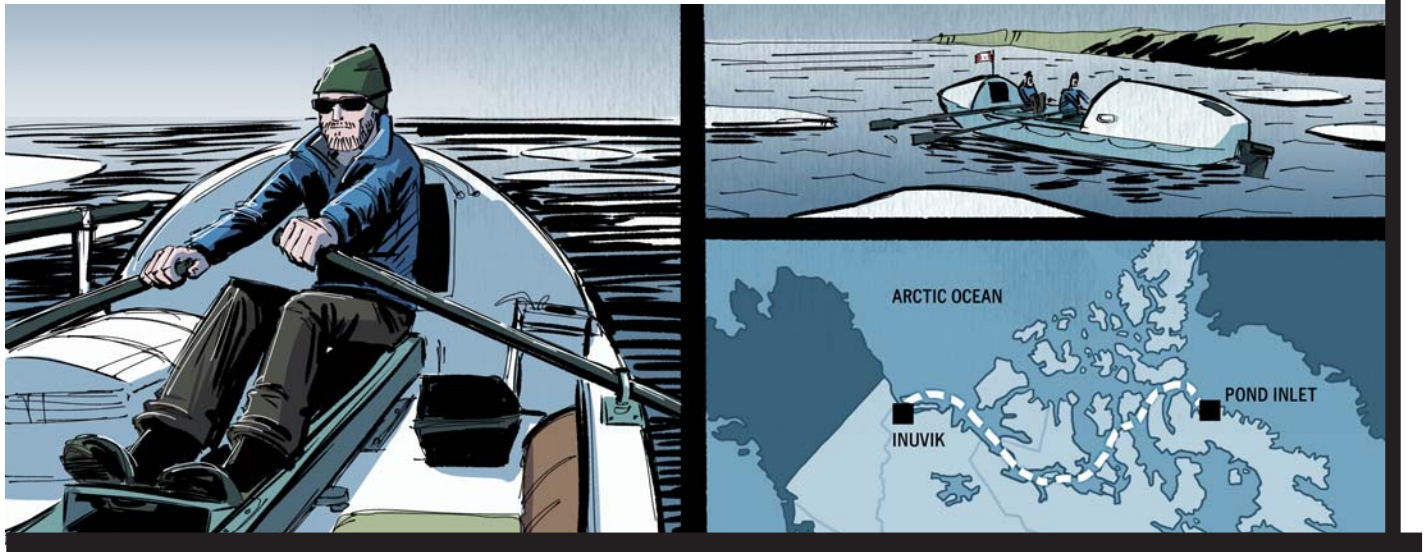




NATIONAL

ROW, ROW, ROW YOUR BOAT

— THROUGH THE NORTHWEST PASSAGE



Since early July, four men have been rowing a 7.6-metre boat through Canada's Arctic islands. Their goal is to travel 3000 kilometres through the fabled Northwest Passage using muscle-power only. The plan is to get to Pond Inlet, on Baffin Island, Nunavut by mid- to late-September.

"We'll be four overworked and underfed lads, crammed into a space smaller than your average parking stall," said one of the rowers. "But it's all about [trying] something that has never been done before."

ADVENTURERS ON ICE

The team consists of four men. Most are experienced adventurers. Canadian Kevin Vallely has skied to the South Pole. Paul Gleeson from Ireland has rowed across the Atlantic

Ocean. Canadian filmmaker Frank Wolf has crossed Canada by canoe in a single season. This is the first major expedition for the youngest man, Denis Barnett from Ireland.

The four left Inuvik, Northwest Territories on July 4 in their boat, the *Arctic Joule*. Two men row while two rest. They switch every four hours. With 24-hour daylight, they're able to travel non-stop as long as the weather cooperates.

QUEST FOR THE PASSAGE

The Northwest Passage is steeped in history. For centuries, explorers searched for this route from Europe to the Orient. Expedition after expedition sailed into dangerous, **uncharted** Arctic waters.

Perhaps the best-known one was headed by British explorer Sir John Franklin in 1845. He and 128 men died when their ships became lodged in ice for months.

Sir Franklin and others believed the Passage would be a great shipping route. Today, easy travel through these islands could help tourism and make oil drilling possible.

DID YOU KNOW?

Parks Canada has been searching for Sir John Franklin's ships for five years.

DISAPPEARING ICE

Such use of the Passage is more likely now than ever. That's because travellers have to deal with far less sea ice than in the past. The reason? The Earth's climate is warming,

DEFINITIONS

UNCHARTED: not yet known or mapped



NATIONAL

ROW, ROW, ROW YOUR BOAT

– THROUGH THE NORTHWEST PASSAGE

and temperatures in the Arctic have been rising twice as fast as elsewhere. As a result, sea ice cover has been shrinking an average of 13 percent per decade.

Sea ice naturally decreases in summer and builds back up in colder weather. But in September 2012, the portion of the Arctic covered by sea ice hit a record low. That followed a six-year trend. If it keeps up, the Arctic Ocean could experience ice-free summers in 30 years.

A CHANGE FOR THE WORSE

Less sea ice is bad news. For one thing, the white Arctic ice cap normally has a cooling effect on the planet, because it reflects sunlight back into space. As it melts away, more solar radiation is being absorbed by the open water. That's causing the warming trend to speed up – and more ice to melt.

For another, the loss of sea ice is disrupting the habitat of many creatures. For instance, it's causing phytoplankton, the base of the Arctic food chain, to bloom earlier. That's disturbing the normal feeding patterns of fish, seabirds, seals and whales.

As well, seals and walruses use sea ice to rest or raise their

WHY IS THE EARTH WARMING?

The Earth is naturally warmed by greenhouse gases that trap and hold the sun's heat, making life possible. However, over the last 200 years, more greenhouse gases have been gathering in the atmosphere than naturally exist. As a result, the Earth is warming faster than ever.

What's causing this? Humans. By burning fossil fuels to run cars, heat homes, and make products, people are putting greenhouse gases into the atmosphere. Garbage also gives off **methane**. And cutting down trees, which absorb these emissions, makes the problem worse.

The warming trend has melted ice on glaciers, causing ocean levels to rise. Low-lying areas are increasingly at risk of flooding. Global warming also threatens many animal and plant species, causes fresh water supplies to dwindle and extreme weather events to occur more often. However, scientists say there's hope. The worst impacts of global warming can still be avoided if people and countries work together to greatly reduce the greenhouse gases entering the atmosphere.

young. Wolves and foxes travel on ice. Polar bears use it to hunt.

Melting ice is also increasing the amount of fresh water in the North Atlantic. That's making it easier for some species to survive, but more difficult for others. The new concentration of fresh water could alter ocean currents, too. That would bring more change.

PERMAFROST PROBLEMS

Warmer Arctic temperatures are affecting the land as well. Much of the northern Arctic is covered by a layer of **permafrost**. It has prevented organic material in the soil from decaying – often for thousands of years. Now, the permafrost is thawing and

the organic material is starting to rot. This process may release more gases, and accelerate global warming even more.

MEANWHILE, BACK AT THE OARS

During their trip, the *Arctic Joule* rowers are gathering data on ocean conditions to help scientists understand more about all of these changes. Their main goal, however, is to make people more aware of the impact of global warming.

