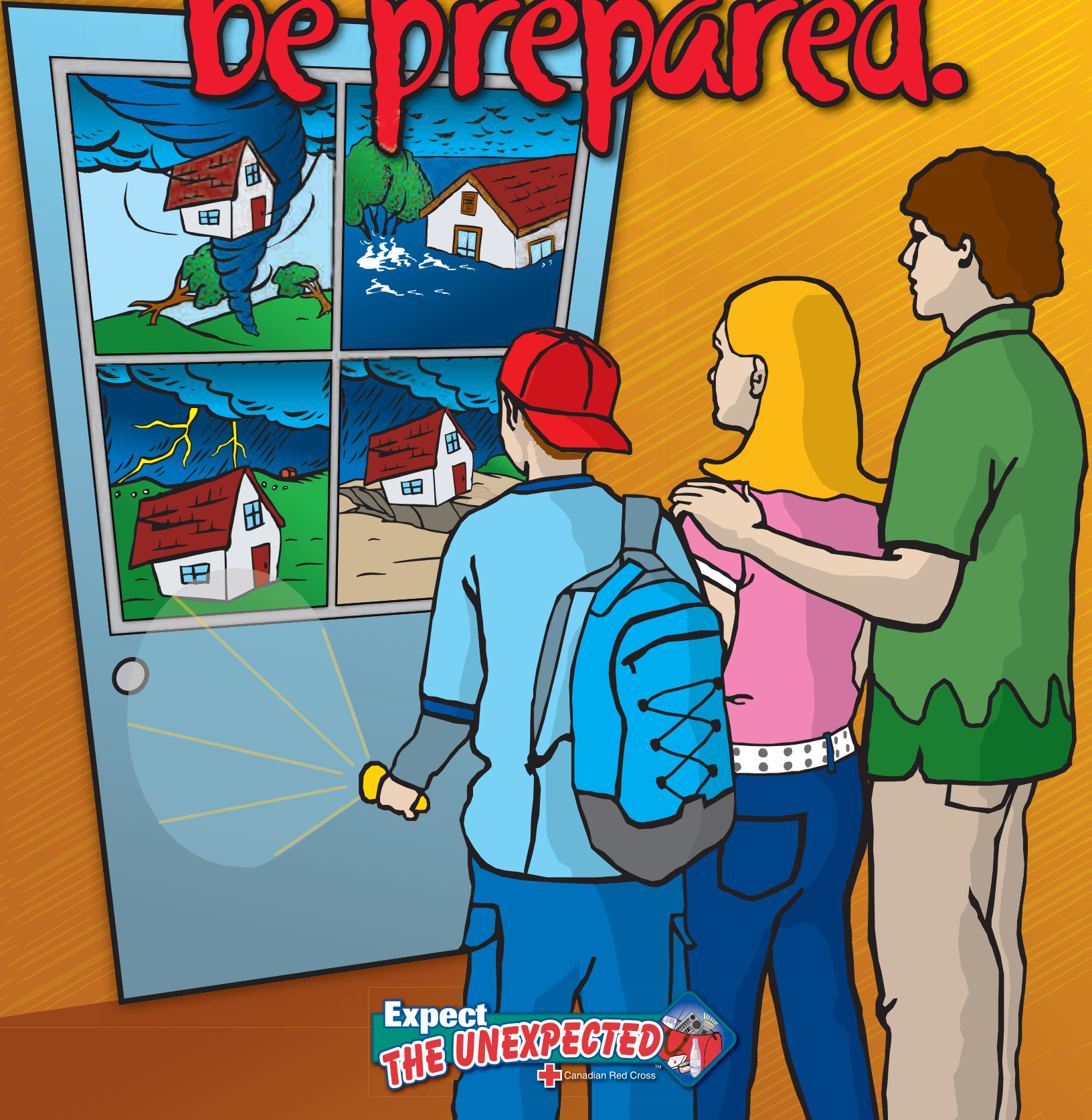


Facing the unexpected, be prepared.



Expect
THE UNEXPECTED



Canadian Red Cross





Canadian Red Cross

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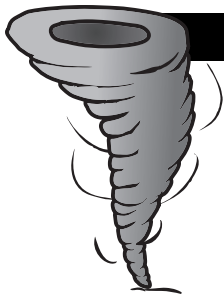
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Web site: www.redcross.ca

Ce programme est également publié en français.



Facing the unexpected, be prepared.

The Canadian Red Cross plays an essential role in emergencies. It provides numerous services to people affected by disasters in order to fulfill their essential needs in shelter, clothing and food. It also provides personal services and first aid. During evacuations, it is often responsible for registering and providing information to evacuees.

To be prepared to act safely in emergencies, the Red Cross suggests you carry out the activities in this booklet with your teacher. Remember that activities identified by this symbol  can be completed with your family. They are combined in a special booklet intended for parents, which is available on the Red Cross Web site at: www.redcross.ca/expecttheunexpected. Come visit us with your family!

Enjoy the activities!

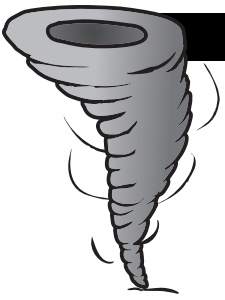
This activity booklet belongs to:



Expect
THE UNEXPECTED

 Canadian Red Cross





The Red Cross emblem

The Red Cross emblem is one of the most recognized emblems in the world. But do you know what it really means?

The red cross is an internationally recognized symbol of protection and neutrality. However, the red crescent on a white background represents the Red Cross Movement in certain Islamic countries.

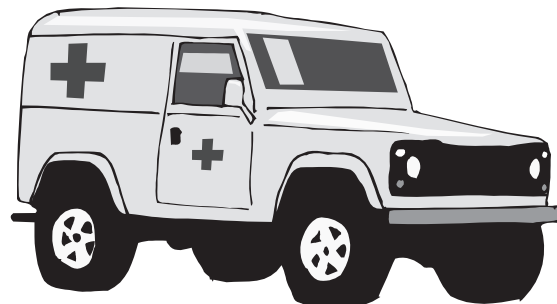
Every day, thousands of Red Cross volunteers come to the assistance of those affected by natural disasters, disease and war around the world. They do it in the name of the Red Cross and under the protection of its emblem.

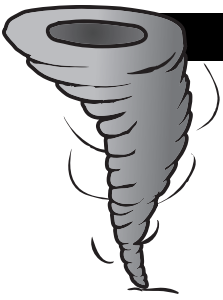
Their only motivation is to ease human suffering, without discrimination as to nationality, race, religion or class. They do not take sides in conflicts, and promote friendship and lasting peace among all peoples.

No organization – except the Red Cross and the medical corps of the armed forces during times of armed conflict – may use the Red Cross emblem.

In peacetime, the emblem identifies people, programs and objects connected with the humanitarian work of the International Red Cross and Red Crescent Movement. In times of conflict, it guarantees the protection of Red Cross personnel bringing relief to victims.

Only when the general population and armed forces respect the Red Cross emblem can Red Cross volunteers safely come to the aid of those in greatest need.





1. Indicate in each case whether the use of the Red Cross emblem is CORRECT or INCORRECT by placing an X in the appropriate box.

1. A Red Cross volunteer goes to the scene of a fire to help the families in the street. He is wearing a Red Cross vest so that firefighters and police can easily identify him and give him access to the site.

