

Hot and Cold

Today we will be exploring heat in our environment.



Asynchronous Learning Tasks

Grade 7
Grade 8



Design Your Own Experiment

Designing an experiment is like writing a recipe. You must clearly outline all of the steps that need to be taken in order to meet your goal. *Une expérience scientifique est comme une recette! Les étapes doivent être claires.*

Today you will create an experiment that will compare two different water bottles (or a water bottle and a plain drinking glass). Your goal is to determine which container is more effective at keeping its contents cold. *Vous allez créer une expérience scientifique pour comparer deux bouteilles d'eau pour vérifier quelle bouteille est plus efficace à garder l'eau froide.*

Your experiment should be written in PARAGRAPH form and include the following...Ecris ton expérience scientifique dans un PARAGRAPHE et inclus...

- Materials that are needed. *Les matériels nécessaires.*
- Step-by-step description of what needs to be done (in order) *Les directions, étapes par étapes, pour accomplir la tâche.*

Writing Checklist

- ☐ Begin with a materials list (like the ingredients part of a recipe)
- ☐ Make sure your steps are written in full sentences.
- ☐ Check for capitals, periods, punctuation, and spelling



How Does a Thermos Work from Wonderopolis

Learn about the science of heat transfer and discover how a thermos keeps things hot or cold. *Apprend comment la chaleur se passe et découvrir comment un thermos garde la liquide chaude ou froide.*

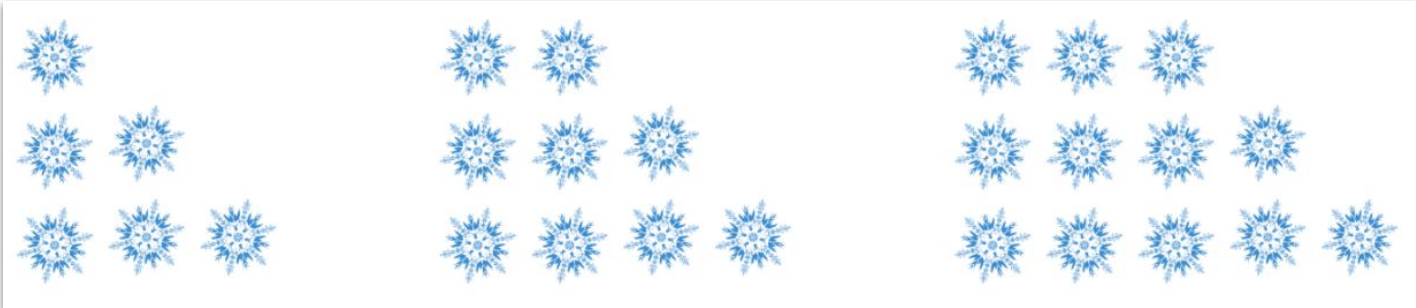
Question for Discussion: What is something new that you learned? *Qu'est-ce que tu as appris de nouveau?*

Application: Can you think of examples of how the science behind heat transfer is used in cooking? Take a look at the pots and pans in your kitchen at home. What are they made of? How do these materials facilitate transferring heat from the stove to the food inside them? *Peux-tu penser de comment le transfert de la chaleur est important pour cuisiner? Regarde les marmites et les poêles dans ta cuisine. De quels matériels sont elles? Comment est-ce que ces matériels aident avec le transfert de la chaleur?*



Text:
[How Does a Thermos Work?](#)

Snowflake Patterns



Look at this snowflake pattern. How do you see the pattern changing visually? Can you describe the way the pattern is changing in a second way? Show the pattern to a family member. Do they see the pattern differently than you?

Tasks:
Draw what the fourth and fifth terms in the pattern would look like.
Describe in words what the 10th term would look like.
Can you translate this pattern by redrawing it in a different way?

Questions for Discussion:
Why is it important to consider different solutions and points of view in math? How will this help our classroom become a community of mathematicians?



Complete Your Science Experiment!