“By traversing the Northwest Passage ... in a rowboat... [we] will be able to demonstrate first-hand the dramatic effects climate change is having on our planet,” says Mr. Vallely. ★

DEFINITIONS

METHANE: a very potent greenhouse gas

PERMAFROST: ground that stays permanently frozen



NATIONAL

ROW, ROW, ROW YOUR BOAT

– THROUGH THE NORTHWEST PASSAGE

ON THE LINES

Answer the following in complete sentences:

1. How do greenhouse gases keep the Earth warm?

2. Why has this warming system been thrown out of balance over the past 200 years? Explain.

3. Where did the *Arctic Joule* leave from and where is it going?

4. How many kilometres will the *Arctic Joule* travel and what route will this boat take?

5. Explain why it is more possible now than ever before to travel through the Northwest Passage.

6. Describe at least two environmental impacts of decreasing sea ice.

7. How are warmer temperatures affecting land in the Arctic? Explain.



NATIONAL

ROW, ROW, ROW YOUR BOAT

– THROUGH THE NORTHWEST PASSAGE

BETWEEN THE LINES

Making an inference: An *inference* is a conclusion drawn from evidence. A plausible inference is supported by evidence in the article and is consistent with known facts outside of the article.

What inference(s) can you draw from the fact that Parks Canada has been searching for the sunken remains of Sir John Franklin's two ships for five years?

JUST TALK ABOUT IT

Brainstorm a list of the challenges that the *Arctic Joule's* team might face before, during, and after their journey. Then consider:

- Which of these challenges is most significant? (A significant challenge is difficult to overcome and has a strong impact on the team or the success of the journey.)
- What characteristics do you suppose team members must possess to be able to face these challenges? Explain.

ONLINE

Go to www.news4youth.com and select the *What in the World?* tab to:

- View [photos of the Arctic Joule's team](http://www.cbc.ca/news/canada/bc/photos/4476/#igImgId_73296) preparing for their journey in Vancouver, B.C. (or visit http://www.cbc.ca/news/canada/bc/photos/4476/#igImgId_73296).
- Track the rowers' journey, read their blog, and find out more about their adventure on the [Arctic Joule's website](http://mainstreamlastfirst.com/) (or visit <http://mainstreamlastfirst.com/>).
- Learn more about global warming on the [National Geographic's Global Warming pages](http://environment.nationalgeographic.com/environment/global-warming/) (or visit <http://environment.nationalgeographic.com/environment/global-warming/>).
- Find out more about [the Franklin Expedition](http://www.canadiangeographic.ca/specialfeatures/franklinexpedition/) (or visit <http://www.canadiangeographic.ca/specialfeatures/franklinexpedition/>). Read about [the Franklin expedition currently underway](http://www.cbc.ca/news/canada/story/2013/08/09/franklin-north-search.html) by Parks Canada (or visit <http://www.cbc.ca/news/canada/story/2013/08/09/franklin-north-search.html>).
- Finally, submit your thoughts to our **forum**:

Would you consider taking part in an adventure similar to the one being undertaken by the *Arctic Joule's* team? Why or why not? **OR**

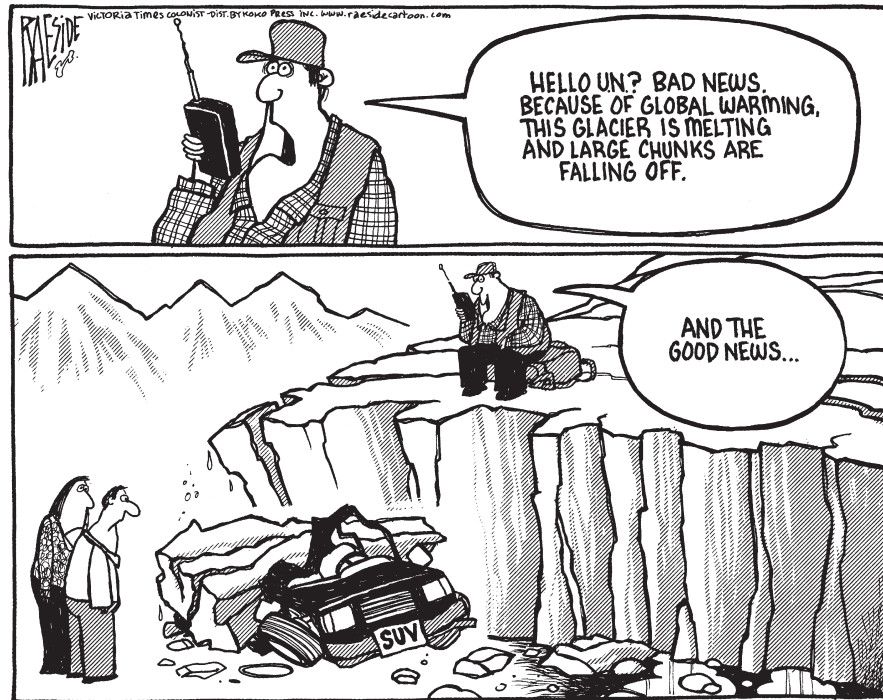
What causes do you believe in strongly enough that you would consider supporting or promoting them in some way? Why?

An effective paragraph is clearly written, logically organized (including an introduction and a conclusion), and supported with plausible reasoning. ★



ROW, ROW, ROW YOUR BOAT

– THROUGH THE NORTHWEST PASSAGE



YOUR TASK:

Examine the editorial cartoon above. Then, answer the following questions:

1. a) As you understand it, what is global warming? _____

b) What are some of the causes of global warming? _____

c) What are some of the effects of global warming? _____

2. Examine the first frame of the cartoon. What bad news is being reported? _____

3. a) Examine the second frame of the cartoon. What is the 'good news' being reported? _____

b) For what reasons could this event be considered 'good news'? Explain. _____





GETTING INSIDE THE PICTURE

ROW, ROW, ROW YOUR BOAT

– THROUGH THE NORTHWEST PASSAGE

Directions:

1. Study the photograph below.
2. Then, complete each quadrant on the **Getting Inside the Picture** chart. Use as many details as you can.
3. Now, select one of your powerful words. Use this as a springboard for a 5-minute **Quick Write**. Let your pen flow. *A good descriptive paragraph has vivid details and helps the reader “get inside the picture” (experience the event as if he/she were right there).*
4. Generate three possible titles for this picture. Then select the one that best captures the essence of the image. Explain why this is the most suitable title.



Photo courtesy mainstreamlastfirst.com

Prepared with assistance from TC², The Critical Thinking Consortium. © 2013



GETTING INSIDE THE PICTURE

ROW, ROW, ROW YOUR BOAT

– THROUGH THE NORTHWEST PASSAGE

Title: _____

<p style="text-align: center;">Senses</p> <p>What might you hear, smell, taste or touch? What colours, textures, sounds, movements do you experience?</p>	<p style="text-align: center;">Images</p> <p>What details in the photograph create vivid pictures in your mind?</p>
<p style="text-align: center;">Words</p> <p>What powerful words describe the scene? What might you think, wonder, say if you were there?</p>	<p style="text-align: center;">Feelings</p> <p>What do you feel when you look at this image? What might the people in the photograph be feeling?</p>
<p>Quick write:</p>	
<p>Possible titles:</p> <p>1. _____ 2. _____ 3. _____</p>	
<p>The best title is # _____ because . . .</p>	

MAP CANADA'S NORTH

Complete this map assignment to better understand the article 'Row, Row, Row Your Boat – Through the Northwest Passage'.