Correct Incorrect

2. A Red Cross volunteer uses the van belonging to his local committee to help a friend move.

Correct Incorrect

3. A medical clinic uses the Red Cross emblem to indicate that sick people can get care there.

Correct Incorrect

4. A company that manufactures sportswear also offers first aid kits bearing the Red Cross emblem.

Correct Incorrect

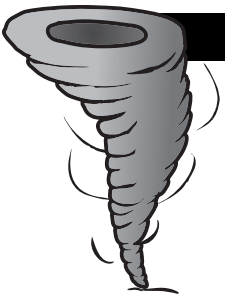
5. A group of young people get together to send food packages to a region affected by famine. To show that this is a charitable action, they place a Red Cross sticker on every package.

Correct Incorrect

6. Red Cross volunteers use trucks identified with the Red Cross emblem to safely travel to the assistance of populations that have been displaced in a combat zone.

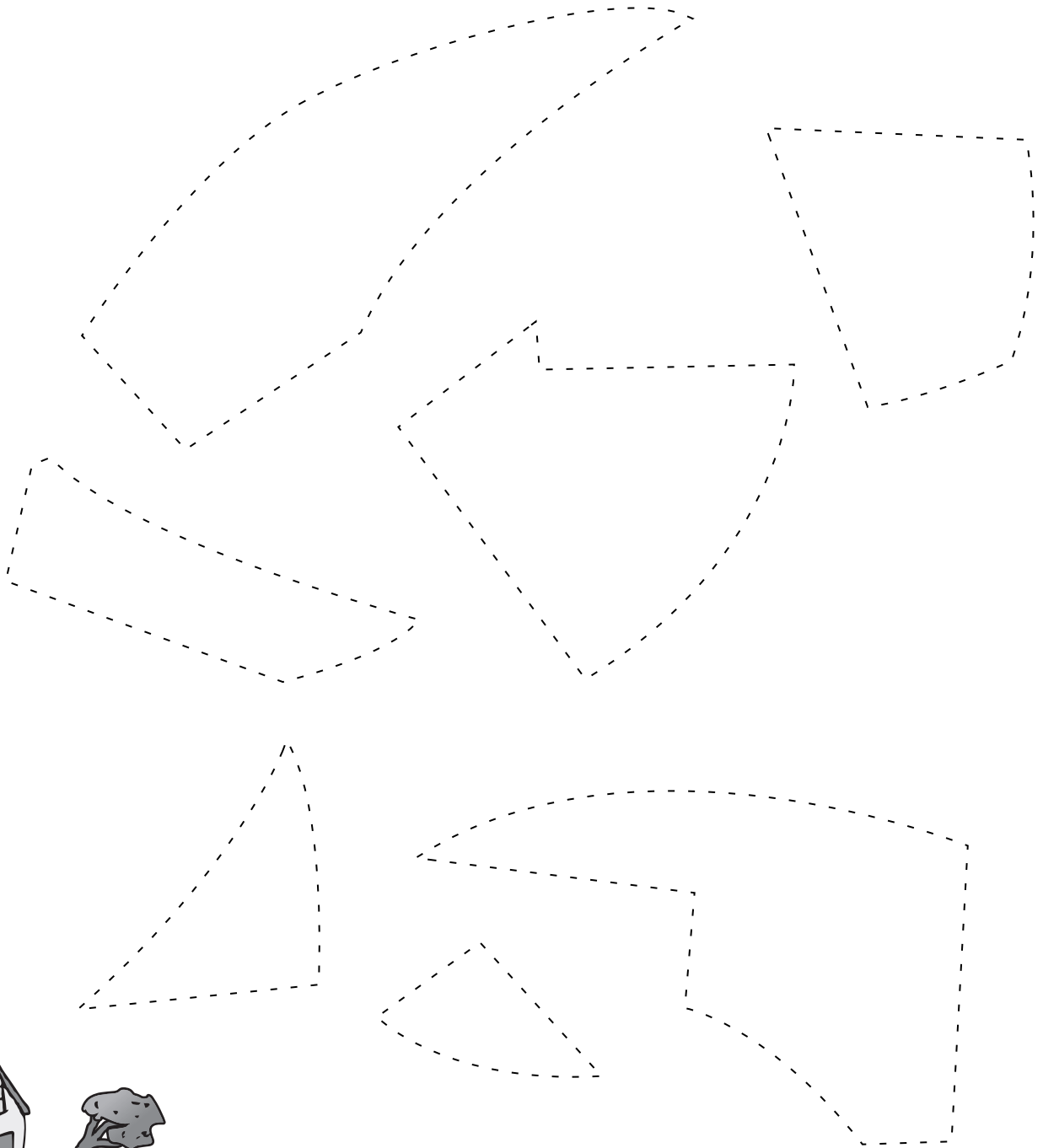
Correct Incorrect

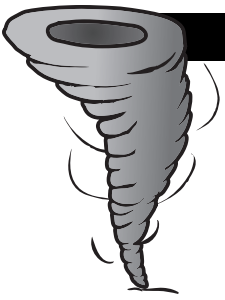




Red Cross and Red Crescent Puzzle

2. Cut out the 7 pieces of the following puzzle and try to put together the Red Cross or Red Crescent emblem. Good luck!





What are possible disasters?

1. After reading the newspaper article, answer the following questions:

a) What disaster are we talking about in this newspaper article?

b) When did this disaster occur?

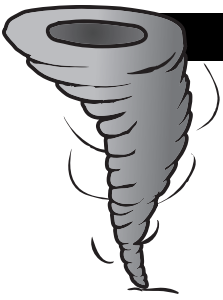
c) What city or region was struck?

d) How did the disaster occur?

e) What damage did the disaster cause?

f) How many disaster victims were there? How did the Red Cross help them?





What is it?

1. Read the following definitions. Match the disasters to the corresponding definitions by writing the correct letter in the space provided.

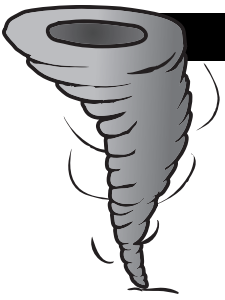
a) Tornado
d) Forest fire
g) Flood

b) Lightning storm
e) Landslide
h) Hurricane

c) Snowstorm
f) Earthquake
i) Heat wave or cold snap

1. Lightning bolts followed by a lightning flash and thunder, able to break windows, set off a fire, set off an explosion or cause a power failure. Answer: _____
2. A sudden movement of the earth's crust. Answer: _____
3. A whirlwind in the shape of a funnel which points towards the ground, moves rapidly in an unpredictable way and can destroy everything in its way. Answer: _____
4. Immense tropical storm with very high winds and a great deal of rain, originating in the oceans. Answer: _____
5. Movement of clay type soil saturated with water. Answer: _____
6. A rise in the water level caused by a rapid thaw in spring or by heavy rainfalls, which threatens people and their homes. Answer: _____
7. A natural phenomenon characterized by violent winds and heavy snowfalls. Answer: _____
8. Phenomenon caused by the arrival of a mass of cold or warm air causing a considerable rise or fall in the temperature. Answer: _____
9. A fire caused naturally by lightning or by human negligence that can destroy large areas of forests. Answer: _____





Where did it occur?

1. Look at this map of Canada. Find the symbols that identify the various disasters.
2. Inside the symbols, place the number that corresponds to the area affected.



