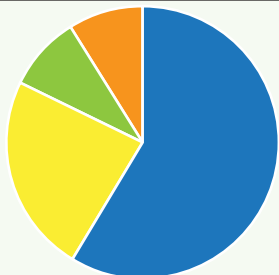


Grade 8



Literacy Calendar

Grand Erie values languages and home cultures. We invite all our families and students to complete some of these activities in English, French, or their own first/home language.


Date	Activity
Monday, May 25	Podcast 101 – Your job is to plan out a 30 minute podcast of any topic of your choice. What will be its title? What will you talk about? Would you have any guests? What would you ask them? Structure your podcast with a working draft of a script (including any advertisements). Here is your chance for your voice to be heard – what do you want to say?
Tuesday, May 26	A-B-C Order Challenge – Think of as many categories as you can where you can brainstorm words that start with your topic – in A-B-C order. For example, foods – apple, broccoli, cauliflower.... Can you get all the way through from A-Z? Challenge someone else!
Wednesday, May 27	Choose one person that you have seen today (on TV, on the street, from a window)and tell their story. What are they thinking? How are they feeling? What do they see? You can develop your own story for that person OR put yourself in that person's shoes and tell it with first person point of view.
Thursday, May 28	What story does this pie graph tell? Put the parts of the graph into context to explain your interpretation of its story. 
Friday, May 29	Categories! Using only nouns . Write down anything and everything that comes to mind that you associate with social media .

Grade 8

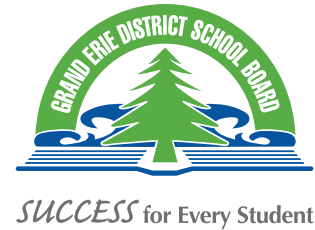


SUCCESS for Every Student

Numeracy Calendar

Date	Activity
Monday, May 25	<p>Factor Game: This game is played with a hundreds chart. The first player chooses a number on the game board and marks or covers it. This is his score for the first round. The second player covers all the factors of the first player's number that are not already covered and adds their values. This is her score for the first round. (Example: The first player selects 15, which is his score. The second player covers 1,3,5, which are the remaining factors of 15. This gives her a score of 9.) The next round begins when the second player chooses a number, and the first player covers any not covered factors left on the board. Play continues in this manner. If at any time a player selects a number that has no uncovered factors, the opponent does not get any points. The game ends when all the numbers are covered. Points are added, and the player with the greater sum wins. (Math Fact Fluency, by Jennifer Bay-Williams and Gina Kling, pp. 98.)</p>
Tuesday, May 26	<p>How many spheres can be made? A solid metal cone has radius 6 cm and height 20 cm. It is melted down to make spheres of diameter 6 cm. https://nrich.maths.org/12837</p> 
Wednesday, May 27	<p>Visit the M.C. Escher collection: https://mcescher.com/gallery Escher created amazing artworks utilizing geometric transformations (dilatations, translations, reflections, etc.). Explore the site and select an artwork to really delve into. Describe all the transformations you see.</p>
Thursday, May 28	<p>Leah put \$350 in a bank certificate that pays 4% simple interest each year. Make a table of values to show how much the bank certificate is worth after five years. Represent the relationships using an equation.</p>