INSTRUCTIONS:

1. Obtain the required resources and read all the instructions before starting.
2. Colour your map after all labelling is completed.
3. Print in pencil only first, then go over the printing in black ink.
4. Work carefully and neatly.

Resources Required: pencil, black pen, pencil crayons, ruler, eraser and an atlas.

Part A Locate and label the following territories in CAPITAL letters and shade each as indicated:

Yukon Territory (brown) Northwest Territories (pink) Nunavut (orange)

Part B Locate and label the capital city of all three territories and underline.

Part C Locate and label the following in CAPITAL letters and shade each as indicated:

British Columbia (purple) Alberta (yellow) Saskatchewan (green)
Manitoba (brown) Ontario (grey) Quebec (yellow)
Alaska (grey) Greenland (green)

Part D Locate and label the following islands:

Baffin Island Ellesmere Island Victoria Island

Part E Locate and label the following lakes and shade them light blue:

Great Slave Lake Great Bear Lake Lake Athabasca

Part F Locate and label the following bodies of salt water and shade all ocean water dark blue:

Arctic Ocean Beaufort Sea
Hudson Bay Baffin Bay

Part G Locate and label the following two lines of latitude:

60° N Arctic Circle 66° N

Part H Locate and label the following communities:

Inuvik Pond Inlet

Part I Locate and label the route of the *Arctic Joule*.

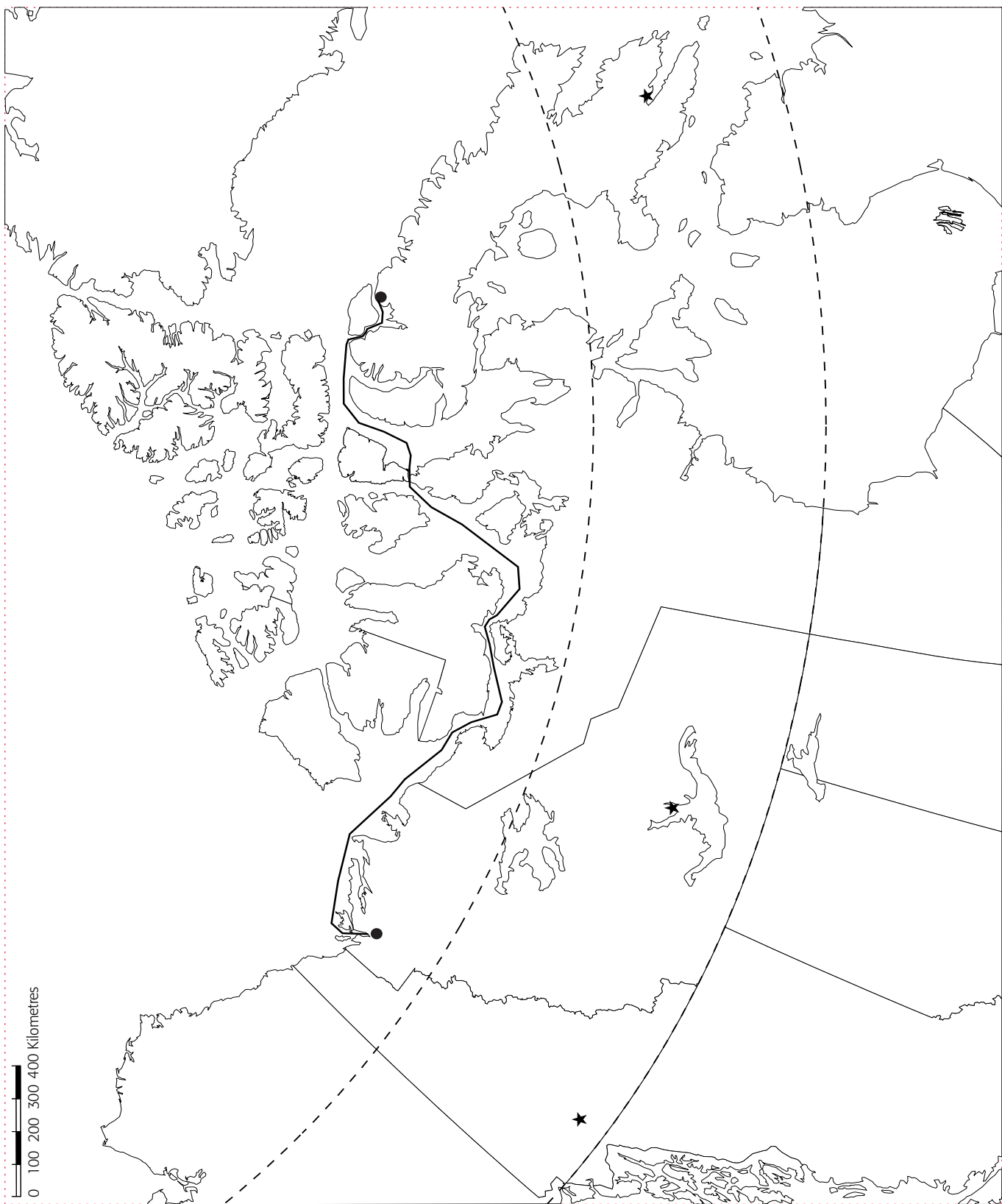
Part J Complete your map with a frame, title and compass. ★



Northwest Territories



Nunavut





NATIONAL

LAC-MÉGANTIC MOURNS



On July 6, one of Canada's worst-ever train disasters devastated Lac-Mégantic, Quebec. It left 47 people in the town of 6000 dead. It also **incinerated** the downtown core, sending fireballs into the air. The country reacted in horror.

CRASH!

Just before midnight, a Montreal, Maine and Atlantic (MMA) train stopped on the tracks 12 kilometres from Lac-Mégantic. It was carrying 72 tankers, each filled with 113,000 litres of **crude oil**. The lone crewman – engineer Tom Harding – parked the train, which was over one kilometre long. Then he taxied to a hotel.

But something went terribly wrong. At 12:56 a.m., the 10,000-tonne train began to roll and pick up speed. Nineteen minutes later, it hurtled into the

heart of the sleeping community. Travelling up to 101 kilometres an hour, it flipped off the track.

The oil tankers blew up. That set the town ablaze and flattened 40 buildings. Two thousand people were evacuated. Some 150 firefighters rushed to the scene.

WHAT HAPPENED?

A memorial service was held for the victims on July 27. Prime Minister Stephen Harper, Governor General David Johnston and Quebec Premier Pauline Marois attended. Thousands packed the church and overflowed into the streets.

Meanwhile, as officials tried to piece together details, the engineer was suspended.

Evidence suggests that the train's air brakes failed. As well, all of the handbrakes might not have

been applied. Investigators also wonder if the engineer tested the train to find out if it was secure.

To make matters worse, the oil being transported came from the Bakken oil fields of North Dakota. Bakken oil is far more **volatile** than other forms of crude. That likely contributed to the huge blast.

ECO-DISASTER

To add to the tragedy, nearly six million litres of crude were spilled. That's enough to fill two Olympic-size pools.

Burning oil ran into sewers and seeped into the ground. It flowed into the Chaudière River and the lake that gives the town its name. Dead fish littered shorelines.