Earthquake:

1. Baffin Bay
2. British Columbia
3. Quebec



Forest fire:

1. Manitoba
2. Ontario
3. British Columbia



Tornado:

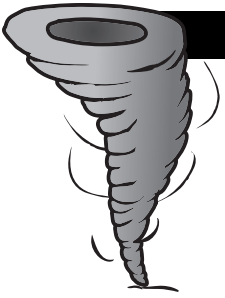
1. Saskatchewan
2. Ontario
3. Alberta



Flood:

1. Newfoundland and Labrador
2. Quebec
3. Manitoba



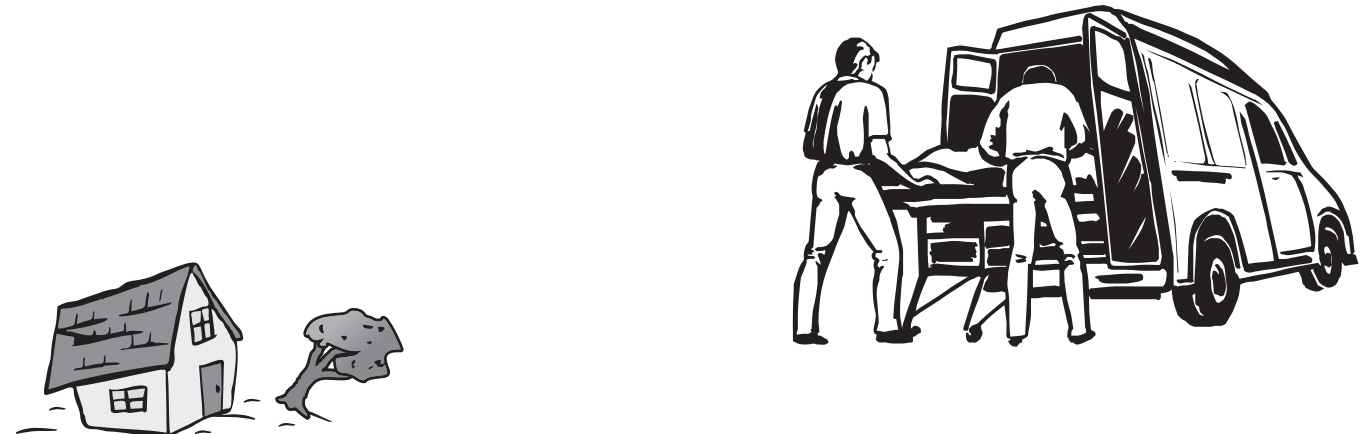
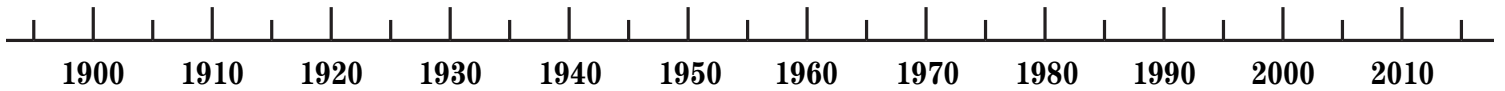


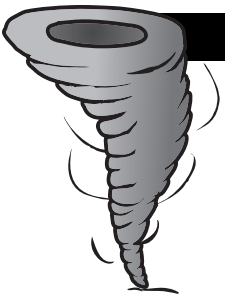
When did it occur?

Here is a list of some natural disasters that occurred in Canada during the last century

a) Earthquake:	1929 - 1949 - 1988
b) Landslide:	1903 - 1971 - 1981
c) Tornado:	1912 - 1987 - 2000
d) Flood:	1996 - 1997 - 2003
e) Extreme heat event:	1936 - 2001 - 2010

1. By using the letters a, b, c, d and e, locate these disasters on this time frame:





What happened in the past?

1. Write down four (4) questions that you would like to ask your grandparents or an older person in your community to find out more about the natural disasters they remember. For example, you can ask : “What happened?”, “Who asked you to evacuate?”. Write down the information gathered and use the natural disasters given on sheet 3 as a reference.

Question 1:

Answer 1:

Question 2:

Answer 2:

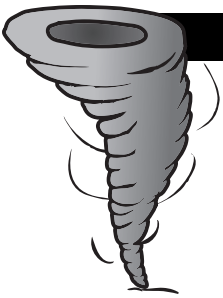
Question 3:

Answer 3:

Question 4:

Answer 4:





What can happen in my environment?

1. Select four (4) natural disasters from the list presented on the sheet. Associate one natural element with each of the disasters chosen. Explain your reasons.

Natural or human-made disaster 1:

Natural or other element:

Reason:

Natural or human-made disaster 2:

Natural or other element:

Reason:

Natural or human-made disaster 3:

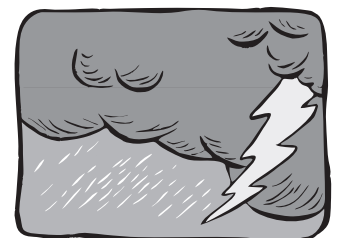
Natural or other element:

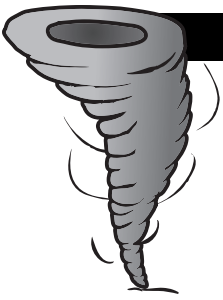
Reason:

Natural or human-made disaster 4:

Natural or other element:

Reason:





What could happen in Canada?

1. Look carefully at the map of Canada. Locate the pictures of natural disasters that could occur as a result of climate changes.
2. Using arrows, connect each of the natural disasters to the drawing that depicts it on the map.

1. Heat wave

2. Coastal flooding

3. Forest fires

4. Heavy precipitation



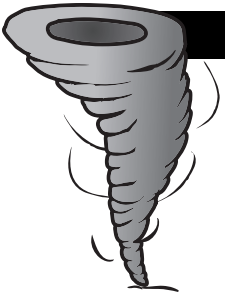
5. Drought

6. Tornado

7. Landslide

8. Ice storm





How can I prepare at home?

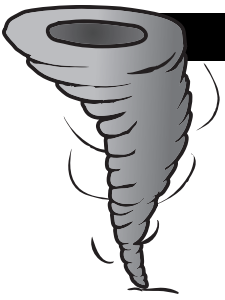
1. After viewing the video, answer the following questions:

a) In your own words, summarize the content of the video.

b) What is the first reaction to adopt when an evacuation is necessary?

c) What must someone do to react safely in case of an emergency?





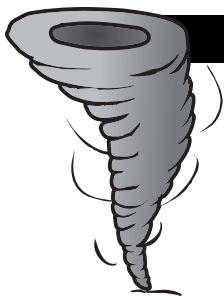
d) What role could I assume in an emergency?

e) What must your family and you prepare in the event of an evacuation?

f) If you are asked to evacuate, can you stay at home and wait until everything is back to normal? Explain your answer.

2. Discuss this video with your parents. Encourage them to watch it with you on the Canadian Red Cross Web site (www.redcross.ca/expecttheunexpected).





What would be useful for me?

1. Write down the essential articles in an emergency for each category. Circle in red the articles you could easily carry in a backpack if you had to leave home.

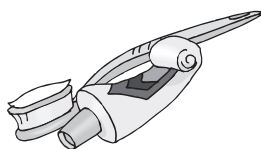
a) Clothing:



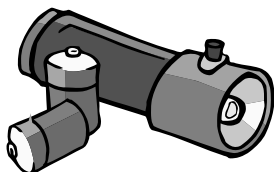
b) Food:



c) Personal care:

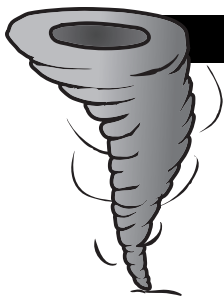


d) Safety equipment:



2. Check with your parents to see if you have these items at home. Prepare your survival kit and provisions for 72 hours.





