Confinement Challenge 2021



ACTIVITY 1: Welcome to breathtaking Iceland!



Iceland is an amazing country. It originated from a volcanic eruption a long, long time ago, and yet it is a cold country near the **arctic circle**.

The people are friendly and encourage tourists to visit and enjoy their lakes, glaciers and for a chance to see the **aurora borealis**.

Iceland is the world's second largest island. It has thirty minor islands as part of the country. Most of Iceland is covered by **tundra**, arctic wasteland, and only 23% of the country is made up of vegetation.

The island has some large lakes and **fjords** along the coast where most of the people live. The highlands of Iceland are too cold for people to **inhabit**.

Iceland is in the Atlantic Ocean, just below the Arctic Circle. The island was formed eighteen million years ago when a volcano erupted.

There is still a hot spot, called The Iceland Plume, and Iceland can feel earthquakes occasionally--they experience volcanic eruptions about every five years.

The weather in Iceland **fluctuates** from snow to rain and wind, but the warm gulf stream in the Atlantic Ocean helps to keep it warmer.

The average temperature is 12 C or 54 F.

In winter, however, when it is 0 C or 32 F the days are very short and there are only about 4-5 hours of daylight.

THINGS TO DO:

- 1. Look up the **bold** words in the above text. Write their definitions on a separate sheet.
- 2. On a separate sheet, rewrite the sentences that contain the **bold** words. Substitute the **bold** words for a different word or phrase that means the same thing. EXAMPLE: *The country plays a leading role in regional and global economic, military, cultural, and strategic affairs.* Do the same with any of the other words you don't recognize.
- 3. Repeat 1 and 2 above with any of the other words in the text you don't recognize.

Choose one question below to write at least one page about:

- 4. Looking at the map or consulting the Internet for photos of Iceland, describe your dream trip there. Describe where you'll start, where you'll end up, and what cities you'll visit in between. Include at least three reasons why you want to visit each location.
- 5. What does it mean to say that a *warm gulf stream in the Atlantic* helps keep Iceland warmer?
- 6. Why do you think it is that Icelandic people have a high quality of life? How would you compare (note similarities) and contrast (note differences) life in Iceland to life in a country like Syria?

ACTIVITY 2: History

Iceland's history goes back to the Vikings with some settlements from the Norse and Celtic people. The country started out as a shelter for all sorts of runaways and **renegades**. When they needed some order, however, they created the **Althingi**, the oldest **democratic parliament**.

In each part of the country there was a chieftain, politician, and religious leader. Every summer these leaders would meet at Parliament Fields and discuss the laws and settle any arguments. The law speaker would stand on a rock called Law Rock and read one third of the law from memory.

The chieftains began to quarrel and fight, but their arguments ended when Iceland was **annexed** by the King of Norway. Soon after, Iceland joined into one kingdom with Norway, Denmark and Sweden. This union split, however, and Iceland became part of Denmark.

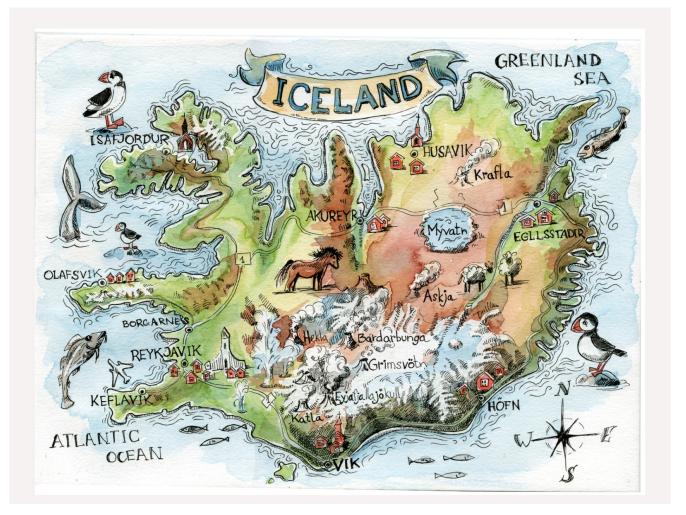
During the 1500's English and German fishermen established trade posts in Iceland, but the King of Denmark was unhappy with this idea and put a stop to the trading, only allowing trading to take place with Denmark.

In 1845 Iceland's Independent Movement tried **in vain** to get **home rule** for the country. In 1944 Iceland gained independence, while Denmark was involved with German invasions.

After gaining independence, Iceland had a great deal of catching up to do to get her economy and country productive. In the early 1900's, Iceland rolled out electricity and saw the arrival of the first **automobile**.

