

Landform Processes

Landform Processes

A landform form is any characteristic that describes the earth's surface. Examples include valleys, mountains, hills, oceans and plains. Landforms are constantly changing over time. Scientists estimate through dating of rocks that the earth is 4.54 billion years old. Many of the processes that affect landform changes, happen so slowly that they cannot be noticed from one year to the next but over time the changes are significant. For instance, Niagara Falls is currently receding at a rate of 30 cm per year. Up until 1942 it was receding at a rate of 1.5 meters per year. Niagara Falls has receded 11.4 kilometers in the last 12,300 years forming the Niagara gorge.

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**Preview of 30 pages from this
product that contains 77 pages
total.**

Core

Tectonic Plates

The earth can be compared to an egg. It is composed of 3 main parts. The core (inner and outer), which is like the egg yolk, the mantle, the egg white and a thin shell called the crust. The earth's crust has cracks and the pieces of crust surrounding the earth are called tectonic plates. Some of the plates are under continents and are from 30 to 150 kilometers thick. Other plates are located under oceans and are 5 to 15 kilometers thick.

The mantle is made of thick molten rock that moves slowly in currents. This movement within the mantle causes the plates of the earth's crust to move very slowly. The plates move in different directions. Some move away from each other; some plates move towards each other causing one plate to slip under another plate. This is happening now off the west coast of United States where the small Juan de Fuca Plate is slipping under the larger North American Plate.

Name: _____

Date: _____

4

Landform Processes - Questions

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------------------------------------|------|-------|
| 1. Mountains, hills and skyscrapers are examples of landforms. | True | False |
| 2. Landforms are characteristics of the earth surface | True | False |
| 3. Landforms stay the same forever. | True | False |
| 4. Weathering, erosion, volcanos and earthquakes are all processes that affect landforms. | True | False |
| 5. Tectonic plates move around the earth's mantle. | True | False |

Questions

Use information from the text to support your answer

1) What are some of the most famous landforms?

2) In what ways does flowing water affect landforms?

Making Connections

What does this reading remind you of in your life?

Tectonic Plates

Tectonic Plates

The earth's crust is made up of 7 huge tectonic plates as large as continents and several smaller plates. These plates roughly fit together like a jigsaw puzzle that covers the entire surface of the earth. The edges of the plates where they meet other plates are called the plate boundaries. The Tectonic plates each move about 6 inches per year. We don't notice this movement but over millions of years the continents have moved great distances.

Tectonic Plate Boundaries

Volcanoes are often found near plate boundaries because molten rock from the Earth—called magma—can travel upward at the plate boundaries between plates causing a volcanic eruption.



There are different types of tectonic plate boundaries including:

- **Convergent Boundaries-** where two plates push together. When plates push together this can cause the earth to crumple and push up forming a mountain range. The Himalayas were formed in this way. When plates move towards each other one plate will slip below the other plate. This is called subduction. Areas where there are convergent plate boundaries are often areas where mountains and volcanoes are found and there is a lot of earthquake activity. The Mariana Trench is the deepest part of the ocean, formed by the massive and heavy Pacific Plate, being subducted or sinking under the smaller, lighter, Philippine Plate.
- **Divergent Boundaries-** where two plates are pushed apart. Magma breaks through the earth's crust at the divergent boundaries and forms a mountain ridge. An example of this is the Mid Atlantic Ridge that is an underwater mountain range formed between two divergent tectonic plates. Earthquakes are common along divergent boundaries.
- **Transform Boundaries-** where two plates slide past each other, horizontally. The energy caused by this movement is released in the form of earthquakes. A well-known transform plate boundary is the San Andreas Fault, which causes many of California's earthquakes.

Name: _____

Date: _____

6

Tectonic Plates - Questions

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------------------|------|-------|
| 1. A convergent boundary is when 2 tectonic plates are pushed apart | True | False |
| 2. Tectonic plates move about 6 inches per year | True | False |
| 3. Tectonic plate boundaries are where volcanoes and earthquakes happen | True | False |
| 4. The San Andreas Fault is located at a divergent boundary | True | False |
| 5. The Mariana Trench was formed by subduction | True | False |

Questions

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer

1. Name 3 types of landforms created by the movement of tectonic plates

2. How are volcanoes formed?

Volcanoes

Volcanoes

Volcanos are landforms that are made when molten magma from the earth's mantle layer erupts through a crack in the earth's crust. When magma breaks through the earth's crust it is called lava. The cracks in the earth's crust occur when tectonic plates collide. The ocean plate is forced into the hot magma when it is pushed beneath the continental plate, and the pressure pushes the magma upward causing fiery eruptions of molten rock and lava. Volcanoes usually occur at the edge of tectonic plates.

The Ring of Fire is a circle of over 250 active volcanos found along the Pacific Ocean shores, Japan, Indonesia and the Philippines. There are more than 500 active volcanoes in the world. Three quarters of the world's volcanoes are under the oceans and so no one sees them erupt.

3 Major Types of Volcanoes

Shield Volcanoes

Shield Volcanoes are volcanoes formed from flowing lava. The lava spreads from the mouth of the volcano and can travel for many kilometers. The slopes of a shield volcano slope gently. Shield volcanoes are very wide.

Stratovolcanoes

Stratovolcanoes are sometimes called composite volcanoes. They are the tallest volcanoes. Some are almost 2500 meters tall. They usually have steep sides and are built up like a cake over thousands of years with multiple eruptions forming layer after layer of lava which has hardened into rock.

Cinder Cones

Are volcanoes formed by short eruptions out of a single vent at the top. Cinder Cone volcanoes do not usually get higher than 400 meters tall.

Massive Volcanoes

The largest volcano on earth is Mauna Loa in Hawaii. The tallest volcano is Mauna Kea which is also in Hawaii. Both are shield volcanoes that have formed on the ocean floor. If you measured Mauna Kea from the ocean floor to its peak it would be taller than Mount Everest.



Name: _____

Date: _____

10

Volcanoes - Questions

True or False

Circle whether the statement is true or false

| | | |
|--------------------------------------------------------------------------|------|-------|
| 1) Most volcanoes form at tectonic plate edges | True | False |
| 2) The Pacific Ring of Fire has over 250 volcanoes | True | False |
| 3) Volcanoes only occur on land | True | False |
| 4) Volcanoes don't cause much damage because people don't live near them | True | False |
| 5) Mauna Kea is the world's tallest volcano | True | False |

Summarize

Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) What are the 3 types of Volcanoes?

2) What is the difference between magma and lava?

Mountains and the Water Cycle

Mountains and the Water Cycle

Fold mountains form along plate boundaries often along the borders of continents. In North America and South America, mountain ranges run the entire western length of both continents. Another fold mountain range runs across Europe and Asia. These fold mountain ranges are made of sedimentary rock. The mountains are the source of almost 80% of the world's fresh water through melting ice and snow and mountain rains. This water running down the mountainsides provides opportunities for hydro power generation.



Water evaporates from oceans and form clouds which are blown inland. This happens along the west coast of North and South America. When the clouds reach the mountain range the clouds rise and the water vapour cools because the air is cooler at higher altitudes. The water vapour in the clouds condenses and falls as rain or snow.

The mountains hold a lot of this precipitation on their frozen peaks and glaciers and in mountain lakes and streams. Mountains are an important source of fresh water.

The windward side of the mountain often has thick vegetation because of the humid conditions and plentiful precipitation. This vegetation also holds water. Mountains streams carry water back down the mountain to where it is used by people, consumed by plants and trees and where some makes its way back to the ocean where it started, to begin its journey through the water cycle again. Mountains play an important part in the water cycle.

The other side of the mountain called the leeward side is often dry with less vegetation because the clouds release all their rain on the windward side. Because of climate change mountain glaciers and ice caps are melting. This threatens the water supply for people who rely on this source for fresh drinking water.

Name: _____

Date: _____

12

Mountains and the Water Cycle - Questions

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------------------------------|------|-------|
| 1. Mountains have a windward and a leeward side | True | False |
| 2. Mountains provide and store approximately 80% of the world's fresh water. | True | False |
| 3. Because mountains are mostly made of rock, they do not have much vegetation | True | False |
| 4. The water vapour in clouds condenses as the clouds rise because the air is cooler at high altitudes. | True | False |
| 5. Global warming is causing mountain ice to melt. | True | False |

Questions

Use information from the text to support your answer

1. Describe the process of how mountains play a role in the water cycle?

2. Why do mountain ranges form along the coastlines?

Making Connections

What does this reading remind you of in your life?

Valleys

What is a Valley?

A Valley is a landform that is a long low area between two mountains or hills. Valleys are one of the most common landforms. Often valleys have a river or stream running their length. Valleys can be V-shaped, U-shaped or have a flat bottom.

How are Valleys Formed?

Valleys are formed in 3 different ways. U-shaped valleys are typically formed by glaciers because they are carved out by glaciers. Glaciers are huge chunks of hard ice that pick up rocks as they move down the side of a mountain, gradually grinding down the rock to form a U-shaped valley.

At lower altitudes valleys are primarily formed by the eroding action of water from streams and rivers and from wind. As water runs over the earth eroding over the earth erodes a trail that makes a river. As the water runs over the earth it carries earth and stones with it and gradually carves a deeper and deeper river bed. As the river carries more material around the sides of the river erode into the river and are carried away with the water. The result is a symmetrical carving of river banks that make a V-shaped river valley over the course of years.

The third way valleys are formed is through tectonic action. When tectonic plates move apart at divergent boundaries and pull apart Fault Block mountains are formed. This type of mountains are formed by blocks of rock crack at fault lines. Some blocks are forced up creating mountains and some blocks fall down creating the valley.

When valleys are first formed, they tend to be narrow but the older they are the wider the valley usually gets because rain, wind, frost and ice wear the sides of the valley down. The rate at which the valley evolves and widens depends on whether it is formed through hard rock, softer rock or earth.

Valleys and People

Valleys are a good place for people to live because they usually have a river. The river provides, fresh water, fish, transportation and good soil. Valleys also provide shelter from winds and smooth terrain on which to settle.



Valleys - Questions

Visualizing

Draw what you were picturing in your head while you were reading



What from the text made you picture that in your head?

Questions

Use information from the text to support your answer

1) What is a valley? Where do you find it?

2. How are valleys formed? Explain two ways?

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------|------|-------|
| 1. Erosion has helped create valleys. | True | False |
| 2. Some valleys are formed by avalanches. | True | False |
| 3. Valleys are good places for people to live. | True | False |
| 4. Valleys often get wider as they age. | True | False |
| 5. V-shaped valleys are most often found at high altitudes. | True | False |

Controlling Soil Erosion

What is Soil Erosion

Soil erosion is the washing or blowing away of the top layer of soil. This happens in three ways - through the movement of water, from strong winds and from gravity. Water erosion happens when heavy rain forces soil to travel with the water into streams and eventually larger bodies of water.

Wind erosion is the natural process that moves soil from one location to another by wind power. Strong winds can cause a lot of soil particles to lift into the air and cause dust storms. Soil



erosion from gravity happens when farm fields are on a hillside of at least a 25-degree angle and there is little vegetation to hold the soil in place. Heavy rainfall can cause the earth to become very heavy and slide down the hill.

Soil Erosion Hurts Farmers

Soil erosion is a serious problem for farmers. Fertile soil is needed for farmers to produce crops. Farmers work very hard to produce soil with lots of nutrients. Wind and water erosion cause this nutrient rich topsoil to travel to other areas and collect in the bottom of a body of water. Topsoil is often the most fertile and when it is washed away, the soil is less productive.

Controlling Soil Erosion

Soil erosion can be controlled using the following methods:

- Windbreaks - A windbreak is a line of plants that are planted to act like a wall that slows the wind. Farmers will use a row of thick bushes next to a field of plants to stop wind from blowing the soil away
- Terracing - Terrace farming means the farmer builds "steps" or terraces that are built into the side of a mountain or hill. They do this so that when it rains, the nutrients get washed down to the next level of crops.
- Reforestation - Replanting in an area that lost its plants is called reforestation. If a forest burned down, reforestation would mean to replant the trees.

Reforestation stops soil erosion because the roots of plants help make the soil stronger as it pulls the soil together. This makes it harder for the wind and water to move the soil.

Name: _____

Date: _____

22

Controlling Soil Erosion - Questions

True or False

Circle whether the statement is true or false

1) Soil erosion means that soil washes or is blown away.

True

False

2) Soil erosion hurts farmers the most.

True

False

3) Windbreaks are steps in the side of a mountain.

True

False

4) Reforestation means you plant trees that were lost.

True

False

5) Wind can cause erosion by blowing soil to new locations.

True

False

Questions

Use information from the text to support your answer

1) What is soil erosion? How does it affect farmers?

2) How can we stop soil erosion?

Making Connections

What does this reading remind you of in your life?

Glaciers

What is a Glacier?

A glacier is a huge chunk of ice that moves very slowly over land. The largest glacier in the world is Lambert Glacier, which is in Antarctica. It is 100km wide, 400km long, and 2.5km deep! That is 40,000 kilometres squared, which means it is larger than Vancouver Island, which is 31,285 kilometres squared.

Glaciers are important because they give us 75 percent of our fresh water. Today, glaciers cover 10 percent of the world's total land area.



That means if you put all the glaciers in the world, it would be larger than Canada.

How Glaciers Form

Glaciers are huge pieces of ice that form year to year. In colder regions, not all the snow and ice melts during the spring. Over time, this means more snow and ice pile on top of the old snow and ice each year. Massive chunks of snow and ice form, over thousands of years, which are called glaciers. Most of the glaciers are in the Arctic and Greenland, but glaciers are found on nearly every continent, even Africa.

Glacial Erosion

Glaciers are so large and so heavy that as they move, they wear down the land. They are carving out valleys and changing the shape of mountains. The glaciers act like sandpaper as they break down rock. Glaciers erode the underlying rock by abrasion.

Glaciers and Climate Change

- One of the biggest causes of the sea level rising is melting glaciers.
- There are a total of 198,000 glaciers worldwide.
- Scientists are tracking the size of 40 glaciers worldwide and have found that since 1980 these glaciers have lost the equivalent of 24 meters in height because of melting.
- Most glaciers are shrinking
- In some parts of the world glaciers provide water for human consumption so the loss of glaciers is a serious problem.

Name: _____

Date: _____

28

Glaciers - Questions

True or False

Circle whether the statement is true or false

| | | |
|-----------------------------------------------------------------|------|-------|
| 1. A glacier is a huge chunk of ice that doesn't move. | True | False |
| 2. A glacier slides across land and erodes it. | True | False |
| 3. Glaciers act like sandpaper that wear down rock. | True | False |
| 4. We don't need glaciers because they only keep our land cold. | True | False |
| 5. Glaciers hold 5 percent of the world's fresh water. | True | False |

Summary

Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) What is a glacier?

2) How does a glacier cause erosion?

Human-Caused Changes to Habitats

Human Impact on Habitats

As the human population increases, we take over and destroy habitats that plants and animals need to survive. In addition to destroying habitats, we are also moving invasive species into habitats which compete with native species for food and space to grow. Both of these human actions can cause extinction and endangered species. Research has shown that humans have caused 322 different animal species to become extinct over the past 500 years. This does not mean we have killed 322 animals. Extinction occurs when an entire animal or plant species dies, meaning there are no individual animals or plants left anymore. Sabre-toothed cats, woolly mammoths, dodo birds, and Tasmanian tigers are all animals that used to live on the earth. These animals are now all extinct. More recently the Javan rhinoceros was last seen in 1992.

Endangered Species

An endangered species is a species of plant or animal that is at risk of extinction. In Canada, there are 55 different species endangered. Sea otters, whales, and wolverines are all considered endangered animals in Canada. The main reason these animals are endangered is because of us. Humans destroy habitat and over hunt certain species leading to extinction.



Human Actions Threatening Wetlands

Wetlands are very important ecosystems because they provide a home for a large number of living plants and animals. Humans are changing wetlands in the following ways. First, many pollutants are being added to wetlands. These pollutants are coming from households, businesses, and factories. Pollution can also enter wetlands in the groundwater. When farmers use pesticides, fertilizers and other chemicals, they enter the groundwater and can end up in wetlands. The polluted water is not safe for plants and animals to consume. Secondly, humans change the flow of water in wetlands by rerouting the water to help supply farmers with water for their crops, or to supply people with drinking or to prevent flooding. The changing flow in water affects fish populations greatly. Their ability to lay eggs depends on water flow and they need a constant water flow to migrate during colder seasons.

Name: _____

Date: _____

32

Human-Caused Changes to Habitats - Questions

True or False

Circle whether the statement is true or false

| | | |
|------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Humans caused animals to become extinct in the distant past but now species are not at risk because we know better. | True | False |
| 2. Water pollution does not affect plants, | True | False |
| 3. Over hunting is a problem that threatens certain species. | True | False |
| 4. People need a living so we should not be concerned about endangering species. | True | False |
| 5. Farmers use pesticides that harm wildlife species because of their farming practices. | True | False |

Questioning

Write at least **two** questions you have after reading the text

Questions

Use information from the text to **show** your answer

1) Animals are endangered and becoming extinct because of human actions. Do you think we need to stop developing land for businesses and homes? Explain?

2. How are wetlands being affected by human actions? Explain?

Human Activities that Affect Water Landforms

Human Activities that Affect Water Landforms

Humans need water to survive. People use water for drinking, washing, waste disposal, watering crops, generating power, fishing, transportation and recreation. People like to live near water, so they have a convenient source of water for their needs. Because landforms are constantly changing sometimes people live too close to water and they have to build something to make the water flow where they want it to go. For this reason, people build dykes, dams and levees.

What is a Levee?

A levee is an embankment or a wall that is constructed to keep land that is normally dry from flooding. Heavy rains, melting snow or storm surges that could cause water levels to rise. Levees also are used to control the flow of rivers. They are usually constructed parallel to the edges of a body of water such as a river or lake. A levee built

along the edge of a river keeps the river from overflowing its bank and flooding areas where people live.

Levees prevent erosion from widening the river. A levee causes the river to stay within it making the water deeper and faster flowing. Levees prevent rivers from carrying sediment to the delta. This reduces wetlands.

What is a Dyke?

A dyke is a wall or ridge of raised earth that is constructed to keep land from being flooded. The difference between a dyke and a levee is that a levee protects land that is normally dry from flooding. A dyke keeps land dry that would be wet. Dykes and levees have water on one side. When dykes are built it reduces wetlands.

What is a Dam?

A dam is a structure or barrier across a stream or river that is built to create a reservoir of water used to create access to a regular supply of water, for flood control or to generate hydro electric power. Dams can be small. A farmer may make a dam across a small stream just by dumping a few loads of earth into the stream, to create a pool which can be used by farm animals for drinking water. Dams can also be enormous concrete structures such as the Hoover Dam which is built across the Colorado River in United States.

The Hoover Dam was built to control flooding, provide irrigation water and provide hydroelectric power. The Hoover Dam is a 221 meters tall concrete structure that created Lake Meade as its water reservoir. A dam has water on both sides. When huge dams are built large areas of land are flooded causing people and animals to have to relocate.

Name: _____

Date: _____

36

Human Activities that Affect Water Landforms - Questions**True or False**

Circle whether the statement is true or false

| | | |
|------------------------------------------------------------|------|-------|
| 1. A dam is made of concrete and a levee is made of earth. | True | False |
| 2. Dams, dykes and levees all control flooding. | True | False |
| 3. Dykes can keep land that is below sea level dry. | True | False |
| 4. Levees are built across waterways. | True | False |
| 5. Dams are built to create hydroelectric power. | True | False |

Sum

Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) What are some of the negative impacts of humans changing the environment by building levees, dykes and dams?

2) How has the ability to build levees, dams and dykes benefitted humans?

Hurricane Katrina

Hurricane Katrina

Hurricane Katrina hit the Gulf coast of the United States in 2005. At its strongest it became a category 5 hurricane with 175 mph winds. It killed 1800 people and caused 108 billion dollars in damage when its flood water caused the levees to fail.



New Orleans is located in Louisiana on the Mississippi River Delta. As the city expanded and needed more land, marshes were drained to make more room to build. This reduced the wetlands and caused the city to sink due to subsidence.

Subsidence is when the ground sinks. In New Orleans, oil is pumped out of the ground causing the earth above where the liquid is taken out to sink. In New Orleans both the removal of water and oil from the ground caused subsidence. New Orleans was not sinking because of the sinking ground but because of the actions of humans it sank even more, causing the city to sink below sea level.

Wetlands and barrier islands are natural defenses against flooding because they can absorb 3 to 8 inches deep of flood water for every foot of land. Given that the mouth of the Mississippi is about 100 miles from New Orleans if the wetlands had been allowed to form naturally, they would have provided protection from a 25 ft storm surge. Hurricane Katrina brought flooding that was 20 ft deep in some parts of New Orleans and the city was flooded.

Humans have made New Orleans more vulnerable to flooding than it was before the formation of the Mississippi Delta. Deltas are formed from river water carrying sediment deposits at the mouth of the river, making the water shallow and fertile where wetlands plants grow, and barrier islands form.

People built levees and dams to prevent flooding from rising river water. These changed the flow of the Mississippi and Missouri Rivers that would have brought sediment to the Mississippi Delta which would have caused wetlands to continue to form and replace those that were destroyed by flooding. Because the levees reduce the amount of sediment deposited at the Mississippi Delta, wetlands are disappearing at a rate of 60 square kilometers per year. This is causing more severe flooding when there are storms such as Hurricane Katrina.



Name: _____

Date: _____

38

Hurricane Katrina - Questions

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Wetlands and marshes cause flooding during storms. | True | False |
| 2. Hurricane Katrina was a category 5 hurricane. | True | False |
| 3. Levees and dams prevent wetlands from forming because they hold the sediment that would normally deposit in the river delta. | True | False |
| 4. Subsidence is when the earth sinks because oil or water is removed from the earth. | True | False |
| 5. Levees would have prevented damage from happening during hurricanes. | True | False |

Questions

Use information from the text to support your answer

- 1) What changes did we make to the forms that caused the damage from Hurricane Katrina to be worse than it would have been if we hadn't made these changes?

- 2) What are the benefits of wetlands?

Making Connections

What does this reading remind you of in your life?

Oceans Currents

Oceans Currents

The earth has five oceans. From largest to smallest, they are the Pacific, the Atlantic, the Indian, the Southern or Antarctic and the Arctic Oceans. Oceans cover 71% of the Earth's surface.

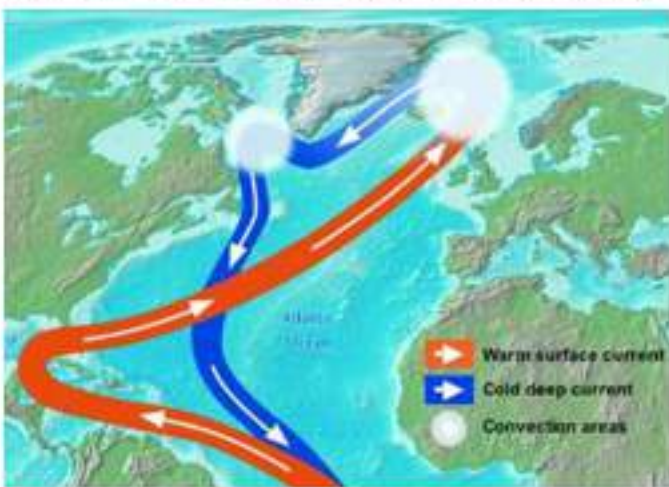
Permanent Streams of water which flow in a definite direction from one part of the ocean to another part are called ocean currents. Each ocean has its own currents, Ocean currents can be thousands of kilometers long and up to 200 kilometers wide. Ocean current are either warm or cold depending on where they originate, from around the equator or from the North or South Pole. Ocean currents are caused by wind, the earth's rotation and tides.

There are also currents caused by the changing temperature of the water and by the salt content in the water. Warm water is less dense than cold water, so it rises. Cold water is denser, so it sinks. When warm water is pushed back toward the equator it brings with it a warming affect. Rain clouds also form over warm water so where an current carries warm water around the earth it has a major effect on weather. Most of the world's weather comes from ocean water.

The amount of salt in the water also affects ocean currents. When salt water evaporates or freezes it leaves the salt behind. This increases the salt content of the surface water and causes it to sink pushing less salty water to the surface. It creates a density difference in the current.

The Gulf Stream is a current in the Atlantic Ocean that starts in the Gulf of Mexico and runs up the coastline of the United States to Newfoundland where it crosses the Atlantic.

The Gulf Stream is driven by convection cells that mix up the ocean waters. Cold water is drawn down from the Arctic and sinks to the ocean bottom, where it is pulled down toward the equator as lighter, warmer water rises to the ocean's surface. The warmer water is pulled northward to replace the cold water that's been pulled southward. This process distributes heat and rainfall around the world.



In the Northern Hemisphere currents travel in a clockwise rotation and in the Southern Hemisphere currents travel in a counterclockwise rotation.

Name: _____

Date: _____

40

Oceans Currents - Questions

True or False

Circle whether the statement is true or false

| | | |
|-----------------------------------------------------------------------------------|------|-------|
| 1. Ocean currents change where they flow from year to year. | True | False |
| 2. Ocean currents affect weather. | True | False |
| 3. Oceans cover 71% of the earth's surface. | True | False |
| 4. The Gulf Stream is a current in the Pacific Ocean that is 200 kilometres wide. | True | False |
| 5. The amount of ocean water affects ocean currents. | True | False |

Questions

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer your questions

1) What are 3 things that affect ocean currents?

2) How do ocean currents affect weather?

El Nino and La Nina

El Nino and La Nina

Warmer or colder than average ocean temperatures in one part of the world can influence weather around the world. The El Nino Southern Oscillation (ENSO) Cycle is a pattern of weather caused by the Trade Winds that blow in a band near the equator from the west Coast of South America to Asia. The ENSO Cycle is the oscillating or back and forth pattern of warm water and cool water trading places as winds blow across the Pacific Ocean. El Nino means, the boy, in Spanish and it is the warm phase. La Nina means the girl, and it is the cold phase.

El Nino happens when the Trade Winds which blow from east to west push warm surface water towards Asia and Australia accumulating and creating a pool of warm surface water in the western Pacific Ocean. This causes heavy rain along the coast of South America. This creates a different weather pattern in the countries affected by these Pacific events. It is a warm phase over warm water.

In some years the Trade Winds are not blowing causing warm surface water to drift eastward toward South America. This is called El Nino. El Nino affects winter climate in North America. The warm ocean water attracts the Jetstream winds to the south than they normally do. This causes heavy rain and flooding in the southern United States and warmer drier weather in Pacific North western United States and Canada. El Nino causes drought in Australia because when the warm water is on the South America side the cool water is on the Australia side and there is less rain over cool water.

When the Trade Winds get stronger again, sometimes, they blow harder than usual, causing cool surface water to accumulate along the coast of South America. This cool surface water causes unusually cold conditions in the Pacific Ocean pushing the Jet Stream winds north. This is called La Nina. La Nina causes drought in the southern United States and heavy rain and flooding in the Pacific North West. In Australia La Nina causes more rain in their summer.

An El Nino or La Nina happens every 2 to 7 years. El Nino happens a bit more often than La Nina. El Nino and La Nina cause water shortages, and because of flooding and drought they reduce our ability to grow food.



Name: _____

Date: _____

42

El Nino and La Nina - Questions**Visualizing**

Draw what you were picturing in your head while you were reading



Which words from the text made you picture that in your head?

Questions

Use information from the text to support your answer

1) What is the main weather change caused by El Nino and La Nina?

2) Does El Nino affect different continents in different ways? Why or why not?

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------|------|-------|
| 1. El Nino is a cold weather phase. | True | False |
| 2. ENSO is a weather pattern caused by changes to how hard the Trade Winds blow. | True | False |
| 3. El Nino and El Nina affects several continents. | True | False |
| 4. El Nino and El Nina don't cause any harm. | True | False |
| 5. El Nino means the boy in Spanish. | True | False |

Land Reclamation

Land Reclamation

Land reclamation refers to either:

- creating new land from marshes, riverbeds or oceans
- returning land that has been disturbed by mining or use as a landfill and returning it to an improved condition.



Polders in the Netherlands

The largest example of the first type of land reclamation is the polders in the Netherlands. A polder is a piece of land that has been reclaimed from a body of water. The Netherlands is a low-lying country in Europe. Polders are created by building dykes that hold back the large body of water, then draining the inland section of land with a series of drainage canals. The people of the Netherlands have been using windmills to pump water from one section of land to another.



In the 1920s, a land reclamation project began in the Netherlands. Another province called Flevoland was created from an area that used to be a lake called the IJsselmeer. Flevoland reclaimed 1620 square kilometers of land and now over 1 million people live in this province.

Notre Dame Island in Montreal

Notre Dame Island is a small island in the St. Lawrence River. It was built using 15 million tons of rock. It was used to create the Montreal Metro underground. In 1967, a park was built on the island. Since then, the park has been removed, and the island has been turned into a park with gardens and a lake for swimming in summer and skating in winter. The island is 100 acres.

Reclaiming land used for Natural Gas Wells.

Natural Gas wells are usually used for 20 to 30 years before they are no longer productive. After that companies have the responsibility to restore the land to its condition before the well was opened. The land needs to be reshaped with drainage systems added. The layers of soil that were removed for the well need to be replaced and topped with topsoil and then trees and grass need to be replanted.

The site needs to be monitored to check soil and water quality and to make sure the replanted vegetation is growing. The process is the same when landfills are closed. They need to be returned to their former or an improved condition and they need to be monitored to make sure they are not a source of ground water or air pollution from methane gas.

Reading a Topographical Map

Research

Take a close look at the map below and answer the questions.



1) What information does this map tell us?

2) What specifically do you notice about the region (Ex. Where are the roads and railway mainly located)?

Activities - Physical Patterns in a Changing World**Word Search**

Find the word bank words in the puzzle!