What must I say on the telephone?

1. Write down the telephone number to dial in case of an emergency.
2. Fill in the following sheet to find out what you must say when you make an emergency phone call. Keep it in your home close at hand.



Hello,

My name is _____.

My address is _____
_____.

My telephone number is _____.

Explain what happened, give as many details as possible.

_____.

I need help to _____.

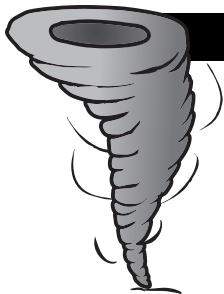
- Can you repeat the message?
- Do you need more information?

Hang up **after** the operator.

Stay calm.

Follow the instructions.





Safe evacuation of the school

1. Your friend Anna has sent you an e-mail telling you about the evacuation of her school. Carefully read what she wrote and then answer the questions.

Hi,

Today I got home from school earlier than expected. Do you believe there was a fire in the cafeteria! Lucky that the fire alarm warned us quickly! Anyhow, I knew what to do! We practiced evacuating the school a lot of times. I stayed calm and didn't panic. I followed the teacher's directions quietly. You understand that I wanted to cooperate to keep order and discipline. Outside, our class met on the soccer field. Later, my parents came to get me from the school bus parking lot. I was happy to get the afternoon off! And how's everything with you?

Anna

1. Why was Anna's school evacuated?

2. Write down three (3) instructions Anna followed to exit the school rapidly.

1.

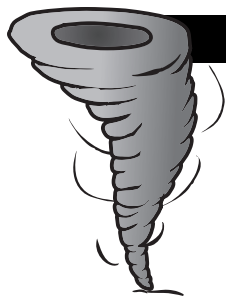
2.

3.

3. Where was the class's meeting place outside the school?

4. Where did Anna's parents come to pick her up?





What could happen?

1. Carefully examine the picture and place an X on the six (6) items that could result in human-made accidents.

- Nuclear plant
- Tanker truck containing oil
- Train carrying dangerous products
- Tire dump
- Toxic product factory
- Water filtration plant

2. In your own words, explain how these six (6) items could result in technological accidents and threaten your safety.



1. _____

2. _____

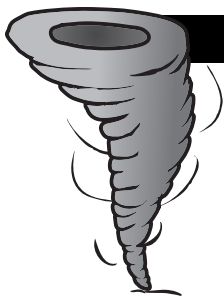
3. _____

4. _____

5. _____

6. _____

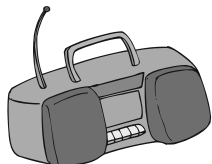




Shelter-in-Place

1. Write down how each of these can warn you about a hazardous materials release.

a) Radio



b) Nose



c) Cloud



d) Emergency Vehicle



2. Write down the four (4) steps for "Shelter-in-Place".

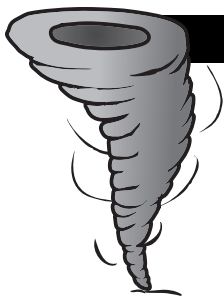
1. _____

2. _____

3. _____

4. _____





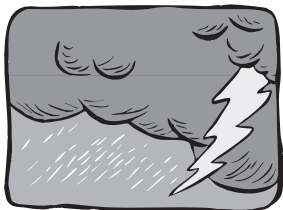
How to react in case of an emergency?

1. Read the following case studies. Write down a few words about what you would do in each situation.

- a) On a lovely Saturday afternoon, you are playing in the house while your family is at the grocery store. Suddenly, the earth shakes.



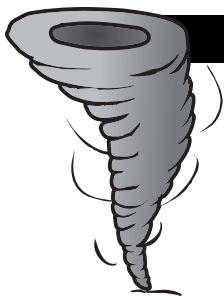
- b) It is nighttime. It is raining and a lightning storm is starting. Suddenly, there is a power failure. What do you do?



- c) In the spring during the thaw period, the river floods onto your lot. Your family and you have to leave the house for safety. What do you do?







How do I feel after an emergency?

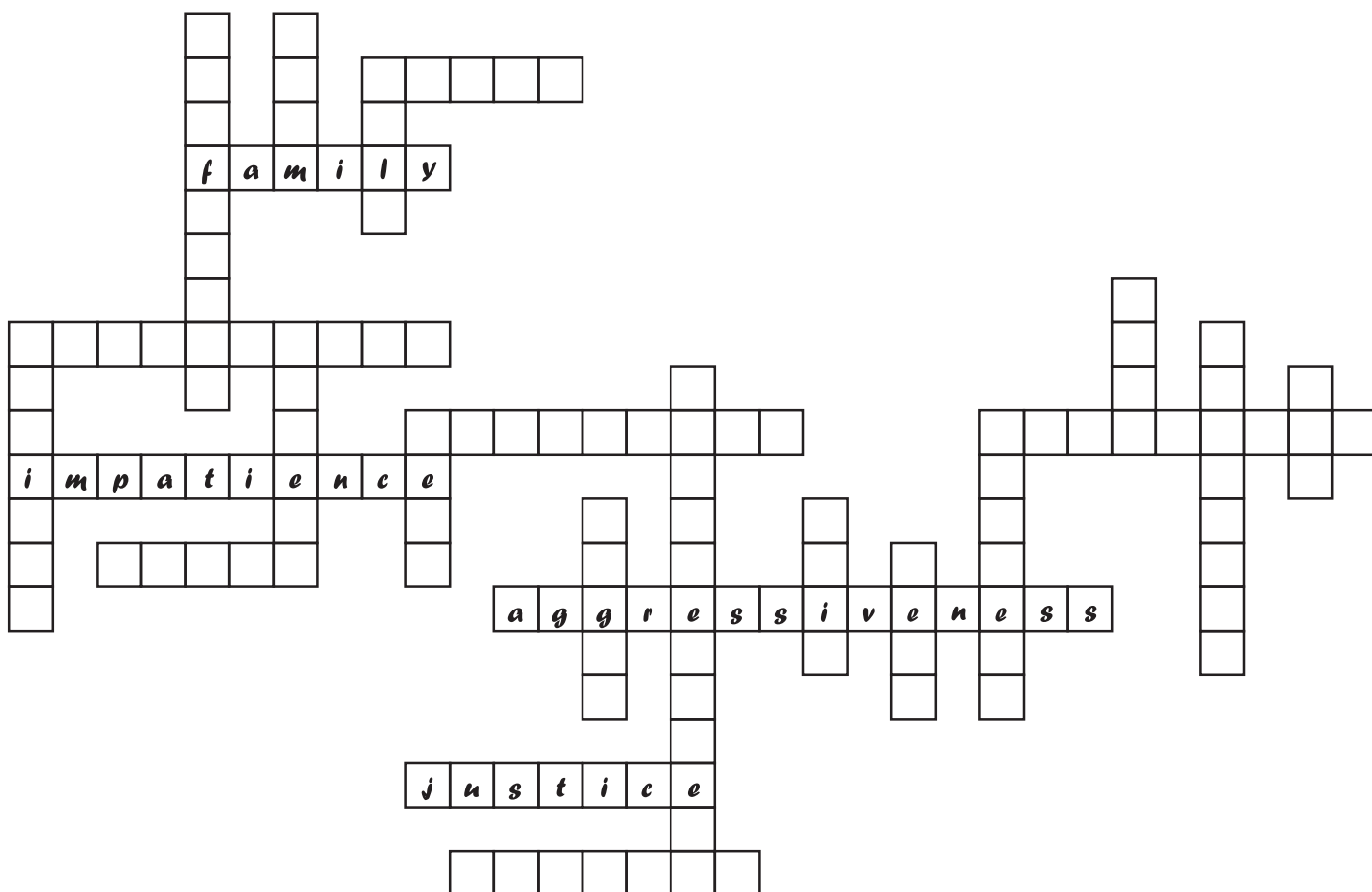
1. Fill out this crossword puzzle and remember the needs and feelings that you may have experienced after an emergency.