Follow the steps you wrote in today's writing task and complete your science experiment. Make sure you record your observations, and your conclusion (which container was better). *Suis les étapes dans ta tâche d'écriture et complète l'expérience scientifique. Ecris tes observations et conclusion.*

Discussion:

- Who might be interested in the results of your experiment? How do you think they would use the data you collected? *Qui serait savoir tes résultats? Comment penses-tu que les autres peuvent utiliser tes conclusions?*
- What changes would you make to your experiment if you did it over again? *Quels changements ferais tu pour l'expérience scientifique si tu la répétais?*

Observations include more than just what you see. Use as many senses as are appropriate when you make an observation. Observations also include any measurements you may take with a scientific instrument (ruler, thermometer, timer etc.). Think about how you will organize your observations. You will likely choose a combination of the following:

- Written description using your senses
- Drawing/photos
- Chart with numerical data
- Graph

Identities




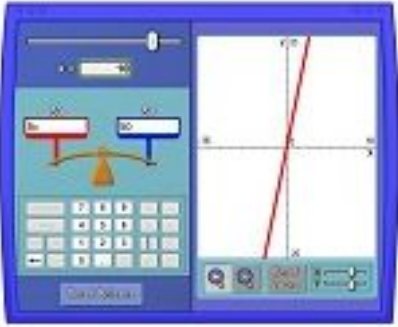

Today we will be exploring our identities and how they affect our world around us.



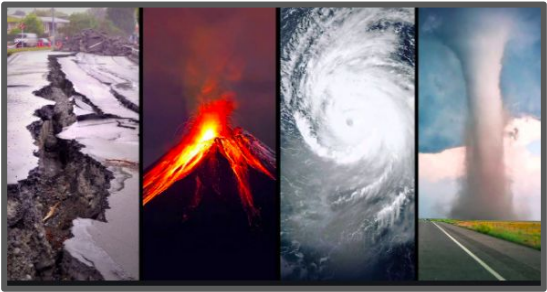
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 	<p>Watch the video: America Ferrara – My Identity is a superpower -- not an obstacle.</p> <p>Complete a Journal Entry by choosing one of the following choices:</p> <p>How do different parts of our identities combine to make us who we are? <i>Comments est-ce que les différentes parties de notre identité nous rendent unique?</i></p> <p>Do the ways we identify ourselves change over time? <i>Est-ce que la manière comment nous nous identifions change avec du temps?</i></p> <p>Why is it important to think about/consider our own identity? Why is it important to honour the identities of others? <i>Pourquoi est-ce qu’il est important de considérer notre identité comparée aux autres? Pourquoi est-il important d’honorer les identités des autres?</i></p>
	<p>Read this article and complete the comprehension questions found at the end of the text.</p>
 Pan Balance Expressions	<p>Task: Input two different expressions into the balance. Compare what they look like in the graph. How are they the same? How are they different. Where do the two lines intersect?</p>
	<p><u>Less sitting, more moving</u></p> <p>Physical activity guidelines for teens recommend that they get 1 hour or more of moderate to strong physical activity daily.</p> <p>Find activities that you are comfortable doing and that you enjoy. That’s key to making them a habit!</p> <p><u>Suggestions</u></p> <ul style="list-style-type: none">• Home workouts (e.g., yoga, strength/cardio routines)• Go for a walk/hike (take your dog if you have one!)• Use a local park (be a BIG kid and have fun!)• Go for a bike ride.• See how many times you can climb a set of stairs.