Grade 8



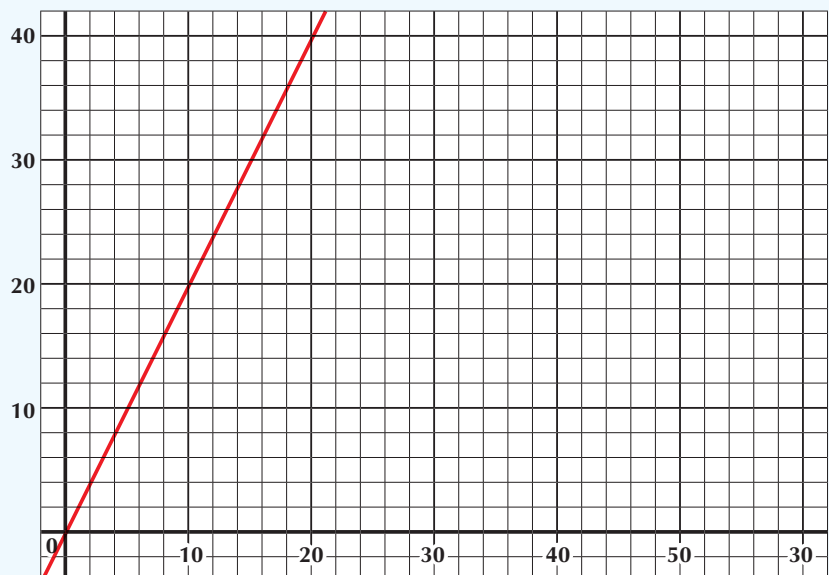
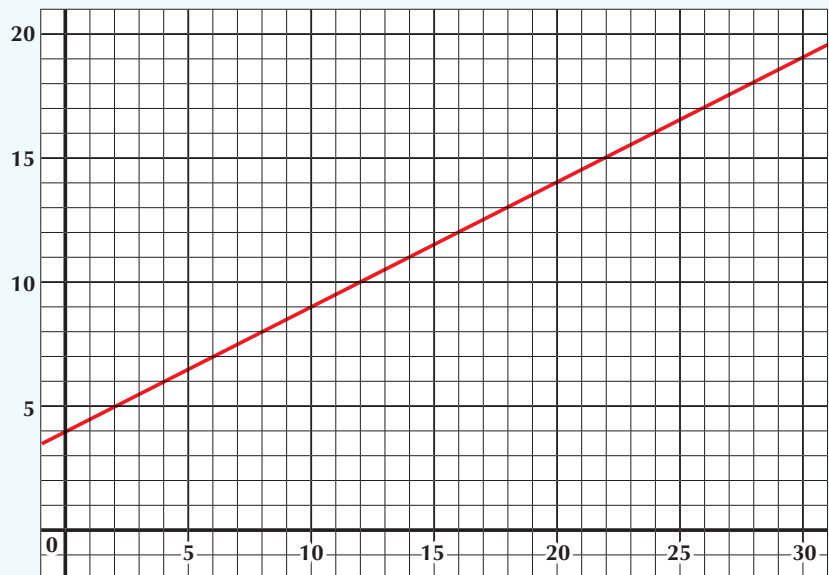
Numeracy Calendar

Date

Activity

Friday,
May 29

How are these graphs different? How are they the same? What could the data shown on these graphs be about? Justify why you think this. Label the graphs so that it reflects these topics.



Grade 8



SUCCESS for Every Student

Numeracy Calendar

Sources:

www.NCTM.org

Teaching Math with Meaning, Kathy Marks Krpan, 2018.

www.mathies.ca – Relational Rods Tool, Set Tool and Pattern Blocks

https://mathies.ca/files/representationCards/Tallies_0_to_50_AODA.pdf

<https://nrich.maths.org/145> - magic plant

<https://nrich.maths.org/159> - splitting plant

<https://nrich.maths.org/1159> - take the right angle

A Guide to Effective Instruction in Mathematics Grades 1-3 Geometry and Spatial Sense 2016

A Guide to Effective Instruction in Mathematics Kindergarten to Grade 3 Data Management and Probability 2007

Taking Shape: Activities to Develop Geometric and Spatial Thinking, Grades K-2, J. Moss, C. Bruce, B. Caswel, T. Flynn, Z. Hawes, 2016.

Small, Marian. Open Questions for the Three-Part Lesson – Geometry and Spatial Sense/Data Management and Probability. Grades 4-8

Inspiration from: <https://www.wouldyourathermath.com/category/3to5/>

Grade 8



Science

May 25 - May 29

Big Idea – Understanding Structures and Mechanisms

Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation

Option 1

Follow the link to Britannica and read the section on Simple Machines:

<https://school.eb.com/levels/middle/article/mechanics/275762>

This section describes the three different types of levers class 1, class 2, and class 3 and provides an example of each (C1 – Scissors, C2 – Wheelbarrow, C3 – Arm)

Create a chart and put the following different household items into the proper lever class. When you are finished have a discussion with someone in your house about why you placed each lever in the class you did.

- Clothes Peg
- Hammer pulling a nail out
- Hammer hitting a nail in
- Stapler
- Baseball Bat
- Chop Sticks
- Spatula
- Can Opener
- Shovel
- Teeter totter
- One of your own choosing

Option 2

Most machines and systems are designed to create a certain amount of **Mechanical Advantage** for the user. **Mechanical Advantage makes moving a load either easier, harder, or does not affect it.**

When machines are put into use, they do not always achieve all of the designed mechanical advantage. Can you think of some things that would cause a loss of mechanical advantage in a machine? Create a list of your thoughts.

Grade 8



Science

May 25 - May 29

Option 2 Continued...

There are two types of Mechanical Advantage

Ideal Mechanical Advantage IMA – The calculated value based on the measurements taken from the design of the ability of the machine to do work.