Word Bank

Human
Activities
Natural
Processes
Landforms
Delta
Levy
Physical
Environment
Natural
Events
Land
Reclamation
Volcanoes
Climate
Change
Forces

F H D Y L E V Y E H T G A B Z K M L F L
R U A O L I K W D W B W N S R D D O D W
D P R O C E S S E S E G N A H C E B V I
F H L A C I S Y H P T F X R M P F S G J
Q F C O G K T W X B J C M B T M I Y I
H V R A R U T A N N N Y R J E C C
Y X S G N C N I D O G O E F O
E S C H D J B F R I K M G T
S E O N V C N D Y T M W Z E W
A T M L M I C Q N N Y L C S A
W G K G I E X O A A T T K D
D Q U F L C N X P O N X T D
B N S T C H I O C N H A T I
P B A H M C H H U O A I V T E S
T V F L Q P G P R M Y A C E O O
C L O F J U L I A V N Q E Y W B
J W R U P B V L Y T I W V B L W B
E X C U U N C E M L H Q H C G H A
J V E X E E B I B S M R O F D N A L T
F A S F R F Z E N O O U G Z O F N F H K

Word Scramble

Unscramble the word bank words from above

VETICIATIS _____

PRSSOEESC _____

ICHYSLAP _____

ONMNETVENIR _____

MUHNA _____

UALRNTA _____

LTUNAAR _____

ETLCIMA _____

LOFSMADNR _____

ORTLACEMNIA _____

Name: _____

Date: _____

Test - Physical Patterns in a Changing World

Multiple Choice

/6

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 1. When two tectonic plates push together ... a) Divergent Boundaries b) Convergent Boundaries c) Transform Boundaries d) All of the above | 2. These mountains have magma inside a) Fold Mountains b) Fault Block Mountains c) Volcanic Mountains d) All of the above |
| 3. Which is not a type of volcano? a) Shield b) Stratovolcanoes c) Ash Volcano d) Cinder Cones Volcano | 4. What is the number one cause of erosion? a) Wind b) Storms c) Water d) Humans |
| 5. Which of the following is not a way to control soil erosion? a) Windbreaks b) Deltas c) Terracing d) Reforestation | 6. Which country has undergone many land reclamation projects? a) The Netherlands b) Canada c) China d) Australia |

Definitions (1 marks each)

/3

| Term | Definition (what does it mean) |
|------------------|--------------------------------|
| Delta | |
| Landforms | |
| Land Reclamation | |

Short Answer Questions (2 marks each)

16

1. What is erosion? Provide at least one example.

2. What is the water cycle? How do mountains affect the water cycle?

P

3. What is a wetland? Provide examples of wetlands.

REV

Long Answer Questions

15

How have human activities affected our physical environment? Make sure to include at least 5 ways in which humans have changed our environment.



Natural Resources

Natural Resources

People need lots of things to live safely and comfortably. They need housing, food, water as basic needs and then there are lots of things, they need to enjoy their lives, such as, their cars, phones, computers and television. All these things require materials to manufacture them, and some require power or fuel to make them work.

Natural resources are things in nature including, air, water, plants, sunlight, soil, rocks, animals and oil. Some natural resources are underground. Natural Resources are useful materials found on our planet that can be accessed when needed. Materials on earth become Natural Resources when humans value them. For instance, minerals have been on earth since its formation, but humans didn't know how to use them at first. Gold, silver, copper and aluminum became Natural Resources when humans discovered how to use them and wanted to find and extract them.

Preview of 25 pages from this
product that contains 62 pages
total.

Type
Natu

resources, Non-renewable Resources and Flow Resources.

Renewable Resources are resources that are replaced from time to time so we can use them again and again. Examples include water that is recycled through the water cycle, trees and plants that can be replanted and animals that reproduce.

Non-renewable Resources are things that have a finite amount or that cannot be reproduced in our lifetime. Examples include oil and other fossil fuels which take millions of years to form, so when we use them, they will not be replaced in our lifetime for our use. Minerals are another example.

Flow Resources are neither renewable nor non-renewable. Flow resources must be used when and where they occur in nature. Examples include waterfalls that can be used to create hydroelectric power, but, once the water has gone over the falls the ability to use it for power is gone. Sunlight for solar power is another example. When the sun is shining it can power a solar panel but if we don't have a solar panel where the sun is shining the solar energy is not captured and used and it cannot be recaptured.

Name: _____

Date: _____

4

Natural Resources - Questions

True or False

Circle whether the statement is true or false

| | | |
|------------------------------------------------------------------------------|------|-------|
| 1. People can choose not to use natural resources. | True | False |
| 2. Natural resources are all around us. | True | False |
| 3. Things in nature become natural resources when humans value them. | True | False |
| 4. Flow resources are non-renewable resources. | True | False |
| 5. Natural resources can be classified as non-renewable, flow and renewable. | True | False |

Questions

Use information from the text to support your answer

1) What are some natural resources that people like to have nearby?

2) Why is it important to know whether resources are renewable or non-renewable?

Making Connections

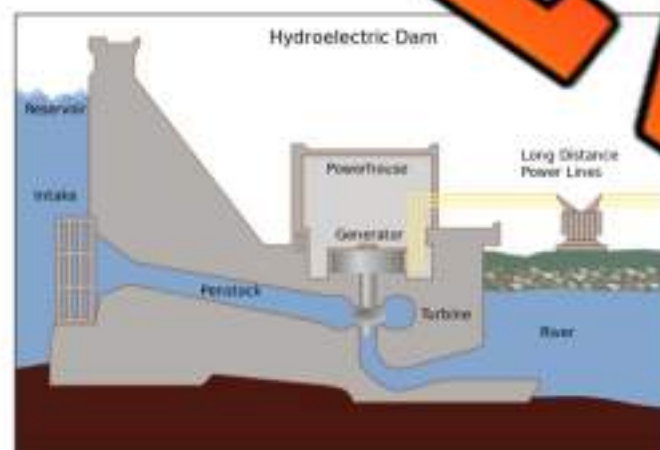
What does this reading remind you of in your life?

Flow Resources

Flow Resources

A flow resource is a resource that is neither renewable nor non-renewable. It must be used where and when it occurs and there is an unlimited supply. Flow resources are natural resources or processes that humans have no influence over. Examples include, sunshine, tides, wind, running water and geothermal. Flow resources will not be exhausted over time. This is not because they renew themselves. Flow resources either have a source, like the sun, that is so huge it will not exhaust, or they are the result of a process such as the wind, rain or tides that repeat naturally.

Flow resources are ideal for humans because using them does not create as many negative environmental impacts as fossil fuels, and since there is a limitless supply, they are a sustainable option.



We use flow resources every day. In Ontario, the most common flow resource used, comes from the Niagara Falls. The Ontario Hydro plant at Niagara Falls also generates 25% of the electricity used in the State. Hydroelectricity is the force of water being pulled down by gravity turning a turbine to make energy. The higher the water drops, the more energy is applied to the turbine, creating more energy.

There are lots of benefits to using hydroelectric power. It is clean, efficient, reliable, cost effective and sustainable. The disadvantages of hydroelectric power are the amount of land the projects use and the disruption of plant and animal habitat. At Niagara Falls, Ontario Hydro has a 750-acre water reservoir that they use to divert water, so that they can always have a steady stream of water going through their turbines. In other places when a hydroelectric project is built, they construct an enormous dam and flood huge areas along the river that was dammed, destroying lots of animal habitat and plants and often forcing people to move. When the Three Gorges Dam was built in China, 13 cities and over 1000 villages were flooded, which displaced 1.2 million people.

Name: _____

Date: _____

10

Flow Resources - Questions

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Flow resources are renewable resources. | True | False |
| 2. Sunshine, wind, rain and running water are examples of flow resources. | True | False |
| 3. There are no negative environmental impacts from using flow resources. | True | False |
| 4. Humans can control flow resources. | True | False |
| 5. We use over 80% fossil fuels for our energy needs because flow resources cannot produce enough power to meet our needs. | True | False |

Summary Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) Why are flow resources an important source of energy?

2) What are some of the negative impacts of hydroelectric power?

Name: _____

Date: _____

12

What are the Most Valuable Resources?

Simplified world mining map



| LEGEND | |
|--------|------------|
| ● | Iron |
| ● | Tin |
| ● | Copper |
| ● | Zinc |
| ● | Nickel |
| ● | Chromium |
| ● | Manganese |
| ● | Aluminium |
| ● | Lead |
| ● | Gold |
| ● | Silver |
| ● | Salt |
| ● | Potassium |
| ● | Sulphur |
| ● | Spur |
| ● | Quartz |
| ● | Asbestos |
| ● | Diamond |
| ● | Phosphorus |
| ● | Gypsum |
| ● | Titanium |

Questions

Use the information on the map to answer the questions

1) Referring to the map, what minerals are mined in Quebec and Newfoundland, Canada?

2) Referring to the map, what minerals are mined in Australia?

Climate Change and Renewable Energy

Climate Change and Renewable Energy

One of the biggest problems the world faces in the next century is climate change. Climate change is the result of the average temperature on earth rising. The earth is getting warmer because gases (mostly carbon dioxide) are released into the air and gather in the atmosphere around the earth, acting like a blanket that traps heat. The ways humans make and use energy accounts for 70% of greenhouse gas emissions, which cause climate change.

Climate change is a big problem because it leads to more extreme weather like storms and hurricanes and leads to glaciers melting, which causes ocean levels to rise, threatening low-lying countries like the Netherlands with flooding. When glaciers melt, it reduces the amounts of fresh water available to some of the world's most populous countries, causing drought and inability to grow food.

The United Nations has been working to get countries between Nations since the 1980's to get countries to reduce their greenhouse gas emissions. This has been done mainly through use of renewable energy sources and reducing energy use. Currently, Canada uses 18.9% of its energy from renewable resources. By the end of 2018 most countries have renewable energy targets in place.

Governments help meet their targets by offering incentives for companies that build solar or wind farms or that add solar panels to buildings to reduce energy use. Companies have been widely available to convert lighting to LED bulbs which saves energy.

The use of renewable resources plays a big role in reducing greenhouse gas emissions. There are many forms of renewable energy including, solar, wind, hydroelectric power, geothermal, ocean power and biomass.

Hydro Electric

Hydroelectric energy is the largest source of renewable energy worldwide. In 2019 Canada was the second highest hydroelectric power producer in the world behind China. Hydroelectricity is clean energy that does not produce greenhouse gases. Hydroelectricity is a stable and consistent source of power. Unlike solar that needs daylight to produce power, hydroelectricity can be generated 24 hours a day. Hydroelectric power is cost effective. Hydro plants have low operating costs.



Name: _____

Date: _____

15

Climate Change and Renewable Energy - Questions

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. We rely on fossil fuels for most of our energy needs because there are not enough renewable energy sources to meet our needs. | True | False |
| 2. Using renewable resources helps reduce climate change. | True | False |
| 3. The way humans make and use energy is the main source of greenhouse gas emissions. | True | False |
| 4. Hydroelectricity is the only green renewable energy source. | True | False |
| 5. The United Kingdom is working with its partner countries on reducing greenhouse gas emissions. | True | False |

Questioning

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer your questions

1) How does burning fossil fuels contribute to climate change?

2) What are 4 different types of renewable energy?

Ocean Power

What is Ocean Power?

Ocean power is a flow resource. Ocean power is when we turn the energy that is in the waves and tides of the ocean into energy. Tides are produced twice a day from a combination of the moon's gravitational pull on the earth and the earth spinning on its axis. Tidal energy is reliable energy because the tides occur reliably every day.

Tidal energy is only available where the ocean shorelines allow for the water to be captured and held. Tidal energy is made by creating a reservoir for the tidal water. The high tide water flows into the reservoir over turbines that turn and generate power. The high tide water in the reservoir is then released through tubes that pass over a turbine that turns, creating electricity. The world's largest tidal power plant in South Korea only makes power for 100 homes. The tidal power plant in France makes energy when the water goes in and out using reversible turbines. This plant generates enough power for 130,000 households each year. The Annapolis Generating Station in Nova Scotia generates enough power for 100 homes. Research is being done to assess the environmental impacts of these projects and how to make them most effective.



We can get power from waves either from devices that float on the surface of the water or from devices on the ocean floor. The oscillating motion caused by the waves moves these devices up and down generating power. Portugal had the first and largest wave farm system that could produce power for 1500 homes. After 4 months there were problems with it, and it had to be taken ashore. Many different companies continue to work on prototypes to make this form of energy production viable. Wave energy will be much like wind and solar power, it is dependent on the strength of the waves at the time. Because of the research and development needed to harness wave power it is expensive to produce.

Name: _____

Date: _____

19

Ocean Power - Questions

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Ocean power is non-renewable energy. | True | False |
| 2. Tidal power is like hydroelectric power because tides occur regularly twice a day, so the power generated is reliable. | True | False |
| 3. Wave power is like wind and solar power because the strength of waves is variable. | True | False |
| 4. Ocean power can be created anywhere there is a shoreline. | True | False |
| 5. More research and development are needed before wave power is widely used. | True | False |

Summary

Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) How are tidal power and hydroelectric power similar?

2) Why is tidal power considered a flow resource?

Overfishing

Overfishing

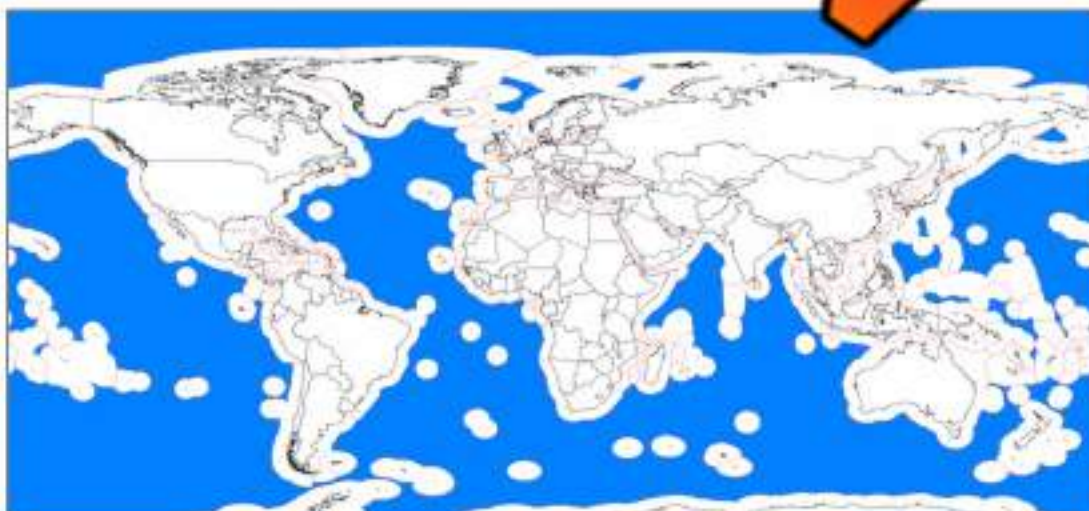
Overfishing is when fish are caught faster than they can replenish themselves. People who live in coastal communities have relied on fish as their main source of food for thousands of years. Fish were caught with spears, hook and line and throw nets which are all sustainable forms of fishing. As the world population grew and the demand for food increased, fish became an important industry. Fish were an important source of protein because it can be preserved for years by drying, salting or pickling.

Resources that are on land have distinct territories and ownership. Ocean fish are not confined by geographic boundaries. Fish live and swim in water where the water temperature, depth and ability to escape predators allow their species to thrive. They swim in and across different countries' boundaries. For this reason, fish are called common pool resources. Because no one owns the fish, everyone shares this resource. Ships were also free to go where the fish were and catch what they wanted.

From the early 1900s, fishermen from as far away as Russia and Japan fished on the Grand Banks. Using larger and more efficient fishing techniques the same number of fish that had taken many months to catch, was caught in just 15 years. Canadians started to be concerned that the cod fishery on the Grand Banks was depleting the fish stocks. Other countries also started to worry about their fish resource. By 1980, 30% of the world's fish stocks were being overfished.

The United Nations met and created the United Nations Convention of the Law of the Sea which Canada signed in 1982 stating that every country had exclusive rights to the resources within a 200-mile radius of their shore. This gave Canada exclusive fishing on the Grand Banks, but Canadians increased their fishing until 1992 when the fish were depleted to less than 10% of its original numbers. The Canadian government imposed a pause on the North Atlantic cod fishery in 1992 hoping the fish would return and re-establish itself in a few years. This did not happen.

Currently lobster, snow crab and shrimp produce a similar amount of revenue for Canadian fisheries that the cod fisheries did.



Name: _____

Date: _____

25

Overfishing - Questions

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Fish are a renewable resource that will always be available. | True | False |
| 2. Thirty percent of the world's fish stocks are being overfished which will lead to that fish being extinct. | True | False |
| 3. Fishing boats only fish off the shorelines of their own country. | True | False |
| 4. Lobster, sea crab and shrimp have replaced the cod fisheries in Atlantic Canada. | True | False |
| 5. When a pause was placed on cod fishing on the Grand Banks, the cod fish returned to their numbers after 15 years. | True | False |

Questions

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer your questions

1) What is overfishing?

2) What is the United Nations Convention of the Law of the Sea?

Desertification

Desertification

Desertification is when a fertile land area turns into a desert because of drought, global warming, deforestation, overgrazing and human activities. Desertification happens in areas that are drylands where humidity is very low. Drylands cover 41% of the earth's land surface and are home to 2 billion people. When people live in an area, they need resources such as food, water and crops. These resources need to be replenished in order to meet the needs of the people living on the land. In drylands, water is scarce and often drought occurs when there is no rainfall for prolonged periods.

Desertification occurs when people continue to use what little water an area has and when they allow their animals to overgraze the existing vegetation, creating a greater demand on the area for resources than can be replenished. If the demand is greater than the supply of time if people take more resources from drylands than can be replenished, the dryland becomes unable to sustain any people or animals. Increasing populations and global warming are making desertification happen more quickly.

By the year 2000 between 10% and 20% of the world's land was already at risk of desertification. The United Nations recognizes desertification as one of the biggest environmental threats the world faces. Desertification is a threat on every continent except Antarctica. Africa is losing more land to desertification than any other continent.

The biggest causes of desertification are human activities including:

- Overpopulation - more people living closer together where there is not enough land to support their activities.
- Deforestation - people cut down the trees and shrubs for shelter and fuel leaving the ground bare and open to wind erosion.
- Overgrazing - people used to move their livestock from one area to another which allowed the vegetation to recover between times when animals grazed on it. Now they often stay in one place allowing their animals to exhaust the pastures without giving time for the vegetation to recover.
- Switching the type of animals raised - Goats produce valuable cashmere but they eat the vegetation, roots and all, leaving pastures bare and open to erosion, where sheep eat the grass and move to another area of the field allowing the pasture to recover.



Name: _____

Date: _____

27

Mapping - Desertification Vulnerability



Desertification Vulnerability



Desertification - Questions**Visualizing**

Draw what you were picturing in your head while you were reading



What from the text made you picture that in your head?

Questions

Use information from the text to support your answer

1) What is desertification? How does it happen?

2) According to the map, which areas are at the most risk of desertification?

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------|------|-------|
| 1. Deserts only occur close to the equator. | True | False |
| 2. Global warming is affecting the amount of desert land there is in the world. | True | False |
| 3. Drylands cover 41% of the earth's land surface | True | False |
| 4. Desertification is not a big environmental problem. | True | False |
| 5. Human activities are one of the main causes of desertification. | True | False |

Deforestation

Deforestation

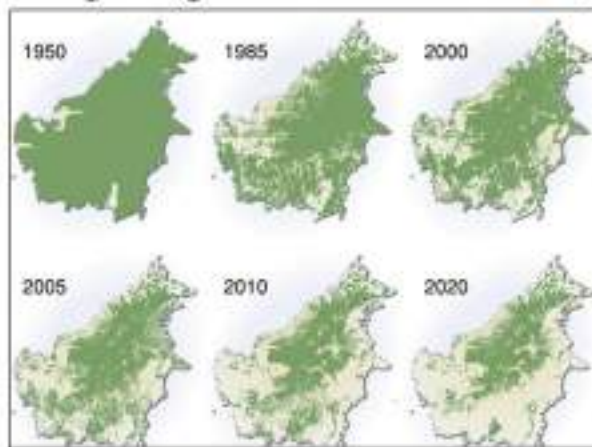
Deforestation is when trees in a forest are cut down, so that humans can use the land for other activities. Deforestation has led to the loss of 10 million square kilometers of tropical rainforest leaving just 6 million square kilometers of rainforests. Forests are an important resource. They provide habitat for wildlife and the plants in the forests provide important ingredients for medicine. Trees are important in the battle against climate change. Trees absorb carbon dioxide in their roots and leaves and give off oxygen. Trees cool the earth providing shade. When trees are cut down the carbon dioxide stored in the roots, decaying leaves and branches is given off, adding to greenhouse gases. If the trees are burned, more carbon dioxide is released into the air. A tree that has been cut down is a significant source of carbon dioxide.

Trees in a forest have an important role in water management. When heavy rains fall, trees catch some of the rain, let some of it drip gently to the ground while some of the rainwater evaporates from the leaves. The roots of trees hold soil in place and reduce erosion and flooding. Trees let water seep into the ground which forms as clouds and leads to rainfall.

In South America acres of forest are being cut down in order to raise cattle or to grow soybeans and coffee beans. Once the forest is cleared, the temperature of the soil rises causing drought like conditions. Often, after a few years the land that has been cleared

is being grazed by cattle. The land is exhausted with grass not being able to grow. The hot and dusty earth and farm animals are not able to support their cattle.

In Malaysia, rain forest is being cut down to grow palm trees. Palm oil is a cause of deforestation is climate change. Climate change has caused increased temperatures because more wildfires that are more severe. 23% of deforestation is the result of wildfires.



Deforestation in Borneo 1950-2005

What can be Done About Deforestation?

There are several things we can do about deforestation including:

- Eat less meat- if there is less demand for beef, less grazing land will be needed.
- Plant a tree
- Boycott products that have palm oil- Palm Oil plantations are replacing rainforests. If there is less demand for the product there will be less plantations needed.
- Go paperless as much as possible. Don't print pages needlessly.
- Reduce, reuse and recycle.
- Choose wooden items made from bamboo rather than less sustainable types of wood.

Name: _____

Date: _____

30

Deforestation - Questions

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------------------------------|------|-------|
| 1. It does not cause any harm to cut trees down if you plant crops in their place. | True | False |
| 2. Cutting down rainforests leads to some animals becoming extinct because they have lost their habitat. | True | False |
| 3. Eating less meat helps prevent deforestation. | True | False |
| 4. Trees have an impact on the water cycle. | True | False |
| 5. Cutting down trees causes greenhouse gas emissions. | True | False |

Summary

Summarize the reading by writing the important information

Questions

Use information from the text to help you answer

1) What are the problems caused by deforestation?

2) Should Canadians have any say about what people in South America or Malaysia do with their land? Why or Why not?

Natural Resources Ethical Use

Natural Resources Ethical Use

Every country has some natural resources. The people in each country rely on the resources around them to live. Sometimes when natural resources are discovered in an area the people who live in that area are displaced or disadvantaged in some way that causes them to be treated unfairly or causes them harm.

In New Zealand the Maori people first settled New Zealand in 1300. In the 1850's European settlers came to New Zealand from the Maori. The Maori have a tradition of protecting nature. To this tribe protecting and respecting nature is a way to respect their ancestors and to make sure they have resources for their future. Countries are beginning to understand that the indigenous people who have lived on the land are united to protect it. Often indigenous people are opposed to development from interests that are not in the community. Indigenous people make up 5% of the world's population but they are a powerful force. Often hear of indigenous people protesting disruptive land use including protesting pipelines and construction that destroys habitat.

In South America land that is controlled by indigenous people has deforestation rates that are 2-3 times lower than other areas. Allowing indigenous people to manage their land is an economical way to fight climate change. In Kenya conserving land with the native community have been successful in conserving some land for wildlife and creating economic opportunities that offset the cost of losing the land for animal herding. In Canada the government gave land east of Winnipeg over to First Nations, protects the land and habitat from uncontrolled logging.



Governments are beginning to recognize that indigenous people are good at conserving nature for future generations. The values reflected by indigenous people in protecting the environment are recognized by the United Nations in their document the United Nations Declaration on the Rights of Indigenous People.

Name: _____

Date: _____

32

Natural Resources Ethical Use - Questions

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------------------------------------------------|------|-------|
| 1. Indigenous people stop the productive use of land. | True | False |
| 2. Indigenous values support conservation. | True | False |
| 3. There are many examples around the world of indigenous people who protest to save the environment. | True | False |
| 4. Indigenous ownership of land has no affect on the environment. | True | False |
| 5. The rights of indigenous people have often been disregarded in the name of progress. | True | False |

Questions

Use information from the text to support your answer

1) Give 3 examples of indigenous people protecting the natural environment?

2) Do you think indigenous people should be paid for the land that has been taken from them over a hundred years ago?

Making Connections

What does this reading remind you of in your life?

The Tragedy of the Commons

The Tragedy of the Commons is an article written by Garrett Hardin, who describes a field in a village square that is not owned by any one person and on which local people can bring their cows to graze for free. At first everyone brings one cow to the field, but eventually, the users realize that they will get more benefit if they bring additional animals there to graze for free. If more animals are brought to the field, the grass will not be able to recover fast enough to continue to support all the cows and the field will be ruined. The users make the choice to bring extra cows because they will benefit more personally from having more cows grazing today. They know they cannot control the others who can also add additional cows. In the end they choose to overuse the field and soon they have nowhere for their cows to graze because the field no longer produces grass. This highlights the problem that when no one owns a resource, there is no one who acts to protect it.

Another example of the Tragedy of the Commons is overfishing. No one owns the fish in the ocean. Every fisherman takes as much as they can, because if they don't take them, the fish will die. Because of this attitude the cod fisheries on the Grand Banks were exhausted and the bluefin tuna is in danger of extinction.

Solutions to the Tragedy of the Commons

Private Ownership - when people own a resource, they want to preserve and maintain it and protect it, but the benefit of the resource only goes to the private owner.

Government ownership - when governments take ownership, they can regulate the use of the resource and make rules to protect it. Sometimes governments are less efficient than private owners so, prices for goods made with the resource may be more expensive.

Co-operation between users - Elinor Ostrom was the first woman to win a Nobel prize in Economic Sciences. She believed that people could work together to share a resource if they had some rules for:

- how the resource could be shared
- how to resolve disagreements
- how to monitor whether people were following the rules
- what the consequences would be if they did not follow the agreed upon rules

The United Nations is an example of a group that helps make rules for how we share resources in the world.



Name: _____

Date: _____

34

The Tragedy of the Commons - Questions

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------------------------------------|------|-------|
| 1. The Tragedy of the Commons is a way to understand cattle grazing. | True | False |
| 2. The Tragedy of the Commons is an analogy to help us understand the difficulties of using shared resources. | True | False |
| 3. The phrase comes from an article written by Garrett Hardin. | True | False |
| 4. Government control is the only solution to the Tragedy of the Commons. | True | False |
| 5. There are many solutions to the Tragedy of the Commons that work in different situations. | True | False |

Questioning

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer your questions

1) What is Elinor Ostrom famous for?

2. What are the 3 solutions to the Tragedy of the Commons?

Sustainability

Sustainability

In 1987 the United Nations released the Brundtland Report called, Our Common Future. This report was a call to action for the world to consider the sustainability of all our activities.

The report, defines sustainability as, "meeting the needs of the present, without compromising the ability of future generations to meet their own needs."

The report draws attention to the increase in people who do not have their basic needs met. It also highlights the increasing amount of useful land that has been lost due to desertification. It also highlights the threat of global warming, deforestation, acid rain and air and water pollution. It calls for global action to reverse these negative environmental trends.

There are three pillars that lead to sustainability including:

Economic Pillar - This pillar is profit focused- Sustainability

must be financially viable.

Social Pillar - This pillar is people focused- Sustainability focuses

on equity, eradicating poverty, and meeting everyone's necessities

of life, and there are universal rights.

Environmental Pillar - This pillar is focused on protecting

conserving resources-protecting nature- conserving

wildlife- consuming resources at a rate at which they

can replace themselves.

How Can we Help Become More Sustainable?

1) Be informed consumers.

- Look for products without overpackaging.
- Only buy what you need -think reduce-reuse-recycle
- Be aware of endangered species and overfished species. Don't buy canned tuna.
- Be aware of social issues like the use of child labour in clothing manufacturing. Don't buy products from areas known for these practices.
- Look for fair trade products for example coffee, to make sure producers are being paid fairly.
- Be aware of brands that are endorsed by groups trying to produce goods in a more environmentally friendly way such as Wood Preservation Canada, when buying pressure treated wood or the Rainforest Alliance when buying palm oil.

2) Conserve fossil fuels-don't make needless car trips, carpool, walk and bicycle

3) Go paperless as much as possible don't print things that aren't necessary.

4) Turn off electronics and lights when not in use.



Sustainability - Questions

Visualizing

Draw what you were picturing in your head while you were reading



What from the text made you picture that in your head?

Questions

Use information from the text to support your answer

1) Add 2 additional ideas from the 'How to Become More Sustainable' section?

2) What is the Brundtland Report's definition of sustainability?

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------------------------------------------|------|-------|
| 1. Making a profit is the most important part of becoming sustainable. | True | False |
| 2. Sustainability is concerned with, people, the planet and profits. | True | False |
| 3. Making sure everyone has their basic needs met is an important part of becoming sustainable. | True | False |
| 4. Our Common Future is the name of the Brundtland Report | True | False |
| 5. Energy efficiency has nothing to do with sustainability. | True | False |

Activities - Natural Resources Around the World**Word Search**

Find the word bank words in the puzzle!

Word Bank

Natural
Resources
Flow
Renewable
Fossil
Fuels
Trees
Wildlife
Hydroelectric
Gas
Mining
Climate
Overfishing
Desertification
Deforestation
Government
Biomass
Geothermal

D N I W J M E V Q E L S E C R U O S E R
B E G N I Q G X V Y F I U L J X I B T T
G G X S M I O A C Q W H S P L Z V A A Y
K A D K H W V W N V A P L S C I M J M E
C S L M R E H T O E G A I O U V O I Y
R X F U R B Z K Q F R F D F A C L E
E F T A Z S J E T U D D X L J C F
N B V O Y R Q C V T J T I A N S I
E K I L F S V U A L I S G Y L L
W H A H A Y L T N I N G N G E D
A R L W V C F D R D D N U L
B L Q D E F O T O N K I F I
L Q U Y D R T B C G I H Q W
E R F X D N O I T A C I T S E D
O L O Y Q Q Y Q Q R T V O B A F K
X G H A L S Z A O L Z M T U
T W D Z B G M Y S O A N I Q Y S
T C D P P T D X P S H N E G Q C X
S E E R T S J L S X Y S S W V U T V A
L M K J R Q H Y J K W O R Y I V J O F Y

Word Scramble

Unscramble the word bank words from above

EANEWRBLE _____

TREYICHLDCOR _____

LLEDIWIF _____

RAUTNAL _____

VIRHGOFNISE _____

OIFSLS _____

MTCEAIL _____

INGMNI _____

ROCSSREUE _____

AENIOFREDTSOT _____

Name: _____

Date: _____

Unit Test - Natural Resources Around the World

Multiple Choice

/6

1. Which of the following is a renewable resource?

- a) Fossil Fuel
- b) Biomass
- c) Coal
- d) Natural Gas

2. Which of the following is not a flow resource?

- a) Waterfalls - Hydroelectricity
- b) The Sun - Solar Energy
- c) Wind
- d) Fossil Fuels

3. Which of the following is a non-renewable resource?

- a) Coal
- b) Biomass
- c) Geothermal energy
- d) Solar energy

4. Which form of energy uses heat from the Earth's core?

- a) Biomass
- b) Geothermal
- c) Solar
- d) Hydroelectricity

5. The burning of which resource is contributing to climate change?

- a) Timber
- b) Waste
- c) Fossil Fuels
- d) Hydro

6. Which form of energy is when we use plants or organic material to create electricity?

- a) Coal
- b) Biomass
- c) Geothermal
- d) Solar

Definitions (1 marks each)

/3

| Term | Definition (what does it mean) |
|----------------------------|--------------------------------|
| Deforestation | |
| Flow Resource | |
| The Tragedy of the Commons | |

Short Answer Questions (2 marks each)

16

1. What is the difference between a renewable and non-renewable resource?

2. Why are some indigenous groups upset about how natural resources are being used on their land?

P


3. What is fishing? Why should we be worried about it?

REF

Long Answer Questions

5

What does sustainability mean? What kinds of things are hurting the planet that are not leading to sustainability? What can we do to become more sustainable?