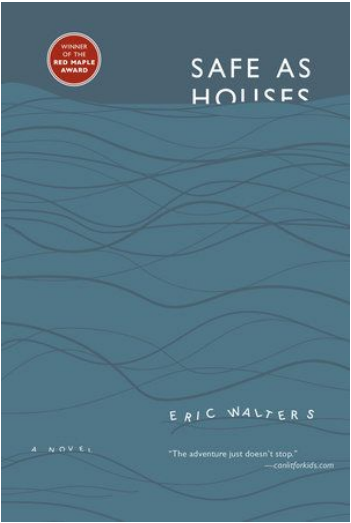
Natural Phenomenons



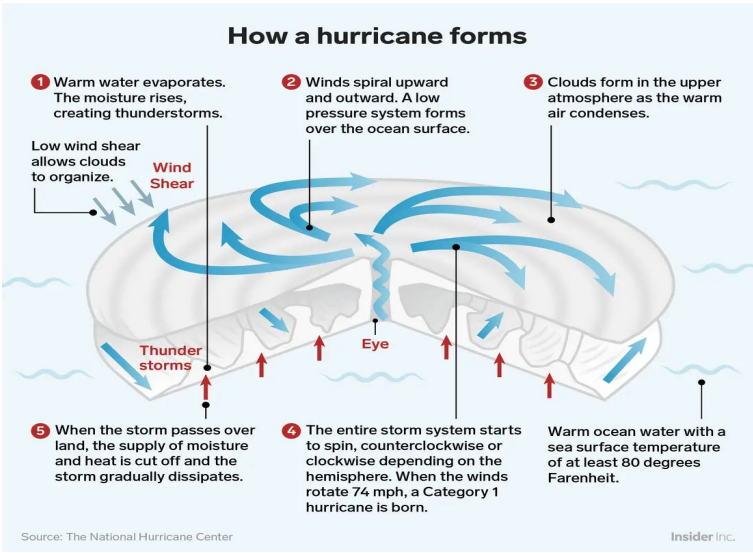
Asynchronous Learning Tasks

Today we will be exploring the wonders of natural phenomenons!

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Read “How a hurricane forms”. How does this infographic help the reader to understand how hurricanes form? *Comment est-ce que le texte aide comprendre la formation des ouragans?*



Writing Task

Which natural phenomenon (hurricane, tornado, tsunami, earthquake) do you think is most destructive and why? *Quel phénomène naturel penses-tu crée le plus du dommage?* Use the writers checklist below

- ☐ My opinion is clearly stated.
- ☐ I included strong supporting details.
- ☐ All details are related to the topic.
- ☐ I have a conclusion sentence.
- ☐ I used strong vocabulary.
- ☐ I kept my reader's attention.

← Then, read the synopsis of “[Safe as Houses](#)” by Eric Walters (select, [Keep Reading](#) for the complete synopsis): How would you describe the mood of the text? Identify some descriptive words or phrases that help to convey the mood. What do you predict will happen in the story?

Patterns in Moon Phases



- What phase of the moon is this?
- What will tomorrow look like? Next Friday look like?
- How much does the shadow ‘move’ each day? Explain your thinking.

The full moon cycle is 28 days long. How much does the shadow ‘move’ each day? **Hint:** the full moon cycle is 28 days long. How might that help you consider the amount the shadow ‘moves’ each day?

Look up the moon phases here: <https://www.moongiant.com/phase/today/> Was it what you predicted? Explain.

Task: Examine data from yesterday, today and the next 3 days. Using this information, extend the pattern. What do you notice? What Percentage of the moon is shown on day 6? Day 10? Day 28? (Remember: 28 day moon phase)

To learn **more about moon phases**, watch this:



Watch this commercial for disaster relief



Discussion Questions:

Give an example of how people help one another after a disaster. *Donne un exemple de comment les personnes s'aident après un désastre.*

Sometimes disasters happen in different parts of the world. How can we as Canadians help out? *Des fois, les désastres se passent dans les autres parties du monde. Comment peuvent les Canadiens aider les autres?*

Why did they use a commercial, instead of a pamphlet, to share this information? *Pourquoi est-ce que cette information est partagée avec un commercial?*



Try some of these exercises!

Reach both arms up high, hold your hands together and move side to side!
Bend one leg and place your hand on it and reach the other arm up high!
Bend one leg into a lunge, reach your arms up high, change legs!

What Do You Eat?



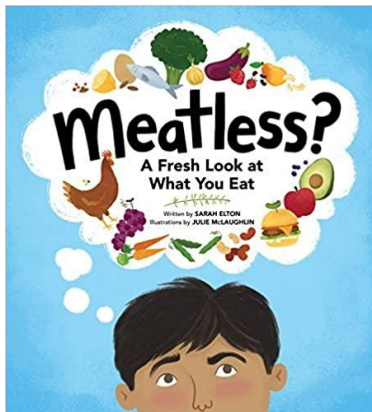
Today we will be exploring how our food affects the world.




