

Explorations

Exploration 1

Be a Chemist! Bring two mixtures together to create a brand-new substance!

Task: Conduct an investigation to create your own *casein plastic* by combining milk and vinegar. Casein plastic also breaks down in only 3 weeks! Investigate this chemical reaction [HERE](#).

Did you know?

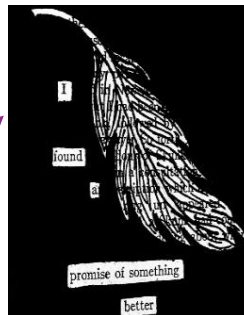
Casein plastic was used to make jewelry for Queen Mary of England in the early 1900s!



Exploration 2

Saying I love you does not come from the heart; it comes from the brain! Our emotions are controlled by parts of our brain while our feelings are controlled by our senses from the outside.

Task: Read "In my Heart" by Jo Witek, to help understand different emotions. Choose one emotion and write a black out poem to express an emotion you have felt.



Click here for more info on Black out poems.

You will need newspaper clippings, magazines or even books your library wants to toss in the trash to help create this artistic piece of literature.

Exploration 3

"It's in you to Give"

Donating blood is a critical part of everyday medical care including surgeries, medical procedures, cancer treatments, and managing diseases. It allows Canadians to wake up healthy each day.

The Canadian Blood Foundation collects 450ml (1 pint) of blood during a single blood donation, which seems like a lot but how much blood do we have in our bodies?

Task: Calculate your blood volume using the following formulas.

Calculating Your Blood Volume as a Male:

$$(0.006012 \times H^3) + (14.6 \times W) + 604$$

* Height in Inches and Weight in Pounds

Calculating Your Blood Volume as a Female:

$$(0.005835 \times H^3) + (15 \times W) + 183$$

* Height in Inches and Weight in Pounds

Research other interesting facts about blood donation [here](#).



Canadian Blood Foundation

THE CHALLENGE:

February often brings flowers, hearts, candy, and messages of love, but have you ever really explored what they can do? Feel the love of learning this month as you explore & discover the Science behind these February icons.

Your challenge is to take those cute icons and make them into curriculum icons through these explorations.

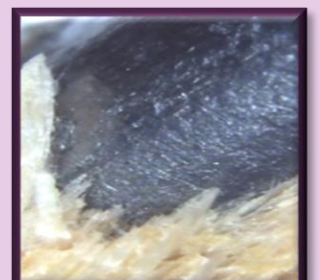
~ Cross-Curricular Team ~
Dream. Explore. Discover.

BREAKING NEWS!

Did you hear?! Mark your calendar for **March 15-18 2021**. The first ever **NB Science Week** is bringing you virtual explosions, hands-on activities and special guest speakers including **STEVE SPANGLER!** Keep your eyes and ears open for more updates soon!

Close-up Capture

Can you identify this close-up picture?



Explorations – Possible Outcomes & Extensions

Exploration 1-

SCIENCE

Skills: All strands of skills can be met through a full investigation at each grade level - Initiate & Plan, Perform & Record, Analyze & Explain and Communication

Prioritized Key Concepts:

Gr 7 (Matter, Solubility, Solutions)

SOCIAL STUDIES

Gr 6 : (6.2.3), Gr 7 (7.2.1), Gr 8 : (8.4.6)

Exploration 2 –

LITERACY

Writing and Representing:

Gr 6: (8.1, 8.3, 10.4)

Gr 7/8: (8.4, 9.1, 9.2, 9.3)

SEL

Writing about one of our emotions is not as easy as it sounds. It involves a certain level of self-awareness, which is one of the five fundamental Social and Emotional Learning (SEL) skills. The more self-aware we are, the better we can regulate emotions, thoughts and behaviours; manage stress, control our impulses and keep ourselves motivated.

Exploration 3 -

SCIENCE

Science, Technology, Society & Environment (STSE)
(Gr 6, 7, 8)

NUMERACY

Number Sense:

Gr 6: N8

Gr 7: N2

First Nation Education Extension

[Explorations](#)

Additional Resources & Extensions

Steve Spangler [Sick Science](#)

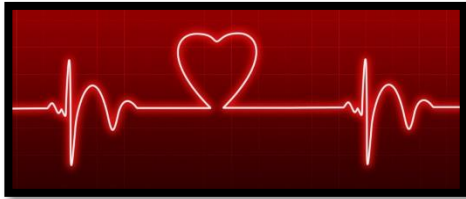
Brilliant Labs [Maker Fun and After-School Virtual Programs](#)

Science East [Inquiry-based Learning](#)

Smarter Science [Step into Inquiry](#)

Chris Wood [dailySTEM](#)

Mark Rober [NASA/Apple Engineer/Youtuber](#)



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