Actual Mechanical Advantage AMA - A measured value based on the input and output of the machine.

Using these two values and a formula we can look at the efficiency of different machines.

$$\text{Efficiency} = \frac{\text{AMA}}{\text{IMA}}$$

To calculate the IMA for a wheel and axle machine the formula looks like this:

$$\text{IMA} = \frac{\text{Diameter of Wheel}}{\text{Diameter of Axle}}$$

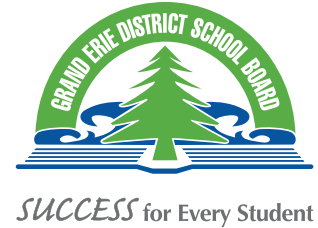
If a winch revolves around a rod of 4 cm and has a handle that is 25 cm long, what would the IMA be?

To calculate the AMA you need to know how many Newtons it takes to turn the crank and how many Newtons of tension are on the cable. Assume it takes 100 N to turn the crank and the tension is 500N.

$$\text{AMA} = \frac{\text{Load}}{\text{Effort}} = \frac{500}{100}$$

What is the AMA of the winch? Using your two sets of data you can now calculate the efficiency of the machine. Use the formulas to find the efficiency.

Grade 8



Science

May 25 - May 29

Option 3

Examine a system of your choosing. Farm, vehicle, etc., identify the five major components of the system.

- Purpose
- Input
- Output
- Components
- Processes

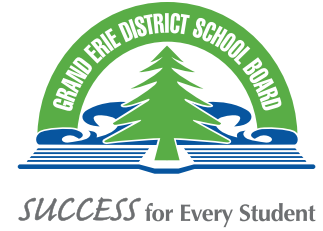
Do your best to think about all of the pieces that go into the system. When you are finished create an infographic to show your learning and present it to someone in your home.

Students must have the appropriate supervision for safety when completing these science tasks. Adult participation is required for safety when completing some of the science tasks. If you have any concerns with completing these science tasks, please don't attempt them.

Prompts for discussion:

- When would you use a lever that makes moving a load more difficult?
- How can you reduce friction in a simple machine to increase the efficiency? Draw a diagram of your machine and how to improve it.
- As global population increases, we will need to increase the efficiency of many systems. Think about how improving efficiency of farming or transit systems can make life better for humans.

Grade 8



History

May 25- May 29

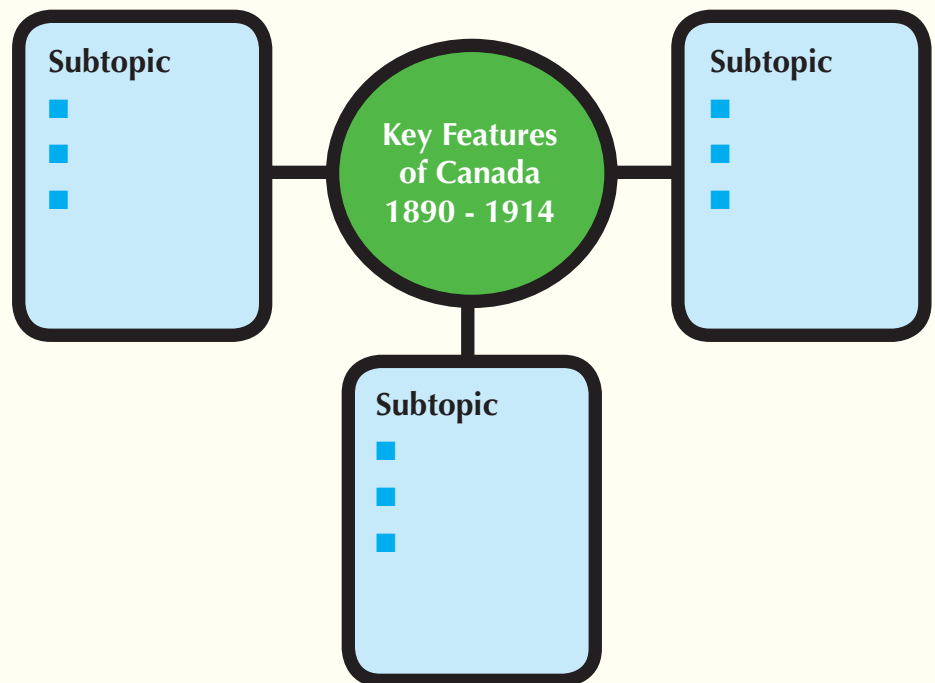
Big Idea – Canada, 1890-1914: A Changing Society

Social changes that have occurred at this time have had a lasting impact on Canada.

Option 1

What were the key features of Canada between 1890 and 1914?

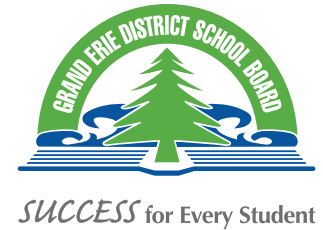
A concept map organizes ideas into specific subtopics. Create a concept map outlining the key features of Canada during this time.



Use your own research as well as the Canadian Encyclopedia to assist the creation of your concept map:

<https://www.thecanadianencyclopedia.ca/en/article/history-since-confederation>

Grade 8



History

May 25- May 29

Option 2

The role of women changed during the period of 1890-1914.

Complete the chart detailing the changes that took place and compare them to the role of women prior to this time. Consider the lives of the following women to help guide your thinking: Nellie McClung, Emily Murphy and Adelaide Hoodless.

The Role of Women Prior to 1890	The Role of Women from 1890 - 1914

Option 3

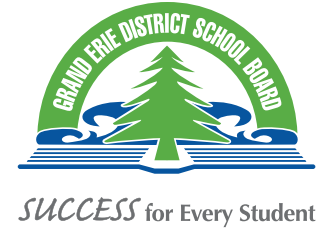
Choose one of the following questions:

- What was the impact of Clifford Sifton's approach to promoting Canada abroad? How did this approach change the face of the west?
- Why did the number of residential schools increase during this historical period? What impact did they have on First Nations and Métis children and families?

Choose a format that is best suited in communicating your results in an engaging and meaningful manner. Some ideas include:

- historical narrative
- audiovisual presentation
- information poster

Grade 8



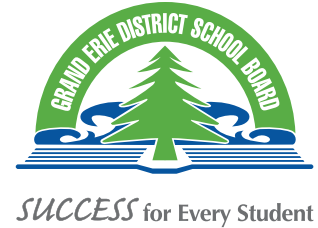
History

May 25- May 29

Prompts for discussion:

- In what ways are Canadian rights and freedoms a result of the struggles of people in the past?
- What are some ways in which different people have responded to challenges and created change?
- What role has diversity played in the development of Canada?
- What has been the lasting impact of the Indian Act and the residential school system?

Grade 8



Geography

May 25 - May 29

Big Idea – Global Inequalities: Economic Development and Quality of Life

We can use measurable indicators to help us understand spatial problems of wealth and development around the world.

Option 1

Let's become familiar with some key terms in this Geography strand.

Choose twelve (12) or more words from the following word bank. Complete the following table:

Key Term	Definition

*Quality of Life	*Literacy Rate
*Infant Mortality Rate	*Maternal Mortality Rate
*Female Literacy Rate	*Male Literacy Rate
*Per Capita Income	*Life Expectancy Rate
*Fertility Rate	*Birth Rate
*Death Rate	*Doubling
*GNP (Gross National Product)	*GDP (Gross Domestic Product)
*Developing	*Developed
*Demography	*Correlation
*Exploitation	*Fair Trade

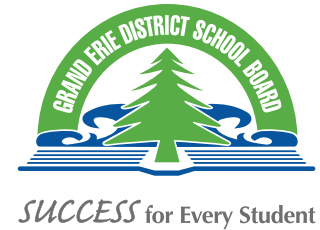
Option 2

Go to the following link to view the population pyramid for Canada's 2020 population:

<https://www.populationpyramid.net/canada/2020/>

1. What is the shape of the graph?
2. Do you see any irregularities in the graph? Explain.
3. Using the data in the graph, make predictions for future trends in Canada's population.
4. Is Canada a developed country? Justify using the data.

Grade 8



Geography

May 25- May 29

Option 3

Criteria	Afghanistan	Barbados	Chad	Italy
Overall Literacy Rate (percentage)	43%	99.6%	22.3%	99.2%
Overall Life Expectancy (years)	52.8	76	58.3	82.5

<https://www.cia.gov/library/publications/the-world-factbook/>

TASK:

1. Examine the data in the provided table.
2. Create a scatter plot to show the relationship between literacy rate and life expectancy.
3. Using your scatter plot, explain the relationship between literacy rate and life expectancy.

Prompts for discussion:

- What factors influence the quality of life in different countries?
- Why is it important to be aware of and to address global inequalities of wealth and in quality of life?
- How do we measure the development of a country or a community? Are there any biases in these measurements?