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	<div>Favourite Foods</div> <p>Can you share your opinion in a clear and concise way? A great way to practice is to write about topics that are familiar or that you are passionate about. Who doesn't love some great food? Write a series of paragraphs to tell us about a few of your favourite foods. Each paragraph should include a topic sentence that introduces the food and 2-3 supporting sentences that give details about WHY you chose that food. Include three paragraphs in total. You can choose topics such as:</p> <ol style="list-style-type: none">1. Your favourite holiday dish (<i>Ton plat préféré</i>)2. A snack you could eat every day for the rest of your life (<i>Une collation que tu aimerai manger chaque jour de ta vie</i>)3. Your favourite healthy meal (<i>Ton repas sain préféré</i>)4. A food that more people should try (<i>Une nourriture que plus de personnes devraient essayer</i>)5. Your favourite food indulgence (<i>Une nourriture qui n'est pas bonne pour la santé que tu aimes manger</i>)	<div>Writing Checklist</div> <div><div><input type="checkbox"/></div><div>Begin with a topic sentence (i.e. My favourite holiday dish is...)</div></div> <div><div><input type="checkbox"/></div><div>Include 2-3 sentences to support each of your paragraphs</div></div> <div><div><input type="checkbox"/></div><div>Check for capitals, periods, punctuation, and spelling</div></div>																																				
	<div>Meatless by Sarah Elton</div> <p>Take a fresh look at what you eat with this book all about the common trend of going meatless. In this book, author Sarah Elton discusses what vegetarianism is and why some people might choose this lifestyle. <i>Regarde ce livre qui est au sujet de ne pas manger la viande. L'auteur parle du vegetarianism et pourquoi les personnes choisissent d'être végétarien.</i></p> <p>Questions for discussion: What is something new that you learned? Are you interested in going meatless? Why or why not? <i>Qu'est-ce que tu as appris de nouveau? Es-tu intéressé en ne mangeant pas la viande? Pourquoi?</i></p> <p>Find a link to a preview of this book here: Meatless NOTE: Click on the "Look Inside" link for a selection of the book that you can read. If you or your teacher has an Epic account, you can access the entire book.</p>																																					
<div>What's Going On in This Graph?</div> <div><div><p>The average greenhouse gas impact (in kilograms of CO₂) of getting 50 grams of protein from:</p><table><tr><td>Beef</td><td>17.7</td></tr><tr><td>Lamb</td><td>9.9</td></tr><tr><td>Farmed crustaceans</td><td>9.1</td></tr><tr><td>Cheese</td><td>5.4</td></tr><tr><td>Pork</td><td>3.8</td></tr><tr><td>Farmed fish</td><td>3.0</td></tr><tr><td>Poultry</td><td>2.9</td></tr><tr><td>Eggs</td><td>2.1</td></tr><tr><td>Tofu</td><td>1.0</td></tr><tr><td>Beans</td><td>0.4</td></tr><tr><td>Nuts</td><td>0.1</td></tr></table><p>Source: Poore and Nemecek, Science</p></div><div><p>Percentage of food wasted or lost at the consumer level, by category.</p><table><tr><td>Fish and seafood</td><td>31%</td></tr><tr><td>Fresh fruit</td><td>25%</td></tr><tr><td>Fresh vegetables</td><td>24%</td></tr><tr><td>Eggs</td><td>21%</td></tr><tr><td>Meat and poultry</td><td>21%</td></tr><tr><td>Dairy products</td><td>20%</td></tr><tr><td>Grains</td><td>19%</td></tr></table><p>Source: United States Department of Agriculture</p></div></div> <p>You can find a larger version of these graphs HERE!</p>		Beef	17.7	Lamb	9.9	Farmed crustaceans	9.1	Cheese	5.4	Pork	3.8	Farmed fish	3.0	Poultry	2.9	Eggs	2.1	Tofu	1.0	Beans	0.4	Nuts	0.1	Fish and seafood	31%	Fresh fruit	25%	Fresh vegetables	24%	Eggs	21%	Meat and poultry	21%	Dairy products	20%	Grains	19%	<div>Questions for Discussion:</div> <div><div>1. What do you notice? If you make a claim, tell us what you noticed that supports your claim.</div><div>2. What do you wonder? What are you curious about that comes from what you notice in the graphs?</div><div>3. What's going on in these graphs? Write a catchy headline that captures the graphs' main idea.</div></div>
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	<div>Choosing a Healthy Recipe</div> <p>Lots of factors affect people's food choices and eating habits, including food preferences (as we discussed in today's writing prompt), beliefs about ethical food choices (as we read about in Meatless), allergies, or even basic food skills. Find a HEALTHY recipe that you would recommend to a friend your age who is just learning to cook. If possible, make it for your family this week.</p> <p><i>Il y a beaucoup de facteurs qui déterminent les choix alimentaires de personnes. Trouve une recette qui est bonne pour la santé!</i></p>	<div>Questions for discussion:</div> <p>Why would you consider this recipe to be healthy? What factors might prevent a friend from choosing this recipe? (i.e. allergens, cultural factors, budget, availability of ingredients, access to clean water, etc.)</p> <p><i>Pourquoi penses-tu que cette recette est bonne pour la santé?</i></p>
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Terry Fox

Today we will be exploring Terry Fox’s positive legacy.