"Look at my fingers – it's all oil," said one local fisher, after

DEFINITIONS

CRUDE OIL: oil that has not been refined

INCINERATED: completely burned; reduced to ashes

VOLATILE: explosive



NATIONAL

LAC-MÉGANTIC MOURNS

testing the water in the river.

“It’s not only a problem for fish, it’s a problem for all the wildlife. Beavers, otters, birds, ducks, all swimming in this.”

WHO SHOULD PAY?

Crews quickly moved to contain the crude. They cleaned or removed 50 million litres of oily water. They got rid of bags and bags of **contaminated** soil. But by late August, the site was still strewn with **debris**.

The province and the federal government each promised \$60 million in aid. But the cleanup will cost at least \$200 million and the accident has left MMA broke. It says it can’t pay the bill.

Quebec wants other companies involved in the accident to contribute to the cleanup, too. But so far, Western Petroleum Company and World Fuel Services Corporation, who were transporting the oil, have refused to help. So has CP Rail, the Canadian company that was hired to deliver the oil from North Dakota to a New Brunswick **refinery**. It may take years before the issue is settled.

A BAD DECISION

Once, the government was responsible for train inspections

TRAIN OR PIPELINE: WHICH IS SAFER?

Most people are aware that there is a controversy over using pipelines to transport oil to refineries. Environmentalists are against them because sometimes, they spring a leak. The oil that escapes can ruin lakes, rivers and habitats. In 2010, for example, a pipeline owned by Enbridge ruptured. It spilled three million litres of oil into the Michigan River.

Trains are also sometimes used to carry oil over land. In 2012, just under four percent of oil shipped through Canada went by rail. Experts say that amount is likely to grow. But are trains a safer choice?

Maybe – or maybe not. Since April alone, three train accidents in Canada have caused – or threatened to cause – terrible damage to the environment. On April 3, a train derailed near White River, Ontario, spilling 63,000 litres of crude. About six weeks later, a train jumped the tracks near Jansen, Saskatchewan, spewing out 91,000 litres of oil. In June, after a flood in Calgary, a bridge gave way. Five tankers nearly landed in the Bow River.

The only truly safe option is to stop shipping oil altogether. That, however, is unlikely to happen as long as we rely on this fuel for energy.

and for enforcing safety. In the 1980s, all that changed. The Railway Safety Act put railways in charge of protecting public safety and the environment.

Not a good idea, says E. Wayne Benedict, a lawyer and former locomotive engineer.

“Common sense says that they’re going to make the decision that’s going to have the least impact on their ... profits,” Mr. Benedict says.

LEARNING FROM A MISTAKE

The good news? The Lac-Mégantic tragedy has prompted improvements. The **Transportation Safety Board** is bringing in new regulations for trains carrying hazardous materials. They cannot be left unattended on the main track. The rules for setting brakes got tighter. And there will be no more one-person crews.

But is it enough to prevent another Lac-Mégantic? Only time will tell. ★

DEFINITIONS

CONTAMINATED: made dirty, polluted, or poisonous
DEBRIS: the broken pieces that are left when something large has been destroyed

REFINERY: a factory for purifying a crude substance
TRANSPORTATION SAFETY BOARD (TSB): an independent agency in charge of marine, pipeline, rail and air safety



NATIONAL LAC-MÉGANTIC MOURNS

ON THE LINES

Answer the following in complete sentences:

1. In which Quebec town did a terrible railway accident occur on July 6?

2. Which railway company was in charge of the train that derailed?

3. Describe the size and cargo of the freight train that was parked near the town on the night of July 5.

4. Describe the events leading up to the train derailment.

5. What happened after the train derailed? Explain.

6. How did this accident affect the environment? Explain.

7. Why is MMA not going to pay for cleaning up the damage to the environment?



NATIONAL LAC-MÉGANTIC MOURNS

BETWEEN THE LINES

Making an inference: An *inference* is a conclusion drawn from evidence. A plausible inference is supported by evidence in the article and is consistent with known facts outside of the article.

What inference(s) can you draw from the fact that so far, all the companies involved in the Lac-Mégantic disaster – MMA, Western Petroleum Company, World Fuel Services Corporation and CP Rail – have all said they can't or won't help pay to clean up the environment?

JUST TALK ABOUT IT

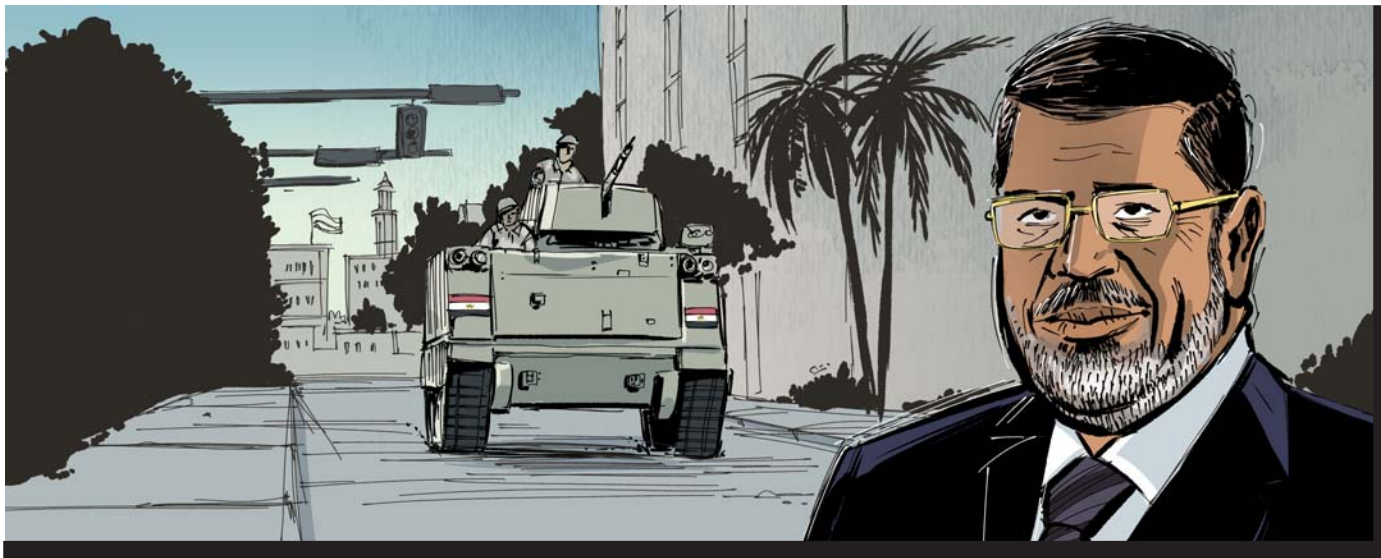
1. a) Brainstorm a list of all the individuals and groups who played a role in the Lac-Mégantic train disaster.
b) Then, consider: As you see it, who should take the greatest responsibility for the disaster? Give reasons to support your response.
2. a) Consider the following statement: *The new Transportation Safety Board regulations for trains carrying hazardous materials will help to prevent another Lac-Mégantic.*
b) Do you agree or disagree with this statement? Give reasons to support your response.

