Thinking in Science (</expert-elements/critical-thinking/tweaking-questions-and-tasks-to-deepen-scientific-thinking-in>)




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