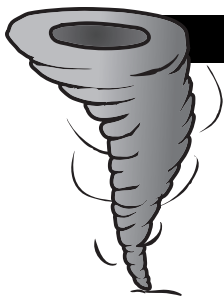
anger
anxiety
attention
calm

fear
friendship
happiness
help
helplessness

joy
love
pain
patience

sadness
safety
suffering
trust
worry

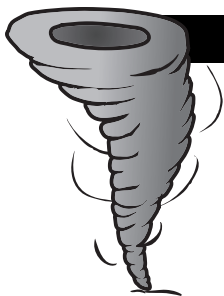




What does heat mean to you?

1. Draw what heat means to you. Look around you and think about what heat is and where it comes from. Use those ideas, and talk to your classmates about them. Try to come up with ideas as a group. Use as many colours as you like to make your drawing as colourful as possible.





2. Answer the following questions with help from your family. Be prepared to share your answers with your classmates.

a) Can you remember a time when it was very hot?

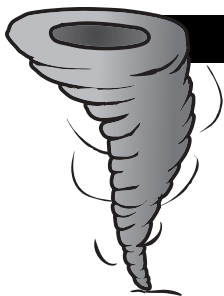
b) Where were you?

c) What were you doing?

d) How did you feel?

e) What did you do to cool down?





What is heat?

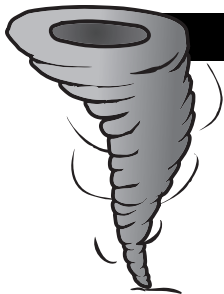
Read each of the following statements and determine if the statements are myths or facts.

1. Heat and temperature are the same thing.
2. The four (4) variables of heat are: temperature, radiant heat, humidity and wind speed.
3. Humidity is the amount of water vapour or moisture in the air.
4. The speed at which the wind moves is called wind speed.
5. Radiant heat can be reflected from different types of surfaces on the ground.
6. Temperature is the measurement of how cold or hot it is.
7. Wind can increase evaporative cooling and provide relief in a hot environment
8. The body can radiate heat to help cool itself.
9. It only feels humid when the sky is cloudy.
10. Radiant heat is the heat coming directly from the sun.

Myth **Fact**

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
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How does the body regulate itself?

The human body's temperature is about $37^{\circ}\text{C}/98.6^{\circ}\text{F}$. In order to stay around $37^{\circ}\text{C}/98.6^{\circ}\text{F}$, the body must regulate its temperature by absorbing and dissipating heat. To keep cool, the body uses four (4) mechanisms: evaporation, convection, conduction and radiation.

1. Research information on the mechanism that has been assigned to your group. Your teacher will provide you with information (Annex 4) that will help you complete this assignment. You can also search the Internet (if available to you).
2. Record your findings in your activity booklet and give examples that illustrate the mechanism you are working on.
3. Name someone in your group to present your findings.
4. Take notes when your classmates present their topics and be prepared to discuss with your classmates.

Mechanism no. 1: evaporation

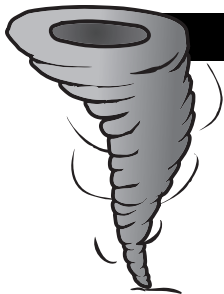
Findings:

Examples that illustrate evaporation:

Mechanism no. 2: convection

Findings:





Examples that illustrate convection:

Mechanism no. 3: conduction

Findings:

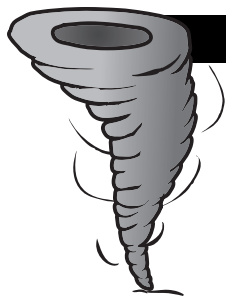
Examples that illustrate conduction:

Mechanism no. 4: radiation

Findings:

Examples that illustrate radiation:





Heat-related illnesses

1. Read the following three (3) scenarios.
2. Answer the questions.
3. Your teacher will provide you with some additional information (Annex 6) that will help you complete the activity.
4. Work as a team and write your answers in the space provided below.
5. Be prepared to share your answers with your classmates.

Scenario 1: A game of soccer

Gregory and his friend Manuel, who are both 10 years old, play soccer every Saturday afternoon with their friends. Today, both are playing in the town's annual weekend youth soccer tournament, which is held in July and is typically the hottest time of the year. The weather forecast for the weekend is going to be hot and humid. On the first day of the tournament, the outdoor temperature is 30°C. The humidity level is very high and there is no wind. Gregory notices that Manuel has not been drinking water during the game. All of a sudden during a game, Manuel falls on the ground and starts to cry. He says that he has pain in his left leg.

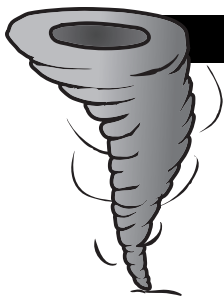
a) Could Manuel have a heat-related illness? Which is most likely?

b) How do you know?

c) What should Gregory do to help him?

d) What could Manuel have done to better prepare himself?





Scenario 2: A hike in the mountain

It is the middle of August. After a midday rain shower, Lucy and her older Aunt Mildred decide to go for a hike in the afternoon. The weather is very hot and humid from the rain and cloud cover. The two walk for about three (3) hours. When Aunt Mildred arrives home, she tells Lucy that she feels light-headed, hot and sick to her stomach. When Lucy asks if Aunt Mildred feels okay, she appears to be uncomfortable and cranky.

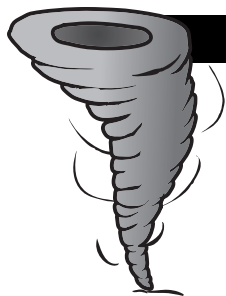
a) Could Aunt Mildred have a heat-related illness? Which is most likely?

b) How do you know?

c) What should Lucy do to help her aunt?

d) What could Aunt Mildred have done to better prepare herself?





Scenario 3: An afternoon at the beach

It is the August long weekend and Tanya and Joe decide to go to the beach on the Saturday afternoon. The sky is blue, the sun is shining, the weather forecast calls for a high of 34°C and the level of humidity is high in the city. When they arrive at the beach, Tanya and Joe realize that it still feels humid and they have forgotten their beach umbrella at home. They don't really mind since there is a light, warm wind and both enjoy laying in the sun. As the afternoon goes on, Joe feels tired, weak and dizzy. Joe typically doesn't drink a lot of water and has not been drinking much at the beach. He also hasn't been swimming yet. Later in the afternoon, he starts having cramps in his stomach and feels like vomiting, but he is unable to walk to the washroom. He is sweating a lot and says that he is very tired and hot. When Tanya asks him what is wrong, he is very confused and cannot answer simple questions. Then Joe loses consciousness.

a) Could Joe have a heat-related illness? Which is most likely?

b) How do you know?