ONLINE

Go to www.news4youth.com and select the *What in the World?* tab to:

1. View an [infographic of the amount of oil spilled](http://www.cbc.ca/montreal/features/lac-megantic-oil-amount-graphic/) in the Lac-Mégantic disaster (or visit <http://www.cbc.ca/montreal/features/lac-megantic-oil-amount-graphic/>).
2. See [photos from inside the Lac-Mégantic disaster zone](http://www.cbc.ca/montreal/features/lac-megantic-redzone-closeup-photos/) (or visit <http://www.cbc.ca/montreal/features/lac-megantic-redzone-closeup-photos/>) and [Lac-Mégantic before and after photos](http://www.cbc.ca/news/interactives/before-after/lac-megantic/) (or visit <http://www.cbc.ca/news/interactives/before-after/lac-megantic/>) ★

INTERNATIONAL EGYPT IN TURMOIL



Waving flags. Anti-government slogans. Raised fists and angry chants. Chaos in the streets.

Then, victory. On July 3, after four days of mass protests by millions of Egyptians, the army arrested President Mohammad Morsi.

What was behind this dramatic turn of events?

LOOKING BACK

Mr. Morsi was Egypt's first democratically-elected president. When he took power in June 2012, the majority of Egyptians were joyful.

The reason? In February 2011, uprisings had forced out former president Hosni Mubarak. Mr. Mubarak was a **despot** who had ruled Egypt for 29 years.

Most Egyptians were happy to have him gone. They were even happier to have been able to participate in the country's first free elections that brought Mr. Morsi to power.

TROUBLING SIGNS

The new president belonged to the Freedom and Justice Party, the political branch of the Muslim Brotherhood. He promised to create a **constitution** that ensured a "democratic, civil and modern state." It would guarantee freedom of religion and the right to peaceful protest. He also pledged to work towards building a better economy.

Critics say that when he took power, however, Mr. Morsi didn't keep these promises. He began

ABOUT EGYPT

Egypt has a population of 81 million – the largest in the Arab world. The nation borders Israel, Libya, Sudan, and the Gaza Strip. It's about one million square kilometres in size.

Ninety percent of Egyptians are Muslim; the remaining ten percent are Christian. The country's main language is Arabic, although many people speak English and French, too.

A key ally of the West, the nation has had a peace treaty with Israel since 1979. As well, Egypt controls the Suez Canal, an important waterway that connects the Mediterranean and Red Seas.

to take too much control and to put the Muslim Brotherhood's

DEFINITIONS

CONSTITUTION: a set of basic laws or principles for a country that describe the rights and duties of its citizens

and the way in which it is governed

DESPO: cruel ruler who holds absolute power



interests ahead of the country's. Moderate Muslims, **Coptic Christians** and those who felt religion had no place in politics were worried.

"I was hoping Mohammed Morsi ... would have taken a different course," said one Egyptian. "But when I see that he was taking the country to be part of an Islamic Republic, I am sorry. That's not what he was voted in for."

A NEW LEADER -- AGAIN

On April 28, a movement formed to try to remove Mr. Morsi from power. In June, it held huge protests in the capital, Cairo, and elsewhere. The Egyptian army supported these protesters. On July 1, it warned Mr. Morsi to resign or be removed by force.

When the president refused, the military announced that Mr. Morsi was no longer in charge. Instead, a temporary president would run Egypt until elections could be held in 2014.

A COUNTRY DIVIDED

The protesters celebrated, but Mr. Morsi's supporters were furious. It was wrong, they said, to remove an elected president. They vowed to fight back.

Sure enough, in the following weeks, pro- and anti-Morsi protesters clashed. By August 14, the situation had worsened. Police with tanks and bulldozers cleared out two pro-Morsi protest sites in Cairo. Hundreds were killed and thousands were injured. In response, pro-Morsi rioters torched churches and police stations.

The government then declared a **state of emergency**. It authorized police to use deadly force to protect themselves and key state institutions.

"We will not stand by silently watching the destruction of the country and the people," General Abdel-Fatah el-Sissi declared.

Yet even as the death toll climbed, the Muslim Brotherhood refused to back down.

"We call on the Egyptian people ... to protest daily until the **coup** ends," the group said.

THE WORLD REACTS

The **United Nations Security Council** has called on both the Egyptian government and the Muslim Brotherhood to end the violence. Meanwhile, U.S. President Barack Obama urged

THE MUSLIM BROTHERHOOD

The Society of the Muslim Brothers is usually just called the Muslim Brotherhood. It is one of the Arab world's largest and most powerful political organizations with hundreds of thousands of members in Egypt alone. Its purpose is to ensure that Islam's holy book, the Quran, is "the sole reference point ... for ordering the life of the Muslim family."

Founded in 1928, the Muslim Brotherhood was originally a charitable movement that worked to help the poor. As the movement grew, however, it began to focus more on spreading its views. Eventually it turned to violence to help it achieve its goals.

Since 1948, Egypt has repeatedly banned the Muslim Brotherhood. However, the group was legalized after the 2011 uprising.

the country to work towards peace.

"The Egyptian people deserve better," he said. "The cycle of violence ... needs to stop." ★

DEFINITIONS

COPTIC CHRISTIANS: Christian Egyptians descended from the people of pre-Islamic Egypt

COUP: taking control of a country by military force

STATE OF EMERGENCY: a condition, declared by a government, which gives temporary control to the military

UNITED NATIONS SECURITY COUNCIL: the part of the United Nations charged with keeping world peace.

Most countries belong to the United Nations, which was founded in 1945 to promote peace and cooperation.



INTERNATIONAL EGYPT IN TURMOIL

TRUE OR FALSE?

Mark each statement T (True) or F (False). If a statement is *false*, write the word or words that make it true on the lines below.

_____ 1. Hosni Mubarak was removed from power by the Egyptian military.

_____ 2. The Muslim Brotherhood is one of the Arab world's most powerful political groups.

_____ 3. Egypt has the smallest population of all the countries in the Arab world.

_____ 4. Most Egyptians are Christian.

BETWEEN THE LINES

Making an inference: An *inference* is a conclusion drawn from evidence. A plausible inference is supported by evidence in the article and is consistent with known facts outside of the article.

What inferences can you draw from the fact that Egypt is a key ally of the West in the Middle East?

JUST TALK ABOUT IT

a) For what reasons do you agree with the Egyptian military's decision to take the side of protesters and remove Mohammad Morsi from power? For what reasons do you disagree?

b) If you were Egyptian General Abdel-Fatah el-Sissi, how would you have handled the issue of mass protests against President Morsi? Explain.

ONLINE

Go to www.news4youth.com and select the *What in the World?* tab to:

1. Read more about the recent [Arab uprisings across the Middle East](http://www.bbc.co.uk/news/world-middle-east-12813859) (or visit <http://www.bbc.co.uk/news/world-middle-east-12813859>).

2. View a [timeline of Egypt](http://www.bbc.co.uk/news/world-africa-13315719) up to the present (or visit <http://www.bbc.co.uk/news/world-africa-13315719>). ★

MAP MAP ASSIGNMENT

Complete this map assignment to better understand the article “Egypt in Turmoil.”

INSTRUCTIONS

1. Obtain the required resources and read all the instructions before starting.
2. Colour your map after all labelling is completed.
3. Print in pencil only first, then go over the printing in black ink.
4. Work carefully and neatly.

Resources Required: pencil, black pen, pencil crayons, ruler, eraser and an atlas.

Part A Locate and label the following countries in CAPITAL letters and shade each as indicated:

Lebanon (purple)	Israel (red)
Jordan (green)	Egypt (yellow)
Sudan (orange)	

Part B Locate and label the capital cities of these countries and underline each city name.

Part C Locate and label the following countries in CAPITAL letters and shade each as indicated:

Syria (orange)	Saudi Arabia (brown)
Eritrea (red)	Ethiopia (purple)
Chad (pink)	Libya (green)

Part D Locate and label the following cities:

Alexandria	Giza
Shubra El-Kheima	Port Said

Part E Locate and label the following water bodies and shade them light blue:

Lake Nasser	Dead Sea
-------------	----------

Part F Locate and label the following rivers and shade them light blue:

Nile River	White Nile River
Blue Nile River	

Part G Locate and label the following bodies of salt water and shade them dark blue:

Mediterranean Sea	Red Sea
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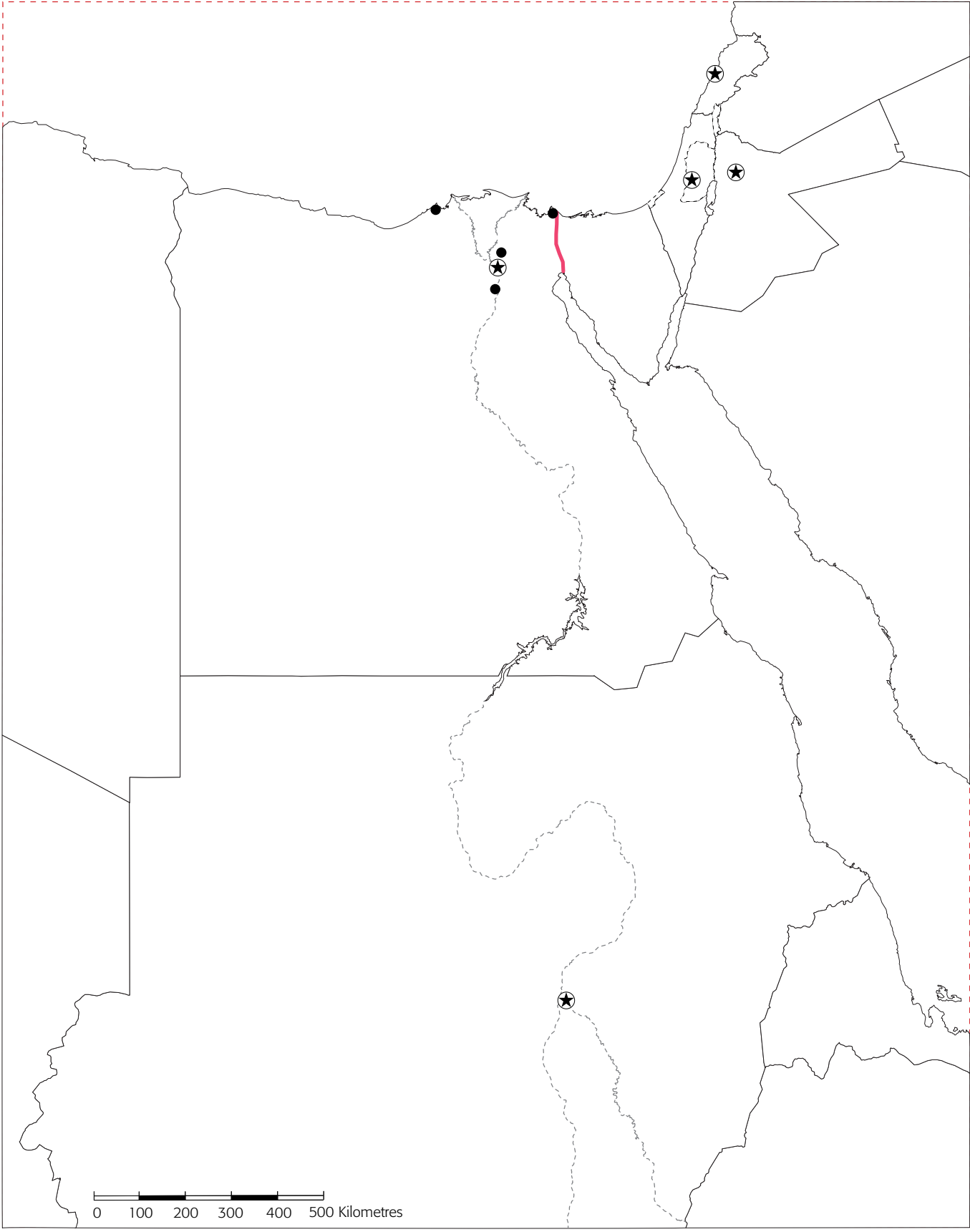
Part H Locate and label the Suez Canal.

Part I Shade all remaining territory grey.

Part J Complete your map with a frame, title and compass. ★



Egypt



0 100 200 300 400 500 Kilometres



It's all around you. It's invisible, and you can't escape it. It's Wi-Fi – and it is making some people so nervous, they want to restrict its use in schools.

WHAT IS WI-FI?

Wi-Fi is a wireless networking technology. It allows computers and other devices to communicate using **radio waves**.

Wi-Fi can link computers to a network of other computers or to the Internet. It works if your laptop, tablet, cell phone or other device has wireless capability. Then, as long as you are within range of a wireless access point ('hotspot'), you can make a connection.

Many schools love Wi-Fi because it makes digital learning

much easier. At John Oliver High School in Vancouver, the students are big fans.

"[Five of us] can work on the same Google Document at the same time. Without Wi-Fi that wouldn't be possible," said student Benjamin Segall.

A POTENTIAL PROBLEM

However, a few schools across the country and one school district have banned or strictly limited Wi-Fi use over the past two years. Meanwhile, parents at many other schools have been asking for their children's schools to be Wi-Fi-free. What's their concern?

Wireless devices **emit** a low level of **radiation**. So do other gadgets including appliances,

phones, lights, TVs, radios and remote controls. Some believe that this radiation could harm human health. Because children have smaller bodies, they are more sensitive to environmental **agents**, including radiation. So they could be most at risk.

HEALTH CONCERNS

A few researchers have linked radio waves to learning disabilities, headaches and weakened **immune systems**.

Other doctors report seeing an increase in a condition called electromagnetic sensitivity. They suspect that radio signals cause this disorder. Its symptoms include irregular heartbeats, nausea, ringing in the ears and extreme fatigue.

DEFINITIONS

AGENTS: chemicals or other substances that have a particular effect

EMIT: give off

IMMUNE SYSTEMS: a complex network of interacting cells and cell-forming tissues that protects the body from disease

RADIATION: emission of energy in the form of rays or waves

RADIO WAVES: a type of electromagnetic radiation with wavelengths longer than infrared light



WI-FI: WHY THE WORRY?

“Each year we are getting more and more people coming in,” says Dr. Riina Bray, an environmental health specialist. “I’m very concerned.”

WHERE’S THE PROOF?

Most health authorities, however, say that there is no need to worry. The symptoms people are reporting may be real, but likely they have a different cause.

The **World Health Organization (WHO)**, in particular, has reviewed thousands of studies. It has found no evidence that exposure to low-level radio waves is harmful to human health.

Health Canada agrees. So do health agencies in the United Kingdom, the U.S, Germany, France and Australia.

VERY LOW DOSES

Scientists say radiation exposure from Wi-Fi is so minor, it’s nearly undetectable.

Engineer Karl Reardon went into Vancouver schools in 2012 to measure electromagnetic emissions. His findings?

“The signals coming off the Wi-Fi units are so low they almost don’t register,” said Mr. Reardon.

BETTER SAFE THAN SORRY

These results don’t reassure some parents, however. They say there’s no way of knowing how Wi-Fi exposure may affect their children in the future. After all, just last year the WHO warned that there could be a link between radiation from cellphones – which emit the same kind of radiation as Wi-Fi, only stronger – and cancer.

“We don’t want to [find out] in 20 years that there was a problem,” said one B.C. parent.

DIFFERENT PATHS

What’s the solution? Keven Elder is the superintendent of the Saanich School District in B.C. In 2011, his district banned Wi-Fi in elementary schools.

“It wasn’t because we believed there was a medical risk,” he said. “[We acted] out of concern and sensitivity for parents who believe there may be risks. We respect that.”

Other schools are considering limiting Wi-Fi by using **routers** to turn wireless off when it’s not in use. Some districts are looking at keeping a few schools Wi-Fi-free. Most, however, are sticking with this technology

ELECTROMAGNETIC RADIATION AND WI-FI

Electromagnetic radiation is a form of energy. It is found in radio waves, light, microwaves, infrared radiation, ultraviolet rays, X-rays, and gamma rays.

The only difference between these kinds of radiation is their wavelength. The shorter the wavelength, the higher the energy.

Radio waves have a very long wavelength, so the radiation they emit is weak. It’s called non-ionizing radiation. Unlike x-rays and other kinds of ionizing radiation, it can’t break chemical bonds.

so they can continue using it to help student learning.

That position makes some students, at least, happy.

“Wi-Fi is not this **ominous**, dangerous thing,” says Mr. Segall. “It’s a great tool for us to use.” ★

DEFINITIONS

OMINOUS: threatening

ROUTERS: devices that forward data between computer networks

WORLD HEALTH ORGANIZATION (WHO): an agency of the United Nations established in 1948 to promote health



WI-FI: WHY THE WORRY?

ON THE LINES

Answer the following in complete sentences:

1. Explain what Wi-Fi is.

2. Why have many schools adopted Wi-Fi technology?

3. What do most wireless devices emit?

4. Explain why some people are worried about Wi-Fi in schools.

5. What do most scientists say about the impact of Wi-Fi on human health? Explain.

6. How have some Canadian schools and school districts reacted to concerns about Wi-Fi in schools?



WI-FI: WHY THE WORRY?

BETWEEN THE LINES

Making an inference: An inference is a conclusion drawn from evidence. A *plausible inference* is supported by evidence in the article and is consistent with known facts outside of the article.

What inference(s) can you draw from the fact that electrical and electronic gadgets, including household appliances, phones, lights, TV and radio broadcasts and remote controls for garage doors, all emit a low level of radiation similar to the radiation emitted by Wi-Fi?

JUST TALK ABOUT IT

For what reasons are you in favour of Wi-Fi in schools? For what reasons are you opposed?

If you were the superintendent of your school district, how would you handle the issue of Wi-Fi in the district's schools? Explain.

ONLINE

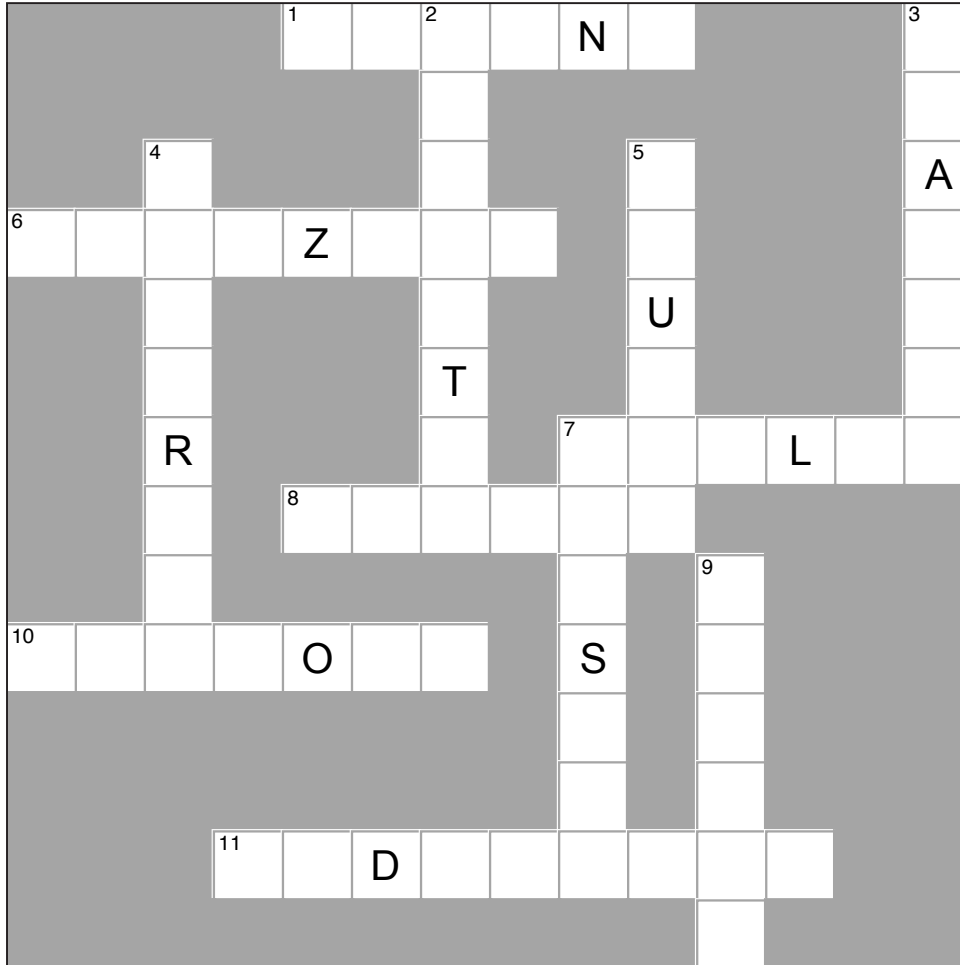
Visit our student website at www.news4youth.com and click on the *What in the World?* tab to:

1. Read one website offering arguments for having Wi-Fi in schools (or visit <http://wifiinschools.ca/what-our-kids-lose/>). Read another website (with the same name!) offering arguments against having Wi-Fi in schools (or visit <http://www.wifiinschools.com/index.html>).
2. Read a Globe and Mail article summarizing the concerns on both sides of the school Wi-Fi issue (or visit <http://www.theglobeandmail.com/life/health-and-fitness/wifi-in-schools-spark-parental-fears/article4096216/>).
3. Vote in our monthly **poll**: After reading about the pros and cons of Wi-Fi in schools, what's your position?

I am in favour of W-Fi in schools. / I am against Wi-Fi in schools. ★



WI-FI: WHY THE WORRY?