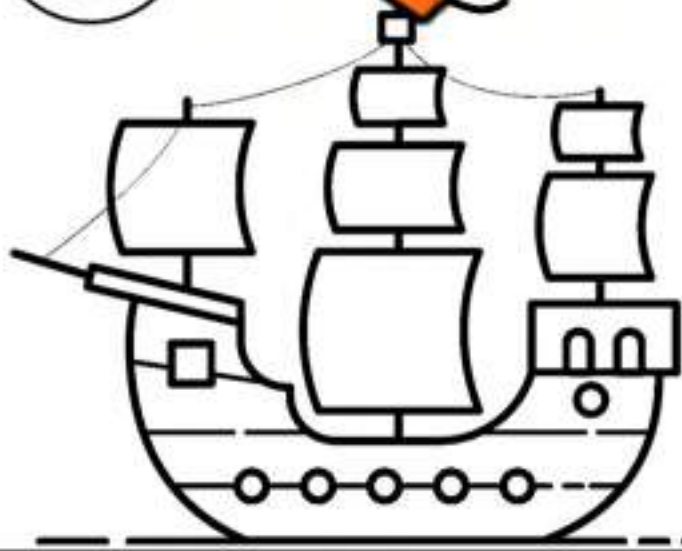
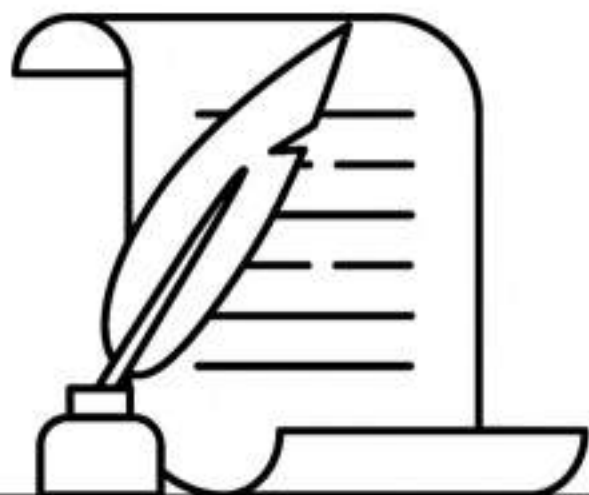
Grade 7 History Unit

NEW FRANCE AND BRITISH NORTH AMERICA, 1713-1800

| | Curriculum Expectations | Pages That Cover the Expectations |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| A1.1 | analyse key similarities and differences in social values and aspects of life between people in present-day Canada and some different groups and communities, including First Nations, Métis, and Inuit communities, in Canada between 1713 and 1800 | 27 – 39, 44 – 45, 88 – 93 |
| A1.2 | analyse some of the main challenges facing various individuals, groups, and/or communities, including First Nations, Métis, and Inuit individuals and/or communities, in Canada between 1713 and 1800 and ways in which people responded to those challenges and assess similarities and differences between some of these challenges and responses and those of people in present-day Canada | 14 – 15, 23, 30 – 39, 84 – 93 |
| A1.3 | analyse the displacement experienced by various groups and communities, including First Nations, Métis, and Inuit communities, who were living in or who came to Canada between 1713 and 1800 | 48 – 83 |
| A3.1 | <div style="text-align: center; color: red; font-size: 1.5em; font-weight: bold;"> Preview of 50 pages from this product that contains 156 pages total. </div> | |
| A3.2 | | |
| A3.3 | | |
| A3.3 | Canada during this period and explain the impact of some of these changes on various individuals, groups, and/or communities, including First Nations, Métis, and Inuit individuals and/or communities | 40 – 41, 48 – 59, 66 – 71, 76 – 81 |
| A3.4 | identify key social and economic changes that occurred in and/or affected Canada during this period and explain the impact of some of these changes on various individuals, groups, and/or communities, including First Nations, Métis, and/or Inuit individuals and communities | 10 – 35 |
| A3.5 | describe some significant aspects of daily life in various First Nations, Métis, and Inuit communities in Canada during this period | 27 – 33, 92 – 93 |
| A3.6 | describe some significant aspects of daily life of different newcomer/settler groups living in Canada during this period | 34 – 39, 44 – 45, 84 – 91 |
| A3.7 | describe significant interactions between various individuals, groups, and institutions in Canada during this period | 21 – 23, 25 – 26, 32 – 33, 42 – 43, 60 – 65 |
| A3.8 | identify some significant individuals and groups in Canada during this period, and explain their contribution to Canadian heritage and/or identities | 12 – 17, 19 – 20, 25 – 26, 40 – 41, 42 – 43, 60 – 65, 72 – 75, 82 – 83, 86 – 87, 94 – 95 |

NAME: _____

New France and British North America



Two Row Wampum Belt



Two Row Wampum – Oldest Treaty Relationship

Haudenosaunee and Dutch

In 1613, the Mohawk and people coming into their territory. The visitors were Dutch, from the Netherlands (modern-day). The Mohawk and the rest of the Haudenosaunee met with the Europeans.

The Dutch, with their ships, believed they should be called "Father" and the Haudenosaunee should be called, "Sons" when they met. The Haudenosaunee did not agree, and suggested they should be called "Brothers" to show they were equal.

Two Row Wampum

After the two groups began to learn more about each other, they came to an agreement. The Haudenosaunee created the Two Row Wampum Belt to symbolize the agreement. The belt was the first treaty between Europeans and the indigenous.

It shows two lines that represent how they will live. One represents the Dutch's ship and the other represents the Haudenosaunee's canoe. They will travel down the river of life side by side, and neither will attempt to enter the other's vessel.

Treaty - Silver Covenant Chain of Friendship

The Dutch recorded this agreement on paper with 3 silver chains. The 3 chains represented 3 principles that the two groups would live by. First, friendship between the Haudenosaunee and the Dutch. Second, peace between their groups. Third, that the agreement would last forever.

The silver chains represented the friendship between the two. The silver symbolized that the chains would rust, but that they could be polished when the brothers met again. The agreement was called the Silver Covenant Chain of Friendship.



Tawagonshi Document – Written Agreement of the Two Row Wampum Treaty

Two Row Wampum Belt - Questions

Questions

Answer the questions below

1) What happened when the Dutch landed on the Mohawk's territory?

2) What is the Two Row Wampum Belt? Why is it important?

Draw

Draw another wampum belt that the Dutch used to represent the treaty



Draw in the wampum belt.

True or False

Is the statement true or false

| | | |
|--------------------------------------------------------------------------------------|------|-------|
| 1) The Two Row Wampum belt was the first treaty between Europeans and the Indigenous | True | False |
| 2) The relationship between the two groups was peaceful | True | False |
| 3) The Haudenosaunee used large sail boats to get down river | True | False |
| 4) The Dutch also recorded the treaty on paper | True | False |
| 5) The Dutch thought they were above the Haudenosaunee at first | True | False |

Voyageurs - Northwest Trading Company

Who were the Voyageurs?

A **voyageur** was someone, usually a Frenchman who was hired by a fur trading company to travel across present-day Canada to trade with the First Nations. Voyageurs were master canoers, as they had to paddle through rushing rivers with strong rapids.

Voyageurs were really hard workers, as they portaged their canoes through forests and up and down mountains. Portage means to carry your canoe. They needed to get from one river to another. The canoes were made of light wood materials. When they were loaded, they were very heavy.

The Voyageurs carried many items that they could trade with the First Nations, such as pots, pans, weapons, tools, and cloth. They carried their own pack, which sometimes weighed up to 150 kg! Most of the voyageurs were French, from the city of Montreal. Some came from France.



Northwest Trading Company (1779 – 1821)

The Northwest Trading Company (NWTC) began in Montreal. They hired many Francophone voyageurs to travel west. The NWTC was interested in exploration as well as fur trading. They hired many explorers who mapped out routes to the west. This made it much easier for the people in the east to travel west.

Alexander Mackenzie was a fur trader and Scottish explorer who was sent by the NWTC to map a route across North America, from east to west coast, ending in BC.

Many of the voyageurs that had travelled west to places like present-day Alberta, stayed there. They set up trading posts where indigenous people could trade furs they had in exchange for things that came from Europe. Many communities that exist in Alberta now started as trading posts. Fort Edmonton is an example!



Voyageurs - Northwest Trading Company

True or False

Is the statement true or false

| | | |
|---------------------------------------------------------------------|------|-------|
| 1. Voyageurs had an easy time travelling across present-day Canada | True | False |
| 2. They had to portage to get from river to river | True | False |
| 3. Their canoes were made from really heavy wood material | True | False |
| 4. The Northwest Trading Company hired many Francophone voyageurs | True | False |
| 5. Many First Nations stayed in the west after they travelled there | True | False |


Questions Answer the questions below

1) Who were the voyageurs? What did they bring to trade with the First Nations?

2) What was the Northwest Trading Company? Was it a British or French company?

Visualizing

Draw what you were picturing while you were reading. Explain the picture

| | |
|-------------------------------------------------------------------------------------|-------|
|  | _____ |
| | _____ |
| | _____ |
| | _____ |
| | _____ |

Explorer: Alexander Mackenzie

Alexander Mackenzie

Alexander Mackenzie was a Scottish explorer who made his way across Canada to BC. He is remembered for travelling 3,700km by land and rivers in terrible conditions across North America. He founded the Mackenzie River (largest river in Canada), which crosses through British Columbia, Alberta, Saskatchewan, the Yukon and the Northwest Territories

Expanding

By the late 18th century, Europeans were becoming more interested in the western parts of present-day Canada. The Northwest Trading Company was racing with the Hudson Bay Company to find a route to the Pacific Ocean.

Alexander Mackenzie was 25 years old when he was hired by the Northwest Trading Company to find a route to the Pacific Ocean, then up into Alaska, across to Russia and back to the Hudson Bay.

His Voyages

- 1) His first voyage took him up the Mackenzie River to the Arctic Ocean. Mackenzie was hoping the river would take him to the Pacific Ocean, but it didn't.
- 2) His second voyage took him to the Fraser River, and then to the Pacific Ocean. He was warned by the Shuswap First Nation to stop paddling and take the trail for the rest of the way. Mackenzie agreed and went the rest of the way on foot. The trails were well made by the First Nations in the area. When he got to the Pacific Ocean, he inscribed in large letters, the writing on the rock. It says, "Alex Mackenzie from Canada by land 22nd July 1793." He was clearly proud that he travelled across the continent without using ocean waters.



Successful Journey

After his successful journey, Mackenzie became a well-known explorer. He was elected to the Legislative Assembly in Lower Canada.

Explorer: Alexander Mackenzie**True or False**

Is the statement true or false

| | | |
|-------------------------------------------------------------------|------|-------|
| 1) Mackenzie was successful in his mission on his first voyage | True | False |
| 2) Mackenzie was the first to travel across North America by land | True | False |
| 3) Mackenzie was 32 when he travelled across North America | True | False |
| 4) The Mackenzie River is named after Alexander Mackenzie | True | False |
| 5) The year 1793 when he made it across Canada by land | True | False |

Questions Answer the questions below

1) Why would Mackenzie write from Canada by land on the rock?

2) How did Mackenzie benefit from First Nations in the west?

Draw

You just made it across Canada by land. What would you inscribe on the rock?

Hudson's Bay Company

What is the Hudson's Bay Company?

The Hudson's Bay Company is the oldest running business in Canada. It was started in 1670 as a collection of trading posts that British settlers would operate across British North America (present-day Canada). In exchange for animal furs, the trading posts offered European items like weapons, gunpowder, bullets, beads, fishhooks, axes, sewing needles, scissors, cooking pots, and wool blankets.



Hudson Bay Company Store
Cordova Street, Vancouver,
British Columbia, Canada.

Rich European settlers hunted and trapped animals across British North America (BNA). The Europeans were desperate to find furs to give them luxurious items to better their lives, however, the best hunters were the First Nations. They knew the land the best and already had the technology for trapping and hunting these animals. They were also very motivated to use the items from the trading post to improve their quality of life.

Rupert's Land

In 1670, the King of England (King Charles II) gave a royal charter that gave Rupert's Land to the Hudson's Bay Company. Rupert's Land was a massive territory that included the land that flowed into Hudson Bay. The HBC now had exclusive rights to trade on this land.



The Hudson's Bay Company (HBC) and Northwest Trading Company (NWTC)

The NWTC was formed in 1779 by a group of Montreal-based fur traders. They had been around since 1670. The HBC was unhappy that the NWTC was taking away their fur trade.

The HBC had an advantage because they used large ships to travel to and from around North America. It took them 14 months to go west, pick up the furs, and bring them back to England for sale. The NWTC on the other hand, travelled by land across North America. It took the Voyageurs from the NWTC an extra year and cost them more money as well.

The two companies fought for many years before 1821, when an intense battle began. Lord Selkirk from the HBC, settled on land close to Métis and First Nations in present-day Manitoba. The Métis and First Nations had close relationships with the NWTC. They attacked Selkirk during the Battle of the Seven Oaks in 1816, and 21 English settlers were killed. Selkirk retaliated and captured Fort William.

Both the NWTC and HBC suffered from the fighting. In 1821, after years of fighting, the NWTC merged with the HBC. The HBC was able to buy out the NWTC because it had more money and British political connections.

Name: _____

17

Curriculum Connection
A3.4, A3.8

Hudson's Bay Company

**True or False**

Is the statement true or false

| | | |
|---------------------------------------------------------------------|------|-------|
| 1. The Hudson's Bay Company started in 1680 | True | False |
| 2. The HBC traded items for animal furs | True | False |
| 3. Anyone could trade animal pelts for items at an HBC trading post | True | False |
| 4. The best traders were Europeans | True | False |
| 5. The items used for pelts were mainly metal | True | False |

Questions Answer the questions below

1) What were some items sold at a trading post?

2) What is Rupert's Land?

Summarize

Summarize the relationship between the HBC and NWTC

Trading Post Prices

Trading Beaver Furs

When you entered a Hudson's Bay or Northwest Trading Company's trading post, you could exchange beaver pelts for different useful items. Instead of using money to buy, you would trade 1 unit of furs. The item for trade was called, "one beaver" and it was equal to a prime quality item or a constant (perhaps two smaller items).

| Beaver Pelt Units | Items |
|-------------------|-----------------------|
| 1 MB | 0.5 kg of glass beads |
| 1 MB | 0.75 kg of gun powder |
| 1 MB | 8 knives |
| 1 MB | 1 pair of pants |
| 1 MB | 2 hatchets |
| 1 MB | 1 blanket |
| 1 MB | 20 fish hooks |
| 1 MB | 12 dozen buttons |
| 11 MB | 1 musket (gun) |

Questions

Answers



1) What stands out to you about the costs of items at a trading post?

2) With these prices, do you think people took care of their items? Explain.

3) If you moved to a new area and had nothing but 20 pelts, what items would you buy? Explain.

Métis Culture - Mix of First Nations and Europeans

Music and Dance

The Métis are known as a festive and social group who love song and dance. As Europeans brought violins to Canada, the Métis began using it to make their own tunes. The Scottish and French-Canadian fur traders introduced music to the Métis. The Métis would mix the music of First Nations, Scotland and France to make new songs. The new songs also led to new dances, like the red river jig.



Métis Fiddle

The Métis fiddle is a type of music that the Métis of Canada developed. The fiddle has become a key feature of Métis music. The jig is a dance that incorporates Scottish, First Nation, and French-Canadian music. It is a lively, festive kind of dance where you spend a lot of time hopping, kicking, and turning.

When you combine the tunes from a fiddle with a jig dance, you get a Métis dance that is upbeat and a lot of fun! The first person to write a Métis jig was Alexander Begg in 1867!

Food - Bannock

Bannock is a type of fried bread that originated in Scotland. When Scottish people came to Canada, they made Bannock out of barley, peameal, or oatmeal. Over time, wheat flour was used instead to make the bread that was fried in oil.

As wheat became more available, Indigenous groups began to use Bannock as a staple in their diet. The Métis especially, made Bannock a big part of their way of life. They



would mix up flour, water, and fat in a bag and then toss it on a pan to cook. The result was a flat and biscuit like bread.

Bannock was important to the Métis because it was cheap and easy to make. This prevented the Métis from going hungry!

Métis Culture - Mix of First Nations and Europeans

Questions

Answer the questions below



1. What is the Red River Jig? Who was the first to do the Métis jig?

2. How did Scottish and French-Canadians affect the culture and way of life of the Métis?

Making Connections

How does this affect you of in your life?

True or False

Is the statement true or false

| | | |
|------------------------------------------------------------------------------|------|-------|
| 1) The first Métis jig was done in 1967 | True | False |
| 2) The Métis Jig incorporates music/dance from Scottish and French-Canadians | True | False |
| 3) Bannock is made from flour, water and fat | True | False |
| 4) To do a jig, you hop, kick, and shuffle your feet to the music | True | False |
| 5) The Métis learned Bannock and Jigging from the Scottish | True | False |

New France

New France (1534 – 1763)

In the 1530s, France sent explorers to find new land. They travelled west and landed in the Atlantic parts of Canada. Many of the explorers ventured through the St. Lawrence River,



which allowed them to get further inland of present-day Canada. Over the next couple hundred years, France began an attempt to colonize this New World. **Colonize** means they sent people to live in a new region but still be under their old country's name. Colonizing is a way for a country to expand their territory as they create new colonies around the world. They named their new colony, **New France**.

Challenges of New France

Colonizing a new territory is difficult, as many challenges overwhelm the settlers. A **settler** is someone who travels to a new colony or region and stays there. Settlers had to deal with three main challenges when they landed in New France.

1. The harsh, cold winters in New France
2. The lack of food available and the fact they didn't know how to hunt or know if the soil was good for growing
3. They didn't know who the indigenous people were and if they would welcome the French. **Indigenous people** are people who lived in an area from the beginning or before others arrived.

Reasons for Exploring and Colonizing the New World

The **New World** was a term used to describe this land west of Europe that we now call North America. The explorers who found the New World were looking for shipping routes to Asia to allow the French traders to import silk. They were also looking for precious gems and metals such as gold to make France rich.

New France

Questioning

Write 3 questions you have about New France

1)

2)

3)

Questions

Answer the questions below

1. What does it mean to colonize a region? Why would countries want to colonize?

2. What challenges did settlers face when living in New France?

True or False

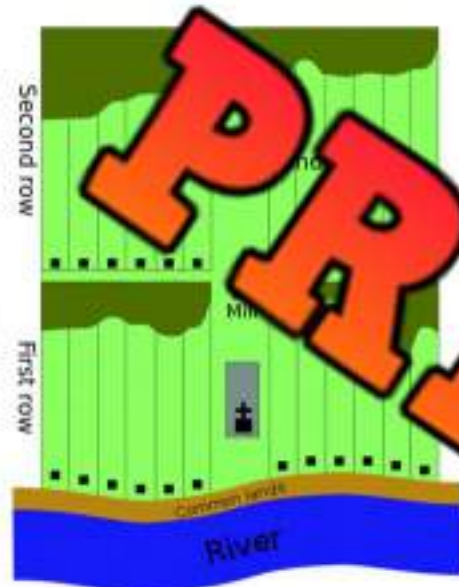
Is the statement true or false

| | | |
|------------------------------------------------------------------|------|-------|
| 1) The settlers used the Fraser River to get inland of Canada | True | False |
| 2) Colonize means to send settlers to a new place and control it | True | False |
| 3) Colonizing is a way for countries to expand their territory | True | False |
| 4) Settlers are people who stay in their country | True | False |
| 5) Living in New France was easy for settlers | True | False |

Seigneurs and Habitants

Settlers in New France

The explorers and fur traders were the first two groups that lived in New France. After they settled, farmers were sent to develop the land. The farmers were divided into two main groups – seigneurs and habitants.



Seigneurs and Seigneuries

The men that the king of France liked were called **seigneurs**. A seigneur was someone who may have supported the king back in France, or perhaps was a soldier who fought well in war. Either way, a seigneur was given land with a **seigneurie**, which was a large area of land that was about 10 kilometres by 10 kilometres. A seigneurie had to be developed, so they had to get habitants and their families to live on it and help develop the land.

A seigneurie had fields that were long and narrow so that all of the lots could have access to water. Seigneuries were set beside the St. Lawrence River so that the water could be used for farming, transportation, fishing, and more. A seigneur would keep a large section of the land to provide a church and mill for the habitants.

Habitants

The farm families that worked on the fields on the seigneurie were called **habitants**. Habitants worked very hard and had lots of responsibilities, like cutting and clearing the land, growing crops, and raising animals. Habitants didn't live on the land for free. They needed to give a portion of their crops to the seigneurs as well as pay taxes to the Church and to the government. They also had to work without pay for ten days a year on the seigneur's personal fields.



Seigneurs and Habitants

True or False

Is the statement true or false

| | | |
|-----------------------------------------------------------------------|------|-------|
| 1. A habitant was someone who the king treated well with a seigneurie | True | False |
| 2. Seigneurs were given seigneuries, which were large areas of land | True | False |
| 3. Habitants were farm families that lived on seigneuries | True | False |
| 4. Habitants didn't have to pay anything to their seigneurs | True | False |
| 5. Seigneurs were lords or people who supported the King of France | True | False |

Questions

Answer the questions below

1. What is the difference between a seigneur and a habitant?

2. What responsibilities did the habitants have to the seigneur? Was it fair?

Making Connections

What does this remind you of in your life?

Citizens of New France

Population of New France

In 1666, the population of New France was 3215 people. Most of the people living in New France were men, with a total of 63 percent of the population. The 37 percent of women in New France is way below the population breakdown we see today in Canada, as men make up 50.48 percent of the population, which is more than the 49.52 percent of women.

Jobs in New France

Only men could do skilled jobs. These men had jobs when they were in one trade. These men had a higher social status compared to the farmers who worked in their fields all day. The top 7 jobs are listed below.



| Occupation | Explanation |
|-------------------|-----------------------------------------------------------------------------|
| Soldiers | New France needed to defend its territory from soldiers |
| Carpenters | The land was undeveloped. They were needed to build houses and buildings |
| Masons | A mason is a builder who works with stone. Masons built buildings |
| Tailors | A tailor makes clothing. Remember, they hand crafted clothing in New France |
| Merchants | Merchants were people who owned stores. They bought and sold items. |
| Bakers | Bread represented 60-85 percent of the total food intake in New France |
| Millers | A miller someone who works in a grain mill which produces grain for breads |

Citizens of New France

Reflection

There weren't nearly as many opportunities to find jobs in New France. Which job would you choose? Explain why.

Questions

Answer the questions below

1. Why do you think there were so few people living in New France in 1666?

2. Which jobs do you think were the most important? Explain.

True or False

Is the statement true or false

| | | |
|---------------------------------------------------------------------------|------|-------|
| 1) In 1666, the population of New France was 3215 people | True | False |
| 2) There were more women than men in New France | True | False |
| 3) Farmers had the best jobs in New France | True | False |
| 4) One of the most important jobs was soldier to defend New France | True | False |
| 5) Women could become skilled workers and have jobs like masons or bakers | True | False |

Society in New France

People of New France

The King of France was the most powerful man in New France. He controlled both France and New France, but he hired a **viceroy**, who he put in charge of New France. The viceroy was the governor who made decisions on behalf of the King. Learn more about the other people of New France below.



Governor

The **governor** was the top government official in New France. His job was to make sure the king got what he wanted out of New France. He appointed people to the sovereign council, who were in charge of making laws and setting taxes that people needed to pay. The governor was also the king of the colony in New France.

Intendant

The intendant was a French government official who was responsible for finance and justice in New France. The sovereign council followed the rules in determining laws and taxes. A **commoner**, who is someone not born into the upper class.

Members of the Sovereign Council

The members that were given the job to decide on laws and taxes were also part of the upper-class society. They had more power than the average citizen.



Captain of the Militia

The **captain of the militia** was in charge of the militia in New France. The militia consisted of able-bodied men between sixteen and sixty who could defend New France. They didn't have formal training to be a soldier. The captain of the militia had the job to organize them into squads and get them prepared with weapons to fight if needed.

Citizens

Most of the people that lived in New France were average citizens with jobs like farmers, bakers, merchants, and tailors. These people performed services for each other so that society could function.

Criminals

France sent some of their criminals to New France. Most of these criminals were prisoners who were thieves. They were given the option of serving out their prison sentence in France or be sent to New France. If they decided to be shipped to New France, they became indentured servants who could get their freedom back after three years slave labour.

Society in New France - Questions

True or False

Is the statement true or false

| | | |
|---------------------------------------------------------------------|------|-------|
| 1. An indentured servant could get their freedom back after 2 years | True | False |
| 2. The governor of New France was like a king in the colony | True | False |
| 3. The Viceroy was second in command | True | False |
| 4. The intendant made sure the sovereign council did their jobs | True | False |
| 5. A commoner was born into a wealthy and powerful family | True | False |

Questions

Answer the questions below

1. What do you think indentured servants had to do if they decided to come to New France?

2. Do you think the regular citizens had much involvement in how things were? Did they have any involvement in the government?

Making Connections

What connections can you make to this reading?

The Expulsion of the Acadians

Tension Between France and Britain

France and Britain were both trying to colonize North America as fast as possible. Both countries were building up colonies and expanding their territory. The rivalry between the two countries was growing as they fought battles all over the world. Both countries had other colonies in Asia, Africa, and the Caribbean. They were both fighting for global dominance.

The Loss of Acadia

Acadia was a French colony in North America. The British wanted to defend it as well as New France. Acadia is present day New Brunswick, PEI, and Quebec. In 1713, the British attacked Acadia from Boston, New England. They took control of Acadia, but they returned it to France in the Peace Treaty of 1697.

War of Spanish Succession

While Spain and France were at war with Britain, Britain took advantage. From 1702 to 1713, the British gained control of Acadia and the Caribbean. In 1713, leaders from France and Britain negotiated a peace treaty called the **Treaty of Utrecht**.

Each side agreed to give back some of the territory won in war. Britain offered to give back the Caribbean islands. France decided to take back the Caribbean islands because sugar cane was grown there. Sugar was valuable in France. This meant that the Treaty of Utrecht officially gave Acadia to the British.

The Expulsion of the Acadians

Britain may have owned the land of Acadia, but it was still French Acadians living there. The British were worried the Acadians would revolt against them. So, the British tried to make them take an **oath of allegiance**, which would mean they promised to be loyal to Britain.

The Acadians declined as they were French Catholics, and the British were English Protestants and religion was very important to the Acadians. Life in Acadia was becoming hostile as British soldiers harassed the French population. The French often returned the favour by harassing the British in the colony.

This continued until 1755, when Britain decided enough was enough. From 1755 to 1760, about 10,000 out of 12,000 Acadians were expelled from the region. Most of the French Acadians went to the French colony of Louisiana.



The Loss of Acadia - Questions

Multiple Choice

Circle the correct answer

| | | |
|-------------------------------------------------------|-----------|------------|
| 1. The people that originally lived in Acadia were... | French | British |
| 2. France decided to give away which colony? | Caribbean | Acadia |
| 3. What was found on the Caribbean colony? | Iron | Sugar Cane |
| 4. Did the British sign the Oath of Allegiance? | Yes | No |
| 5. The Treaty of Utrecht was signed in which year? | 1755 | 1713 |

Visualizing Draw a picture while you were reading. Explain the picture

| | |
|-------------------------------------------------------------------------------------|-------|
|  | _____ |
| | _____ |
| | _____ |
| | _____ |
| | _____ |

Questions

Answer the questions below

1. Why did France give up Acadia instead of the Caribbean colony?

| |
|-------|
| _____ |
| _____ |
| _____ |

2. Why did the British expel the Acadians?

| |
|-------|
| _____ |
| _____ |
| _____ |

Seven Years' War

French and Indian War (7 Years' War)

The title of the war would indicate that the French battled the First Nations, however that is untrue. The war was between France and Britain, although most of the First Nations allied with France as they had developed stronger trading relationships.

War began as the English also wanted control of the fur trade. This war between France and Britain was also called the 7 Years' War, and it was happening in North America, as well as in Europe. With the French and First Nations being allies, they often fought together against British forces.

Major Battles of the 7 Years' War

The French and Indian War lasted 9 years with battles occurring all over the northeast parts of North America. The French won major battles at Fort Henry, and Fort Ticonderoga, while Britain won the Battle of the Clouds, Fort Niagara, and Fort Duquesne. The final battle between the two sides was on the Plains of Abraham, outside France's largest and most powerful city, Quebec.

Siege of Louisbourg

Louisbourg was a fortress built by the French in New France. It was the largest European style fortress in North America at the time and it was designed to defend New France from British attack. In 1758, the

British completed their second siege of Louisbourg. Their first attempt was unsuccessful, but they had to return the fortress to the French after a peace treaty was signed.

The second siege was different! James Wolfe and General Jeffrey Amherst brought their naval warships and armies to Louisbourg and surrounded them. The British fired on the fortress and took control of France's warships. They set one on fire and captured another one away to join the British fleet. The French citizens of Louisbourg were allowed to return to France while the French soldiers were brought to Britain as prisoners of war. British soldiers decided to burn down the fortress to make sure it couldn't be returned to the French.

Battle on the Plains of Abraham

The Battle on the Plains of Abraham was for control of Quebec City, which was France's first and largest settlement. Britain knew if they could take it over, they would end up defeating France. General James Wolfe brought 5000 well-trained troops to the battle against General Montcalm of France who had 4,500 troops (some First Nations and militia).

They met on the Plains of Abraham, where Montcalm ordered his men to fire. While they fired, the British troops waited and got 2 bullets ready. The disorganized French fire was mostly misses, while the British hit with both their shots, sending the French back in retreat. Britain won the battle and eventually took control of present-day Canada.



British Ships
Siege of Louisbourg

Seven Years' War - Questions

True or False

Is the statement true or false

| | | |
|------------------------------------------------------|------|-------|
| 1. Louisbourg was a fortress built by the French | True | False |
| 2. The 7 Years' War was actually 9 years | True | False |
| 3. The French had an alliance with the Iroquois | True | False |
| 4. The 7 Years' War was fought in North America only | True | False |
| 5. The British took down the Louisbourg fortress | True | False |

Questions Answer the questions below

1) Who won the war? Who did they win?

2) Why were Britain and France fighting against each other? What role did the First Nations get involved?

Summarize

Write the important information from the reading

Battle of the Plains of Abraham



Description

The English attacked the French from the west. The English traveled by land and came on to land at Anse Du Foulon.

They had more soldiers than the French as you can see with the rectangles representing the regular soldiers. Each rectangle is a battalion that was led by a captain. They only had one artillery compared to the French's 3. You can see the British had set up camp across from Quebec, where they also attacked from.