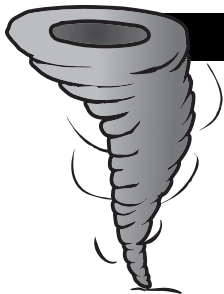
c) What should Tanya do to help him?

d) What should have Joe and Tanya done to be better prepared?

Question

What is the first thing you should do when you are with someone who has heatstroke?





Heat and vulnerable groups

In this activity, you will learn about groups of people that are most vulnerable to heat. Before starting the activity, think about your family (parents, grandparents, siblings, aunts, uncles, cousins), pets, friends and your neighbours.

1. Write down the names of the people you think could be more at risk of feeling sick because of the heat.

- Is it grandma? Grandpa?
- Your mother? Father?
- Your sisters or brothers?
- An aunt or uncle?
- Or a neighbour? A friend?
- Maybe your dog or cat?

I think that _____, _____, _____ and _____ could be at risk of feeling sick when it is very hot.

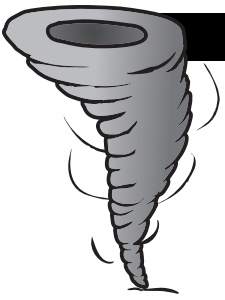
2. Conduct an interview with one of the people you listed as being vulnerable to heat. Prepare yourself to interview that person by writing four (4) questions about their experience and knowledge of heat as a health risk in the space below.

Question 1:

Answer:

Question 2:





Answer:

Question 3:

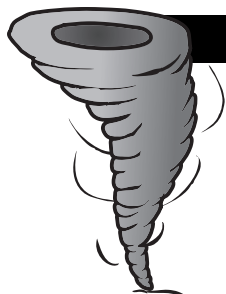
Answer:

Question 4:

Answer:

3. Be prepared to share the results of your interview with your classmates.





Being prepared for the heat

1. You are part of a team of heat expert consultants. With the help of your teammates, you will put together a list of recommendations that will help your clients take advantage of the day and be safe in hot weather.
2. Your teacher will provide you with a scenario to work on. There are four different scenarios.
3. To help you complete the activity, your teacher will provide you with some information (Annex 8). There you will find some ideas to help you prepare your recommendations.
4. Be creative and colourful in your answers. You can write, draw and do crafts. You can use the computer to prepare your presentation if available.
5. You will have to present your recommendations to your classmates.

Context:

You are part of a large consulting firm that provides advice to people about vacations to tropical places and during hot weather. Your expertise is in how extreme heat affects the body and your team specializes in physical activities during hot weather. Extreme heat events are happening more and more frequently. Through the effects of climate change, you know that most cities across the world will see an increase in the number of hot days. Congrats! You are in the right business! As you pat yourself on the back for having started your business, a client walks into your office.

Client no. 1: The football coach

Mr. Brown is the head coach for the regional Pee-Wee football team. His team members are 13 years old. This summer has been warmer than normal and July has been no exception. The temperature has been very hot and humid for the last four days and Environment Canada has forecasted more sunny, hot and humid days for the weeks to come.

Last week, during a practice, two players suffered from heat-related illnesses. Louis had heat cramps and Joe vomited on two occasions during the last practice.

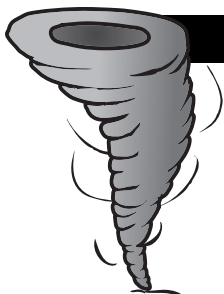
Mr. Brown is very concerned about his players' safety. There are 5 practices planned in the next 10 days that last two hours each. Practices typically begin at 1 p.m., which means the team is on the field during the hottest part of the day. Mr. Brown cannot cancel the practices since the team is registered for a tournament on July 31st.

Mr. Brown is asking you to provide him with tips to keep his players cool while practising and a structured plan to help him ensure his team's health and safety during the coming hot days.

Customer no. 2: The tennis player

Lucy Mayor is a professional tennis player. It is the beginning of August and Lucy is preparing to compete in a tournament being held in Florida this coming September. Lucy was injured in April and cannot afford to miss any training during the summer





if she wants to be ready for the competition. Lucy's coach is from Cuba and he spends the summer months there with his family. Lucy has decided to join her coach in Cuba to train. However, the temperature in Cuba typically reaches the mid-30°C with high humidity. Lucy is sensitive to extreme heat and, last season, she suffered from heat cramps and heat rashes. Lucy is discouraged and worried that the heat might prevent her from being able to maximize her training efforts, but she will have to acclimatize if she wants to play well at the tournament.

Lucy will be in Cuba from August 1 to August 28. She practises twice a day, five days a week. Each practice lasts two hours. The long-range forecast for the month of August in Cuba are highs of 35°C with high levels of humidity. There is always a chance of thundershowers in the late afternoon.

Lucy wants to know how to prepare herself to face the weather in Cuba and how to get the best out of her practices without compromising her health.

Customer no. 3: A young mother going to the beach

Linda Smith is a mother of four children aged 2, 4, 6 and 9 years old. She is planning her summer vacation in Ocean City, South Carolina, for the month of July. July in South Carolina can be very hot and humid. Among the various activities, Linda plans to spend two weeks of the vacation at the beach with her children. She has rented a house on the boardwalk without any air conditioning. There is no basement. Although the weather can be unpredictable at times in Ocean City, Linda wants to be prepared in case of extreme heat events. She needs your expertise to help her plan outdoor activities for her children in hot weather.

Linda also mentions a few important facts about her family. Her six-year-old son, Jay, is allergic to pollen and her elderly mother will be joining the family on vacation for a week. Linda's mother is 72 years old and has chronic asthma.

Mrs. Smith would like a complete list of things to consider when at the beach during very hot weather.

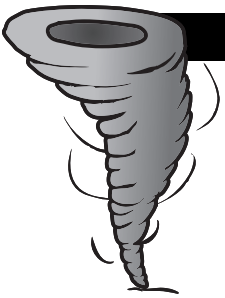
Customer no. 4: A teacher preparing for back-to-school

Mr. Duval is a grade six teacher. He is preparing his classroom for the students' return in September. There will be 28 students in his class this year. Mr. Duval is concerned with the unseasonably high temperatures that they have been experiencing in late August-early September for the past two years. Last year, one of his students suffered heat exhaustion during math class. Mr. Duval wants to prevent this situation from happening again by preparing a small heat kit that will enable him to make his students as comfortable as possible.

The school is located in a small rural town and does not have air conditioning. Behind the school is a large field that is full of trees and close by is a lake that most of the local residents use for recreational swimming. The library and the gym are located at the other end of the school, where trees offer shade to these areas.

Mr. Duval hopes to receive your recommendations shortly as he would like to present them to the school principal.





What are the correct behaviours to adopt?

1. Write down the correct behaviours to adopt during each one of the disasters below:



a) Flood



b) Lightning storm



c) Tornado

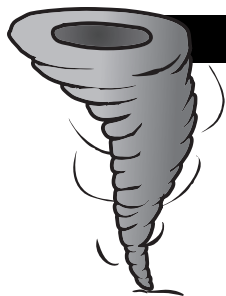


d) Earthquake



e) Heat wave





Do you remember?