The first trawler arrived at this time and that helped improve the fishing industry.

Today Iceland is a peaceful country and the people encourage tourism to share their beautiful and exotic countryside with visitors. It is a modern state officially called the Republic of Iceland.



THINGS TO DO:

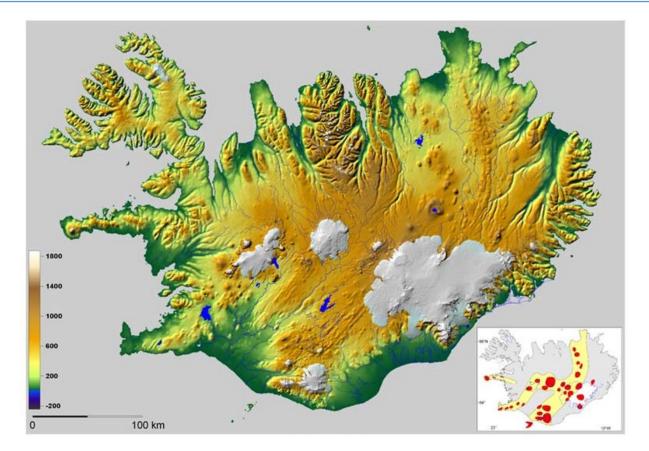
Write at least a page:

- 1. Look up the **bold** words and phrases in the above text. Write their definitions on a separate sheet.
- 2. On a separate sheet, rewrite the sentences that contain the **bold** words. Substitute the **bold** words for a different word or phrase that means the same thing. EXAMPLE: *The country plays a leading role in regional and global economic, military, cultural, and strategic affairs.*
- 3. Repeat 1 and 2 above with any of the other words in the text you don't recognize.
- 4. What was happening elsewhere in the world in 1944 when Iceland gained independence? Why was Denmark subject to German invasions? Whose side was Iceland on during that conflict?
- 5. What does it mean for a country to seek "home rule?" Why was it better or worse that Iceland got their independence from Denmark? Compare the government system of a **monarchy** to a **parliamentary democracy** and make your best case for the one you prefer.

Choose one of the following:

- 1. Select at least one question from each category on the History Question Charts (below) and do a research project about one of the civilizations that lived in Italy—the Vikings, the Norse, or the Celts. Your project can be a poster, a written report, a diorama, etc.
- 2. Based on the above text or on other research, make a timeline of the history of Iceland.
- 3. Choose two of the civilizations that lived in Iceland and make a project that compares the ways in which they met their fundamental needs: clothing, shelter, defense, food, and transportation.

History Question Charts				
The Nature of the Country	What were the soil and climate like?	What were the flora and fauna like?	What people lived there?	How did they come?
Practical Activities of the People	What were the types of work and occupations?	What tools and techniques did they have?	How did they find their country and how did they make it more habitable?	How did they make use of natural resources?
Intellectual and Spiritual Aspects	What language did they speak?	what was the education like? How advanced was the learning?	What was their art like?	What was their idea of life and death? Who, if anyone, was the spiritual leader? What concept of justice was there?
Relations within the group and with other groups	Did they trade among themselves? Did they trade with others? By barter or other means? How were their money and goods held, individually, or tribally?	What about their wars and conquests? Did they have slaves and take people into subjugation?	What about travel and migration? How and why did the group settle where they did?	What about their dress, food, housing, customs, and family life? What care did they give to their children?



Geothermal Energy produces the vast majority of Electrical Power consumed on Iceland, due chiefly to the island's position atop the Mid-Atlantic Ridge and exhibits plentiful hot water reservoirs and geysers. This has the effect of drastically reducing the price of electricity in Iceland, and has attracted several energy-intensive industries.

Aluminum Smelting (The reduction of Aluminum ores to Aluminum metal) is the largest energy-intensive manufacturing sector in Iceland, and the country produced over 800,000 Metric Tonnes per Year in 2013, making it the 10th largest producer of Aluminum metal worldwide.

Iceland is very geologically active and combined with large amounts of rain and snow caused by the warm waters of the gulf stream current which flow toward it, many interesting and unusual geographic features have developed which make it different from any other island so close to the Arctic Circle.

Some of these features are Iceland's numerous mountains, volcanoes, hot springs, rivers, small lakes, waterfalls, glaciers, and geysers. The word geyser is, in fact, derived from Geysir, the name of a particularly famous geyser on the southern side of the island. Glaciers cover approximately 11% of the island and the largest, Vatnajökull, is up to 1 km thick and, by far, the largest glacier in Europe.

Iceland, though considered to be a European country, sits partly in North America since it straddles the Mid-Atlantic Ridge which marks the boundary between the Eurasian and North American tectonic plates. The ridge runs directly through the populated Reykjavik and Thingvellir historic areas, and the tectonic activity of these plates separating is the source of the abundant geothermal energy in the region.

Iceland is highly geologically active with many volcanoes including Hekla, Eldgjá, Herðubreið, and Eldfell. The volcanic eruption of Laki in 1783–1784 caused a famine that killed nearly a quarter of the island's population. In addition, the eruption caused dust clouds and haze to appear over most of Europe and parts of Asia and Africa for several months afterward, and affected climates in other areas.

Iceland has many geysers, including Geysir, from which the English word is derived, and the famous Strokkur, which erupts every 8–10 minutes. After a phase of inactivity, Geysir started erupting again after a series of earthquakes in 2000. Geysir has since grown quieter and does not erupt often.

With the widespread availability of geothermal power, and the harnessing of many rivers and waterfalls for hydroelectricity, most residents have access to inexpensive hot water, heating, and electricity.

On 21 March 2010, a volcano in Eyjafjallajökull in the south of Iceland erupted for the first time since 1821, forcing 600 people to flee their homes. Additional eruptions on 14 April forced hundreds of people to abandon their homes. The resultant cloud of volcanic ash brought major disruption to air travel across Europe.

Another large eruption occurred on 21 May 2011. This time it was the Grímsvötn volcano, located under the thick ice of Europe's largest glacier, Vatnajökull. Grímsvötn is one of Iceland's most active volcanoes, and this eruption was much more powerful than the 2010

Eyjafjallajökull activity, with ash and lava hurled 20 km (12 mi) into the atmosphere, creating a large cloud.

Another eruption occurred in March, 2021 when Mount Fagradalsfjall – a volcano on Iceland's Reykjanes peninsula – erupted. The eruption produced a river of lava that could be seen from the capital city of Reykjavik, 20 miles (30 km) away. While small in comparison to other recent eruptions in Iceland, the event was bright and large enough to be seen by satellites orbiting hundreds of kilometers above the planet.

The highest elevation for Iceland is listed as 2,110 m (6,923 ft) at Hvannadalshnúkur (64°00'N 16°39'W).

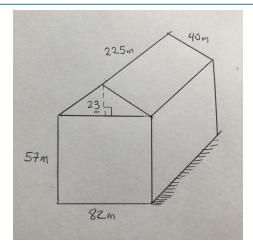
Write at least a page:

1. Aside from Reykjavik, what are some of the major cities in Iceland? Why do you think those cities grew up around the edge of the island? How is the Atlantic Ocean important for the people's way of life? What are the advantages and disadvantages of living on a major body of water?

Choose one of the following:

- 1. Research the town of Rejkjavik and write a minimum of one page describing what it's like to live there from the point of view of a young child living in the town.
- 2. How does Iceland divide up its administrative sections? What are the names of its states?
- 3. A topographical map is a map that shows the highlands and lowlands of a region. Using paper maché, newspaper, and paint, make a 3D topographical map of Iceland.
- 4. Research volcanoes and how they work. Make a poster, a report, or a diorama to show what you've learned.

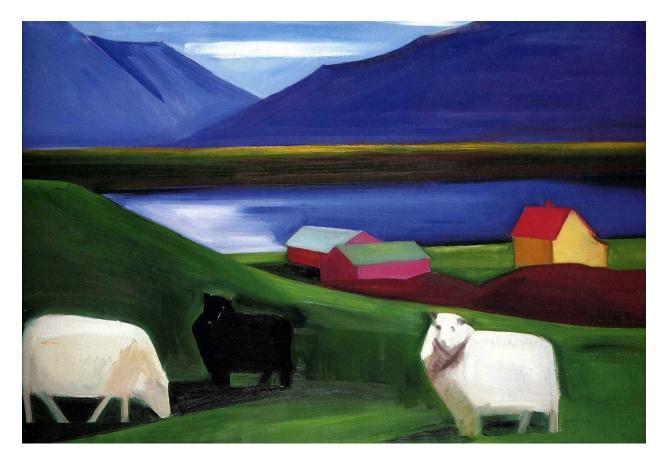
ACTIVITY 3: Geometry



- 1. Iceland's surface area is 103,000 km². Given that surface area, how many Icelands can fit in one France? In the same way, choose at least 3 other countries in the world and find out how many Icelands would fit inside of them.
- 2. Imagine that archeologists digging near the town of Borgarnes have unearthed an ancient Viking building (pictured above), perfectly preserved! They want to paint it pink for an upcoming Borgarnes street festival. Calculate the total surface area of the building so the painters know how much paint they will need. *Hint: Find the area of each face of the building and add them all together. Formulae you will need are:* A = bh (rectangle) and $A = b \cdot 1/2h$

Choose one:

- 3. Iceland has some famous painters, such as Louisa Matthiasdóttir. Take a look at the painting on the next page by Matthiasdóttir and write a paragraph describing how she uses lines and shapes. Are their geometric and organic shapes? Do they have soft lines or crips, sharp lines. How do the broad, flat planes of color make the scene d
- 4. The Ring Road in Iceland is 1,322 km in length and winds through many of Iceland's major cities. Pretend you could stretch out the Ring Road into a straight line and make that line the radius of a circle. Then, using the town of Reykjavik as a center, trace your circle on a world map. Which countries are enclosed in the circle?



House and Sheep (2000) by Louisa Matthiasdóttir

ACTIVITY 4: Mathematics

STEP 1: Do your best to solve the problem on your own and come up with a tentative "first draft" answer. Be prepared to explain how you arrived at your answer.

STEP 2: Contact a friend who has also worked through the problem and compare answers. If you got the same answer, discuss how you got the answer. If you got different answers, find out whose is correct and why.

STEP 3: Based on what you discussed with your friend, write down your final answer.

- 1. Einar is driving to Rejkjavik for the weekend to visit her family. She puts three gallons of gasoline into her Fiat. The gasoline level was at 10% before she added the gasoline. If the Fiat has a 14 gallon tank, how much more gasoline can fit in the tank?
- 2. The Egilsdóttir family is going to the cinema. Present are Papa, Mama, Helga, and the twins. When papa orders Harðfiskur at the concession stand, they discover that there are ten pieces. Write a fraction to show how much of the hard fish each of the Egilsdóttirs will get.
- 3. After eating their Harðfiskur, the family from problem 2 are still hungry, so they go to a restaurant for sea food. Mama orders a round loaf of dark rye bread which comes cut into 8 equal slices. Write a fraction that represents how many slices will be left *after* each of the Egilsdóttirs takes a slice.
- 4. You are going on a road trip around the Ring Road of Iceland which is 1,332 km long. Gas is pretty expensive at about €6 per gallon. If you're driving in a camper van that gets 30 km to the gallon, how much would you spend on gas driving the whole road?
- 5. Gunnar is building a stairway in his two-story cabin on the coast of Iceland. If the floors are 10.5m apart, and each step is 9cm high, how many steps does he need to build?
- 6. Jón is fencing a rectangular yard 36m by 28m. She has 150 m of fencing and will be installing a 5m gate on one end. How much fencing will she have left?
- 7. Grandma Guðmundursdóttir is laying stepping stones in her garden. The stones are 8 cm long, and she wants to create a path that is 10 m long. How many stones will she need?
- 8. How many different 12cm in diameter Icelandic pepper cookies will fit on a round serving plate with a radius of 40cm if you don't stack the cookies, but lay them flat with their sides touching?
- 9. Speaking of cookies, check out the recipe for Icelandic pepper cookies on the next page, or find an Icelandic recipe on your own, and make it for your family. (You may need to convert the measurements from the English system to the metric system.)

ICELANDIC PEPPER COOKIES!



INGREDIENTS

- $1\frac{1}{4}$ cups butter, softened
- $1\frac{1}{4}$ cups white sugar
- ³/₄ cup light corn syrup
- 2 small eggs
- 3 cups all-purpose flour
- 1¹/₂ teaspoons baking powder
- 1 teaspoon baking soda
- $\frac{1}{2}$ teaspoon salt
- 2 teaspoons ground cinnamon
- 2 teaspoons ground cloves
- 1 teaspoon ground ginger
- ¹/₄ teaspoon ground black pepper

Directions

Instructions Checklist

- **Step 1** In a large bowl, cream butter and sugar. Stir in corn syrup and eggs; cream well. Sift together flour, baking powder, baking soda, salt, cinnamon, cloves, ginger, and pepper. Add dry ingredients to the butter mixture, and mix until smooth. Refrigerate dough over night.
- Step 2 Preheat oven to 350 degrees F (175 degrees C).
- Step 3 Roll out dough to 1/4 inch thickness. Cut out cookies with a 2 inch round cookie cutter. Place at least 1 inch apart on cookie sheet and bake for 8 to 10 minutes in preheated oven.

ACTIVITY 5: Language (English)

Speaking of driving around Iceland. Check out these quotes about Iceland's natural beauty.

"THE PROBLEM WITH DRIVING AROUND ICELAND IS THAT YOU'RE BASICALLY CONFRONTED BY A NEW **SOUL-ENRICHING**, **BREATH-TAKING**, **LIFE-AFFIRMING** NATURAL SIGHT EVERY FIVE MINUTES. IT'S TOTALLY EXHAUSTING." - Stephen Markley

"THE THING ABOUT ICELAND IS THAT WE ARE TRAPPED THERE ANYWAY, ALL OF US. WE HAVE BEEN TRAPPED THERE FOR THOUSANDS OF YEARS." – Baltasar Kormakur

"THERE IS A GLACIER IN ICELAND, SOLHEIMAR, WHICH HAS RETREATED A GREAT DEAL, AND EVERY TIME I GO BACK THERE AND SEE WHAT'S NOT THERE ANY MORE, IT DOES SOMETHING TO THE HEART. IT MAKES YOU REALISE IT'S POSSIBLE FOR A GIGANTIC NATURAL ELEMENT TO JUST DISAPPEAR." – James Balog

"A BAD ROWER BLAMES HIS OARS." – Icelandic Proverb

"THERE IS NO MORE SAGACIOUS ANIMAL THAN THE ICELANDIC HORSE. HE IS STOPPED BY NEITHER SNOW, NOR STORM, NOR IMPASSABLE ROADS, NOR ROCKS, GLACIERS, OR ANYTHING. HE IS COURAGEOUS, SOBER, AND SUREFOOTED." – Jules Verne

And now:

Write the quotes on a separate sheet and symbolize them using grammar symbols.

And answer three of the following questions:

- 1. What does the speaker of the first quote mean by the adjectives in bold? These adjectives use a hyphen to join two or more words into one super word. Can you make some adjectives like this to describe the best meal you ever had? *Example: Icelandic pepper cookies are the most mind-and-tastebud-blowing cookies I've ever eaten!*
- 2. Why does the speaker in the first quote say that driving around Iceland is *totally exhausting*?
- 3. James Balog talks about returning to see a glacier reatreating, i.e., getting smaller. He says it "does something to the heart." What do you think watching the glacier get smaller does to his heart?
- 4. What do you think is meant by "A bad rower blames his oars?"
- 5. Reading only the quote by Jules Verne and nothing else, tell the meaning of the word *sagacious*?

ACTIVITY 6: Music

Meet Björk!



Björk is world famous and critically acclaimed singer and experimental songwriter from Iceland who has been making music since the 1980s, when she was the singer in a band called the Sugarcubes (1986 - 1992). Since the early 1990s, when the Sugarcubes disbanded, Björk has been recording experimental pop music.

Björk was born Björk Guðmundsdóttir on 21 November 1965 in Reykjavík, Iceland. She is an Icelandic singer, composer and actress. She mostly writes her own songs. She is best known for telling people how she feels with emotions and for her unusual voice. She sings mostly in English but sometimes in Icelandic. She often makes music on her laptop.

She has a son and a daughter, Sindri, and Isadòra. She lives in New York City, but also owns a home in Reykjavík.



Björk is well-known for her elaborate stage performances, with colorful lighting, elaborate sets, and a variety of musical influences, from sweeping electronic musical arrangements to full orchestras. She even made an entire album of songs in which all the sounds were made with her voice!

Björk started making music when she was 11 years old. She appeared on Icelandic radio in 1977 singing a song called "I Love to Love" accompanying herself on the guitar. Young Björk recorded an album that, although didn't do very well, nevertheless showcased her beautiful voice. She got an offer by a record company to make a second album, but she turned it down so she could buy a piano and write her own material. Follow this link <u>https://www.youtube.com/</u>watch?v=J9522zYJ0DI to listen to Björk's first radio appearance.

How about that? As a child, Björk composed her own music! You, too, can compose your own music, just like her.

Try this:

- 1. Using stick notation on a large score (See the example below), compose a percussion accompaniment to the song for up to five percussion instruments (or household objects). You can use patterns made up of the rhythms you know from the selection below.
- 2. Björk was really into electronic music. She liked to experiment with different sounds. If your parents let you, you can download an app on their iPhone called Keezy. Keezy is a fun program that lets you loop different sounds (whatever sounds you like!) and combine them into musical drum loops. Try it out and see what you come up with.
- 3. Together with your parents, you can visit this link in a Chrome browser <u>https://</u><u>www.incredibox.com/demo/</u> to make fun loops à la Björk using Incredibox.