As you can see, the two sides formed battle lines. The French attacked first by shooting from far distances, around 50 metres. The English lay down on the ground to avoid being shot. Most of the bullets missed. While the French reloaded, the English moved forward to 35 metres away. They shot two bullets, which were enough to destroy the French lines. The French fled the field, losing the battle. French survivors became prisoners of war.

You can see that the First Nations fought with the French against the British. On the British side, the Fraser Highlanders fought with the English. They were a battalion from Scotland.

General James Wolfe fought with the 28th battalion. He was shot in the attack, but still advanced with them to Quebec. Montcalm, who led the French, was also shot and killed.

Battle of the Plains of Abraham

The **Battle of the Plains of Abraham** was fought between France and England. England had been taking over land with their powerful army all over Atlantic Canada and had their sights on France's strongest village – Quebec City.



What do you notice about how Quebec City was protected?

The battle between the two sides lasted only 15 minutes. Both leaders died in the battle. Their last words are written below.

Montcalm



"I am happy that I shall not live to see the surrender of Quebec"

Wolfe



After hearing of victory, God be praised, I die contented. (Happy, at ease)

1) Why was this battle so important to control of "The New World"?

2) What are your thoughts of both generals last words?

Treaty of Paris, 1763

French Surrender

After the French lost the Battle of the Plains of Abraham, the French governor surrendered to the British commander. This officially made Quebec part of Britain and under British control.

As part of the surrender, the French governor put together a list of demands to protect the French people in Quebec. He wanted to make sure that French culture lived on in Quebec under English control.

List of demands

1. Allow senior government officials to return to France
2. The Roman Catholic religion must be allowed to continue in Quebec
3. French merchants must be allowed to continue trading as before
4. The French people in Quebec can't be forced to fight against France in the future – *This demand was denied, as the people living in Quebec were now subjects of the British King.*

The Treaty of Paris, 1763

The Seven Years' War ended in 1763 when both Britain and France signed The Treaty of Paris. Both sides agreed to return some of the territory they had captured from the other in war. The Seven Years' War was fought between Britain and France in many different parts of the world, but it was now ended.

In North America, The British kept control of New France, which meant it remained a British colony. New France was now history, and British rule in North America was growing stronger.



Treaty of Paris, 1763



Questions

Answer the questions below

1) What was the Treaty of Paris? Why was it an important treaty in the history of Canada?

2) Why did the British grant most of the demands from France after their surrender? Did any of them surprise you?

Reaction

If your land was taken over, what would you ask for?

1)

2)

True or False

Is the statement true or false

| | | |
|-----------------------------------------------------------------------|------|-------|
| 1. The French surrendered after the Battle of the Plains of Abraham | True | False |
| 2. The French made a list of demands so French culture could continue | True | False |
| 3. New France was returned to France in the Treaty of Paris | True | False |
| 4. The French in Quebec would never have to fight against France | True | False |
| 5. The French were able to continue practicing the Catholic Religion | True | False |

The British and the First Nations

Britain and the First Nations

The British won the land of New France from the French, but they still had to make peace with the First Nations communities in this region. The Ojibwe were a strong First Nation community that lived in the area of New France. The Ojibwe chief, named Minweweh told a group of British fur traders:

Although you have conquered the French you have not yet conquered us! We are not your slaves. The land, the woods, and mountains were left to us by our ancestors. They are our inheritance, and we share them with them to none. Our Father the king of France, employed our young men to support his nation. In his warfare, many of them have been killed; and it is our custom to avenge the death of the slain as the spirits of the slain are satisfied. Your king has not sent us any gift or token of friendship, so, we are still at war.

Chief Pontiac and the First Nations War

The chief of the Odawa First Nation, Chief Obwandiyag, was a great leader. He brought together an alliance of First Nation communities to fight against the British. His attacks against British forts was called Pontiac's War because of the British name for Chief Pontiac.

Siege on Fort Detroit

In May 1763, the Odawa, Ojibwe, Pottawatomie, and the Wendat attacked Fort Detroit. The five-month long siege didn't end in the First Nations capturing the fort but it did send a signal to the British that the First Nations were tough enemies.

More Sieges on Forts Around the Great Lakes

More First Nations joined Obwandiyag (Pontiac) as they attacked more forts around the Great Lakes. They took control of Fort Sandusky, Fort St. Joseph, Fort Miami, Fort Ouiatenon, and Fort Michilimackinac.

Fall of Obwandiyag (Pontiac)

Over time, his alliance between First Nations fell. The other nations didn't want to fight any longer, so they went back to their territories. Even Obwandiyag's own nation, the Odawa banished him from their nation as they felt he was becoming too powerful.



Chief
Obwandiyag

The British and the First Nations - Questions

True or False

Is the statement true or false

| | | |
|--------------------------------------------------------------------------------------|------|-------|
| 1. The British gained respect for the First Nations after they attacked Fort Detroit | True | False |
| 2. Chief Pontiac didn't want to fight and was ready to give up his land | True | False |
| 3. Pontiac was a good leader who made an alliance between First Nations | True | False |
| 4. The First Nations were sent peace treaties and gifts from the British | True | False |
| 5. Chief Pontiac was a legend in his First Nation and never left them | True | False |

Questions

Answer the questions below

1) Who was Chief Ojibwa and what was he remembered for?

2) What did the Ojibwa chief tell the British fur traders?

Questioning

Write 2 questions you have about the reading

1)

2)

Germ Warfare - Fort Pitt

Epidemic

An epidemic is an infectious disease that spreads throughout a community in a particular time. Smallpox is a very contagious disease that is easily spread from person to person. The symptoms of smallpox were high fever, skin rash, headache, backache, vomiting, and diarrhea.



Germ Warfare at Fort Pitt

The British were using a cruel tactic, called germ warfare. At Fort Pitt in present day Pittsburgh, the British cut blankets into small pieces and placed them inside small metal boxes. They gave these boxes to the First Nations and said the boxes contained special powers.

They said not to open the boxes until they returned to their villages so that everyone could get the special powers. Finally, when they took out these blankets, they passed them around so everyone could get the power.

This was germ warfare because the blankets were infected with smallpox, which was a disease that the First Nations people had no immunity to. The British soldiers had gotten the blankets from a hospital that was treating patients with smallpox. Smallpox was a common disease in Europe that the Europeans could fight, but it was deadly for the First Nations members.

Pretty soon after the blankets were passed around, a terrible sickness spread throughout the villages. Even the doctors in these First Nation villages got sick and died. Anyone who contracted the disease died. It is estimated that smallpox killed up to 93 percent of the First Nations people.

William Trent, who was captain of the Pennsylvania Militia, wrote of a meeting with two First Nations: "we gave them two Blankets and a Handkerchief out of the Smallpox Hospital. I hope it will have the desired effect."



Historians can't agree whether this tactic was the cause of smallpox spreading, or if it was a natural spread due to the close contact these two groups had when trading.

Germ Warfare - Fort Pitt

Multiple Choice

Circle the best answer

| | | |
|----------------------------------------------------------------|------------|--------|
| 1. An epidemic is the spread of | Disease | Fire |
| 2. A symptom of smallpox is | Joint pain | Rash |
| 3. Who gave the First Nations blankets infected with smallpox? | British | French |
| 5. Historians are positive that germ warfare ever happened | True | False |
| 5. The percentage of First Nations killed by epidemics | 58% | 93% |

Questions

Answer the questions below

1. Why did smallpox hit the First Nations more than the Europeans?

2. What do you think of William Trent?

Fill in the Blanks

Fill in the blanks from information in the reading

1. The First Nations had no _____ to fight diseases.
2. Some Europeans used smallpox as a _____.
3. Smallpox was one of the worst _____ in history.
4. At Fort _____, the British are accused of using germ warfare.
5. Smallpox is a very _____ disease because it spreads easily.

Pontiac Wars - Fort Michilimackinac

Pontiac's attack on Fort Michilimackinac was clever and well thought out. Learn more about Fort Michilimackinac and Pontiac's attack on it by answering the questions below.

Research

Answer the questions below



1) Where was Fort Michilimackinac? Describe its location. Was it near water?

2) Why was Fort Michilimackinac important? Who was it protecting?

3) Draw a diagram of the fort. Label or use a legend to identify your diagram.

PREVIEW

The Royal Proclamation of 1763

Peace Between Britain and the First Nations

After many smaller battles between the British and the First Nations, the British understood that they needed to make peace with the First Nations. They knew they would have to concede some areas of Quebec to the First Nations, so they signed the Royal Proclamation of 1763. All land west of the proclamation line was reserved for settlers.



Royal Proclamation of 1763 Key Points

- Britain would now be in control of France's territories in the region (Quebec and the Ohio River Valley).
- Quebec was created with the proclamation. All of Quebec were British.
- Quebec boundaries shrunk and were confined to a narrow strip around the St. Lawrence River.
- The area to the south of Quebec was given to the First Nations.
- All the French Canadiens living on First Nation territory had to leave.
- Only the British government could buy land from the First Nations.
- This meant anyone moving west in Canada could not buy land from the First Nations.
- Anyone involved in the fur trade on First Nation territory needed to have a license from the government.

Results for the First Nations

The Royal Proclamation of 1763 was positive for the First Nation communities as it secured land for them. It also made sure that smaller First Nation communities couldn't sell their land and be taken advantage of by wealthy British citizens.

Many British colonists were upset, as they had to leave the land they had already purchased. It also meant they couldn't move west until more treaties were signed. The Proclamation returned land and secured a future for the First Nations in North America.

The Royal Proclamation of 1763

True or False

Is the statement true or false

| | | |
|---------------------------------------------------------------------------|------|-------|
| 1. The First Nations benefitted from the Royal Proclamation | True | False |
| 2. The British colonists did not like the Royal Proclamation | True | False |
| 3. Wealthy Europeans would buy land from the Indigenous for unfair prices | True | False |
| 4. The Proclamation gave the British government control of the fur trade | True | False |
| 5. The Quebec Act was passed after the Proclamation | True | False |

Questions

Answer the questions below

1) What was the Royal Proclamation of 1763? Who did it benefit and who was upset by it?

2) Which key points of the Royal Proclamation do you find interesting? Explain.

Inference

What do you think happened eventually? Were colonist allowed to move west?

The American Revolution



What was the American Revolution?

The British colonists that landed in what is now the USA, set up lives of their own after leaving England. They left Britain because it was crowded, and they wanted to start families in a new place. Most settlers were hard working and motivated to make a better life for themselves and their families.

As the British settlements in North America became larger and more powerful, they began to go against what British authority wanted them to do. The settlers wanted to govern themselves as they saw fit, instead of how the British leaders wanted them to. Wars broke out between Britain and the colonies that led to the American Revolution.

The 13 Colonies

There were many colonies in North America at the time, but not all of them wanted to rebel against British Rule. Only 13 of the colonies fought against Britain in a war that lasted from 1775 to 1783. Some of the colonies included New York, New Jersey, Virginia, and Georgia.

Why Rebel Against Britain?

The main reason these 13 colonies rebelled against Britain was because they didn't have representation in the British government. Decisions were being made in Britain that affected the colonies, yet the colonies had no say in the decision making.

The raising of taxes in the colonies was the last straw that led to the revolution. The Seven Years' War had cost Britain almost \$5 billion. They needed money to treat the First Nations and the French. The end of the war meant the Thirteen Colonies were more secure from attack, as they didn't have as many enemies in the area. The Thirteen Colonies should pay for some of the cost in the form of taxes.

Some legislation was passed that forced citizens of these colonies to pay extra for certain things. For example, the Sugar Act in 1764 forced people to pay extra tax on many goods like sugar, cloth, wine, and coffee. The Stamp Act in 1765 required people to buy government stamps to put on all legal documents and printed materials like newspapers. The Townshend Act in 1767 was an extra tax placed on glass, paper, lead, paint, and tea.

The War

The two sides began with arguments over how they should proceed, however, nothing changed. Britain wanted to continue to rule the New World (North America), and the settlers wanted to govern themselves. As the situation got worse, war between the two sides began.

Paul Revere, an American silversmith, was on lookout. He rode his horse back to the settlers to warn them that the British forces were coming. The settlers were ready and won a series of battles, (1) Battle of Lexington and Concord, (2) Capture of Fort Ticonderoga, and (3) Battle of Bunker Hill. The British finally signed the Paris Treaty in 1783, which gave the settlers their independence from Britain. All British troops had to leave the 13 colonies.



The American Revolution - Questions

Questions

Answer the questions below



1) Why did the settlers rebel against Britain?

2) Did Britain have the right to tax the Americans more? Explain using examples of some of the taxes.

Visualizing

Draw what you were picturing while you were reading. Explain the picture

True or False

Is the statement true or false

| | | |
|-------------------------------------------------------------------------------------|------|-------|
| 1. The Townshend Act put a tax on glass and tea | True | False |
| 2. Britain taxed the 13 colonies because they had spent so much on the 7 Years' War | True | False |
| 3. Britain believed they had spent almost \$5 billion on the 7 Years' War | True | False |
| 4. Americans got their independence from Britain in 1775 | True | False |
| 5. The Sugar Act forced people to pay extra tax on coffee and wine | True | False |

The Quebec Act

Tension in Quebec

After the Royal Proclamation in 1763 was signed, life in Quebec was still contentious. The French Canadiens outnumbered the English Canadians 3-1, but they were living under British law and didn't like how Britain was still pushing the Protestant religion in Quebec. The First Nation communities were still loyal to the French king and didn't like how Britain was expanding its territory.

Join America in their Revolution?

Quebec was not part of the Thirteen Colonies that were revolting against British control in North America. The French and First Nations groups were deciding whether to join the revolution or continue to live under British rule.

The British government felt that it would not be good for Britain if the colonies joined the revolution, as they might lose all of North America. Therefore, they decided to pass the Quebec Act to make the French Seignior in Quebec.



The Quebec Act

With the French and First Nation communities unhappy, the British felt the pressure to make changes. The Quebec Act was signed in 1774, which gave the following French rights:

- Made the territory of Quebec larger by including the Great Lakes
- Allowed French Canadiens who were Roman Catholic to participate in Council so they could have input on law making in Quebec
- Replaced the British set of laws in Quebec with the previous French laws (brought back the seigneurial system)
- Kept the British North Americans out of the Great Lakes

Response

The French had benefitted from each of the rights above. They could now have some say in which laws they would have to live by. They were also not discriminated against based on their religion. They could now participate on Council even if they were Roman Catholic.

The First Nation communities benefitted from the Quebec Act as well. With British colonists being kept off the lands of the Great Lakes, the First Nations had their land back in this area. The Huron were especially grateful for the passing of the Quebec Act, as they occupied much of the land around the Great Lakes.

The British North Americans disliked all of the rights that were given to the French. They now had to accept differences in religion in Quebec and had to live by French civil law now. They didn't want to live by the French Seigneurial system, and they didn't want to give up their land around the Great Lakes.

The Quebec Act

**True or False**

Is the statement true or false

| | | |
|--------------------------------------------------------------------------------|------|-------|
| 1. The British North Americans were happy with the Quebec Act | True | False |
| 2. The Quebec Act gave the French Canadiens more rights in Quebec | True | False |
| 3. The Quebec Act expanded the territory of Quebec to include Nova Scotia | True | False |
| 4. The First Nations were happy to get the British out of the Great Lakes area | True | False |
| 5. The French Parliament sit on Council and make changes to laws | True | False |

Questions Answer the questions below

1) Why did the British government pass the Quebec Act?

2) Who benefitted the most from the Quebec Act? Who was affected by it?

Making Connections

What does the reading remind you of?

The United Empire Loyalists

Fight or Leave?

If a war broke out in your province, what would your options be? You could stay and fight, or you could pack up and leave. When the Thirteen Colonies in present day America decided to fight back against Britain, many of the people living in these colonies didn't want to fight. Remember, many of these people were settlers from Britain!

Patriots

The people who decided to stay and

fight the British were called **Patriots**. The people who were loyal to Britain and didn't want to fight were called **Loyalists**.



The American Revolutionary War

As the war went on, it became clear that the Patriots would win against Britain. The Loyalists were in a tough spot as the Patriots were winning. Many of the Loyalists had to leave their homes and move to other places.

United Empire Loyalists in Quebec

The British government wanted to help the Loyalists get out of the Thirteen Colonies. They feared many of these Loyalists would turn against Britain after more pressure was applied.

So, the government offered Loyalists free land in Quebec, Nova Scotia and Prince Edward Island. Remember, the map looked different back then as Quebec included land from present day Ontario.

About 50,000 Loyalist settled in these British colonies from 1775 - 1783. They would have to work like pioneers to build homes, farms, roads, and churches.



United Empire Loyalists Statue

The United Empire Loyalists

**True or False**

Is the statement true or false

| | | |
|---------------------------------------------------------------|------|-------|
| 1) Loyalists wanted their freedom from Britain | True | False |
| 2) Loyalists wanted to keep their ties to Britain | True | False |
| 3) Loyalists were given free land in BNA | True | False |
| 4) About 5% of Loyalist settled in British colonies | True | False |
| 5) Loyalists moved to BNA and got jobs in factories and shops | True | False |

Questions

Answer the questions below

1) Who were the United Empire Loyalists? Where did they go?

2) What is the difference between a patriot and a Loyalist?

Making Connections

Does this situation remind you of anything in your life?

Patriot or Loyalist?



Join, or Die – By Benjamin Franklin

- This picture was created to encourage the people of the colonies to join in on the fight against Britain
- Many of the people in the colonies had difficult decisions: join and fight against your old country, or leave and face the possibility you might have to fight the Patriots

Loyalist or Patriot?

Check out the arguments for each side.

Arguments to be a Loyalist

- Being part of the British Empire is good as it is a strong empire
- Taxes are being paid to Britain because they gave us peace against the French and First Nations
- American colonies would be weak without Britain. French and First Nations could attack again.
- Colonies profit from trade with Britain
- The Colonies are too far away from Britain to have government representation in Parliament. It's just not practical.

Arguments to be a Patriot

- People have rights that the government can't take away, like property
- The taxes are too high, and people cannot afford to pay them
- Colonists have no voice in British government (parliament). "No taxation without representation!" This means they won't pay taxes unless they can have a voice in the government to help make laws and set taxes that make sense to them.
- They don't want to belong to Britain because they could never participate in British government as it is too far away
- The British soldiers in the Colonies are causing riots, violence and death

The Constitutional Act of 1791

Tensions in Quebec

After New France was taken over by the British, the Quebec Act was signed which expanded Quebec to stretch from present day Ontario to northern Quebec and Labrador. Before 1791, Quebec was a massive province that was divided with French and British settlers, and American loyalists.

The British and American loyalists living in Quebec were living under many French laws like the Seigneurial system and the civil law. This obviously caused conflict as the British and American loyalists wanted to live under English law.



The Constitutional Act of 1791

The British government decided to divide the large province into Upper Canada and Lower Canada. Both the French and English people in Quebec at the time were happy as they would get a province that suited their culture. The French lived in Lower Canada (present day Quebec) and most of the English lived in Upper Canada (present day southern Ontario).

The Constitutional Act is also known as the Canada Act. It had 4 main objectives:

- 1) Guarantee the same rights to all people living in British North America
- 2) Give the two provinces the right to set taxes and set up legal administration
- 3) Allow Upper and Lower Canada to create their own provincial legislations that represented their people and their culture
- 4) Give authority to new leaders in each colony – named the Lieutenant Governor. They would become representatives of the British government in the Canadas.

The Constitutional Act of 1791

Questions

Answer the questions below

1) What was the purpose of the Constitutional Act of 1791?

2) Why were some American Loyalists unhappy in Quebec before 1791?

DiagramDraw the boundary line
Upper and Lower Canada
Label the colonies

Flag of Upper Canada



Flag of Lower Canada

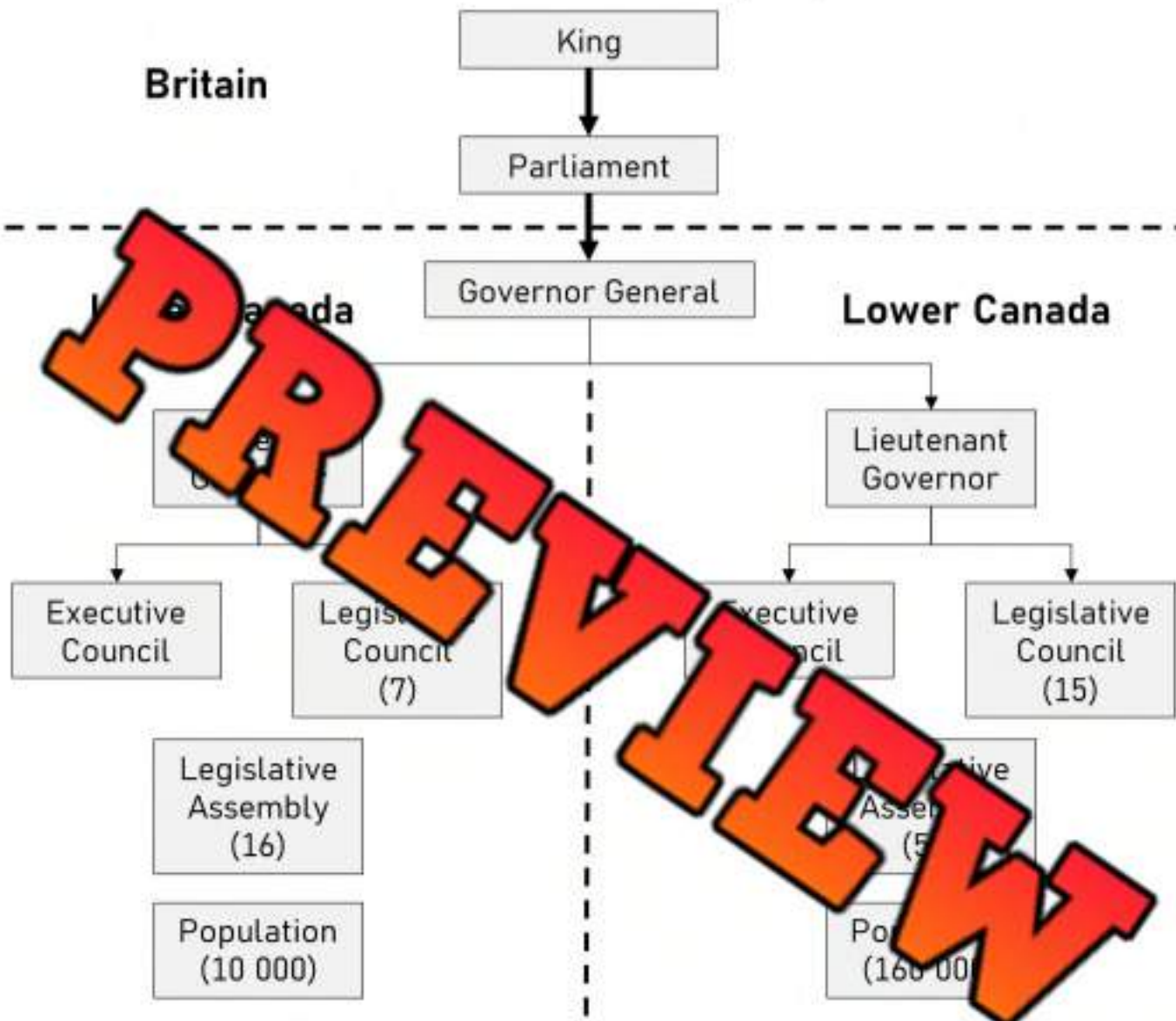
**True or False**

Is the statement true or false

| | | |
|----------------------------------------------------------------------------|------|-------|
| 1) Most of the French lived in Upper Canada | True | False |
| 2) Today, most of the French speaking Canadians still live in Lower Canada | True | False |
| 3) The province of Quebec was split to make the English and French happy | True | False |
| 4) The English preferred the Seigneurial System | True | False |
| 5) The American Loyalists were mostly French | True | False |

Constitutional Act - Political System

The Constitutional Act (1791)



| | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------|
| King | Most powerful person who lives in Britain |
| British Parliament | A council of elected officials in Britain were next in charge |
| Governor General | One person who represented the King in both Canadas |
| Lieutenant Governor | One person who represented the King in each of the Canadas |
| Executive Council | A group of powerful men chosen by the Governor General to make decisions for each province of Canada |
| Legislative Council | A group of powerful men chosen by the Governor General to pass bills that were made by the legislative assembly |
| Legislative Assembly | A group of elected people who make bills (potential laws) |

Migrant Fishers in Newfoundland - Seal Hunt

Migrant Fishers in Newfoundland

Migrant fisherman were Europeans who came to Newfoundland in early spring to fish massive amounts of cod. They left to return back to Europe in late summer or early fall.

The first migrant fisher was named Hugh Elliot from Bristol, England. He travelled to Newfoundland, caught 36 tons of cod fish and returned back to Europe to sell the cod.

Migratory fishery was a seasonal industry that required most workers to temporarily live in Newfoundland during the spring and summer while cod was plentiful. Spain, France, Portugal and all sent migrant fishermen to Newfoundland.

The fishermen set up camps on the coast of the Atlantic Ocean in Newfoundland. Fishermen would use boats that could hold up to 1000 cod. When their boat was full, they'd bring the fish to shore to be processed. The workers on shore would remove the fish head, guts, and scales. They would also stack the fish in layers of salt to preserve it.

Resident or Permanent Fishery

The migratory fisheries stopped as a result of the late 1700s. This happened because of war between France and England. This meant the two countries were too busy fighting to send fishermen to Newfoundland.

As war raged on, many settlers from European countries moved to Newfoundland to escape war in Europe. With the growing population in Newfoundland, permanent fisheries were established.

Seal Hunt in Newfoundland

Cod could not be fished in the winter, so many fishermen caught seal instead. They used a gaff, which was a two-metre-long wooden pole with an iron hook and spike attached to one end. Seal hunting began in 1723 and grew rapidly with the setup of resident fisheries.

The Inuit had been hunting seals for thousands of years in the northern parts of Newfoundland and Labrador.

However, they hunted what they needed. The commercial hunting of seals was new, and it led to kill rates of 400,000 per year. This led to a sharp decline of the seal population, which affected the Inuit as it was a main source of food for them.



Gaff – Used by Sealers

Migrant Fishers in Newfoundland - Seal Hunt**True or False**

Is the statement true or false

| | | |
|------------------------------------------------------------------------|------|-------|
| 1) Migrant fishers stayed in Newfoundland to fish all year round | True | False |
| 2) Migrant fishers fished in Newfoundland in the spring and summer | True | False |
| 3) Eventually, migrant fishers stayed in Newfoundland and caught seals | True | False |
| 4) The seal hunt had no effects on other communities in Canada | True | False |
| 5) A gaff is used to catch seals with | True | False |

Define

What do the terms below mean?

| | |
|--------------------|--|
| Migrant Fisher | |
| Resident Fisheries | |
| Seal Hunt | |

Visualizing

Draw what you were picturing while you were reading. Explain the picture

| | |
|--|--|
| | |
| | |
| | |
| | |
| | |

First Nations in BNA - Joseph Brant

The First Nations in BNA

During the American Revolution, the Mohawk and other Communities in the Haudenosaunee Confederacy fought with the British against the Americans in the American Revolution. The Mohawk's leader was named Thayendanegea, but also went by Joseph Brant. Thayendanegea wanted to take his Mohawk community back to BNA, but he wasn't sure where. His land had previously been given away in the Treaty of Paris in 1783.



Thayendanegea

The British commander in Quebec was named, Sir Frederick Haldimand. Haldimand believed the First Nations who fought with him in the war, deserved some land. He created the **Haldimand Tract** in 1784. He gave 10 km of land on each side of Grand River, which is in southern Ontario (southern Canada). The region was called the **Haldimand Tract**.

The only problem was the land was already occupied by other First Nations. The British government reached agreements with the First Nations living on this land in the form of the **Upper Canada Treaties**. These treaties transferred land from First Nations like the Ojibwe and Mississauga to the British government so they could use the land as they saw fit.

The government then gave Thayendanegea the land from the Haldimand Tract to his people. The tract of land was called the **Six Nations Reserve**. This was the largest reserve that had ever been given (about 2750 km²).

New Leadership

Haldimand was a fair leader who rewarded the Six First Nations with land for their war efforts. When Haldimand was no longer commander, new governors began to take land away from the reserve and gave it to non-indigenous people.

Today, the Six Nations Reserve is less than 10 percent of what it was back when Haldimand gave it to them. In Fact, in 2006, the government sold a 40-hectare plot of land from the reserve to a housing developer. The Six Nations took a stand against this land dispute in what is now called the **Caledonia Land Dispute**. Looking at the map, you can see how small the reserve is now compared to the entire Haldimand Tract they owned before.



Unit Test - New France & BNA**Multiple Choice**

Circle the best answer. Only choose 1 answer!

1. Migrant Fishers fished in which province?

- a) Lower Canada
- b) Newfoundland
- c) Nova Scotia
- d) New Brunswick

2. The coureurs des bois were...

- a) Licensed French fur traders
- b) Unlicensed French fur traders
- c) Licensed British fur traders
- d) Unlicensed British fur traders

3. When a person is a First Nation member they have a...

- a) Métis
- b) Indigenous
- c) Aboriginal
- d) Native

4. Which religion was most popular in New France?

- a) Protestant
- b) Jesuit
- c) Catholic
- d) Indigenous

5. Which was **not** a popular job in New France?

- a) Carpentry
- b) Soldier
- c) Manufacturer
- d) Miller

6. Which treaty gave Britain control of Acadia?

- a) Treaty of Alliance and Friendship
- b) Treaty of Albany
- c) Treaty of Niagara
- d) Treaty of Paris

7. Alexander Mackenzie worked for which company?

- a) Hudson's Bay Company
- b) Northeast Trading Company
- c) Northwest Trading Company
- d) The British Parliament

8. Joseph Brant was a leader of which First Nation?

- a) Ojibway
- b) Haudenosaunee
- c) Wendat
- d) Mohawk

9. Many Loyalists moved to where?

- a) Upper Canada
- b) Lower Canada
- c) Nova Scotia/New Brunswick
- d) Quebec City

10. Which agreement meant European settlers couldn't buy land directly from the Indigenous?

- a) Treaty of Utrecht
- b) The Royal Proclamation
- c) The Constitutional Act
- d) The Quebec Act

Grade 7 History Unit

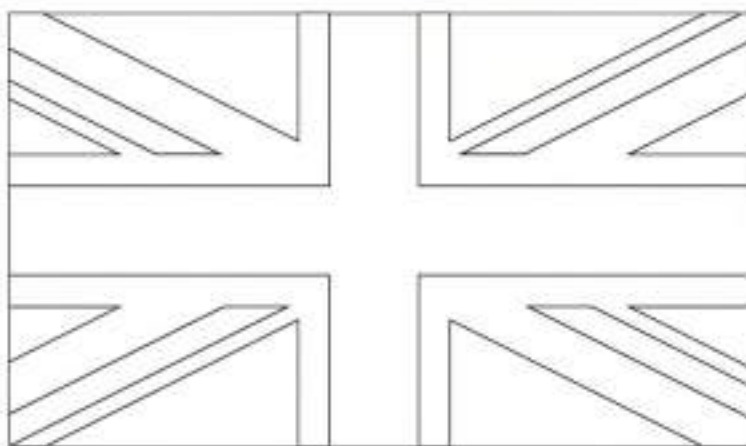
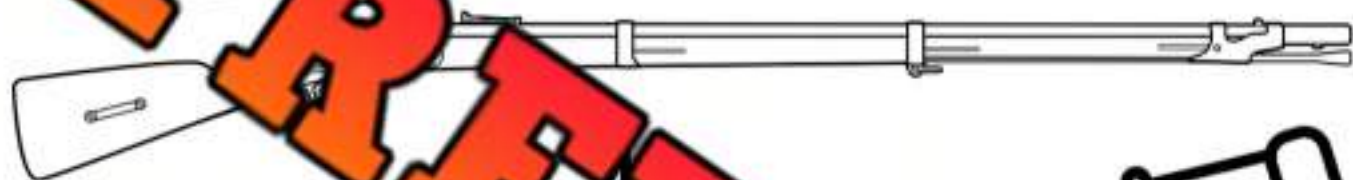
CANADA, 1800-1850: CONFLICT AND CHALLENGES

| | Curriculum Expectations | Pages That Cover the Expectations |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| B1.1 | analyse social and political values and significant aspects of life for some different groups and communities, including First Nations, Métis, and Inuit communities, in Canada between 1800 and 1850 and assess similarities and differences between these values and aspects of life and those in eighteenth-century Canada | 20 - 33, 42 - 43, 77 - 83 |
| B1.2 | analyse some of the challenges facing individuals, groups, and/or communities, including First Nations, Métis, and Inuit individuals and/or communities, in Canada between 1800 and 1850 and ways in which people responded to those challenges | 6 - 19, 38 - 41, 44 - 45, 60 - 74 |
| B1.3 | analyse the displacement experienced by various groups and communities, including Indigenous communities, who were living in | 14 - 19, 34 - 39, 44 - 50 |
| B3.1 | | 19, |
| B3.2 | including wampum belts exchanged, and explain the significance of some of these agreements for different people and communities in Canada | 46 - 59, 73 - 74 |
| B3.3 | identify key political and legal changes that occurred in and/or affected Canada during this period and explain the impact of some of these changes on various individuals, groups, and/or communities, including First Nations, Métis, and Inuit individuals and/or communities | 20 - 33, 46 - 57, 60 - 74, 79 - 83 |
| B3.4 | identify key social and economic changes that occurred in and/or affected Canada during this period and explain the impact of some of these changes on various individuals, groups, and/or communities, including First Nations, Métis, and Inuit individuals and/or communities | 28 - 33, 40 - 43, 75 - 85 |
| B3.5 | describe significant interactions between different groups and communities in Canada during this period | 10 - 13, 22 - 27, 40 - 41, 75 - 76 |
| B3.6 | identify some significant individuals and groups in Canada during this period and explain their contribution to Canadian heritage and/or identities | 10 - 17, 24 - 29, 44 - 45, 58 - 59, 65, 86 - 87 |

Preview of 50 pages from this product that contains 143 pages total.

NAME: _____

Conflict and Challenges



War of 1812 Causes

1) American Expansion

The British had given the Americans Ohio Valley, but many First Nations groups still lived in this region. The Americans were supposed to respect the First Nations community's land claims, but they didn't.



The British government was looking for help to keep their land from the Americans. They knew they would have to step in, or the Americans might go further north and take some of the land in Upper and Lower Canada.

2) Fur Trade and First Nations

The United States were upset with the British in the Great Lakes area as they were helping the First Nations fight the Americans. The British weren't fighting the Americans directly, but they were supplying the First Nations with weapons and were encouraging them to fight back against the Americans.

The United States government told Britain that if they got in the middle of the American and First Nation conflict, the Americans would have a reason to fight Britain.

3) American Jingoism

The Americans had built up a strong military of patriotic soldiers who were ready to fight.

American Jingoism is when politicians talk about aggressively seeking military action. Many politicians believed that since they had the military, they might as well use it.

The jingoists spread word that American troops should invade Upper and Lower Canada because they would catch the British North American colonies off guard and prevent them from ever attacking the United States. Many American politicians believed that if they attacked British North America, many of the people in BNA would welcome the Americans.

They believed that many of the citizens of BNA were unhappy because they were ruled by Britain and the Monarchy. Thomas Jefferson, a retired president of the USA, said that capturing British North America was "a mere matter of marching."

Name: _____

9

Curriculum Connection
B1.2, B3.1

War of 1812 Causes - Questions

Questioning

What questions do you have about the reading

1)

2)

3)

Questions

Answer the questions below

1) What is Jingoism? _____

2) What main causes led to the War of 1812?

True or False

Is the statement true or false

| | | |
|--------------------------------------------------------------------------|------|-------|
| 1. The Americans respected the First Nations in the Ohio Valley | True | False |
| 2. Britain was fighting with the First Nations against American soldiers | True | False |
| 3. Jingoism is aggressive talk in favour of war and using military force | True | False |
| 4. The USA and First Nations were working together against the British | True | False |
| 5. Thomas Jefferson thought the US army would march right through BNA | True | False |

War of 1812 - Brock and Tecumseh

Declaring War

In June 1812, The United States declared war on Britain. The Americans had a large army of troops that they planned to attack across the border and into the British North American colonies.

The British had a strong naval force, but most of their ships were in Britain. The warships they did have fought in the Great Lakes and the St. Lawrence River. The British Colonies had a long border of about 2,000 kilometres and they only had 10,000 British troops. Many of the residents in BNA would be needed to help fight.

In 1812, the population of the British Colonies was about 1,000,000. These residents lived in scattered settlements from the Great Lakes to the Atlantic Ocean. The population of the United States was about 5 million.

Sir Isaac Brock and Tecumseh

Two leaders of the British colonies are remembered for their military strategies and success - **Sir Isaac Brock**, a British general, and **Tecumseh**, a Shawnee First Nation chief. These two leaders fought through American soil attacking many forts in the USA with only 700 soldiers (300 regular troops and 400 militia) and 600 First Nation warriors.

A **militia** is a military force that has able-bodied civilians who are not soldiers. The people who make up a militia could be farmers, bakers, or blacksmiths. **Militiamen** do not have military training. The militia in BNA were forced to fight American soldiers in order to defend their land.

Tecumseh and Brock had a strong military alliance that brought First Nations and the British together. Tecumseh was the first Indigenous member to serve at the rank of general in the British Army. Tecumseh and the Indigenous decided to fight with Britain as they worried the US expansion into their land would mean they would lose it forever. Tecumseh hoped that with a win, the British would return the land to the First Nations.



Tecumseh
and Brock



War of 1812 - Brock and Tecumseh

Multiple Choice

Circle the correct answer


| | | |
|-----------------------------------------------------------|----------|---------|
| 1. Who declared war in the War of 1812? | The USA | Britain |
| 2. Who had a larger population in 1812? | The USA | BNA |
| 3. How many militia fought with Sir Isaac Brock? | 1000 | 400 |
| 4. Who could be a fighter in a militia? | Soldiers | Farmers |
| 5. How many First Nation members fought with the British? | 600 | 800 |

Questions Answer the questions below

1) What is a militia? What rights do they have?

2) Why was the relationship between the First Nations and British important in the War of 1812?

Visualizing Draw what you were picturing while you were reading. Explain the picture

| | |
|-------------------------------------------------------------------------------------|-------|
|  | _____ |
| | _____ |
| | _____ |
| | _____ |
| | _____ |

Brock and Tecumseh - Battles

Fort Michilimackinac and Fort Dearborn

The two leaders acted quickly after the war began in hopes they would catch the Americans off-guard. Two weeks after war was declared, the two leaders brought their armies into American land and attacked Fort Michilimackinac. The American Commander was unprepared and gave up the fort without a bullet even being fired.

Brock and Tecumseh continued into Chicago and attacked Fort Dearborn. This time, a large First Nation force ambushed the Americans, killing many of them and taking over the fort.

Detroit

The 1000 soldiers with Brock and Tecumseh to Detroit, where they planned to attack more soldiers who were inside the fort. Being outmatched severely, Brock had to try to lead fear into General Hull's American army. Brock and Tecumseh had some soldiers outside the fort. This made it appear that more soldiers were there than usual and a fire. They also had the militia dressed in scarlet uniforms that looked like soldiers. Then Brock and Tecumseh had their soldiers march around the fort and through trees to make it seem like they had more men than they did.

Hull was worried for his safety as he had heard about the losses at Dearborn and Michilimackinac. He decided to wave the white flag and give over 2500 muskets, 33 guns, and many other supplies that outfit the Canadian forces. These early wins secured the western border.

Queenston Heights

In October 1812, American troops rowed across the Niagara River and into Upper Canada. They invaded Queenston and captured the high ground where the British had been stationed. Major-General Brock rushed to defend the area. He took a small group of soldiers and tried to slow down the American attack so that the British could send reinforcements.

Brock's plan worked, but as he charged the Americans in the opening moments of the attack, he was shot by an American sniper. Brock died instantly. The battle was won by the British, but a fearsome leader was lost.



War of 1812 - Brock and Tecumseh

Multiple Choice

Circle the correct answer

| | | |
|--------------------------------------------------------------|-----------|---------|
| 1. The British won how many muskets at Fort Detroit? | 1000 | 2500 |
| 2. Which American surrendered in Detroit? | Brock | Hull |
| 3. How many bullets were fired at Fort Michilimackinac? | 5000 | 0 |
| 4. Which battle did Brock die in? | Queenston | Detroit |
| 5. The early part of the war secured which area for Britain? | East | West |

Questions Answer the questions below

1) How did Sir Isaac Brock die? Where was he buried?

2) How did Brock and Tecumseh trick the American forces at Fort Mifflin?

Describe How would you describe Sir Isaac Brock. Choose 3 adjectives and explain.

| Adjective | Explanation |
|-----------|-------------|
| | |
| | |
| | |

War of 1812 Battles

Battle at York (Toronto)

In April 1813, the Americans won an easy battle against the British. They stormed York, which is now present-day Toronto, with 2,700 soldiers, who defeated the 750 British and Ojibwa men. The Americans burned down the town before sailing back home.

Stoney Creek

On June 6, 1813, 3,500 Americans were camping near Stoney Creek. It was the middle of the night when the British decided they could catch the Americans off-guard. A group of 700 British soldiers initiated a surprise attack as they marched closer to the Americans in silence. Even in the dark was no easy task for both sides, as many American and British soldiers were killed. In the end, the Americans retreated back to the American side of the Niagara River.

Beaver Dams

Laura Secord was the wife of a hotel owner. She overheard the American Lieutenant-Colonel Boerstler's plans to attack the British. She traveled 40 kilometres on foot to tell British General Fitzgibbon the news. He was able to prepare a force of 1,000 soldiers and 250 Mohawk warriors to ambush the Americans. As Boerstler's American forces moved forward on the British, the Mohawk shot at them from the sides. The battle ended as the Mohawk surrounded the Americans who were forced to surrender.



Laura Secord Warns Fitzgibbon

Crysler's Farm

In November 1813, 2000 American soldiers attacked the city of Montreal against a force of around 900 British soldiers, militia, and First Nations. The 900 men set up a defense at Crysler's farm, which was on a path to Montreal. The British forces shot back at the advancing Americans who finally retreated back across the border. The attack on Montreal was stopped.

Lundy's Lane

The last time the Americans invaded Canada was on July 25, 1814, at Lundy's Lane in Niagara Falls. A force of 1500 Americans attacked a British force of about 1700. This battle was the bloodiest in the War of 1812 as over 800 men on both sides were killed. The battle lasted well into the night before the Americans retreated back to American soil.



War of 1812 Battles - Questions

True or False

Is the statement true or false

| | | |
|-------------------------------------------------------------------------------|------|-------|
| 1) Laura Secord warned Fitzgibbon that the Americans would attack Thorold | True | False |
| 2) The Mohawk warriors defeated the Americans in the Beaver Dams battle | True | False |
| 3) The Americans defeated the British at Crysler's Farm and attacked Montreal | True | False |
| 4) Lundy's Lane was the bloodiest battle in the War of 1812 | True | False |
| 5) The battle that ended present-day Canada was at Lundy's Lane | True | False |

Questions

Answer the questions below

1) Who was Laura Secord? What was she famous for?

2) Who won the Battle of York? What happened?

Reflection

Which battle was the most interesting to you? Explain why.

Infographic Assignment - War of 1812

An infographic displays information about a topic in a visually appealing way. Infographics use pictures, statistics, and facts to explain a topic.

Directions

Create an infographic about one of the battles from the War of 1812. Choose a battle, and find statistics and facts you can showcase on your infographic.

Research

Plan your infographic below

1) What battle did you research? What is the name of it that you will display on your infographic?

2) Find 5 statistics/facts about the battle. For the following: deaths in the battle, number of soldiers in the battle, weapons used, where it was fought, outcome of the battle, Generals or leaders in the battle, and any interesting facts.

1

2

3

4

5

Burning of the White House

Burning of the White House

Most of the battles took place on what is now Canadian territory as the Americans were invading the British colonies. Towards the end of the war, Britain retaliated for the Americans burning down _____ in Upper Canada.



In 1814, British troops under the command of Vice Admiral Sir Alexander Cockburn and Major General _____ marched into Washington, the capital of the United States. The British marched and _____ had _____ over American forces at Bladensburg, Maryland, earlier in the year.

The people living in Washington had _____ after hearing about lost battles nearby. The British troops met little resistance in Washington and set fire to much of the city. They burned down the following:

- ✓ Major rooms in the US Capitol building
- ✓ Library of the Congress
- ✓ The House and Senate
- ✓ The Supreme Court
- ✓ The White House
- ✓ The Navy Yard and several American warships



Aftermath

A Union Flag (British Flag) was raised over Washington. With the government buildings burning down, the British troops decided not to burn down the houses and residential areas. This kept the city of Washington intact.

A strong thunderstorm with a tornado hit Washington the next day. The strong storm killed British and Americans in the area. The British decided to return to their ships only 26 hours after they had taken Washington.

Burning of the White House

True or False

Is the statement true or false

| | | |
|---------------------------------------------------------------------------|------|-------|
| 1) The US burned down the Capital of the Canadas, York | True | False |
| 2) The British retaliated by burning the Capitol and White House | True | False |
| 3) The British stayed in Washington and kept control for 5 years | True | False |
| 4) Washington became a part of the Canadas | True | False |
| 5) The British destroyed most of the houses and residential areas as well | True | False |

Questions

Answer the questions below

1) Why did the British burn down the White House?

2) What parts of Washington did the British burn?

Visualizing

Draw what you were picturing while you were reading. Explain the picture

| | |
|-------------------------------------------------------------------------------------|-------|
|  | _____ |
| | _____ |
| | _____ |
| | _____ |
| | _____ |

The Treaty of Ghent

What was the Treaty of Ghent?

The **Treaty of Ghent** was a peace treaty that ended the War of 1812 between the United States of America and Britain. It was signed on December 24, 1814 in the neutral city of Ghent, Belgium. The treaty ended the war between the two countries that both sides had their own territory.



Both countries were growing out of the war. The military situation was balanced, so neither side had achieved major gains in war. For the British, it was a war of survival, trying to keep their territories in North America. For the United States, they wanted their control of North America, so they were hoping to expand their territory into BNA.

Results of the Treaty

When the delegates from Britain and the United States met in Ghent, both had their demands. The U.S. proposed 15 initial points, to which the British agreed to nine, and two more were added. The final 11 articles became the Treaty of Ghent.

There were no major victories on either side in the treaty as both sides kept the same territory they had before the war.

The Americans had abandoned their primary goals to expand their territory and stop the British from boarding U.S. ships on the high seas looking for British deserters. The British kept the British North American colonies and they continued disrupting trade between Napoleon's France and the United States.

The War of 1812 led to two major benefits in the development of Canada. First, it brought the French, English, and First Nations communities together as they needed each other in order to defeat the United States. Second, it showed other countries that the people in BNA were tough and capable of defending their territory.

The Treaty of Ghent

True or False

Is the statement true or false

| | | |
|---------------------------------------------------------------------------|------|-------|
| 1) The US succeeded in expanding their territory | True | False |
| 2) The US succeeded in stopping the impressment happening on the Atlantic | True | False |
| 3) Both sides had balanced militaries | True | False |
| 4) No one won the War of 1812 | True | False |
| 5) The treaty was signed in Ghent because it was a neutral location | True | False |

Questions

Answer the questions below

1) What was the Treaty of Ghent? Was this a loss for the United States?

2) What two benefits did the War of 1812 have on the development of Canada?

Reflection

How do you think life would be different for us now if the Americans had won the War of 1812?

Upset Canadians in Upper & Lower Canada

Life in BNA After the War of 1812

Many residents in Upper and Lower Canada were not happy with life in the British colonies. The governments that ruled over them were undemocratic, meaning the people making the laws were not elected. Farmers were also having challenges as wheat prices were declining and farmland was difficult to find. Lastly, the seigneurial system in Lower Canada was not working for everyone living there.



Member of the
Chateau Clique

Government

The political leaders were a small group of people who had all the power in the colonies. In Upper Canada, they were known as the Family Compact, and in Lower Canada, they were called the Chateau Clique. These two groups ran the government as they had the right to vote on when a law was passed or rejected.

This meant that the people in both Canadas had no say in which laws they should live by. The people elected representatives in the Legislative Assembly, but these representatives had very little power in the government. They could propose a law, but it could be turned down by the Council, Executive Council, or the governor. The people working in the Executive Council and Legislative Council were part of the elites who were friends with the Governor.

The governments from Upper and Lower Canada were not cooperating with each other. They had disputes that were affecting the people in both Canadas. One example is how they could not agree on improving trade routes that would have benefitted trading opportunities for both colonies.

Farmland

Farmers were having trouble selling their crops as the economies in Europe were in decline. The farmers in BNA had been making good profits selling their crops to these European countries, but that was no longer.

The declining economies drove down the prices in most agricultural products, including wheat and lumber. The government was not willing to step in and help the farmers with the problem. This upset farmers all over BNA as they were going bankrupt.

Dissatisfaction of the Seigneurial System

The French had used the Seigneurial system in New France for many years before the British came to BNA. When BNA came about, Upper Canada ditched the Seigneurial system, but Lower Canada kept it. The system worked well for many years until the seigneurs decided to increase the taxes on the habitants who lived on their lands. They were allowed to under the legislation in the Quebec Act. The habitants were obviously unhappy as they didn't appreciate the seigneurs being greedy.

Upset Canadians the Canadas - Questions

True or False

Is the statement true or false

| | | |
|------------------------------------------------------------------------------|------|-------|
| 1. The Legislative Assembly could make and pass laws easily | True | False |
| 2. The governments in Upper & Lower Canada could not agree on transportation | True | False |
| 3. Farmers were struggling because the European economies were in decline | True | False |
| 4. The seigniorial system was a British system that was working well | True | False |
| 5. The habitants were happy because they didn't want to pay more taxes | True | False |

Question

Answer the questions below

1) Why were the habitants in Upper & Lower Canada upset?

2) What is an undemocratic government? Why was the government in Upper Canada considered undemocratic?

Making Connections

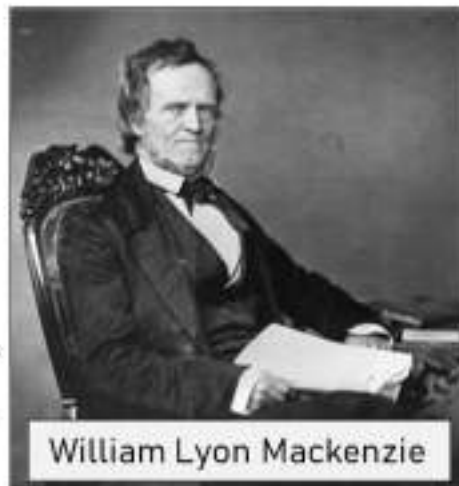
What connections can you make to this reading?

The Rebellion of 1837 in Upper Canada

Peaceful Protesting

A Scottish man by the name of William Lyon Mackenzie was one of the first people to stand up against a corrupt government. For many years, the government was undemocratic as government leaders received their jobs because they came from rich and powerful families.

Mackenzie started peacefully protesting with the people living in Upper Canada. He decided it was time to use physical force against the government in Upper Canada.



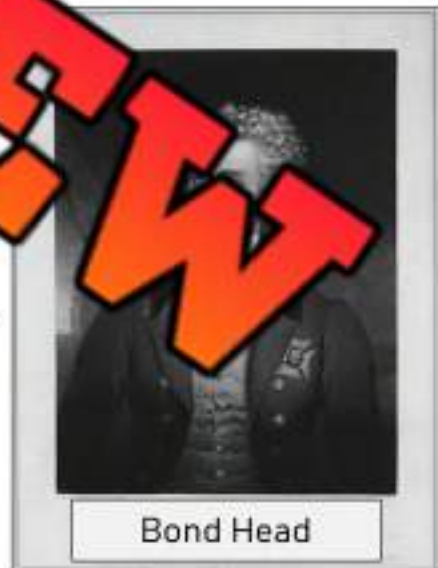
The Rebellion of 1837 in Upper Canada

In December 1837, Mackenzie gathered his troops at Montgomery's Tavern in modern day Toronto. His troops were mainly farmers, workers, and unemployed people who were tired of the government system. They carried rifles, guns, swords, and clubs as the 400 supporters marched down Yonge Street.

Mackenzie's rebellion against the government was a short one, as the Lieutenant-General named Bond Head, was ready with his military. As the supporters began attacking the military, the military outgunned them, and Mackenzie and his troops fled in panic.

Mackenzie was hoping his rebellion could be successful, just like the American Revolution, but it wasn't.

Mackenzie was forced to flee to the countryside before he crossed the border to live in the United States. He returned to Toronto years later when the government forgave the rebels and gave them amnesty. He was fortunate, as many other rebels were hanged as traitors.



The Rebellion of 1837 in Upper Canada

True or False

Is the statement true or false

| | | |
|---------------------------------------------------------------------------------|------|-------|
| 1. A rebellion is when the people act violently against their government | True | False |
| 2. Mackenzie was successful in his rebellion, just like the American Revolution | True | False |
| 3. Mackenzie's troops were well trained soldiers from wealthy families | True | False |
| 4. The rebellion happened because the government was undemocratic | True | False |
| 5. Mackenzie was hanged for being a rebel and a traitor | True | False |

Questions Answer the questions below

1) What was Mackenzie trying to achieve with the Rebellion?

2) How did the Rebellion end? Who won the battle?

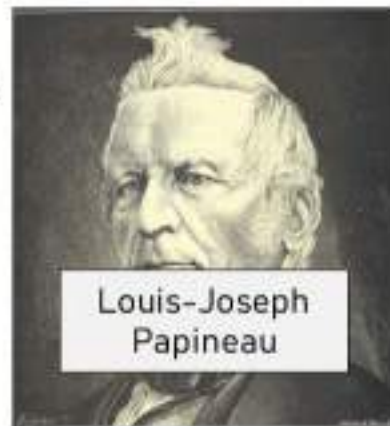
Summarize

Summarize the reading by including the main idea and important information

Lower Canada Rebellion

Patriotes in Lower Canada

In 1834, a wealthy French man in the Elites, named Louis-Joseph Papineau published the Ninety-Two Resolutions. These resolutions were a list of demands that Papineau wanted the government to change. Papineau was a leader who had thousands of supporters who were called Patriotes.



Rebellion in Lower Canada

Although Papineau had nothing to do with violent rebellions, his Patriotes were not interested in peaceful protest any longer.

The Battles of Saint-Denis and Saint-Charles

An armed Patriote force defeated the seigneur's army in November 1837 at Saint-Denis. The Lieutenant-Colonel Francis B. Prescott tried to capture the manor. The army failed however, and had to withdraw, which means the Patriotes were victorious. Two days later in Saint-Charles, 100 armed rebels from the Patriote camp were charged by the Canadian army. Many of the rebels were killed.

Battle of Saint-Eustache

The government in Lower Canada wanted to send a message to any rebels, that if they go against the government, they will be killed or taken prisoner. In December, the British sent 1200 well-armed soldiers to an armed Patriote camp at Saint-Eustache. The rebels tried to defend themselves, but they were no match for the 1200 trained soldiers. About 100 rebels were killed and many more were taken as prisoners.



Outcome

The government had proven their point, that rebellions would not be tolerated and that the rebels would not have enough power to defeat the government.

Lower Canada Rebellion

True or False

Is the statement true or false

| | | |
|-------------------------------------------------------------------------------|------|-------|
| 1. Papineau encouraged people to rebel violently against the government | True | False |
| 2. Patriotes were people who wanted change in the government | True | False |
| 3. The Patriotes won a battle at Saint-Denis against the government | True | False |
| 4. The government killed many of the Patriotes | True | False |
| 5. The rebellion in Lower Canada was unsuccessful in defeating the government | True | False |

Questions

Answer the questions below

1) Who were the Patriotes in Lower Canada? What did they want?

2) What was the outcome of the rebellions? Do you think they defeated the government?

Summarize

Summarize the reading by including the main idea and important information

Stopping the Rebellions - Durham Report

Effects of the Rebellions in Upper and Lower Canada

The rebellions were unsuccessful in overthrowing the government, but they still had an impact on the British government. The government knew they would need to make changes in order to stop future rebellions.

The British government sent John George Lambton, Lord Durham, to Quebec City in June 1838, to find out more about the rebellions and to prepare a report that would make recommendations for avoiding future rebellions.



John George Lambton
Lord Durham

Durham Report

Lord Durham had a mission as back to the British government in 1838. He was to find out more about the rebellions and to prepare a report that would make recommendations for avoiding future rebellions.

1. Unite the two colonies of Upper and Lower Canada

Durham saw that the French and English were not cooperating with each other. The English in Upper Canada had an economy that was looking for trading opportunities in Europe and America. The French in Lower Canada weren't as motivated to spend money on building up trading opportunities. The two colonies were not working together, which is why Durham proposed the two colonies unite.

He also thought that the English in Upper Canada should assimilate the French in Lower Canada. **Assimilate** in this situation meant that the English should encourage the French people into the English culture and make them English speaking. The English felt that with the growing number of English-speaking people immigrating from the West, the population would grow so much that they would completely outnumber the French. This would give the French no choice but to assimilate to the English culture.

2. Introduce responsible government

Responsible government is a democratic government where the people get to vote in representatives who pass and reject laws that are in the best interest of all the people. In the current system, the wealthy elite were only passing laws that made sense for the wealthy elite.

Durham suggested that a responsible government would stop the rebellions as the people would be happier with how they are represented in the government. The change would mean that the elected legislative assembly would not have their laws rejected by the appointed lieutenant-governor or the legislative council.

Stopping the Rebellions - Durham Report

True or False

Is the statement true or false

| | | |
|-----------------------------------------------------------------------------|------|-------|
| 1. Durham wanted to assimilate the French into the English culture | True | False |
| 2. Durham suggested Britain unite the two colonies | True | False |
| 3. Durham believed that responsible government would stop the rebellions | True | False |
| 4. Durham wanted the British to assimilate into French culture | True | False |
| 5. Durham thought the French and English could get along if given some time | True | False |

Questions

Answer the questions below

1) Why did Britain send Durham to write his report? What were his two suggestions?

2) Why did the British want the French to assimilate into the British? Why did the French want assimilation?

Questioning

Write 3 questions you have about the reading

1)

2)

3)

Durham Report - Union Act

Outcome – What did the British Government Decide?

The British government responded to Durham's report by passing the Union Act in 1840. They had listened to Durham's first suggestion and decided to join the Canadas together.

The Province of Canada was created, and the two regions became Canada West (formerly Upper Canada) and Canada East (formerly Lower Canada). The new Province of Canada became its own province, with its own political system.

Britain was still in control of Canada. The Governor General and Crown were still at the top of chain of command.

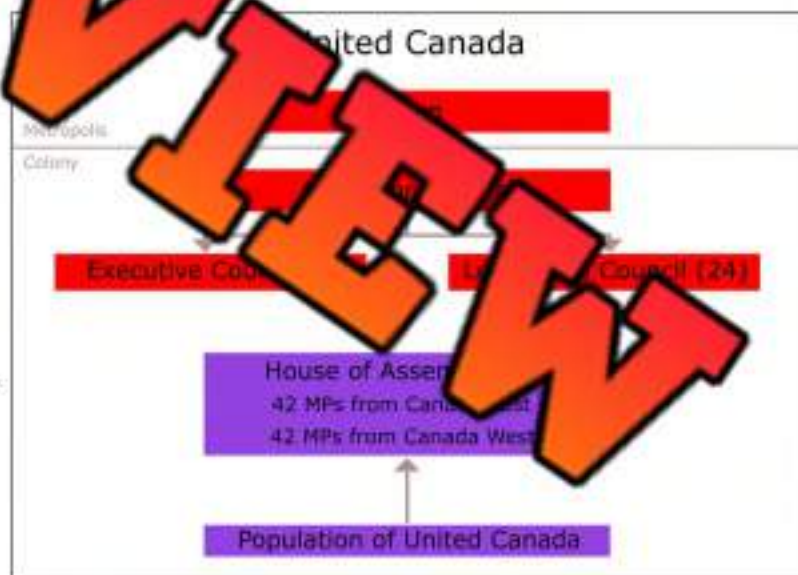
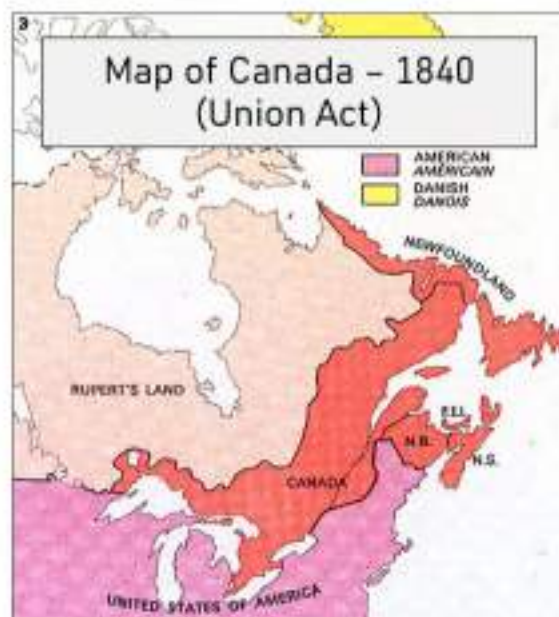
Single Parliamentary System

The major difference was that the two regions were now governed together. Both regions would get 42 representatives that would work in the House of Assembly. These representatives would make laws for the people in the province of Canada.

The French language was banished from official government use.

The British government turned down Durham's suggestion of granting responsible government. Britain wanted to keep Canada loyal to Britain, which is why they kept the government structure the same.

The Legislative Council were still loyal British men who could turn down bills (laws) made by the elected members in the House of Assembly.



Durham Report - Outcome

True or False

Is the statement true or false

| | | |
|-------------------------------------------------------------------------|------|-------|
| 1) Britain decided to form one province of Canada with the Union Act | True | False |
| 2) Britain granted Canadians responsible government | True | False |
| 3) The province of Canada was still divided into Upper and Lower Canada | True | False |
| 4) Britain was ready to allow French Canadians to run Canada | True | False |
| 5) The French language was banished from the government | True | False |

Questions 1-5 Answer the questions below

1) What was the Durham Report and how did it affect the people living in the Canadas?

2) Did Canadians get responsible government? Explain why or why not.

Word Search

Find the word bank words in the word search

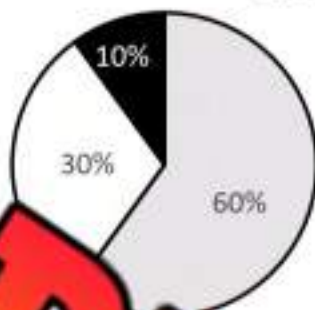
Word Bank

- | | |
|-----------------------------------|--------------------------------------|
| <input type="checkbox"/> Union | <input type="checkbox"/> Act |
| <input type="checkbox"/> Canada | <input type="checkbox"/> Responsible |
| <input type="checkbox"/> Province | <input type="checkbox"/> Government |
| <input type="checkbox"/> East | <input type="checkbox"/> Durham |
| <input type="checkbox"/> West | <input type="checkbox"/> Report |

V M W K W M D D R S X V O C
 U O Y A J N M U Q R E P O R T R
 N Y W D C H E F M N J H M K K V
 P T C A I F M S O O E S Z J R B
 L L S N E T N L H I K D O I C B
 Z A V A T S A E S N B J Z B G B
 T P O C C I A J D U R H A M Z I
 S R E S P O N S I B L E X J O G
 E E P R O V I N C E R J Z O D K
 W T N E M N R E V O G U C S D T

The People of BNA

Who Lived in BNA in the 1850s?



☐ British (English, Irish, Scottish)

☐ French

☐ First Nations

Questions 1-2 Answer the questions below

1) Interpret the graph. What do you think the population was like in the 1850s?

2) Think of today's population makeup. How is it different from this time period?

| Jobs | Daily Wage |
|---------------------|------------|
| Carpenter - Male | \$1.50 |
| Bricklayer - Male | \$1.25 |
| Tailors - Male | \$0.95 |
| Dressmaker - Female | \$0.31 |
| Dairy Worker | \$0.13 |

| Cost of Item | Price |
|-------------------|--------|
| Blanket | \$2.25 |
| Cotton Shirt | \$0.56 |
| Butter (kilogram) | \$0.32 |
| Eggs (dozen) | \$0.16 |
| Loaf of Bread | \$0.10 |

Reflection What did you find interesting from the information above? Write 3 things.

Battle of Seven Oaks

Hudson's Bay Company (HBC) and Northwest Company (NWC)

The HBC was a fur trading company established by the English. The NWC was a competing fur trading company that was established in Montreal, with French roots. The Metis worked with the NWC, as many were voyageurs.

Pemmican Proclamation

In 1814, Lord Selkirk, who had ownership in the HBC, issued a proclamation that made it illegal to export pemmican from the Red River colony he had made. Pemmican is dried meat, usually bison, that is pounded into little bits that are then mixed with melted fat and berries.

With a shortage of pemmican in Red River, Selkirk wanted to make sure there was enough pemmican for his traders to his colony in Red River.

The Metis and other traders in the colony were angered because they didn't live in the colony, so they needed pemmican to survive. They saw the proclamation as a direct attack by the HBC against the French, Metis, and the NWC.

Battle of Seven Oaks

The Battle of the Seven Oaks happened because the Metis and members of the NWC were frustrated with the HBC and Lord Selkirk. Here is how the battle happened.

- 1) On June 19, 1816, around 60 Metis, First Nations men led by Cuthbert Grant, went west to deliver pemmican to the NWC canoe brigades on Lake Winnipeg. This was an illegal action because of the new pemmican proclamation.
- 2) They were met by 28 men from HBC that were either officers or employees. Robert Semple led the group of men.
- 3) The two groups fought in hand-to-hand combat as well as with guns.
- 4) For the HBC, Semple as well as 20 of the HBC men died. For the Metis, one person died in the attack.
- 5) Grant and his brigade of NWC traders went on to capture Fort Douglas, which was the headquarters of the Red River Colony.



Battle of Seven Oaks

Questions

Answer the questions below

1) What was the Pemmican Proclamation? Who made it and why?

2) Who was upset by the Pemmican Proclamation? Why were they upset?

Summarize

Write a summary of the Battle of Seven Oaks

True or False

Is the statement true or false

| | | |
|--------------------------------------------------------------------------|------|-------|
| 1) The NWC was an English fur trading company | True | False |
| 2) Many NWC traders were Metis | True | False |
| 3) Selkirk feared there wasn't enough pemmican for his incoming settlers | True | False |
| 4) The HBC won the Battle of Seven Oaks | True | False |
| 5) Pemmican was made of dried bison meat, fat, and berries | True | False |

The Sayer Trial

Hudson's Bay Company Monopoly

If you wanted to make money selling furs, you had to be a licensed fur trader. Before 1821, you could work for the Northwest Company or the Hudson's Bay Company. In 1821, the HBC bought the NWC. This meant if you wanted to trade furs, you had to work for the HBC.

Who Was Louis Guillaume Sayer?

Sayer was a fur trader from the Red River area in Manitoba. He had worked for many years for trading operations. He started with the *coureur des bois* and then worked for the NWC. After the merging of the NWC and HBC, he began working for the HBC from 1828-1829.

In 1829, Sayer was fired from his job working for the HBC. This didn't stop Sayer though, who had many fur trading connections from his many years of fur trading. He continued fur trading with a man named Norman Kittson who lived south of Manitoba, in North Dakota.

In 1849, Chief Factor William Smith arrested Sayer and many of his men for illegally fur trading.

The Trial

On the day of Sayer's trial, 300 armed Metis stood outside the courtroom where Sayer would be found guilty or innocent. Louis Riel backed Sayer and helped organize the Metis support. James Sinclair, was Sayer's lawyer.

A jury of seven English speakers and five French speakers found Sayer guilty, but they recommended mercy. John Ballenden, the man who arrested Sayer, asked there be no punishment for the guilty man. Ballenden was from the HBC, but he felt the pressure from the 300 Metis armed men outside the courtroom.

The judge agreed and let Sayer and the rest of his men to leave without any punishment. Outside of the courtroom, the Metis men shot their guns in the air and chanted, "le commerce est libre", which in English means, "trade is free."

End of a Monopoly

The trial led to the end of the HBC monopoly on fur trading. In 1870, the trade monopoly was officially abolished, and the HBC could no longer control the fur trade. Any entrepreneur could trap, buy, sell, and trade furs without interference from the HBC or government.



The Sayer Trial

Questions

Answer the questions below

1) What does an HBC monopoly on fur trade mean? What did it mean for other fur traders?

2) Why was Sayer not punished for his illegal fur trading?

Visualizing

Draw what you were picturing while you were reading. Explain the picture

True or False

Is the statement true or false

| | | |
|----------------------------------------------------------------------|------|-------|
| 1) Sayer was an English fur trader | True | False |
| 2) Sayer was a Metis fur trader who worked with both the NWC and HBC | True | False |
| 3) Sayer was caught illegally trading without a fur trading license | True | False |
| 4) Sayer started his fur trading with the HBC | True | False |
| 5) Sayer had the support of 300 armed Metis men | True | False |

Huron Tract Treaty and the Saugeen Treaty

Huron Tract Treaty

In 1827, Upper Canada was looking to expand its territory. The population was growing and there was valuable land along Lake Huron. At the time, ten "Chiefs and Principal Men of the Chippewa Nation" made the agreement with the British government.

In 1827, 2,182,000 acres was given by the First Nations to the Crown in exchange for 1,100 pounds per year. At the time, this was equivalent to approximately \$200,000 CAD per year. The problem is, the value of the land has increased, so it has not gone up with inflation. Buying that many acres for 1,100 pounds per year in 2020 is an unfair amount.

The treaty is called Treaty 29. It created reserves for the First Nations to live on. Of the 2,182,000 acres, they kept 20,000 acres for the reserves.



The Saugeen Treaty

Starting in 1836, the Saugeen Ojibway Nation (SON) entered into a series of treaties and agreements with the Crown. The **Crown** was the head of the British government, or anyone who represented the head of the British government.

The treaty is called Treaty 45 and it gave up 1.5 million acres of land in exchange for economic assistance from the Crown. The Crown took the land and offered them proper houses on small reserves. The Crown told them to become civilized by cultivating the land and assimilating with the White people in the area. **Assimilate** means to join the culture and way of life of the people around.

Treaty 45 produced 4 more reserves for the SON to live on. The houses were built by the British on these reserves for the SON to use. The reserves were on the Peninsula north of Owen Sound.



Huron Tract Treaty and the Saugeen Treaty

Questions

Answer the questions below

1) What is the Huron Tract Treaty (29)?

2) What is the Saugeen Treaty?

Opinion

What do you think about the compensation that the First Nations received for their land?

True or False

Is the statement true or false

| | | |
|-------------------------------------------------------------------------------|------|-------|
| 1) The 1,100 pounds is increased each year to keep up with inflation | True | False |
| 2) 1,110 pounds is not a lot of money these days for that much land | True | False |
| 3) The Saugeen Ojibway received houses and reserved land for their land | True | False |
| 4) The British wanted the Saugeen Ojibway to assimilate | True | False |
| 5) The reserved lands are about half the size of the land that was given away | True | False |

The Mica Bay Incident

No Treaty, No Mining

When the Royal Proclamation was issued in 1763, it declared that no settlers could take land or buy land from First Nations. This meant in order to use land in present-day Canada, a treaty needed to be established between the First Nations and the Crown.

Mining in Mica Bay

In 1841, many valuable minerals were found in Mica Bay. Mica is found on Lake Superior, near Sault Ste. Marie. Canada West found out about the minerals found in Mica Bay, so they started mining in Canada West.

In 1845, the first mining company to dig on the shore of Lake Superior. This included the settlement that was under Shingwaukonse's leadership at Garden River.



Slate Found in Mica Bay

Mica Bay Incident

Shingwaukonse was unhappy with the mining of their resources. They knew this land was not part of the land they had ceded. This land was called unceded land, meaning it was not given to the Crown in any treaty. Unceded land is land that has not been given to the Canadian government by the First Nations as part of any treaties. The chiefs of the First Nations or other Indigenous groups have authority over unceded land as they are the titleholders.

Shingwaukonse demanded that the profits made from the minerals found in the area be shared with the Anishinaabeg. Canada West ignored Shingwaukonse and kept digging. The Quebec and Lake Superior Mining Association received the job to mine in Mica Bay. Canada West earned \$400,000 from the minerals found, which is \$15 million today.

The three chiefs - Shingwaukonse, Nebenaigoching and Oshawano travelled with several hundred Metis and Anishinaabeg to Mica Bay. They took a small cannon from the lawn of the Crown lands. When they arrived, they demanded payment or the closure of the mine. The Mine's manager, John Bonner decided to close the mine, worrying they would be attacked by the armed Metis and Anishinaabeg.

The actions of the Chiefs forced Canada West to negotiate with the Indigenous groups. In 1850, the Robinson-Huron and Robinson-Superior Treaties legitimized the mines. No longer could the government use unceded land. The Metis and First Nations formed an alliance that allowed them to change the way the Canadian government used unceded lands.

The Mica Bay Incident

Questions

Answer the questions below

1) What is unceded land? Who has control over it?

2) Why was there a dispute over the minerals found in Mica Bay?

Opinion

If you were the manager of the mine, what would you have done? Explain.

True or False

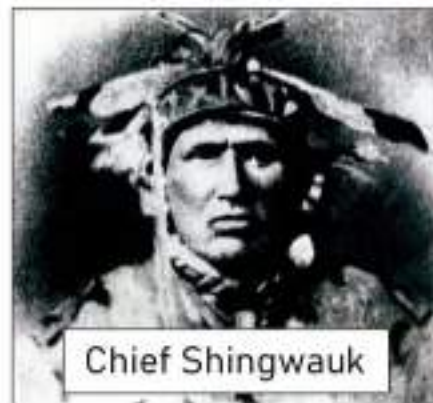
Is the statement true or false

| | | |
|----------------------------------------------------------------------------------|------|-------|
| 1) Canada West began mining on unceded land in Mica Bay | True | False |
| 2) The area is still unceded land | True | False |
| 3) The land is now part of the Robinson-Huron/Robinson-Superior Treaties | True | False |
| 4) Canada West decided to pay part of the \$15 million they made | True | False |
| 5) James Bonner decided to keep the mine going and fight the Metis/First Nations | True | False |

Chief Shingwauk's Vision

What Was Chief Shingwauk's Vision?

Chief Shingwauk was a chief and leader of the Anishinaabe. He is remembered for his vision, which was two goals he had for his people. Firstly, he believed that education was the most important thing for his people. His vision was for the creation of a lodge schoolhouse where his people and the settlers could learn together.



Chief Shingwauk

Secondly, he believed in resource rights for his people. The natural resources on the lands owned by the Crown should be owned by the Indigenous. He worried that the Crown would take the resources from the Indigenous.

1) Education

In 1832, Chief Shingwauk sent a letter to York from Garden River, near Sault Ste. Marie. He wanted to tell the Governor, John Colborne, to build a school building in the Sault St. Marie area. He knew that education was being taught to Colborne's British people, so he felt it should be just as important for the Indigenous as well.

The school Chief Shingwauk would build was called the "Teaching Wigwam." The Governor sent William McMurray, a missionary to help build the school. McMurray brought some of the resources needed for the school. Since McMurray was a missionary, he focused on teaching Christianity to the Indigenous in order to "civilize" them. The Teaching Wigwam unfortunately led to the creation of residential schools.

2) Resource Rights

Shingwauk was one of the lead negotiators and signatories to the 1850 Robinson-Huron Treaties. Shingwauk understood British law and therefore, his First Nation's resource rights. He knew the Crown had no rights to take minerals from unceded lands in Mica Bay.

Therefore, he was able to negotiate with the Crown, the Robinson-Huron Treaties. The Indigenous peoples in the region gained recognition of hunting and fishing rights, an annuity (annual payment), and a reservation from the surrender of specific lands for each signatory community. The annuity is worth £1,000 paid to the First Nations in the region.

Chief Shingwauk's Vision

Questions

Answer the questions below

1) What was Chief's Shingwauk's vision? What were his two goals?

2) What was Chief's Shingwauk's vision on education? Was he successful?

Visualizing

Draw what you were picturing as you were reading. Explain the picture

True or False

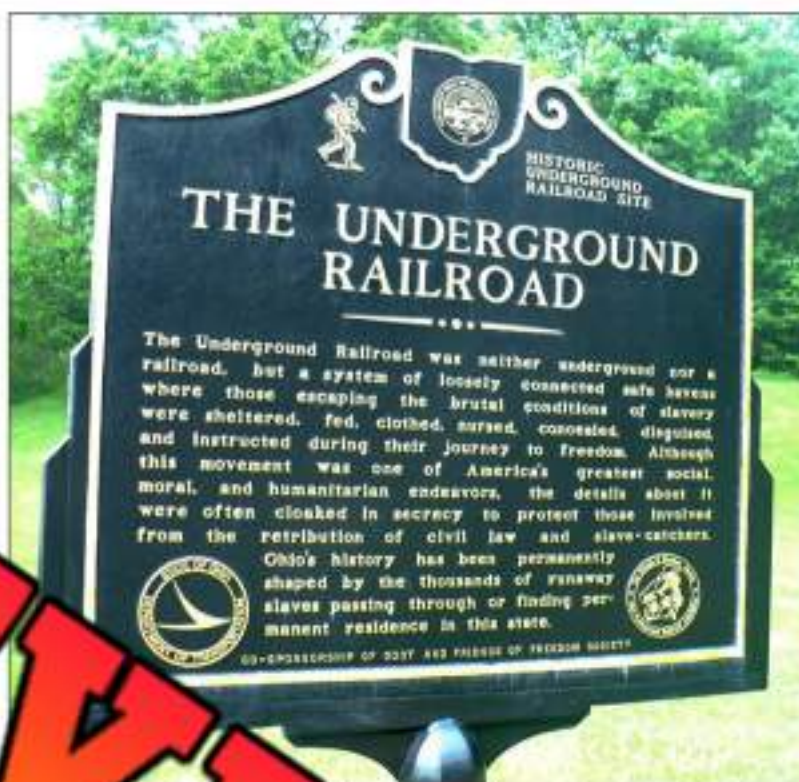
Is the statement true or false

| | | |
|-------------------------------------------------------------------------|------|-------|
| 1) Chief Shingwauk snowshoed from Sault St. Marie to Toronto | True | False |
| 2) His vision for a school was for Indigenous to learn without settlers | True | False |
| 3) The name of his school was the Teaching Wigwam | True | False |
| 4) Shingwauk didn't understand British law or Indigenous land rights | True | False |
| 5) Shingwauk signed the Robinson-Huron Treaties | True | False |

The Underground Railroad

What was the Underground Railroad?

The **Underground Railroad** was not a railroad that was underground. Instead, it was a secret network of people who disagreed with slavery and worked to free slaves from the American South to the free states or to Canada. Between 1800 and 1850, an estimated 100,000 runaway slaves were brought to the United States from Africa through the Underground Railroad.



Act to Limit Slavery

In 1793, a provision in the *Act to Limit Slavery* stated that any enslaved person who reached Upper Canada became free upon arrival. Many of the Americans from the south fought against "Black men" in the War of 1812. They fought against free black men from BNA. Word spread to the enslaved in the south that they could be free in BNA, which led to many runaway slaves using the Underground Railroad.

How the Underground Railroad Worked

The Underground Railroad was not an actual railroad and it did not run on railway tracks. It was a complex, secret network of people and safe houses that helped slaves in the Southern plantations reach freedom in the North. The network used symbols and codes to communicate with each other. A "conductor" was someone who guided fugitive slaves along points of the Underground Railroad, using different modes of transportation over land and water. The terms "passengers," "cargo," "package" and "freight" referred to escaped slaves.

Underground Railroad Codes

Background The Underground Railroad was very dangerous for all people involved

The underground railroad was a secret movement by *abolitionists* who were against slavery. The people who worked to help slaves escape used code words to keep their movement a secret. If a fugitive slave was caught, they would be branded, jailed, flogged, sold back into slavery, or even killed.

Conductors were the people who helped fugitive slaves travel along the underground railroad. Conductors didn't drive any trains, but instead they helped run the slaves by giving them with safe passage to and from stations. If a conductor was caught, they would be punished as well. Many conductors were free people who were slaves in the past.



Railroad Codes Know your Underground Railroad Codes

| | |
|-------------------------|-------------------------------------------------------|
| Baggage | Escaping Slaves |
| Bundles of Wood | Fugitives to be expected |
| Freedom Train | The Underground Railroad |
| Load of Potatoes | Escaping slaves hidden under farm products in a wagon |
| Heaven or Promised Land | Canada |
| Shepherd | Conductor – Someone who escorts slaves |
| Station | Place of safety – Safe-house |
| Station Master | Keeper of a safe-house |
| Parcel | Fugitive to be expected |
| Moses | Harriet Tubman |

Underground Railroad Quilts

Most slaves were unable to read and write, as they were never allowed to go to school. In many states, it was illegal to teach slaves how to read and write. This meant they couldn't use words to communicate. Instead, slaves would make quilts using symbols to represent a specific instruction or direction.

When a runaway slave saw a quilt hanging on a home, they could get information that could help them on the path to freedom.

To learn the meaning of the symbols, stories and songs were told at night around the camp. These stories and songs had the coded messages in them to teach all slaves the meaning of the symbols.

Quilt Check out the quilt symbols below



Monkey Wrench

Get ready! Gather your tools to build shelters, navigate your journey, or defend yourself along the way



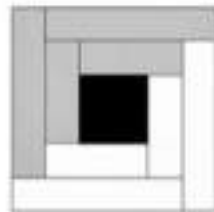
Bear's Paw

Take a mountain trail out of view. Follow the path made by bear tracks, they can lead you to water and food



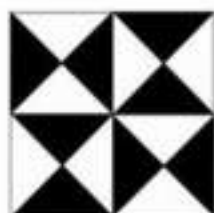
Candle

Refer to level of the candle to find the destination. One candle means a safe place to hide, two candles mean a safe place to go to freedom.



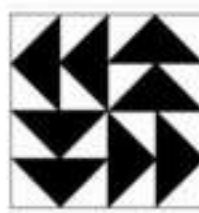
Log Cabin

A secret symbol that could be drawn on the ground indicating that a place is safe to talk.



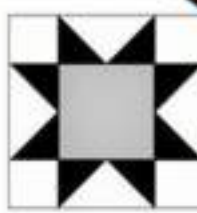
Bowties

You're looking tattered. To disguise yourself as a freed slave, you'll need new clothes. This symbol shows that someone will bring you nice clothes



Flying Geese

Follow the migrating geese north to Canada and be free!



North Star

Look to the skies to help you navigate the way north. Follow the North Star to Canada.



Tumbling Boxes

The time has come to box up your belongings. Your escape will be happening soon!

Underground Railroad Quilts

Draw

Draw the quilt that displays the message below

| Message | Quilt |
|-------------------------------------------------------------------------------------------------|-------|
| You are in a dangerous place so you want to tell runaway slaves that it is safe to enter. | |
| You are close to Canada and your freedom. There are geese you can follow. | |
| Good news, there is a conductor and shepherd coming to take you to freedom. | |

Slavery Abolition Act

Slavery Abolition Act, 1833

The Slavery Abolition Act in 1833 was signed by the British government which freed over 800,000 enslaved Africans in the British colonies of the Caribbean, South Africa, and Canada. Most of these slaves were in the Caribbean and South Africa, with only a small number in British North America.

The British government paid 20 million pounds to pay slave owners. This was 40% of the country's yearly income. This was one of the largest in history.

Ending Slavery in British North America

In 1793, the *Act to Limit Slavery* helped already moving British North America towards abolition. **Abolition** meant getting rid of the system, and in this case, abolition meant getting rid of slavery.

By 1833, enslaved Africans in British North America were few in number and lived scattered and isolated from one another. When the Slavery Abolition Act was enacted, less than 50 enslaved Africans were freed in British North America.

Reparations for the Enslaved

A **reparation** is when someone makes amends for something they did wrong. Usually in the form of paying money to the victim. Instead of making amends to the enslaved people in the British colonies, the British government decided to pay twenty million English pounds to the slave owners for the damages they suffered due to freeing their slaves.

The enslaved people in British North America received nothing. In fact, they were discriminated against in future British policies that prevented them from immigration to the Canadas. Others were beaten, killed and denied the ability to settle in certain regions. While British North America accepted many slaves, they did not make life easy for them while they lived there.



The Slavery Abolition Act 1833

(3 & 4 Will 4 c. 73)

30. *An Act for the Abolition of Slavery throughout the British Colonies*
(28th August 1833)

And first 1st August 1834, all slaves in the British colonies shall be emancipated, and slavery shall be abolished throughout the British possessions abroad

Slavery Abolition Act

True or False

Is the statement true or false

| | | |
|----------------------------------------------------------------------------|------|-------|
| 1. The Slavery Abolition Act freed 800,000 slaves in British North America | True | False |
| 2. Abolition means to get rid of a system, such as the system of slavery | True | False |
| 3. The slaves were given reparations for their mistreatment | True | False |
| 4. Less than 10% of enslaved Africans in British North America were freed | True | False |
| 5. The slave owners were paid for damages from losing their slaves | True | False |

Questions

Answer the questions below

1) What was the Slavery Abolition Act? What impact did it have in British North America?

2) What reparations were given to the former enslaved people?

Reaction

What are your thoughts on Britain paying slave owners and not slaves?

Wheat Farming in BNA

Wheat Farming in Upper Canada

Emigration from Britain landed most British immigrants in Upper Canada because its culture was more English versus the French area of Lower Canada. Many British immigrants bought ready-cleared land and began farming wheat to support the growing population.



Corn Laws

The **Corn Laws** were a tax (tariff) on anything coming to British colonies by non-British countries. The tax hurt Canadian wheat even more because they could get it without paying an extra fee. The Corn Laws came into effect in 1815 and its goal was to make British agriculture more successful.

Upper Canada wheat farmers were successful after the Corn Laws. For five years after 1815, Upper Canadians were selling their wheat at higher prices in Britain. This development encouraged more people to move to the area. The number of larger farms increased, which meant the area in Upper Canada was more developed.

The Wheat Economy

Wheat farming became its own economy as there were many moving parts.

- 1) A lot of wheat is needed to turn a profit as wheat is not a luxury item and is cheap
- 2) Larger ships were needed to carry the massive amounts of wheat to Britain
- 3) The shipping of grain required waterfront docks and warehouses that could stockpile grain
- 4) Canals were needed to connect farmers to the St. Lawrence River and Great Lakes
- 5) Cleared land was needed so many people worked to prepare land for farming

As you can see, many people were needed to make wheat farming successful in Upper Canada. This created a lot of jobs for immigrants, including digging canals, building docks, clearing farmlands, building warehouses, and the farming itself.

Wheat Farming in BNA

Questions

Answer the questions below

1) What were the Corn Laws? How did they affect farming in BNA?

2) Why did Canada become a wheat producer because of the growth of the wheat economy?

Visualizing

Draw what you were picturing as you were reading. Explain the picture



True or False

Is the statement true or false

| | | |
|-----------------------------------------------------------------------|------|-------|
| 1) Wheat could be sold in small amounts for large profits | True | False |
| 2) The Corn Laws meant Canadian wheat was wanted in Britain | True | False |
| 3) The growth of the wheat economy led to many different jobs | True | False |
| 4) Canals were needed for farmers to send their wheat long distances | True | False |
| 5) Clearing forests was not a big job, so preparing farmland was easy | True | False |

Corn Laws - Upsetting BNA Residents

Not everyone liked the Corn Laws. Anyone who was not involved in farming didn't like that they could only buy grains from British colonies. The prices for grains was higher because there was less competition – less countries able to make it and sell it in BNA. It also meant that there was less grain available in BNA, which meant many went hungry.

**Explain**

What is happening in the cartoon? Explain the impact of the Corn Laws

Churches and School in BNA

Church and School in Canada East

The Roman Catholic Church remained the most powerful church in the French-Canadian community. In the mid 1800s, many Canadians in Canada East were illiterate, meaning they couldn't read or write. The Catholic Church saw this problem and provided a Catholic school for every 100 families, or at least one for each parish (church community).

Since there were English Protestant people in Canada East as well, Protestant schools were built for their children. The taxes were used to build and maintain the schools as well as to pay the teachers. In 1800, the Catholic Church and school were closed together.



Church and School in Canada West

In Canada West, it was the Church of England (Protestant) that was the most powerful. The Church of England built colleges, universities and tiny schoolhouses where small groups of children were taught. Teachers were paid very little and had very little education themselves. They often lived with the families of the school's students. The teacher was often the one who taught religion and other subjects like math, language and science.

Common School Act of 1846

The birth of the public-school system changed the school and religion connection. Doctor Egerton Ryerson believed that education and the church should be separate. He also believed that teachers needed to be more educated, which is why he established the first teacher's college. Ryerson was able to convince the government to create an education tax that would fund public schools and pay teachers.

The government passed the *Common School Act of 1846*, which brought a free public-school system for everyone. The new school system created a literate society that was able to make technological advances and economic growth.

Churches and School in BNA

True or False

Is the statement true or false

| | | |
|---------------------------------------------------------------------------------|------|-------|
| 1. Church and school were closely connected before the public school system | True | False |
| 2. Ryerson believed that church and school should be separate | True | False |
| 3. Ryerson also believed that teachers were paid enough and had enough training | True | False |
| 4. The Protestant Church was the most powerful in Canada East (Quebec) | True | False |
| 5. Taxes were used to pay for schools and teachers | True | False |

Questions Answer the questions below

1. How were schools and religion tied together before the public-school system?

2. Who was Doctor Egerton Ryerson? How did he change our day school system?

Summarize

Summarize the churches and schools in BNA

Conflict and Challenges - Unit Test

Multiple Choice

Circle the best answer. Only choose 1 answer!

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. The United States used __, which is aggressive talk in favour of war and using military force a) Impressment b) Propaganda c) Jingoism d) Attitude | 2. Which Scottish man was responsible for the Rebellion of 1837? a) Louis-Joseph Papineau b) William Lyon Mackenzie c) Richard Pierpoint d) John Norton |
| 3. What treaty ended the War of 1812? a) The Treaty of Ghent b) The Abolition Treaty c) The Durham Report d) The Act of Union Treaty | 4. Which battle did Sir Isaac Brock die at? a) Fort Detroit b) Fort Michilimackinac c) Fort Dearborn d) Battle of Stony Hill |
| 5. Many Irish immigrants are remembered for... a) Building the railroad b) Developing farmlands across Canada c) Building the canal systems d) Building the parliament buildings | 6. The Underground Railroad was... a) A tunnel that helped runaway slaves to Canada b) A network of abolitionists c) A secret path through the underground d) All of the above |
| 7. In the War of 1812, most of the battles took place... a) On American land b) In BNA c) In France d) In Britain | 8. Who had all the power in the Family Compact? a) Family Compact b) Missionaries c) Chateau Clique d) Wheat Farmers |
| 9. Who wrote the Durham Report? a) Louis-Joseph Papineau b) John George Lambton c) Richard Pierpoint d) John Norton | 10. The Battle of Seven Oaks was fought where? a) Hudson's Bay b) Sault Ste. Marie c) Red River Valley d) Mica Bay |

Define

What do the terms below mean?

| Term | Definition – What does it mean? |
|---------------|---------------------------------|
| Rebellion | |
| Laura Secord | |
| Durham Report | |

Short Answer

Answer 3 questions. Each question is worth 3 marks

1) How did Sir Isaac Brock and Tecumseh work together in the War of 1812?

2) What resources were most important to the Canadas? How were they transported to other places (traded)?

3) What was the underground railroad? How did it work?

Landform Processes

Landform Processes

A landform form is any characteristic that describes the earth's surface. Examples include valleys, mountains, hills, oceans and plains. Landforms are constantly changing over time. Scientists estimate through dating of rocks that the earth is 4.54 billion years old. Many of the processes that affect landform changes, happen so slowly that they cannot be noticed from one year to the next but over time the changes are significant. For instance, Niagara Falls is currently receding at a rate of 30 cm per year. Up until 1942 it was receding at a rate of 1.5 meters per year. Niagara Falls has receded 11.4 kilometers in the last 12,300 years forming the Niagara gorge.

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**Preview of 30 pages from this
product that contains 77 pages
total.**

Core

Tectonic Plates

The earth can be compared to an egg. It is composed of 3 main parts. The core (inner and outer), which is like the egg yolk, the mantle, the egg white and a thin shell called the crust. The earth's crust has cracks and the pieces of crust surrounding the earth are called tectonic plates. Some of the plates are under continents and are from 30 to 150 kilometers thick. Other plates are located under oceans and are 5 to 15 kilometers thick.

The mantle is made of thick molten rock that moves slowly in currents. This movement within the mantle causes the plates of the earth's crust to move very slowly. The plates move in different directions. Some move away from each other; some plates move towards each other causing one plate to slip under another plate. This is happening now off the west coast of United States where the small Juan de Fuca Plate is slipping under the larger North American Plate.

Name: _____

Date: _____

4

Landform Processes - Questions

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------------------------------------|------|-------|
| 1. Mountains, hills and skyscrapers are examples of landforms. | True | False |
| 2. Landforms are characteristics of the earth surface | True | False |
| 3. Landforms stay the same forever. | True | False |
| 4. Weathering, erosion, volcanos and earthquakes are all processes that affect landforms. | True | False |
| 5. Tectonic plates move from the earth's mantle. | True | False |

Questions

Use information from the text to support your answer

1) What are some of the most famous landforms?

2) In what ways does flowing water affect landforms?

Making Connections

What does this reading remind you of in your life?

Tectonic Plates

Tectonic Plates

The earth's crust is made up of 7 huge tectonic plates as large as continents and several smaller plates. These plates roughly fit together like a jigsaw puzzle that covers the entire surface of the earth. The edges of the plates where they meet other plates are called the plate boundaries. The Tectonic plates each move about 6 inches per year. We don't notice this movement but over millions of years the continents have moved great distances.

Tectonic Plate Boundaries

Volcanoes are often found near plate boundaries because molten rock from the Earth—called magma—can travel upward at the plate boundaries between plates causing a volcanic eruption.



There are different types of tectonic plate boundaries including:

- **Convergent Boundaries-** where two plates push together. When plates push together this can cause the earth to crumple and push up forming a mountain range. The Himalayas were formed in this way. When plates move towards each other one plate will slip below the other plate. This is called subduction. Areas where there are convergent plate boundaries are often areas where mountains and volcanoes are found and there is a lot of earthquake activity. The Mariana Trench is the deepest part of the ocean, formed by the massive and heavy Pacific Plate, being subducted or sinking under the smaller, lighter, Philippine Plate.
- **Divergent Boundaries-** where two plates are pushed apart. Magma breaks through the earth's crust at the divergent boundaries and forms a mountain ridge. An example of this is the Mid Atlantic Ridge that is an underwater mountain range formed between two divergent tectonic plates. Earthquakes are common along divergent boundaries.
- **Transform Boundaries-** where two plates slide past each other, horizontally. The energy caused by this movement is released in the form of earthquakes. A well-known transform plate boundary is the San Andreas Fault, which causes many of California's earthquakes.

Name: _____

Date: _____

6

Tectonic Plates - Questions

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------------------|------|-------|
| 1. A convergent boundary is when 2 tectonic plates are pushed apart | True | False |
| 2. Tectonic plates move about 6 inches per year | True | False |
| 3. Tectonic plate boundaries are where volcanoes and earthquakes happen | True | False |
| 4. The San Andreas Fault is located at a divergent boundary | True | False |
| 5. The Mariana Trench was formed by subduction | True | False |

Questions

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer

1. Name 3 types of landforms created by the movement of tectonic plates

2. How are volcanoes formed?

Volcanoes

Volcanoes

Volcanos are landforms that are made when molten magma from the earth's mantle layer erupts through a crack in the earth's crust. When magma breaks through the earth's crust it is called lava. The cracks in the earth's crust occur when tectonic plates collide. The ocean plate is forced into the hot magma when it is pushed beneath the continental plate, and the pressure pushes the magma upward causing fiery eruptions of molten rock and lava. Volcanoes usually occur at the edge of tectonic plates.

The Ring of Fire is a circle of over 250 active volcanos found along the Pacific Ocean shores, Japan, Indonesia, and the Philippines. There are more than 500 active volcanoes in the world. Three quarters of the world's volcanoes are under the oceans and so no one sees them erupt.

3 Major Types of Volcanoes

Shield Volcanoes

Shield Volcanoes are volcanoes formed from flowing lava. The lava spreads from the mouth of the volcano and can travel for many kilometers. The slopes of a shield volcano slope gently. Shield volcanoes are very wide.

Stratovolcanoes

Stratovolcanoes are sometimes called composite volcanoes. They are the tallest volcanoes. Some are almost 2500 meters tall. They usually have steep sides and are built up like a stack of lava over thousands of years with multiple eruptions forming layer after layer of lava which has hardened into rock.

Cinder Cones

Are volcanoes formed by short eruptions out of a single vent at the top. Cinder Cone volcanoes do not usually get higher than 400 meters tall.

Massive Volcanoes

The largest volcano on earth is Mauna Loa in Hawaii. The tallest volcano is Mauna Kea which is also in Hawaii. Both are shield volcanoes that have formed on the ocean floor. If you measured Mauna Kea from the ocean floor to its peak it would be taller than Mount Everest.



Name: _____

Date: _____

10

Volcanoes - Questions

True or False

Circle whether the statement is true or false

| | | |
|--------------------------------------------------------------------------|------|-------|
| 1) Most volcanoes form at tectonic plate edges | True | False |
| 2) The Pacific Ring of Fire has over 250 volcanoes | True | False |
| 3) Volcanoes only occur on land | True | False |
| 4) Volcanoes don't cause much damage because people don't live near them | True | False |
| 5) Mauna Kea is the world's tallest volcano | True | False |

Summary

Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) What are the 3 types of Volcanoes?

2) What is the difference between magma and lava?

Mountains and the Water Cycle

Mountains and the Water Cycle

Fold mountains form along plate boundaries often along the borders of continents. In North America and South America, mountain ranges run the entire western length of both continents. Another fold mountain range runs across Europe and Asia. These fold mountain ranges are made of sedimentary rock. The mountains are the source of almost 80% of the world's fresh water through melting ice and snow and mountain rains. This water running down the mountainsides provides opportunities for hydro power generation.



Water evaporates from oceans and form clouds which are blown inland. This happens along the west coast of North and South America. When the clouds reach the mountain range the clouds rise and the water vapour cools because the air is cooler at higher altitudes. The water vapour in the clouds condenses and falls as rain or snow.

The mountains hold a lot of this precipitation on their frozen peaks and glaciers and in mountain lakes and streams. Mountains are an important source of fresh water.

The windward side of the mountain often has thick vegetation because of the humid conditions and plentiful precipitation. This vegetation also holds water. Mountains streams carry water back down the mountain to where it is used by people, consumed by plants and trees and where some makes its way back to the ocean where it started, to begin its journey through the water cycle again. Mountains play an important part in the water cycle.

The other side of the mountain called the leeward side is often dry with less vegetation because the clouds release all their rain on the windward side. Because of climate change mountain glaciers and ice caps are melting. This threatens the water supply for people who rely on this source for fresh drinking water.

Name: _____

Date: _____

12

Mountains and the Water Cycle - Questions

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------------------------------|------|-------|
| 1. Mountains have a windward and a leeward side | True | False |
| 2. Mountains provide and store approximately 80% of the world's fresh water. | True | False |
| 3. Because mountains are mostly made of rock, they do not have much vegetation | True | False |
| 4. The water vapour in clouds condenses as the clouds rise because the air is cooler at high altitudes. | True | False |
| 5. Global warming is causing mountain ice to melt. | True | False |

Questions

Use information from the text to support your answer

1. Describe the process of how mountains play a role in the water cycle?

2. Why do mountain ranges form along the coastlines?

Making Connections

What does this reading remind you of in your life?

Valleys

What is a Valley?

A Valley is a landform that is a long low area between two mountains or hills. Valleys are one of the most common landforms. Often valleys have a river or stream running their length. Valleys can be V-shaped, U-shaped or have a flat bottom.

How are Valleys Formed?

Valleys are formed 3 different ways. U-shaped valleys are typically formed by glaciers because they are carved out by glaciers. Glaciers are huge chunks of hard ice that pick up rocks as they move down the side of a mountain, gradually grinding down the rock to form a U-shaped valley.

At lower altitudes valleys are primarily formed by the eroding action of water from streams and rivers and from wind. As water runs over the earth eroding over the earth erodes a trail that makes a river. As the water runs over the earth it carries earth and stones with it and gradually carves a deeper and deeper river bed. As the river carries more material around the sides of the river erode into the river and are carried away with the water. The result is a symmetrical carving of river banks that make a V-shaped river valley over the course of years.

The third way valleys are formed is through tectonic action. When tectonic plates move apart at divergent boundaries and pull apart Fault Block mountains are formed. This type of mountains are blocks of rock crack at fault lines. Some blocks are forced up creating mountains and some blocks fall down creating the valley.

When valleys are first formed, they tend to be narrow but the older they are the wider the valley usually gets because rain, wind, frost and ice wear the sides of the valley down. The rate at which the valley evolves and widens depends on whether it is formed through hard rock, softer rock or earth.

Valleys and People

Valleys are a good place for people to live because they usually have a river. The river provides, fresh water, fish, transportation and good soil. Valleys also provide shelter from winds and smooth terrain on which to settle.



Valleys - Questions

Visualizing

Draw what you were picturing in your head while you were reading



What from the text made you picture that in your head?

Questions

Use information from the text to support your answer

1) What is a valley? Where do you find it?

2. How are valleys formed? Explain two ways?

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------|------|-------|
| 1. Erosion has helped create valleys. | True | False |
| 2. Some valleys are formed by avalanches. | True | False |
| 3. Valleys are good places for people to live. | True | False |
| 4. Valleys often get wider as they age. | True | False |
| 5. V-shaped valleys are most often found at high altitudes. | True | False |

Controlling Soil Erosion

What is Soil Erosion

Soil erosion is the washing or blowing away of the top layer of soil. This happens in three ways - through the movement of water, from strong winds and from gravity. Water erosion happens when heavy rain forces soil to travel with the water into streams and eventually larger bodies of water.

Wind erosion is the natural process that moves soil from one location to another by wind power. Strong winds can cause a lot of soil particles to lift into the air and cause dust storms. Soil



erosion from gravity happens when farm fields are on a hillside of at least a 25-degree angle and there is little vegetation to hold the soil in place. Heavy rainfall can cause the earth to become very heavy and slide down the hill.

Soil Erosion Hurts Farmers

Soil erosion is a serious problem for farmers. Fertile soil is needed for farmers to produce crops. Farmers work very hard to produce soil with lots of nutrients. Wind and water erosion cause this nutrient rich topsoil to travel to other areas and collect in the bottom of a body of water. Topsoil is often the most fertile and when it is washed away, the land is less productive.

Controlling Soil Erosion

Soil erosion can be controlled using the following methods:

- Windbreaks - A windbreak is a line of plants that are planted to act like a wall that slows the wind. Farmers will use a row of thick bushes next to a field of plants to stop wind from blowing the soil away
- Terracing - Terrace farming means the farmer builds "steps" or terraces that are built into the side of a mountain or hill. They do this so that when it rains, the nutrients get washed down to the next level of crops.
- Reforestation - Replanting in an area that lost its plants is called reforestation. If a forest burned down, reforestation would mean to replant the trees.

Reforestation stops soil erosion because the roots of plants help make the soil stronger as it pulls the soil together. This makes it harder for the wind and water to move the soil.

Name: _____

Date: _____

22

Controlling Soil Erosion - Questions

True or False

Circle whether the statement is true or false

1) Soil erosion means that soil washes or is blown away.

True

False

2) Soil erosion hurts farmers the most.

True

False

3) Windbreaks are steps in the side of a mountain.

True

False

4) Reforestation means you plant trees that were lost.

True

False

5) Wind can cause erosion by blowing soil to new locations.

True

False

Questions

Use information from the text to support your answer

1) What is soil erosion? How does it affect farmers?

2) How can we stop soil erosion?

Making Connections

What does this reading remind you of in your life?

Glaciers

What is a Glacier?

A glacier is a huge chunk of ice that moves very slowly over land. The largest glacier in the world is Lambert Glacier, which is in Antarctica. It is 100km wide, 400km long, and 2.5km deep! That is 40,000 kilometres squared, which means it is larger than Vancouver Island, which is 31,285 kilometres squared.

Glaciers are important because they give us 75 percent of our fresh water. Today, glaciers cover 10 percent of the world's total land area.



That means if you put all the glaciers in the world, it would be larger than Canada.

How Glaciers Form

Glaciers are huge pieces of ice that form year to year. In colder regions, not all the snow and ice melts during the spring. This means more snow and ice pile on top of the old snow and ice each year. Massive chunks of snow and ice form, over thousands of years, which are called glaciers. Most of the glaciers are in the Arctic and Greenland, but glaciers are found on nearly every continent, even Africa.

Glacial Erosion

Glaciers are so large and so heavy that as they move, they wear down the land. They are carving out valleys and changing the shape of mountains. The glaciers act like sandpaper as they break down rock. Glaciers erode the underlying rock by abrasion.

Glaciers and Climate Change

- One of the biggest causes of the sea level rising is melting glaciers.
- There are a total of 198,000 glaciers worldwide.
- Scientists are tracking the size of 40 glaciers worldwide and have found that since 1980 these glaciers have lost the equivalent of 24 meters in height because of melting.
- Most glaciers are shrinking
- In some parts of the world glaciers provide water for human consumption so the loss of glaciers is a serious problem.

Name: _____

Date: _____

28

Glaciers - Questions

True or False

Circle whether the statement is true or false

| | | |
|-----------------------------------------------------------------|------|-------|
| 1. A glacier is a huge chunk of ice that doesn't move. | True | False |
| 2. A glacier slides across land and erodes it. | True | False |
| 3. Glaciers act like sandpaper that wear down rock. | True | False |
| 4. We don't need glaciers because they only keep our land cold. | True | False |
| 5. Glaciers hold 5 percent of the world's fresh water. | True | False |

Summary

Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) What is a glacier?

2) How does a glacier cause erosion?

Human-Caused Changes to Habitats

Human Impact on Habitats

As the human population increases, we take over and destroy habitats that plants and animals need to survive. In addition to destroying habitats, we are also moving invasive species into habitats which compete with native species for food and space to grow. Both of these human actions can cause extinction and endangered species. Research has shown that humans have caused 322 different animal species to become extinct over the past 500 years. This does not mean we have killed 322 animals. Extinction occurs when an entire animal or plant species dies, meaning there are no individual animals or plants left anymore. Sabre-toothed cats, woolly mammoths, dodo birds, and Tasmanian tigers are all animals that used to live on the earth. These animals are now all extinct. More recently the thylacine was last seen in 1992.

Endangered Species

An endangered species is a species of plant or animal that is at risk of extinction. In Canada, there are 55 different species endangered. Sea otters, whales, and wolverines are all considered endangered animals in Canada. The main reason these animals are endangered is because of us. Humans destroy habitat and over hunt certain species leading to extinction.



Human Actions Threatening Wetlands

Wetlands are very important ecosystems because they provide a home for a large number of living plants and animals. Humans are changing wetlands in the following ways. First, many pollutants are being added to wetlands. These pollutants are coming from households, businesses, and factories. Pollution can also enter wetlands in the groundwater. When farmers use pesticides, fertilizers and other chemicals, they enter the groundwater and can end up in wetlands. The polluted water is not safe for plants and animals to consume. Secondly, humans change the flow of water in wetlands by rerouting the water to help supply farmers with water for their crops, or to supply people with drinking or to prevent flooding. The changing flow in water affects fish populations greatly. Their ability to lay eggs depends on water flow and they need a constant water flow to migrate during colder seasons.

Name: _____

Date: _____

32

Human-Caused Changes to Habitats - Questions

True or False

Circle whether the statement is true or false

| | | |
|------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Humans caused animals to become extinct in the distant past but now species are not at risk because we know better. | True | False |
| 2. Water pollution does not affect plants, | True | False |
| 3. Over hunting is a problem that threatens certain species. | True | False |
| 4. People need a living so we should not be concerned about endangering species. | True | False |
| 5. Farmers use pesticides that harm wildlife species because of their farming practices. | True | False |

Questioning

Write at least **two** questions you have after reading the text

Questions

Use information from the text to **show** your answer

1) Animals are endangered and becoming extinct because of human actions. Do you think we need to stop developing land for businesses and homes? Explain?

2. How are wetlands being affected by human actions? Explain?

Human Activities that Affect Water Landforms

Human Activities that Affect Water Landforms

Humans need water to survive. People use water for drinking, washing, waste disposal, watering crops, generating power, fishing, transportation and recreation. People like to live near water, so they have a convenient source of water for their needs. Because landforms are constantly changing sometimes people live too close to water and they have to build something to make the water flow where they want it to go. For this reason, people build dykes, dams and levees.

What is a Levee?

A levee is an embankment or a wall that is constructed to keep land that is normally dry from flooding. Heavy rains, melting snow or storm surges that could cause water levels to rise. Levees also are used to control the flow of rivers. They are usually constructed parallel to the edges of a body of water such as a river or lake. A levee built

along the edge of a river keeps the river from overflowing its bank and flooding areas where people live.

Levees prevent erosion from widening the river. A levee causes the river to stay within it making the water deeper and faster flowing. Levees prevent rivers from carrying sediment to the delta. This reduces wetlands.

What is a Dyke?

A dyke is a wall or ridge of raised earth that is constructed to keep land from being flooded. The difference between a dyke and a levee is that a levee protects land that is normally dry from flooding. A dyke keeps land dry that would be wet. Dykes and levees have water on one side. When dykes are built it reduces wetlands.

What is a Dam?

A dam is a structure or barrier across a stream or river that is built to create a reservoir of water used to create access to a regular supply of water, for flood control or to generate hydro electric power. Dams can be small. A farmer may make a dam across a small stream just by dumping a few loads of earth into the stream, to create a pool which can be used by farm animals for drinking water. Dams can also be enormous concrete structures such as the Hoover Dam which is built across the Colorado River in United States.

The Hoover Dam was built to control flooding, provide irrigation water and provide hydroelectric power. The Hoover Dam is a 221 meters tall concrete structure that created Lake Meade as its water reservoir. A dam has water on both sides. When huge dams are built large areas of land are flooded causing people and animals to have to relocate.

Name: _____

Date: _____

36

Human Activities that Affect Water Landforms - Questions**True or False**

Circle whether the statement is true or false

| | | |
|------------------------------------------------------------|------|-------|
| 1. A dam is made of concrete and a levee is made of earth. | True | False |
| 2. Dams, dykes and levees all control flooding. | True | False |
| 3. Dykes can keep land that is below sea level dry. | True | False |
| 4. Levees are built across waterways. | True | False |
| 5. Dams are built to create hydroelectric power. | True | False |

Sum

Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) What are some of the negative impacts of humans changing the environment by building levees, dykes and dams?

2) How has the ability to build levees, dams and dykes benefitted humans?

Hurricane Katrina

Hurricane Katrina

Hurricane Katrina hit the Gulf coast of the United States in 2005. At its strongest it became a category 5 hurricane with 175 mph winds. It killed 1800 people and caused 108 billion dollars in damage when its flood water caused the levees to fail.



New Orleans is located in Louisiana on the Mississippi River Delta.

As the city expanded and needed more land, marshes were drained to make more room to build. This reduced the wetlands and caused the city to sink due to subsidence.

Subsidence is when the ground sinks. In New Orleans, oil is pumped out of the ground causing the earth above where the liquid is taken out to sink. In New Orleans both the removal of water and oil from the ground caused subsidence. New Orleans was not sinking because of the sinking ground but because of the actions of humans it sank even more, causing the city to sink below sea level.

Wetlands and barrier islands are natural defenses against flooding because they can absorb 3 to 8 inches deep of flood water for every foot of land. Given that the mouth of the Mississippi is about 100 miles from New Orleans if the wetlands had been allowed to form naturally, they would have provided protection from a 25 ft storm surge. Hurricane Katrina brought flooding that was 20 ft deep in some parts of New Orleans and the city was flooded.

Humans have made New Orleans more vulnerable to flooding than it was before. The formation of the Mississippi Delta. Deltas are formed from river water carrying sediment deposits at the mouth of the river, making the water shallow and fertile where wetland plants grow, and barrier islands form.

People built levees and dams to prevent flooding from rising river water. These changed the flow of the Mississippi and Missouri Rivers that would have brought sediment to the Mississippi Delta which would have caused wetlands to continue to form and replace those that were destroyed by flooding. Because the levees reduce the amount of sediment deposited at the Mississippi Delta, wetlands are disappearing at a rate of 60 square kilometers per year. This is causing more severe flooding when there are storms such as Hurricane Katrina.



Name: _____

Date: _____

38

Hurricane Katrina - Questions

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Wetlands and marshes cause flooding during storms. | True | False |
| 2. Hurricane Katrina was a category 5 hurricane. | True | False |
| 3. Levees and dams prevent wetlands from forming because they hold the sediment that would normally deposit in the river delta. | True | False |
| 4. Subsidence is when the earth sinks because oil or water is removed from the earth. | True | False |
| 5. Levees would have prevented damage from happening during hurricanes. | True | False |

Questions

Use information from the text to support your answer

- 1) What changes did we make to the forms that caused the damage from Hurricane Katrina to be worse than it would have been if we hadn't made these changes?

- 2) What are the benefits of wetlands?

Making Connections

What does this reading remind you of in your life?

Oceans Currents

Oceans Currents

The earth has five oceans. From largest to smallest, they are the Pacific, the Atlantic, the Indian, the Southern or Antarctic and the Arctic Oceans. Oceans cover 71% of the Earth's surface.

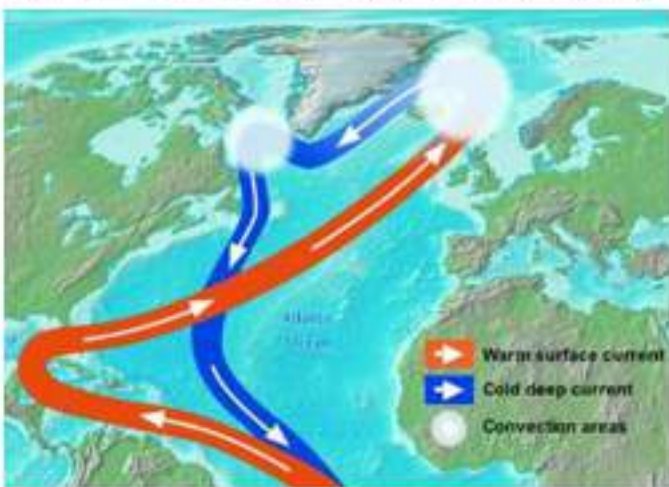
Permanent Streams of water which flow in a definite direction from one part of the ocean to another part are called ocean currents. Each ocean has its own currents, Ocean currents can be thousands of kilometers long and up to 200 kilometers wide. Ocean current are either warm or cold depending on where they originate, from around the equator or from the North or South Pole. Ocean currents are caused by wind, the earth's rotation and tides.

There are also currents caused by the changing temperature of the water and by the salt content in the water. Warm water is less dense than cold water, so it rises. Cold water is denser, so it sinks. When warm water is pushed back toward the equator it brings with it a warming affect. Rain clouds also form over warm water so where an current carries warm water around the earth it has a major effect on weather. Most of the world's weather comes from ocean water.

The amount of salt in the water also affects ocean currents. When salt water evaporates or freezes it leaves the salt behind. This increases the salt content of the surface water and causes it to sink pushing less salty water to the surface. It creates a density driven current.

The Gulf Stream is a current in the Atlantic Ocean that starts in the Gulf of Mexico and runs up the coastline of the United States to Newfoundland where it crosses the Atlantic.

The Gulf Stream is driven by convection cells that mix up the ocean waters. Cold water is drawn down from the Arctic and sinks to the ocean bottom, where it is pulled down toward the equator as lighter, warmer water rises to the ocean's surface. The warmer water is pulled northward to replace the cold water that's been pulled southward. This process distributes heat and rainfall around the world.



In the Northern Hemisphere currents travel in a clockwise rotation and in the Southern Hemisphere currents travel in a counterclockwise rotation.

Name: _____

Date: _____

40

Oceans Currents - Questions

True or False

Circle whether the statement is true or false

| | | |
|-----------------------------------------------------------------------------------|------|-------|
| 1. Ocean currents change where they flow from year to year. | True | False |
| 2. Ocean currents affect weather. | True | False |
| 3. Oceans cover 71% of the earth's surface. | True | False |
| 4. The Gulf Stream is a current in the Pacific Ocean that is 200 kilometres wide. | True | False |
| 5. The amount of ocean water affects ocean currents. | True | False |

Questions

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer your questions

1) What are 3 things that affect ocean currents?

2) How do ocean currents affect weather?

El Nino and La Nina

El Nino and La Nina

Warmer or colder than average ocean temperatures in one part of the world can influence weather around the world. The El Nino Southern Oscillation (ENSO) Cycle is a pattern of weather caused by the Trade Winds that blow in a band near the equator from the west Coast of South America to Asia. The ENSO Cycle is the oscillating or back and forth pattern of warm water and cool water trading places as winds blow across the Pacific Ocean. El Nino means, the boy, in Spanish and it is the warm phase. La Nina means the girl, and it is the cold phase.

El Nino happens when the Trade Winds which blow from east to west push warm surface water towards Asia and Australia accumulating and creating a pool of warm surface water in the western Pacific Ocean. This causes heavy rain along the coast of South America. This creates a different weather pattern in the countries affected by these Pacific events. El Nino happens over warm water.

In some years the Trade Winds are not blowing causing warm surface water to drift eastward toward South America. This is called El Nino. El Nino affects winter climate in North America. The warm ocean water attracts the Jetstream winds to the south than they normally do. This causes heavy rain and flooding in the southern United States and warmer drier weather in Pacific North western United States and Canada. El Nino causes drought in Australia because when the warm water is on the South America side the cool water is on the Australia side and there is less rain over cool water.

When the Trade Winds get stronger again, sometimes, they blow harder than usual, causing cool surface water to accumulate along the coast of South America. This cool surface water causes unusually cold conditions in the Pacific Ocean pushing the Jet Stream winds north. This is called La Nina. La Nina causes drought in the southern United States and heavy rain and flooding in the Pacific North West. In Australia La Nina causes more rain in their summer.

An El Nino or La Nina happens every 2 to 7 years. El Nino happens a bit more often than La Nina. El Nino and La Nina cause water shortages, and because of flooding and drought they reduce our ability to grow food.



Name: _____

Date: _____

42

El Nino and La Nina - Questions**Visualizing**

Draw what you were picturing in your head while you were reading



Which words from the text made you picture that in your head?

Questions

Use information from the text to support your answer

1) What is the main weather change caused by El Nino and La Nina?

2) Does El Nino affect different continents in different ways? Why or why not?

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------|------|-------|
| 1. El Nino is a cold weather phase. | True | False |
| 2. ENSO is a weather pattern caused by changes to how hard the Trade Winds blow. | True | False |
| 3. El Nino and El Nina affects several continents. | True | False |
| 4. El Nino and El Nina don't cause any harm. | True | False |
| 5. El Nino means the boy in Spanish. | True | False |

Land Reclamation

Land Reclamation

Land reclamation refers to either:

- creating new land from marshes, riverbeds or oceans
- returning land that has been disturbed by mining or use as a landfill and returning it to an improved condition.



Polders in the Netherlands

The largest example of the first type of land reclamation is the polders in the Netherlands. A polder is a piece of land that has been reclaimed from a body of water. The Netherlands is a low-lying country in Europe. Polders are created by building dykes that hold back the large body of water, then draining the inland section of land with a series of drainage canals. The people of the Netherlands have been using windmills to pump water from one section of land to another.



In the 1920s, a land reclamation project began in the Netherlands. Another province called Flevoland was created from an area that used to be a lake called the IJsselmeer. Flevoland reclaimed 1620 square kilometers of land and now over 1 million people live in this province.

Notre Dame Island in Montreal

Notre Dame Island is a small island in the St. Lawrence River. It was built using 15 million tons of rock. It was used to create the Montreal Metro underground. In 1967, a park was built on the island. Since then, the park has been removed, and the island has been turned into a park with gardens and a lake for swimming in summer and skating in winter. The island is 12 acres.

Reclaiming land used for Natural Gas Wells.

Natural Gas wells are usually used for 20 to 30 years before they are no longer productive. After that companies have the responsibility to restore the land to its condition before the well was opened. The land needs to be reshaped with drainage systems added. The layers of soil that were removed for the well need to be replaced and topped with topsoil and then trees and grass need to be replanted.

The site needs to be monitored to check soil and water quality and to make sure the replanted vegetation is growing. The process is the same when landfills are closed. They need to be returned to their former or an improved condition and they need to be monitored to make sure they are not a source of ground water or air pollution from methane gas.

Reading a Topographical Map

Research

Take a close look at the map below and answer the questions.



1) What information does this topographical map tell us? _____

2) What specifically do you notice about the road and railway region (Ex. Where are the roads and railway mainly located)? _____

Activities - Physical Patterns in a Changing World**Word Search**

Find the word bank words in the puzzle!

Word Bank

Human
Activities
Natural
Processes
Landforms
Delta
Levy
Physical
Environment
Natural
Events
Land
Reclamation
Volcanoes
Climate
Climate
Forces

F H D Y L E V Y E H T G A B Z K M L F L
R U A O L I K W D W B W N S R D D O D W
D P R O C E S S E S E G N A H C E B V I
F H L A C I S Y H P T F X R M P F S G J
Q F C O G K T W X B J C M B T M I Y I
H V R A R U T A N N N Y R J E C C
Y X S G N C N I D O G O E F O
E S C H D J B F R I K M G T
S E O N V C N D Y T M W Z E W
A T M L M I C Q N N Y L C S A
W G K G I E X O A A T T K D
D Q U F L C N X P O N X T D
B N S T C H I O C N H A T I
P B A H M C H H U O A I V T E S
T V F L Q P G P R M Y A C E O O
C L O F J U L I A V N Q E Y W B
J W R U P B V L Y T I W V B L W B
E X C U U N C E M L H Q H C G H A
J V E X E E B I B S M R O F D N A L T
F A S F R F Z E N O O U G Z O F N F H K

Word Scramble

Unscramble the word bank words from above

VETICIATIS _____

PRSSOEESC _____

ICHYSLAP _____

ONMNETVENIR _____

MUHNA _____

UALRNTA _____

LTUNAAR _____

ETLCIMA _____

LOFSMADNR _____

ORTLACEMNIA _____

Name: _____

Date: _____

Test - Physical Patterns in a Changing World

Multiple Choice

/6

1. When two tectonic plates push together...

- a) Divergent Boundaries
- b) Convergent Boundaries
- c) Transform Boundaries
- d) All of the above

2. These mountains have magma inside

- a) Fold Mountains
- b) Fault Block Mountains
- c) Volcanic Mountains
- d) All of the above

3. Which is not a type of volcano?

- a) Shield
- b) Stratovolcanoes
- c) Ash Volcano
- d) Cinder Cones Volcano

4. What is the number one cause of erosion?

- a) Wind
- b) Storms
- c) Water
- d) Humans

5. Which of the following is not a way to control soil erosion?

- a) Windbreaks
- b) Deltas
- c) Terracing
- d) Reforestation

6. Which country has undergone many land reclamation projects?

- a) The Netherlands
- b) Canada
- c) The United States
- d) Australia

Definitions (1 marks each)

/3

| Term | Definition (what does it mean) |
|------------------|--------------------------------|
| Delta | |
| Landforms | |
| Land Reclamation | |

Short Answer Questions (2 marks each)

16

1. What is erosion? Provide at least one example.

2. What is the water cycle? How do mountains affect the water cycle?

P


3. What is a wetland? Provide examples of wetlands.

REV

Long Answer Questions

15

How have human activities affected our physical environment? Make sure to include at least 5 ways in which humans have changed our environment.



Natural Resources

Natural Resources

People need lots of things to live safely and comfortably. They need housing, food, water as basic needs and then there are lots of things, they need to enjoy their lives, such as, their cars, phones, computers and television. All these things require materials to manufacture them, and some require power or fuel to make them work.

Natural resources are things in nature including, air, water, plants, sunlight, soil, rocks, animals and oil. Some natural resources are underground. Natural Resources are useful materials found on our planet that can be accessed when needed. Materials on earth become Natural Resources when humans value them. For instance, minerals have been on earth since its formation, but humans didn't know how to use them at first. Gold, silver, copper and aluminum became Natural Resources when humans discovered how to use them and wanted to find and extract them.

Preview of 25 pages from this
product that contains 62 pages
total.

Type
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resources, Non-renewable Resources and Flow Resources.

Renewable Resources are resources that are replaced from time to time so we can use them again and again. Examples include water that is recycled through the water cycle, trees and plants that can be replanted and animals that reproduce.

Non-renewable Resources are things that have a finite amount or that cannot be reproduced in our lifetime. Examples include oil and other fossil fuels which take millions of years to form, so when we use them, they will not be replaced in our lifetime for our use. Minerals are another example.

Flow Resources are neither renewable nor non-renewable. Flow resources must be used when and where they occur in nature. Examples include waterfalls that can be used to create hydroelectric power, but, once the water has gone over the falls the ability to use it for power is gone. Sunlight for solar power is another example. When the sun is shining it can power a solar panel but if we don't have a solar panel where the sun is shining the solar energy is not captured and used and it cannot be recaptured.

Name: _____

Date: _____

4

Natural Resources - Questions

True or False

Circle whether the statement is true or false

| | | |
|------------------------------------------------------------------------------|------|-------|
| 1. People can choose not to use natural resources. | True | False |
| 2. Natural resources are all around us. | True | False |
| 3. Things in nature become natural resources when humans value them. | True | False |
| 4. Flow resources are non-renewable resources. | True | False |
| 5. Natural resources can be classified as non-renewable, flow and renewable. | True | False |

Questions

Use information from the text to support your answer

1) What are some natural resources that people like to have nearby?

2) Why is it important to know whether resources are renewable or non-renewable?

Making Connections

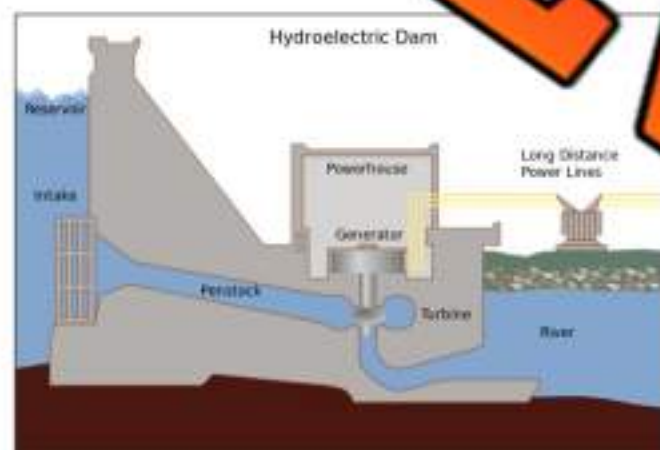
What does this reading remind you of in your life?

Flow Resources

Flow Resources

A flow resource is a resource that is neither renewable nor non-renewable. It must be used where and when it occurs and there is an unlimited supply. Flow resources are natural resources or processes that humans have no influence over. Examples include, sunshine, tides, wind, running water and geothermal. Flow resources will not be exhausted over time. This is not because they renew themselves. Flow resources either have a source, like the sun, that is so huge it will not exhaust, or they are the result of a process such as the wind, rain or tides that repeat naturally.

Flow resources are special to humans because using them does not create as many negative environmental impacts as fossil fuels, and since there is a limitless supply, they are a sustainable option.



We use flow resources every day. In Ontario, the most common flow resource used, comes from the Niagara Falls. The Ontario Hydro plant at Niagara Falls also generates 25% of the electricity used in the State. Hydroelectricity is the force of water being pulled down by gravity turning a turbine into mechanical energy. The higher the water drops, the more energy is applied to the turbine, creating more energy.

There are lots of benefits to using hydroelectric power. It is clean, efficient, reliable, cost effective and sustainable. The disadvantages of hydroelectric power are the amount of land the projects use and the disruption of plant and animal habitat. At Niagara Falls, Ontario Hydro has a 750-acre water reservoir that they use to divert water, so that they can always have a steady stream of water going through their turbines. In other places when a hydroelectric project is built, they construct an enormous dam and flood huge areas along the river that was dammed, destroying lots of animal habitat and plants and often forcing people to move. When the Three Gorges Dam was built in China, 13 cities and over 1000 villages were flooded, which displaced 1.2 million people.

Name: _____

Date: _____

10

Flow Resources - Questions

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Flow resources are renewable resources. | True | False |
| 2. Sunshine, wind, rain and running water are examples of flow resources. | True | False |
| 3. There are no negative environmental impacts from using flow resources. | True | False |
| 4. Humans can control flow resources. | True | False |
| 5. We use over 80% fossil fuels for our energy needs because flow resources cannot produce enough power to meet our needs. | True | False |

Summary Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) Why are flow resources an important source of energy?

2) What are some of the negative impacts of hydroelectric power?

Name: _____

Date: _____

12

What are the Most Valuable Resources?

Simplified world mining map



| LEGEND | |
|--------|------------|
| ● | Iron |
| ● | Tin |
| ● | Copper |
| ● | Zinc |
| ● | Nickel |
| ● | Chromium |
| ● | Manganese |
| ● | Aluminium |
| ● | Lead |
| ● | Gold |
| ● | Silver |
| ● | Salt |
| ● | Potassium |
| ● | Sulphur |
| ● | Spar |
| ● | Quartz |
| ● | Asbestos |
| ● | Diamond |
| ● | Phosphorus |
| ● | Gypsum |
| ● | Titanium |

Questions

Use the information on the map to answer the questions

1) Referring to the map, what minerals are mined in Quebec and Newfoundland, Canada?

2) Referring to the map, what minerals are mined in Australia?

Climate Change and Renewable Energy

Climate Change and Renewable Energy

One of the biggest problems the world faces in the next century is climate change. Climate change is the result of the average temperature on earth rising. The earth is getting warmer because gases (mostly carbon dioxide) are released into the air and gather in the atmosphere around the earth, acting like a blanket that traps heat. The ways humans make and use energy accounts for 70% of greenhouse gas emissions, which cause climate change.

Climate change is a big problem because it leads to more extreme weather like storms and hurricanes. It also leads to glaciers melting, which causes ocean levels to rise, threatening low-lying countries like the Netherlands with flooding. When glaciers melt, it reduces the amounts of fresh water available to some of the world's most populous countries, causing drought and inability to grow food.

The United Nations has been working to get countries between Nations since the 1980's to get countries to reduce their greenhouse gas emissions. This has been done mainly through use of renewable energy sources and reducing energy use. Currently, Canada uses 18.9% of its energy from renewable resources. By the end of 2018 most countries have renewable energy targets in place.

Governments help meet their targets by offering incentives for companies that build solar or wind farms or that add solar panels to buildings to reduce energy use. Companies have been widely available to convert lighting to LED bulbs which saves energy.

The use of renewable resources plays a big role in reducing greenhouse gas emissions. There are many forms of renewable energy including, solar, wind, hydroelectric power, geothermal, ocean power and biomass.

Hydro Electric

Hydroelectric energy is the largest source of renewable energy worldwide. In 2019 Canada was the second highest hydroelectric power producer in the world behind China. Hydroelectricity is clean energy that does not produce greenhouse gases. Hydroelectricity is a stable and consistent source of power. Unlike solar that needs daylight to produce power, hydroelectricity can be generated 24 hours a day. Hydroelectric power is cost effective. Hydro plants have low operating costs.



Name: _____

Date: _____

15

Climate Change and Renewable Energy - Questions

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. We rely on fossil fuels for most of our energy needs because there are not enough renewable energy sources to meet our needs. | True | False |
| 2. Using renewable resources helps reduce climate change. | True | False |
| 3. The way humans make and use energy is the main source of greenhouse gas emissions. | True | False |
| 4. Hydroelectricity is the only green renewable energy source. | True | False |
| 5. The United Kingdom is working with its partner countries on reducing greenhouse gas emissions. | True | False |

Questioning

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer your questions

1) How does burning fossil fuels contribute to climate change?

2) What are 4 different types of renewable energy?

Ocean Power

What is Ocean Power?

Ocean power is a flow resource. Ocean power is when we turn the energy that is in the waves and tides of the ocean into energy. Tides are produced twice a day from a combination of the moon's gravitational pull on the earth and the earth spinning on its axis. Tidal energy is reliable energy because the tides occur reliably every day.

Tidal energy is only available where the ocean shorelines allow for the water to be captured and held. Tidal energy is made by creating a reservoir for the tidal water. The high tide water flows into the reservoir over turbines that turn and generate power. The high tide water in the reservoir is then released through tubes that pass over a turbine that turns, creating electricity. The world's largest tidal power plant in South Korea only makes power for 100 homes. The tidal power plant in France makes energy when the water goes in and out using reversible turbines. This plant generates enough power for 130,000 households each year. The Annapolis Generating Station in Nova Scotia generates enough power for 100 homes. Research is being done to assess the environmental impacts of these projects and how to make them most effective.



We can get power from waves either from devices that float on the surface of the water or from devices on the ocean floor. The oscillating motion caused by the waves moves these devices up and down generating power. Portugal had the first and largest wave farm system that could produce power for 1500 homes. After 4 months there were problems with it, and it had to be taken ashore. Many different companies continue to work on prototypes to make this form of energy production viable. Wave energy will be much like wind and solar power, it is dependent on the strength of the waves at the time. Because of the research and development needed to harness wave power it is expensive to produce.

Name: _____

Date: _____

19

Ocean Power - Questions

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Ocean power is non-renewable energy. | True | False |
| 2. Tidal power is like hydroelectric power because tides occur regularly twice a day, so the power generated is reliable. | True | False |
| 3. Wave power is like wind and solar power because the strength of waves is variable. | True | False |
| 4. Ocean power can be created anywhere there is a shoreline. | True | False |
| 5. More research and development are needed before wave power is widely used. | True | False |

Summary

Summarize the reading by writing the important information

Questions

Use information from the text to support your answer

1) How are tidal power and hydroelectric power similar?

2) Why is tidal power considered a flow resource?

Overfishing

Overfishing

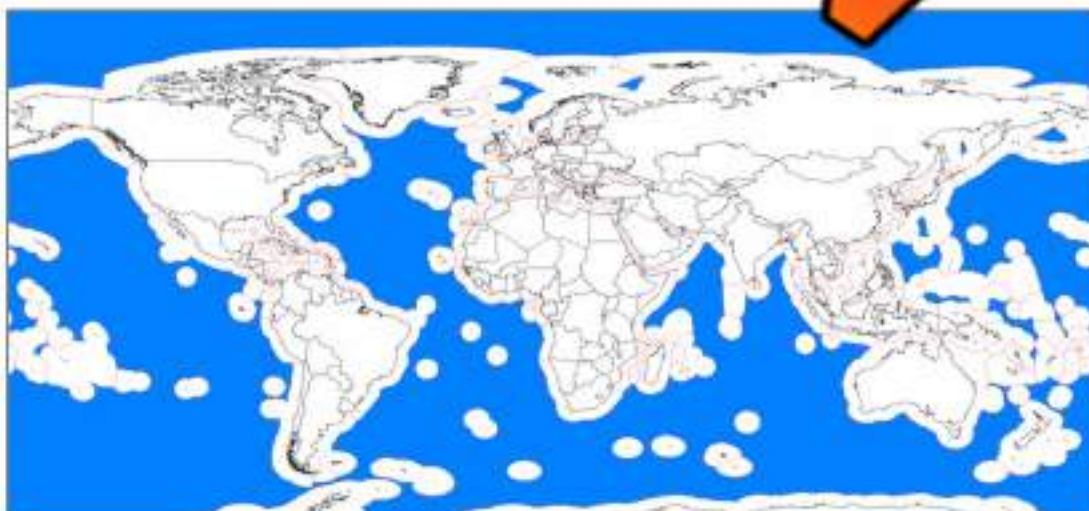
Overfishing is when fish are caught faster than they can replenish themselves. People who live in coastal communities have relied on fish as their main source of food for thousands of years. Fish were caught with spears, hook and line and throw nets which are all sustainable forms of fishing. As the world population grew and the demand for food increased, fish became an important industry. Fish were an important source of protein because it can be preserved for years by drying, salting or pickling.

Resources that are on land have distinct territories and ownership. Ocean fish are not confined by geographic boundaries. Fish live and swim in water where, the water temperature, food availability and ability to escape predators allow their species to thrive. They swim in and across different countries' boundaries. For this reason, fish are called common pool resources. Because no one owns the fish, everyone shares this resource. Ships were also free to go where the fish were and catch what they wanted.

From the early 1900s, fishermen from as far away as Russia and Japan fished on the Grand Banks. Using larger and more efficient fishing techniques the same number of fish that had taken many months to catch, was caught in just 15 years. Canadians started to be concerned that the cod fishery on the Grand Banks was depleting the fish stocks. Other countries also started to worry about their fish resource. By 1980, 30% of the world's fish stocks were being overfished.

The United Nations met and created the United Nations Convention of the Law of the Sea which Canada signed in 1982 stating that every country had exclusive rights to the resources within a 200-mile radius of their shore. This gave Canada exclusive fishing on the Grand Banks, but Canadians increased their fishing until 1992 when the fish were depleted to less than 10% of its original numbers. The Canadian government imposed a pause on the North Atlantic cod fishery in 1992 hoping the fish would return and re-establish itself in a few years. This did not happen.

Currently lobster, snow crab and shrimp produce a similar amount of revenue for Canadian fisheries that the cod fisheries did.



Name: _____

Date: _____

25

Overfishing - Questions

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Fish are a renewable resource that will always be available. | True | False |
| 2. Thirty percent of the world's fish stocks are being overfished which will lead to that fish being extinct. | True | False |
| 3. Fishing boats only fish off the shorelines of their own country. | True | False |
| 4. Lobster, sea crab and shrimp have replaced the cod fisheries in Atlantic Canada. | True | False |
| 5. When a pause was placed on cod fishing on the Grand Banks, the cod fish returned to their numbers after 15 years. | True | False |

Questions

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer your questions

1) What is overfishing?

2) What is the United Nations Convention of the Law of the Sea?

Desertification

Desertification

Desertification is when a fertile land area turns into a desert because of drought, global warming, deforestation, overgrazing and human activities. Desertification happens in areas that are drylands where humidity is very low. Drylands cover 41% of the earth's land surface and are home to 2 billion people. When people live in an area, they need resources such as food, water and crops. These resources need to be replenished in order to meet the needs of the people living on the land. In drylands, water is scarce and often drought occurs when there is no rainfall for prolonged periods.

Desertification occurs when people continue to use what little water an area has and when they allow their animals to overgraze the existing vegetation, creating a greater demand on the area for resources than can be replenished. If the demand is greater than the supply of time if people take more resources from drylands than can be replenished, the dryland becomes unable to sustain any people or animals. Increasing populations and global warming are making desertification happen more quickly.

By the year 2000 between 10% and 20% of the world's land was already at risk of desertification. The United Nations recognizes desertification as one of the biggest environmental threats the world faces. Desertification is a threat on every continent except Antarctica. Africa is losing more land to desertification than any other continent.

The biggest causes of desertification are human activities including:

- Overpopulation - more people living closer together where there is not enough land to support their activities.
- Deforestation - people cut down the trees and shrubs for shelter and fuel leaving the ground bare and open to wind erosion.
- Overgrazing - people used to move their livestock from one area to another which allowed the vegetation to recover between times when animals grazed on it. Now they often stay in one place allowing their animals to exhaust the pastures without giving time for the vegetation to recover.
- Switching the type of animals raised - Goats produce valuable cashmere but they eat the vegetation, roots and all, leaving pastures bare and open to erosion, where sheep eat the grass and move to another area of the field allowing the pasture to recover.



Name: _____

Date: _____

27

Mapping - Desertification Vulnerability



Desertification Vulnerability



Desertification - Questions**Visualizing**

Draw what you were picturing in your head while you were reading



What from the text made you picture that in your head?

Questions

Use information from the text to support your answer

1) What is desertification? How does it happen?

2) According to the map, which areas are at the most risk of desertification?

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------|------|-------|
| 1. Deserts only occur close to the equator. | True | False |
| 2. Global warming is affecting the amount of desert land there is in the world. | True | False |
| 3. Drylands cover 41% of the earth's land surface | True | False |
| 4. Desertification is not a big environmental problem. | True | False |
| 5. Human activities are one of the main causes of desertification. | True | False |

Deforestation

Deforestation

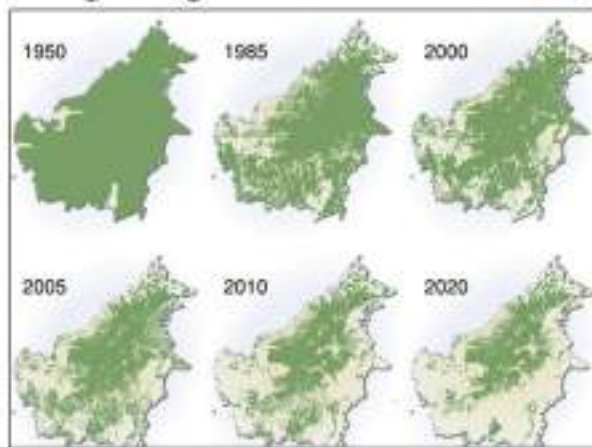
Deforestation is when trees in a forest are cut down, so that humans can use the land for other activities. Deforestation has led to the loss of 10 million square kilometers of tropical rainforest leaving just 6 million square kilometers of rainforests. Forests are an important resource. They provide habitat for wildlife and the plants in the forests provide important ingredients for medicine. Trees are important in the battle against climate change. Trees absorb carbon dioxide in their roots and leaves and give off oxygen. Trees cool the earth providing shade. When trees are cut down the carbon dioxide stored in the roots, decaying leaves and branches is given off, adding to greenhouse gases. If the trees are burned, more carbon dioxide is released into the air. A tree that has been cut down is a significant source of carbon dioxide.

Trees in a forest have an important role in water management. When heavy rains fall, trees catch some of the rain, let some of it drip gently to the ground while some of the rainwater evaporates from the leaves. The roots of trees hold soil in place and reduce erosion and flooding. Trees let water seep into the ground which forms as clouds and leads to rainfall.

In South America acres of forest are being cut down in order to raise cattle or to grow soybeans and coffee beans. Once the forest is cleared, the temperature of the soil rises causing drought like conditions. Often, after a few years the land that has been cleared

is being grazed by cattle. The land is exhausted with grass not being able to grow. The hot and dusty earth and farm animals are not able to support their cattle.

In Malaysia, rain forest is being cut down to grow palm trees. Palm oil is a cause of deforestation is climate change. Climate change has caused increased temperatures because more wildfires that are more severe. 23% of deforestation is the result of wildfires.



Deforestation in Borneo 1950-2005

What can be Done About Deforestation?

There are several things we can do about deforestation including:

- Eat less meat- if there is less demand for beef, less grazing land will be needed.
- Plant a tree
- Boycott products that have palm oil- Palm Oil plantations are replacing rainforests. If there is less demand for the product there will be less plantations needed.
- Go paperless as much as possible. Don't print pages needlessly.
- Reduce, reuse and recycle.
- Choose wooden items made from bamboo rather than less sustainable types of wood.

Name: _____

Date: _____

30

Deforestation - Questions

True or False

Circle whether the statement is true or false

| | | |
|----------------------------------------------------------------------------------------------------------|------|-------|
| 1. It does not cause any harm to cut trees down if you plant crops in their place. | True | False |
| 2. Cutting down rainforests leads to some animals becoming extinct because they have lost their habitat. | True | False |
| 3. Eating less meat helps prevent deforestation. | True | False |
| 4. Trees have an impact on the water cycle. | True | False |
| 5. Cutting down trees causes greenhouse gas emissions. | True | False |

Summary

Summarize the reading by writing the important information

Questions

Use information from the text to help you answer

1) What are the problems caused by deforestation?

2) Should Canadians have any say about what people in South America or Malaysia do with their land? Why or Why not?

Natural Resources Ethical Use

Natural Resources Ethical Use

Every country has some natural resources. The people in each country rely on the resources around them to live. Sometimes when natural resources are discovered in an area the people who live in that area are displaced or disadvantaged in some way that causes them to be treated unfairly or causes them harm.

In New Zealand the Maori people first settled New Zealand in 1300. In the 1850's European settlers came to New Zealand from the Maori. The Maori have a tradition of protecting nature. To this tribe protecting and respecting nature is a way to respect their ancestors and to make sure they have resources for the future. Countries are beginning to understand that the indigenous people who have lived on the land are united to protect it. Often indigenous people are opposed to development from interests that do not consider the community. Indigenous people make up 5% of the world's population but they are a significant part of the world. Often hear of indigenous people protesting disruptive land use including protesting pipelines and construction that destroys habitat.

In South America land that is controlled by indigenous people has deforestation rates that are 2-3 times lower than other areas. Allowing indigenous people to manage their land is an economical way to fight climate change. In Kenya conserving land with the native community have been successful in conserving some land for wildlife and creating economic opportunities that offset the cost of losing the land for animal herding. In Canada the government gave land east of Winnipeg over to First Nations, protects the land and habitat from uncontrolled logging.



Governments are beginning to recognize that indigenous people are good at conserving nature for future generations. The values reflected by indigenous people in protecting the environment are recognized by the United Nations in their document the United Nations Declaration on the Rights of Indigenous People.

Name: _____

Date: _____

32

Natural Resources Ethical Use - Questions

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------------------------------------------------|------|-------|
| 1. Indigenous people stop the productive use of land. | True | False |
| 2. Indigenous values support conservation. | True | False |
| 3. There are many examples around the world of indigenous people who protest to save the environment. | True | False |
| 4. Indigenous ownership of land has no affect on the environment. | True | False |
| 5. The rights of indigenous people have often been disregarded in the name of progress. | True | False |

Questions

Use information from the text to support your answer

1) Give 3 examples of indigenous people protecting the natural environment?

2) Do you think indigenous people should be paid for the land that has been taken from them over a hundred years ago?

Making Connections

What does this reading remind you of in your life?

The Tragedy of the Commons

The Tragedy of the Commons is an article written by Garrett Hardin, who describes a field in a village square that is not owned by any one person and on which local people can bring their cows to graze for free. At first everyone brings one cow to the field, but eventually, the users realize that they will get more benefit if they bring additional animals there to graze for free. If more animals are brought to the field, the grass will not be able to recover fast enough to continue to support all the cows and the field will be ruined. The users make the choice to bring extra cows because they will benefit more personally from having more cows grazing today. They know they cannot control the others who can also add additional cows. In the end they choose to overuse the field and soon they have nowhere for their cows to graze because the field no longer produces grass. This highlights the problem that when no one owns something, there is no one who acts to protect it.

Fishing is a great example of the Tragedy of the Commons. No one owns the fish in the ocean. Every fisherman takes as much as they can, because if they don't take them, the fish will die. Because of this attitude the cod fisheries on the Grand Banks were exhausted and the blue tuna is in danger of extinction.

Solutions to the Tragedy of the Commons

Private Ownership - when people own something they want to preserve and maintain it and protect it, but the benefit of the resource only goes to the private owner.

Government ownership - when governments take ownership, they can regulate the use of the resource and make rules to protect it. Sometimes governments are less efficient than private owners so, prices for goods made with the resource may be more expensive.

Co-operation between users - Elinor Ostrom was the first woman to win a Nobel prize in Economic Sciences. She believed that people could work together to share a resource if they had some rules for:

- how the resource could be shared
- how to resolve disagreements
- how to monitor whether people were following the rules
- what the consequences would be if they did not follow the agreed upon rules

The United Nations is an example of a group that helps make rules for how we share resources in the world.



Name: _____

Date: _____

34

The Tragedy of the Commons - Questions

True or False

Circle whether the statement is true or false

| | | |
|---------------------------------------------------------------------------------------------------------------|------|-------|
| 1. The Tragedy of the Commons is a way to understand cattle grazing. | True | False |
| 2. The Tragedy of the Commons is an analogy to help us understand the difficulties of using shared resources. | True | False |
| 3. The phrase comes from an article written by Garrett Hardin. | True | False |
| 4. Government control is the only solution to the Tragedy of the Commons. | True | False |
| 5. There are many solutions to the Tragedy of the Commons that work in different situations. | True | False |

Questioning

Write at least **two** questions you have after reading the text

Questions

Use information from the text to answer your questions

1) What is Elinor Ostrom famous for?

2. What are the 3 solutions to the Tragedy of the Commons?

Sustainability

Sustainability

In 1987 the United Nations released the Brundtland Report called, Our Common Future. This report was a call to action for the world to consider the sustainability of all our activities.

The report, defines sustainability as, "meeting the needs of the present, without compromising the ability of future generations to meet their own needs."

The report draws attention to the increase in people who do not have their basic needs met. It also highlights the increasing amount of useful land that has been lost due to desertification. It also highlights the threat of global warming, deforestation, acid rain and air and water pollution. It calls for global action to reverse these negative environmental trends.

There are three pillars that lead to sustainability including:

Economic Pillar - This pillar is profit focused- Sustainability

must be financially viable.

Social Pillar - This pillar is people focused- Sustainability focuses

on equity, eradicating poverty and ensuring everyone's necessities

of life, and there are universal rights.

Environmental Pillar - This pillar is focus on the planet.

conserving resources-protecting nature- conserving

wildlife- consuming resources at a rate at which they

can replace themselves.

How Can we Help Become More Sustainable?

1) Be informed consumers.

- Look for products without overpackaging.
- Only buy what you need -think reduce-reuse-recycle
- Be aware of endangered species and overfished species. Don't buy canned tuna.
- Be aware of social issues like the use of child labour in clothing manufacturing. Don't buy products from areas known for these practices.
- Look for fair trade products for example coffee, to make sure producers are being paid fairly.
- Be aware of brands that are endorsed by groups trying to produce goods in a more environmentally friendly way such as Wood Preservation Canada, when buying pressure treated wood or the Rainforest Alliance when buying palm oil.

2) Conserve fossil fuels-don't make needless car trips, carpool, walk and bicycle

3) Go paperless as much as possible don't print things that aren't necessary.

4) Turn off electronics and lights when not in use.



Sustainability - Questions

Visualizing

Draw what you were picturing in your head while you were reading



What from the text made you picture that in your head?

Questions

Use information from the text to support your answer

1) Add 2 additional ideas from the 'How to Become More Sustainable' section?

2) What is the Brundtland Report's definition of sustainability?

True or False

Circle whether the statement is true or false

| | | |
|-------------------------------------------------------------------------------------------------|------|-------|
| 1. Making a profit is the most important part of becoming sustainable. | True | False |
| 2. Sustainability is concerned with, people, the planet and profits. | True | False |
| 3. Making sure everyone has their basic needs met is an important part of becoming sustainable. | True | False |
| 4. Our Common Future is the name of the Brundtland Report | True | False |
| 5. Energy efficiency has nothing to do with sustainability. | True | False |

Activities - Natural Resources Around the World**Word Search**

Find the word bank words in the puzzle!

Word Bank

Natural
Resources
Flow
Renewable
Fossil
Fuels
Trees
Wildlife
Hydroelectric
Gas
Mining
Climate
Overfishing
Desertification
Deforestation
Government
Biomass
Geothermal

D N I W J M E V Q E L S E C R U O S E R
B E G N I Q G X V Y F I U L J X I B T T
G G X S M I O A C Q W H S P L Z V A A Y
K A D K H W V W N V A P L S C I M J M E
C S L M R E H T O E G A I O U V O I Y
R X F U R B Z K Q F R F D F A C L E
E F T A Z S J E T U D D X L J C F
N B V O Y R Q C V T J T I A N S I
E K I L F S V U A L I S G Y L L
W H A H A Y L T N I N G N G E D
A R L W V C F D R D D N U L
B L Q D E F O T O N K I F I
L Q U Y D R T B C G I H Q W
E R F X D N O I T A C I T S E D
O L O Y Q Q Y Q Q R T V O B A F K
X G H A L S Z A O L Z M T U
T W D Z B G M Y S O A N I Q Y S
T C D P P T D X P S H N E G Q C X
S E E R T S J L S X Y S S W V U T V A
L M K J R Q H Y J K W O R Y I V J O F Y

Word Scramble

Unscramble the word bank words from above

EANEWRBLE _____

OIFSLS _____

TREYICHLDCOR _____

MTCEAIL _____

LLEDIWIF _____

INGMNI _____

RAUTNAL _____

ROCSSREUE _____

VIRHGOFNISE _____

AENIOFREDTSOT _____

Name: _____

Date: _____

Unit Test - Natural Resources Around the World

Multiple Choice

/6

1. Which of the following is a renewable resource?

- a) Fossil Fuel
- b) Biomass
- c) Coal
- d) Natural Gas

2. Which of the following is not a flow resource?

- a) Waterfalls - Hydroelectricity
- b) The Sun - Solar Energy
- c) Wind
- d) Fossil Fuels

3. Which of the following is a non-renewable resource?

- a) Coal
- b) Biomass
- c) Geothermal energy
- d) Solar energy

4. Which form of energy uses heat from the Earth's core?

- a) Biomass
- b) Geothermal
- c) Solar
- d) Hydroelectricity

5. The burning of which resource is contributing to climate change?

- a) Timber
- b) Waste
- c) Fossil Fuels
- d) Hydro

6. Which form of energy is when we use plants or organic material to create electricity?

- a) Coal
- b) Biomass
- c) Geothermal
- d) Solar

Definitions (1 marks each)

/3

| Term | Definition (what does it mean) |
|----------------------------|--------------------------------|
| Deforestation | |
| Flow Resource | |
| The Tragedy of the Commons | |

Short Answer Questions (2 marks each)

16

1. What is the difference between a renewable and non-renewable resource?

2. Why are some indigenous groups upset about how natural resources are being used on their land?

P

3. What is fishing? Why should we be worried about it?

REF

Long Answer Questions

5

What does sustainability mean? What kinds of things are hurting the planet that are not leading to sustainability? What can we do to become more sustainable?