1. Fill in the sentences by using the following words:

- earthquakes
- whirlwind
- rise
- releases
- foods
- funnel
- prepared
- anywhere
- bolt
- thunder
- crust
- leak
- spill

In Canada, various disasters can occur. At any time, we must be ready to face _____, tornadoes and hazardous materials releases.

Floods are caused by a sudden _____ of the water level.

An _____ is a sudden movement of the earth _____.

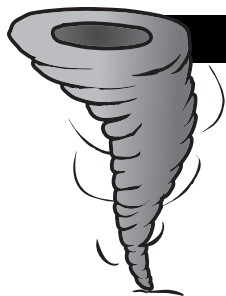
A _____ in the form of a _____ produces a tornado.

A lightning storm is characterized by a lightning _____ followed by _____.

Hazardous materials _____ may occur if there is an accidental _____ when chemical products _____.

Disasters may occur in Canada. You must be ready to react.





Let's review

1. Fill in the sentences by using the following words:

- | | | | | | |
|--------------------|-----------|-----------|-------------|----------|----------|
| • patient | • fearful | • rescued | • furniture | • calm | • follow |
| • move | • windows | • shelter | • firmly | • lie | • cool |
| • shelter-in-place | | • home | • closing | • inside | • water |

During an earthquake, one must seek shelter under _____ or _____ to an open area. It is normal to be _____.

During a tornado, it is better to stay away from _____, to hang on _____ to something solid and to remain _____.

During a lightning storm, you must be _____, stay _____ and not _____ on the ground outside.

During a hazardous materials release you must _____ by going inside your _____ and _____ all windows and doors.

During a flood, it is suggested to seek _____ on the top floor of a house while waiting to be _____ and to _____ the instructions.

During a heat wave, you should stay in a _____ and drink lots of _____.



For more information

Lightning storms and lightning bolts

Lightning storms are characterized by a lightning bolt followed by a lightning flash and thunder. Lightning bolts can break windows, set off a fire, and cause a power failure and explosions when there is combustible material. They are dangerous and can cause serious burns or electrocute people.

Heavy rains (or torrential rains)

Clouds are masses of tiny water droplets. When the wind moves these droplets, they stick to one another, forming larger drops. When they reach a size of 0.1 mm, they fall. Heavy rains last a long time, accumulate and fall at a rate of approximately 7.6 mm per hour. In sufficient quantity, they may cause local or widespread flooding.

Earthquakes

Earthquakes or seismic activity are sudden movements of the Earth's crust. The tremors usually occur suddenly and leave very little time to react. It is impossible to prevent or forecast earthquakes. A tremor that registers less than 3.5 on the Richter scale usually goes unnoticed. Tremors that have a magnitude of 5.5 to 6 can cause moderate damage to neighbouring buildings. When the earth trembles at a magnitude of 7 or more, it is considered a major earthquake that can cause large-scale damage.

Floods

Floods are the natural disasters causing the most property damage in Canada. Floods are the overflow of rivers and lakes caused by an excessive rise of the water level. This rise can be caused by heavy precipitation, sudden thawing of snow, ice jams or ice breakups.

Freezing rain

Freezing rain is rain that freezes when the drops hit the ground or an object. A layer of ice is thus formed. The thickness of the ice varies, depending upon the duration of the freezing rain and its intensity. When freezing rain covers electrical wires, it can cause serious damage and large-scale power outages. It also makes travel outdoors dangerous, besides damaging trees and homes.

Hail

Hail is a type of precipitation in the form of ice particles that occurs during storms and can hit the ground at 130 km/hour. Hailstones can occasionally be over 10 cm, or the size of a grapefruit. Hail can cause serious damage to crops, homes and vehicles as well as injuries to people and animals.

Tornadoes

Tornadoes are whirlwinds shaped like a funnel that points towards the ground. They can destroy everything in their path. This type of phenomenon can uproot trees, turn cars over and tear the roofs off houses.

Forest fires

Most fires that destroy our forests are caused by carelessness (a poorly extinguished campfire, a cigarette thrown away by a hiker). Forest fires spread very rapidly, especially if there is wind and the weather is dry. Every year there are approximately 9,000 forest fires in Canada.

Landslides

Landslides are movements of clay type soil saturated with water. These ground movements occur very rapidly and leave the population very little time to react. The dangers associated with landslides are related to the impact of fast-moving debris or the ground collapsing under structures.

Volcanic eruptions

In a way, volcanoes are the Earth's chimneys, allowing magma to flow out. You may think there are no volcanoes in Canada but there are many dormant volcanoes in Western Canada. The possibility of a volcanic eruption therefore still exists.

Tsunamis

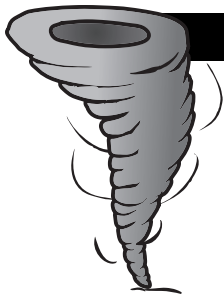
Tsunamis or tidal waves are huge ocean waves caused by an undersea disturbance such as underwater volcanoes, earthquakes and landslides. These waves can reach up to 30 metres high and cause major damage to houses along the shores.

Hurricanes

Hurricanes are enormous tropical storms that can cause significant damage. They are also called "tropical cyclones" or "typhoons". They originate in the oceans, generally near the equator. They are accompanied by very high winds and a great deal of rain.

Heat waves and extreme cold

Climate changes result in extremes in weather such as heat waves or extreme cold spells. These phenomena are caused by the arrival of a mass of cold or warm air that causes a considerable fall or rise in temperature. Heat waves or spells of extreme cold can have devastating effects on the health of vulnerable individuals, such as young children and the elderly.



A few words about hazardous materials releases

Hazardous materials releases are incidents that involve an accidental spill or leak of hazardous chemical products that are dangerous to humans and the environment.

These hazardous products can contaminate the soil or water or be spread in the air. If they become airborne, they may or may not be visible as a toxic cloud. Sometimes, you may be able to smell or taste the hazardous product. Inhaling toxic fumes or drinking contaminated water can be hazardous to your health. The risk depends on the toxicity of the substance in question, its concentration and how long you are exposed to it.

In the event of a leak of a poisonous product, the authorities may ask you to stay indoors and use “Shelter-in-Place” techniques:

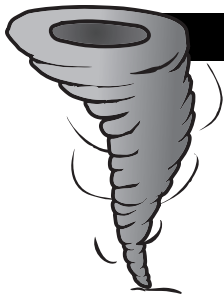
- Go inside your home and remain there;
- Close all windows and doors;
- Turn off all ventilation systems;
- Listen to the radio or watch television to be aware of the authorities’ instructions.

Other sources of information

To supplement or learn more about the information introduced in this activity booklet, here is a list of resources you can refer to:

- www.redcross.ca
- www.redcross.ca/facingfear
- www.redcross.ca/bugout
- www.climatecentre.org
- www.ifrc.org/what/disasters
- www.iclr.org/index.htm
- www.ecoaction.gc.ca
- www.publicsafety.gc.ca/res/em/nh/index-eng.aspx
- www.nrcan.gc.ca/studelev/index-eng.php
- <http://earthquakescanada.nrcan.gc.ca/index-eng.php>
- <http://ec.gc.ca/default.asp?lang=En&n=8B2F9F48-1>
- www.msp.gouv.qc.ca/jeunesse/index_en.html
- www.sopfeu.qc.ca/en/zone_interactive/jeunesse.php
- <http://feu.scf.nrcan.gc.ca>
- http://climatechangenorth.ca/section-BG/B2_Intermediate_Outline.html
- www.fema.gov/kids/index.htm (English only)
- <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/environ/heat-chaleur-eng.php>
- <http://www.hc-sc.gc.ca/ewh-semt/climat/adapt/heat-chaleur-eng.php>



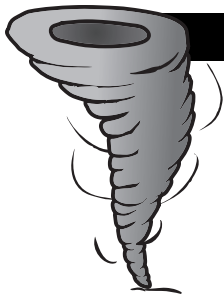


Prepare for emergencies with your family

Since Nature's sudden mood swings can strike us at any moment without warning, here are some ideas that can help you and your family prepare to react better and to limit the damage. For more help, you can visit the Canadian Red Cross Web site in the section for the *Expect the Unexpected* program, where you will find an activity booklet that can be completed with your family. You can look at the document in the section intended for parents at: www.redcross.ca/expecttheunexpected.