ACROSS

1. the _____ system protects the body from disease
6. _____ radiation can break chemical bonds
7. WHO = World _____ Organization
8. another name for physician
10. computers that are linked together
11. emission of energy in the form of rays or waves

DOWN

2. electro_____ radiation
3. small B.C. school district that banned Wi-Fi
4. worldwide computer network
5. device that forwards data between computers
7. a site that offers Internet access over a wireless local network (2)
9. portable computer



QUIZZES

ROW, ROW, ROW YOUR BOAT

Write the letter that corresponds to the best answer on the line beside each question:

- _____ 1. **What are humans putting into the atmosphere that is causing the Earth to warm up?**
a) greenhouse gases b) solar power
c) fossil fuels d) water vapour
- _____ 2. **How far does the *Arctic Joule* team plan to travel?**
a) 750 km b) 1500 km
c) 2200 km d) 3000 km
- _____ 3. **What effect is warmer water having on phytoplankton in the Arctic?**
a) it is blooming earlier b) it is blooming later
c) it is blooming it deeper d) it is not as nutritious
- _____ 4. **True or False?** The Arctic is warming at the same rate as the rest of the planet.
- _____ 5. **True or False?** Rotting garbage does not contribute to global warming.

LAC-MÉGANTIC MOURNS

Write the letter that corresponds to the best answer on the line beside each question:

- _____ 1. **Which railway company owned the train that derailed in Lac-Mégantic?**
a) Montreal, Maine and Atlantic Railway b) Canadian Pacific Railway
c) Amtrac Railway d) Toronto, New York and Great Lakes Railway
- _____ 2. **What dangerous cargo was this train carrying?**
a) high explosives b) natural gas
c) crude oil d) diesel fuel
- _____ 3. **How much is the environmental clean up expected to cost?**
a) \$25 million b) \$130 million
c) \$200 million d) \$375 million
- _____ 4. **True or False?** Trains carry more oil than pipelines in Canada.
- _____ 5. **True or False?** Only the Transportation Safety Board is responsible for train safety in Canada.



QUIZZES

EGYPT IN TURMOIL

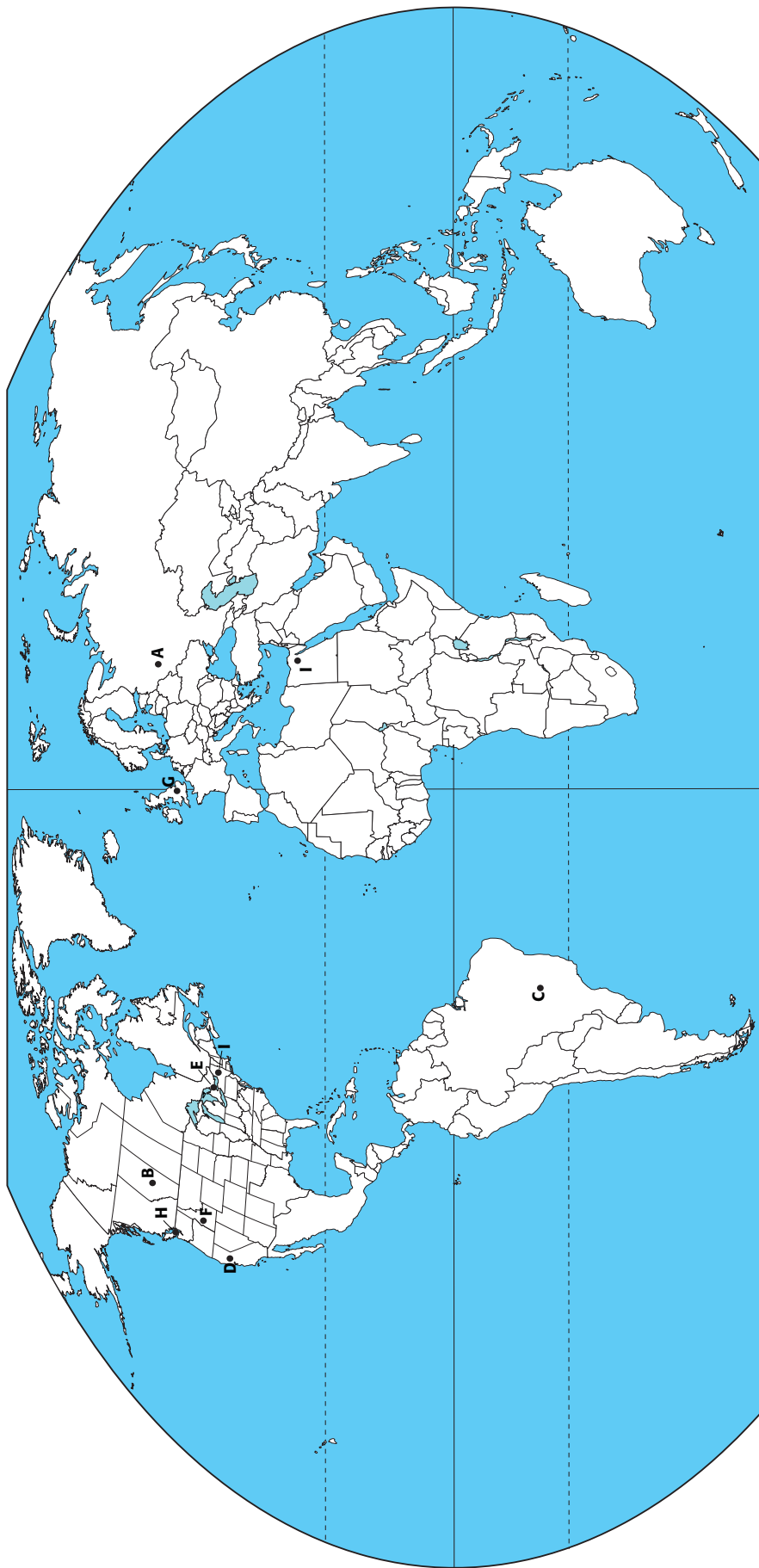
Write the letter that corresponds to the best answer on the line beside each question:

- _____ 1. **What is the main religion in Egypt?**
a) Christianity
b) Buddhism
c) Judaism
d) Islam
- _____ 2. **Who was removed from office on July 3?**
a) Mohammad Morsi
b) Abdel-Fatah el-Sissi
c) Benjamin Netanyahu
d) Hosni Mubarak
- _____ 3. **Which political movement does he belong to?**
a) Hamas
b) the Muslim Brotherhood
c) OPEC
d) the Palestinian Authority
- _____ 4. **True or False?** Egypt has never had a democratically elected leader.
- _____ 5. **True or False?** The armed forces removed the leader of Egypt from office.

WI-FI: WHY THE WORRY?

Write the letter that corresponds to the best answer on the line beside each question:

- _____ 1. **Wi-Fi allows computers and other devices to communicate using:**
a) radio waves
b) infrared radiation
c) gamma rays
d) ultraviolet waves
- _____ 2. **Most wireless devices emit low levels of:**
a) microwaves
b) electricity
c) gamma rays
d) radiation
- _____ 3. **The WHO recently warned about a possible link between cellphones and:**
a) headaches
b) learning disabilities
c) cancer
d) a weak immune system
- _____ 4. **True or False?** Many schools in Canada and the U.S. have banned Wi-Fi.
- _____ 5. **True or False?** Health Canada warns that Wi-Fi in schools is unsafe.



MATCH THE CAPITALS: INSTRUCTIONS

- Using an atlas, match the capital city with the correct province, state, and country.
- In front of each city, list the letter on the map associated with that location.

Provinces and Territories

- Victoria _____
- _____ Ontario
- Edmonton _____

U.S. States

- _____ Idaho
- Sacramento _____
- _____ New York

Countries

- Moscow _____
- _____ Brazil
- Cairo _____
- _____ United Kingdom