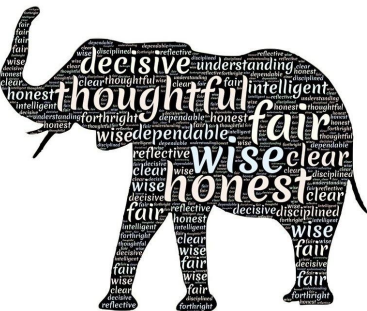


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Terry’s Best Character Trait

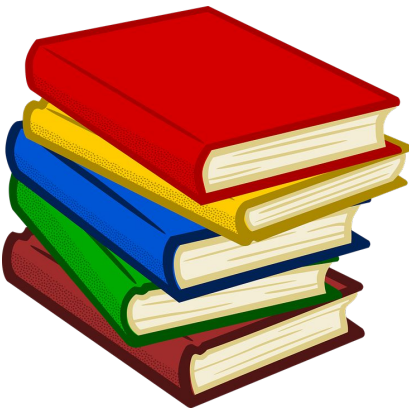


Character traits are words used to describe how someone acts during certain situations or what kind of people they are. They can be positive or negative, and are usually revealed in a person’s words and actions. For more information about character traits, click [HERE](#).
What word would you use to describe Terry’s character? Write a paragraph to explain your choice. Make sure you use specific evidence to support your choice of word. You can find many examples of Terry’s character in the video below. Use phrases such as, “In the video it said...” or “An example of this is...”

Les traits du personnage sont utilisés pour décrire les autres. Quels mots utilises-tu pour décrire Terry Fox? Ecris un paragraphe pour expliquer ta description de lui. Donne l’évidence spécifique pour soutenir tes idées. Regarde la vidéo en dessous pour apprendre plus de Terry Fox.

Writing Checklist

- ☐ Begin with a topic sentence (i.e. I believe that Terry can best be described as...)
- ☐ Include 2-3 different pieces of evidence to support your opinion.
- ☐ Check for capitals, periods, punctuation, and spelling



Questions for Discussion:

- What is something new that you learned? *Qu’est-ce que tu as appris?*
- Why do you think that the Marathon of Hope has continued until today? *Pourquoi penses-tu que le Marathon de l’espoir continue toujours?*
- What would you say to a newcomer to Canada who does not know about Terry Fox’s story? *Quel message donnes-tu à un nouveau venu au Canada qui ne connaît pas Terry Fox?*

Terry Fox Patterning Challenge

Your class has decided to raise money for the Terry Fox Foundation and have 30 weeks before the big cheque presentation. There are two proposals on the table.

Option #1: Each student agrees to raise \$10 each within the first week and then will collect \$5 in donations every week after that.

Option #2: Each student agrees to raise \$1 the first week, then \$2 the second week, \$3 the third week... and so on.

What option do you think the class should choose? Justify your response.

For a printable copy of this challenge, click [HERE](#).
Source: https://terryfox.org/wp-content/uploads/2016/11/N_-_Mathematics_-_Patterning_and_Algebra-1.pdf

Think about how you are going to prove that you have chosen the best option. In addition to a written explanation, you might consider using a t-chart, a graph, a visual model, or algebraic expressions.



Walk/Run

Remember Terry’s legacy by going on your own run or walk today. Even better... get your family to come along with you! You can walk around your yard, around the block, or on a walking path... whatever you and your family decide. Make sure you walk or run for at least 20 minutes. (And don’t forget to stretch and drink lots of water!)

Souviens l’histoire de Terry par faire ta propre promenade. Fais de l’exercice pour au minimum 20 minutes!



- As you run or walk, think about what your goals are for this new year – 2021. What would you like to achieve?
- Lorsque tu marches ou cours, penses de tes buts pour cette année scolaire. Que veux-tu réaliser?*