- Discuss the risk of disasters that could occur in your area.
- Learn about attitudes to adopt in case of an emergency.
- Prepare your home for disasters.
- Prepare a survival kit, a first aid kit and a car emergency kit with your family.
- Make sure you have enough food and water to last you and your family at least 72 hours in case of an emergency.
- Make an action plan with your parents and the rest of your family:
 - Make a list of all emergency and telephone numbers, and keep it close at hand;
 - Plan on two meeting places ahead of time in case an evacuation is necessary (one that is close to your house in case of a sudden emergency like a fire; another one outside your neighbourhood in case you cannot return home right away);
 - Make sure each family member knows the phone number of someone who lives out of town in case you get separated;
 - Arrange for other places where you and your family could stay temporarily (with other family or friends for example);
 - Practice your evacuation plan at home and techniques to remain sheltered in your home in case there are hazardous materials released.
- Learn to recognize emergency exits and smoke detectors at home, in school and public places.
- Never use the elevator in case of an emergency.
- Take a Red Cross first aid course.





After the Disaster

Even after the disaster, there is still an emergency. You must:

- Give first aid to injured people;
- Be sure to have your emergency kit with you;
- Listen to the local radio station in case you are asked to evacuate.

If asked to evacuate, I am ready!

If I am asked to evacuate, I must not insist on staying in the house, but should instead leave immediately while taking care to:

- Bring along an emergency kit and a first aid kit;
- Wear proper clothing;
- Make sure my pets are safe;
- Leave a note on the table indicating the time I left the house and my destination;
- Lock all the doors while leaving.

Cooperate

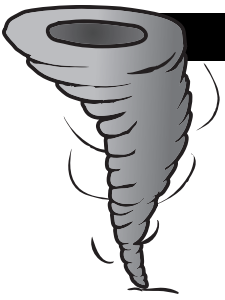
- Listen carefully to the instructions given by the authorities and rescuers;
- Always follow the route which has been laid out for you;
- Go to the meeting place designated by the authorities;
- Observe what is around you and notify the authorities and people about anything that may seem abnormal or dangerous.

Returning home

When you return home, you must:

- Check the condition of the house to evaluate the damage;
- Use a flashlight to inspect the site: it may be hazardous to turn on the lights;
- Check the condition of your electrical appliances;
- Get in touch with specialists for any electrical, heating or gas problems;
- Drink bottled water until the authorities confirm that the tap water is safe to drink;
- Check the food in your refrigerator and freezer, throw away any doubtful perishable food;
- Use the phone only for emergencies: the work teams may still need the telephone circuits for awhile.





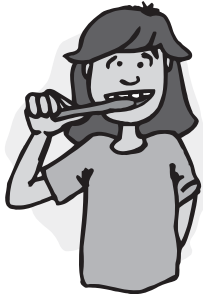
Climate Change: What can you do?

1. A cool suggestion!

Lower the temperature of thermostats overnight and when your family leaves for work or school. An easy way to save on heating energy!

2. You can do it!

Do not let water run while you are brushing your teeth or when you are washing the dishes.

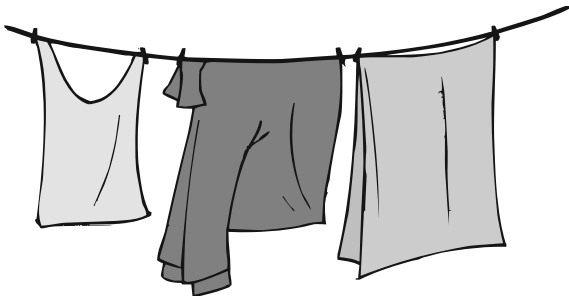


3. You can do it now!

Take a shower instead of a bath and install a low flow showerhead with your parents.

4. Friendly winds!

As frequently as possible, use the clothesline or a drying rack instead of the dryer. Clothes last longer too!



5. Turn off to better turn on!

Turn off lights and household appliances when they are not in use.



6. A brilliant idea!

With your family, use energy-efficient light bulbs and install timers to control exterior lighting.

7. Air can dry!

The dishwasher wastes a lot of energy. Leave dishes to dry on the countertop.

8. Moving along... without polluting!

When possible, use your bicycle or your in-line skates instead of asking your parents to use the car.



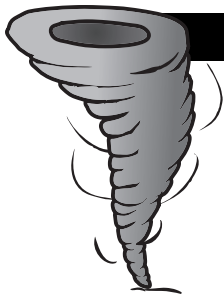
9. Don't idle around!

Ask your parents not to leave the car motor running needlessly.

10. The art of recycling and composting!

Recycle and learn how to prepare compost with your family. The less garbage that goes into the landfill, the less energy used!





The Red Cross: anywhere, anytime

The Canadian Red Cross¹ is one of the 187 national Societies which, along with the International Committee of the Red Cross (ICRC) and the International Federation of Red Cross/Red Crescent Societies (the Federation), form the International Red Cross and Red Crescent Movement. Its mission is to improve the lives of vulnerable people by mobilizing the power of humanity in Canada and around the world.

The Canadian Red Cross Society is a volunteer organization that provides the public with humanitarian services and emergency relief:

- In the area of prevention against disasters or conflicts or when they occur in Canada and around the world.
- Through community outreach in the fields of health and social services.

Humanitarian and relief services are provided according to the Fundamental Principles² of the International Red Cross and Red Crescent Movement. Canadian Red Cross programs are made possible by virtue of thousands of volunteers acting on its behalf and by Canadians' generous financial assistance.



The Fundamental Principles of the Red Cross

Humanity

Work to prevent and alleviate human suffering. Promote friendship and lasting peace amongst all peoples.

Impartiality

Provide help based on the level of suffering and show no preference as to nationality, race, religious beliefs or social conditions.

Neutrality

In order to continue to enjoy the confidence of all, take no sides in hostilities nor engage at any time in controversies.

Independence

Act freely, in accordance with the seven principles.

Voluntary service

To invest one's time and energy to help others, not prompted in any manner by desire for gain.

Unity

Unite all efforts of a country under one Red Cross, open to all.

Universality

Be mindful of human suffering all over the world.

¹ In conformity with the law, use of the Red Cross emblem or name in Canada is exclusively reserved to the Canadian Red Cross and to military medical units (Geneva Conventions Act, R.S. 1985, c. G-3).

² This text is adapted from the fundamental principles proclaimed by the 20th International Red Cross Conference held in Vienna in 1965. Please note that the original text was revised and included as part of the Statutes of the International Red Cross and Red Crescent Movement, which were adopted at the 25th International Red Cross Conference, held in Geneva in 1986.



Canadian Red Cross

Through
the media
sponsorship of:

