

## Emergency Preparedness: Extreme Cold Safety



**The Minnesota Literacy Council created this curriculum with funding from ECHO (Emergency, Community, Health, and Outreach) and the City of Minneapolis Health Department. The goal of the curriculum is to educate students on the importance of being prepared for several types of emergencies that may occur in Minnesota. We invite you to adapt it for your own classrooms.**

*ECHO is a nonprofit organization located in St. Paul and serving the needs of Minnesota's immigrant and refugee populations. ECHO's mission is to collaborate with diverse communities to deliver programs and services that help people be healthy, contribute, and succeed. Learn more about ECHO video programs and ELL curriculums by visiting [echominnesota.org](http://echominnesota.org).*

**Intermediate Level (CASAS reading scores of 201-220)**

# **Emergency Preparedness: Week 2 of 2**

---

## **Unit Overview**

This is a 2-week unit in which students share stories about resilience after an emergency, identify trustworthy sources of information during an emergency, fill out a family communications plan, and learn how to recognize and prevent the seasonal flu. During the second week students learn how to protect themselves during extremely cold weather and about tornado safety.

## **Focus of Day 7 and 8**

- Define frostbite and describe how to treat it
- List items to keep in the car during winter
- Identify dangerous areas during extreme cold

## Community Unit: Week 2, Wednesday

Objectives <i>Learners will be able to...</i>	Materials
<p><b>Life skill:</b> Identify clothing that helps protect skin during cold weather.</p> <p><b>Listening/speaking:</b> listen for the definition of frostbite and how to treat it</p> <p><b>Literacy:</b> write a definition of frostbite and how to treat it</p>	<p><b>Make Student Copies</b></p> <ul style="list-style-type: none"> <li>• Handout: <b>Dress Me for Winter</b></li> <li>• Handout: <b>Winter Safety</b></li> </ul> <p><b>Make Single Copies or Reference</b></p> <ul style="list-style-type: none"> <li>• Information about frostbite: <a href="http://emergency.cdc.gov/disasters/winter/staysafe/frostbite.asp">http://emergency.cdc.gov/disasters/winter/staysafe/frostbite.asp</a></li> <li>• ESL Volunteer Tutor Manual, 2012, page 45</li> </ul> <p><b>Props, Technology, or Other Resources</b></p> <ul style="list-style-type: none"> <li>• ELMO or overhead projector</li> <li>• ECHO Video excerpt: Extreme Cold Safety</li> <li>• DVD player or laptop and projector</li> </ul>

## Lesson Plan

### Note to Teacher

Please let Ss know that this is SOME information about what to do in an emergency. This is not ALL the information about what to do. In an emergency, you can get MORE and CURRENT information from places in the community that you trust.

### Warm up for today's Lesson

**Description:** Ss will collaborate as a class to draw winter clothing items

**Materials/Prep:** make one copy of the *Dress me for Winter* handout; *ELMO* or *overhead projector*

### Activity 1: Life skill

**Description:** Ss will do a think/pair/share activity to describe frostbite

**Materials/Prep:** make one (additional) copy of the *Dress me for Winter* handout; *ELMO* or *overhead projector*; refer to <http://emergency.cdc.gov/disasters/winter/staysafe/frostbite.asp> for information on frostbite

### Activity 2: Listening

**Description:** Ss will watch an excerpt from an ECHO video about extreme cold safety and answer questions about it

**Materials/Prep:** make multiple copies of the *Winter Safety* handout; *ECHO Video Excerpt, "Extreme Cold Safety"*; set up a *laptop and projector* or *DVD player*

### Activity 4: Checking for Understanding

**Description:** Ss will draw the warmest possible winter clothing

**Materials/Prep:** make multiple copies of the *Dress Me for Winter* handout

### Activity 4: Checking for Understanding

**Description:** Ss will do an Exit Ticket activity to show that they can define frostbite and describe how to treat it

**Materials/Prep:** write the three review questions on the board and give Ss index cards; refer to the *Volunteer Tutor Manual, 2012, page 45* for activity instructions

## Teacher Directions: Warm Up

### Step 1: Prep

Make two copies of the ***Dress Me for Winter*** handout. Set up **ELMO** or **overhead projector**.

### Step 1: Model the Instructions

Use the projector to show the handout. Ask Ss if they think she is ready to go outside in Minnesota in January. Draw a hat for her. Invite a student to come draw another clothing item. Invite another student to draw one more item. Emphasize that drawing ability is not important. Ask Ss the names for the clothing items. Continue as long as there is interest.

## Teacher Directions: Activity 2: Life Skills

Think/Pair/Share

### Step 1: Prep

Use the projector to show students a clean copy of the ***Dress Me for Winter*** handout. Write the following questions on the handout or on the board: *What will happen if she goes outside like this in January? What problem will she have if she stays outside for a long time? I think that \_\_\_\_\_.*

Refer to the Centers for Disease Control website for information about frostbite. **Note:** This is for teacher reference only: <http://emergency.cdc.gov/disasters/winter/staysafe/frostbite.asp>.

### Step 2: Think About the Problem

Read the questions aloud. Tell Ss not to say the answer. Give them about 30 seconds to think about it. Then ask Ss to use the sentence starter to write down what they think will happen.

### Step 3: Pair Up and Talk

Ask Ss to turn to a neighbor and share their answers.

### Step 4: Share Answers

Ask the class what they think will happen. Ask if anyone knows the name for the problem. Write the word *frostbite* on the board. Tell Ss that frostbite is when the skin is so cold that it freezes. The skin may itch or hurt. You can't feel your fingers, toes or other part of the body. It may very white. It is dangerous because it can hurt your body in a way that will not get better.

### Step 5: Transition to Watching the Video

Ask Ss what they think the woman should do if she has frostbite.

## Teacher Directions: Activity 3: Listening

### Step 1: Prep

Set up the ***ECHO video excerpt, "Extreme Cold Safety"*** and make multiple copies of the ***Winter Safety*** handout.

### Step 2: Preview the Video and Handout

Tell Ss they will watch a video about being safe when it is very cold outside. Ask Ss to read the handout (you may need to ask Ss to put their pencils down) and then ask them to turn and talk to a neighbor:

What do you think you will see in the video? Check for understanding of the vocabulary words. Ask Ss “Who is wearing layers today?” “Have you felt tingling in your fingers before?”

### Step 3: Watch the Video and Answer the Questions

Ss watch the video and answer the questions. Ask the Ss which questions they still need to answer. What do they want to watch for when you play it again? Play the video again so that Ss can add to and check their answers.

**Note:** Students may not understand all of the video. Focus on listening for answers to the questions.

### Step 4: Check Answers

Pair Ss up and ask them to check their answers together. Circulate and check in with students. Review answers to any questions that Ss are uncertain of.

**Note:** The woman interviewed in the video recommends using cold water and then gradually increasing the temperature of the water to treat frostbite. Most experts instead recommend using warm water (not hot). The answer to number 6 is (b).

### Need a Challenge?

Ask Ss to write down and then discuss how they can tell if other people have frostbite, especially their children.

## **Teacher Directions: Checking for Understanding**

### Step 1: Prep

Make multiple copies of the *Dress me for Winter* handout.

### Step 2: Draw Layers of Clothing

Show Ss the example drawing from the beginning of class. Instruct Ss to draw clothing for the woman. Try to make her the warmest.

### Step 3: Share Drawings

Ask who thinks they made the warmest drawing. Have that student show the class his/her drawing and explain why it is so warm. If time permits, have a few other students do the same and then vote to decide which is the warmest.

## **Teacher Directions: Check for Understanding**

Exit Ticket

### Step 1: Prep

Refer to the *Volunteer Tutor Manual, 2012, page 45* for instructions on how to do the Exit Ticket activity. Give each student an index card. If time permits, dictate the following questions, or, to save time, Ss can copy the questions from the board.

1. *What kinds of clothes should people wear in winter?*
2. *What is frostbite?*
3. *What should you do if you have frostbite?*

Dress Me for Winter



# ECHO Video: Winter Weather Safety

## Vocabulary

*Layer:* a layer is a part that is over another part. For example, a jacket is a layer over a shirt and socks are a layer that are under shoes.

*Tingling:* to feel many small places of pain in a body part such as the fingers, toes, a leg, etc.

## Watch the video and answer the questions.

1. TRUE FALSE It is better to wear many layers of clothing when it is cold outside.
2. TRUE FALSE Dry clothes feel colder than wet clothes.
3. How long does it take for fingers, toes, ears or your nose to freeze when it is very, very cold outside?
  - a. about 30 minutes
  - b. about an hour
  - c. a few minutes
  - d. a few seconds
4. What is *frostbite*? It is when your fingers, toes, or another part of your body starts to \_\_\_\_\_.
5. How do you know when you have frostbite? Check all the ways you can know.
  - can't feel a part of your fingers (or toes, or ears, or nose)
  - fever
  - pain
  - difficult to use your hands (or to walk)
  - very white or pale skin
  - tingling
6. What should you do if you think you have frostbite?
  - a. Stay outside for twenty more minutes.
  - b. Go inside and warm up very slowly, using warm water.
  - c. Go inside and stand in front of a very hot heater.
  - d. Call 911.

## Community Unit: Week 2, Thursday

Objectives <i>Learners will be able to...</i>	Materials
<p><b>Listening/speaking:</b> list items to keep in the car during winter</p> <p><b>Digital Literacy:</b> identify lakes and streams near where they live and their children play</p>	<p><b>Make Student Copies</b></p> <ul style="list-style-type: none"> <li>• Handout: the second page of <b>Card Swap</b></li> <li>• Handout: <b>Weather Preparedness Posttest</b></li> </ul> <p><b>Make Single Copies or Reference</b></p> <ul style="list-style-type: none"> <li>• The first page of <b>Card Swap</b></li> <li>• A screenshot of a “Google Map” of the neighborhood around the school</li> </ul> <p><b>Props, Technology, or Other Resources</b></p> <ul style="list-style-type: none"> <li>• Dice</li> <li>• Laptop and projector or overhead projector</li> <li>• Laptops and/or tablets for students</li> </ul>

### Lesson Plan

#### Note to Teacher

Please let Ss know that this is SOME information about what to do in an emergency. This is not ALL the information about what to do. In an emergency, you can get MORE and CURRENT information from places in the community that you trust.

#### Review of Previous Lessons

Description: Ss will do a Dice Questions activity and answer review questions

Materials/Prep: dice; write the six review questions on the board

#### Activity 1: Listening and Speaking

Description: Ss will do a card swap activity in which they say items to keep in the car during winter

Materials/Prep: make one or two copies of **Card Swap**, depending on the size of the class and cut apart the cards; Set up a **laptop** and **projector** to show the first page of the handout, or print it and show it with an **overhead projector**.

#### Activity 2: Digital Literacy

Description: Ss will use “Google Maps” to identify lakes and streams near where they live and their children play

Materials/Prep: (preferred method) set up a **laptop** and **projector** to show the **Be Careful Near Rivers and Lakes** handout; prepare a set of laptops and/or tablets for student use

Materials/Prep: (alternative method) make one copy of the **Be Careful Near Rivers and Lakes** handout and show with an **overhead projector**; Copy the “Google Map” that is closest to your school, or create a screenshot of a “Google Map” of the neighborhood around your school.

#### Activity 3: Checking for Understanding

Description: Ss will take a posttest to show what they learned this week

Materials/Prep: make multiple copies of the **Weather Preparedness Posttest**



## Teacher Directions: Review of Previous Lessons

## Dice Questions

### Step 1: Prep

Get some **dice**. Write the following six questions on the board:

1. What did you learn in class this week?
2. What is the difference between a tornado watch and a tornado warning?
3. When you are at home, where can you go if there is a tornado?
4. What is frostbite? What should you do if you have it?
5. What should someone put in his or her car in winter?
6. Did you or your children ever walk on a frozen lake or river in the winter?

If the class has less than 8 students, do this activity as a class. If there are more, divide students into groups of 4-5.

### Step 2: Model the Instructions

Read all the questions aloud as a class. Ask Ss which questions are review. Tell students the other questions are about today's lesson: winter weather safety.

Roll one of the dice and show Ss the number you rolled. Read the question you rolled aloud. Answer the question. Give the dice to a student and have that student roll and read the question aloud and answer it.

### Step 3: Answering the Questions

Ss take turns rolling the dice and answer the questions. Allow time for each student to answer two or more questions. Observe students to be sure they are all taking turns. Listen to their answers to prepare for step 4.

### Step 4: Follow Up (optional)

If the class worked in groups, call on a few Ss to answer the other questions.

## Teacher Directions: Activity 1: Listening and Speaking

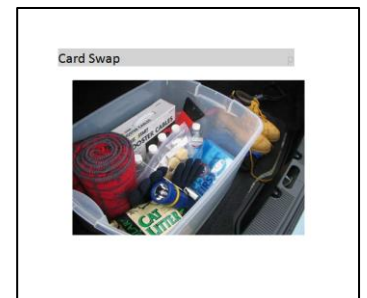
## Card Swap

### Step 1: Prep

Make one or two copies of the second page of **Card Swap**, depending on the size of the class. Cut apart the cards. Set up a **laptop and projector** to show the first page of the handout, or print it and show it with an overhead projector.

### Step 2: Set the Context

Ask Ss what they see in the picture. Where is it? What are these things for? Then tell Ss it is a box of things to keep in the car during winter. How many Ss drive in winter? Is there anything else to add to the box?



### Step 3: Model the Instructions

Show Ss one of the cards. Tell them it is something to put in the car for winter. Give two more Ss cards. Walk up to one student, say what you have in your card. That student says what is on his/her card. Trade cards. Go to the other student and repeat. Ask the two Ss to read and trade their cards.

### Step 4: Mingle and Swap Cards

Give cards to all the Ss. They stand up, walk around, read their cards and trade them.

### Step 5: Check Comprehension

Ask Ss to give you any cards they are confused about. Clarify as necessary.

### Step 6: What do you Remember?

Ss return the rest of the cards to the teacher. Assign Ss to work in small groups. They write lists of all the items that they remember. As a class, create a list on the board with as many items as they can. Remind them of any missing items.



## Teacher Directions: Activity 2: Digital Literacy

### Step 1: Prep

(preferred method) Set up a **laptop and projector** to show the **Be Careful near Rivers and Lakes** handout. Prepare a set of laptops and/or tablets for student use. One device for every two or three students is best.

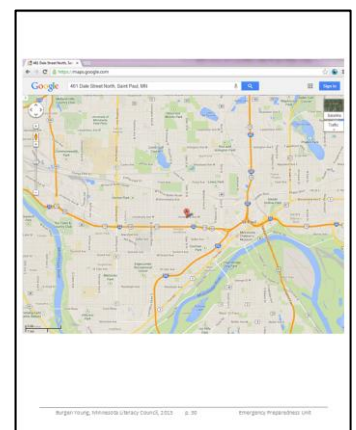
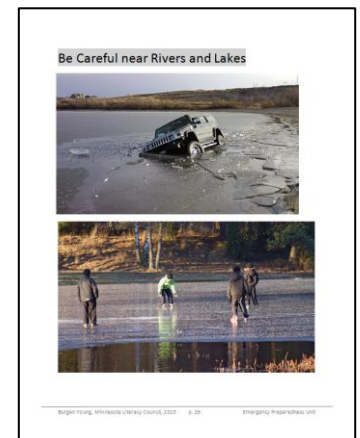
(alternative method) Make one copy of the **Be Careful near Rivers and Lakes** handout and show with an overhead projector. Copy the "Google Map" that is closest to your school. Or, create use "Google Maps" to create a screenshot of a map of the neighborhood around the school to show to students on the projector.

### Step 2: Set the Context

Show Ss the pictures on the first page of the handout. Ask what they see. Ask why both of these pictures show something dangerous. *What happened in the first picture? What may happen in the second picture? What time of year may this happen? How many Ss have children? Do they play near water in winter?*

### Step 3: Model the Instructions:

Show students the map of the neighborhood around the school. If using a laptop and projector with an Internet connection, look up the school on "Google Maps" instead of using the handout. If necessary, zoom out a little until some



water shows on the map. Ask Ss to come to point to all the water they see. How do they know where the water is?

Check that Ss understand how to type in the address for “Google Maps,” where to type their own address, how to zoom out a bit and how to identify nearby water. You can do this by asking Ss to come point to where they need to click and type. Ask a variety of Ss to point to be sure that all Ss understand the instructions. If using a laptop and projector, ask a couple Ss to type in an address and find the water (they don’t need to use their home addresses in front of the class).

(alternative method). If using a copy of a “Google Map,” the goal is to teach Ss to try this on their own when they do have access to a computer. Ask Ss to tell a neighbor about any water they already know about near where they live and near where their children play.

#### Step 4: Map It

Ss should work in pairs so they can assist each other as necessary. Ss go to “Google Maps,” look up their addresses, and identify all the nearby lakes and rivers.

#### Step 5: Follow Up

Call on a few Ss to share what they found.

**Note:** Leave sufficient time for Ss to take the posttest. If time is limited, focus on teaching Ss how to use “Google Maps” later to find water near their homes.

## Teacher Directions: Wrap Up

### Step 1: Prep

Make multiple copies of **Weather Preparedness Posttest**

### Step 2: Give Instructions

Remind Ss that they took a test on Monday. This is the same test. They can show what they learned this week.

### Step 3: Give the Test

Be sure Ss write their names on the test. Please turn the tests into the coordinator after class.

**Weather Preparedness Posttest**

Name \_\_\_\_\_ Date \_\_\_\_\_

Answer the questions without help from other students.

9. When is a storm?  
a. is very dangerous storm with a lot of thunder and lightning  
b. a big storm that is sometimes dangerous  
c. a very dangerous, powerful storm with strong winds  
d. is the same thing as a hurricane

10. When are tornadoes likely to happen in Minnesota?  
a. spring  
b. summer  
c. autumn and fall  
d. summer and spring

11. What is the difference between a tornado watch and a tornado warning?  
a. A tornado watch means there is a tornado right now, and a tornado watch means there might be a tornado soon.  
b. A tornado watch means there is a tornado right now, and a tornado warning means there might be a tornado soon.  
c. There is no difference. They are the same.

12. Watch the page with the instructions for what to do if there is a tornado.  
\_\_\_\_ if there is a basement  
\_\_\_\_ if there is no basement  
\_\_\_\_ if there is a basement with three floors  
\_\_\_\_ if there is no basement

a. Go to the middle of the house in a place away from windows and doors unless you are in a window, doorway, etc.  
b. Go to the middle of the building in the hall or stairs, and stay away from windows. Don't use elevators.  
c. Go to the basement of the building, but be the safest place possible.  
d. Stay in the middle of the building.  
e. Go to the basement and go under a table or heavy object.

13. What is a lot of heavy clothes as you cannot pass should wear in winter when it is very cold outside. Little or wear do things.

14. When is a storm?  
a. Storms is when the wind makes the weather feel very cold.  
b. Storms is when you feel a little cold in the winter.  
c. Storms is when some rain when your fingers, toes, ears or nose.  
d. Storms is when your fingers, toes, ears, nose or other part of your body starts to freeze.

15. When should you do if you think you have a storm?  
a. Stay outside.  
b. Go home and turn up very slowly, using warm water.  
c. Go home and stand in front of a very hot heater.  
d. Call 911.

16. Why is it important to know where the water and there are near you home during a storm and how often?  
a. Children like to play near them, but the water might flood.  
b. Children like to play near them, but the ice may be there and they could fall into the water and sink.  
c. Children like to play near them, but there is a lot that they cannot.  
d. Children like to play near them, and you can show the children where the water is so that they can go play.

Superior, Minnesota Schools Council 2012 © 2012 Emergency Preparedness Unit

# Card Swap

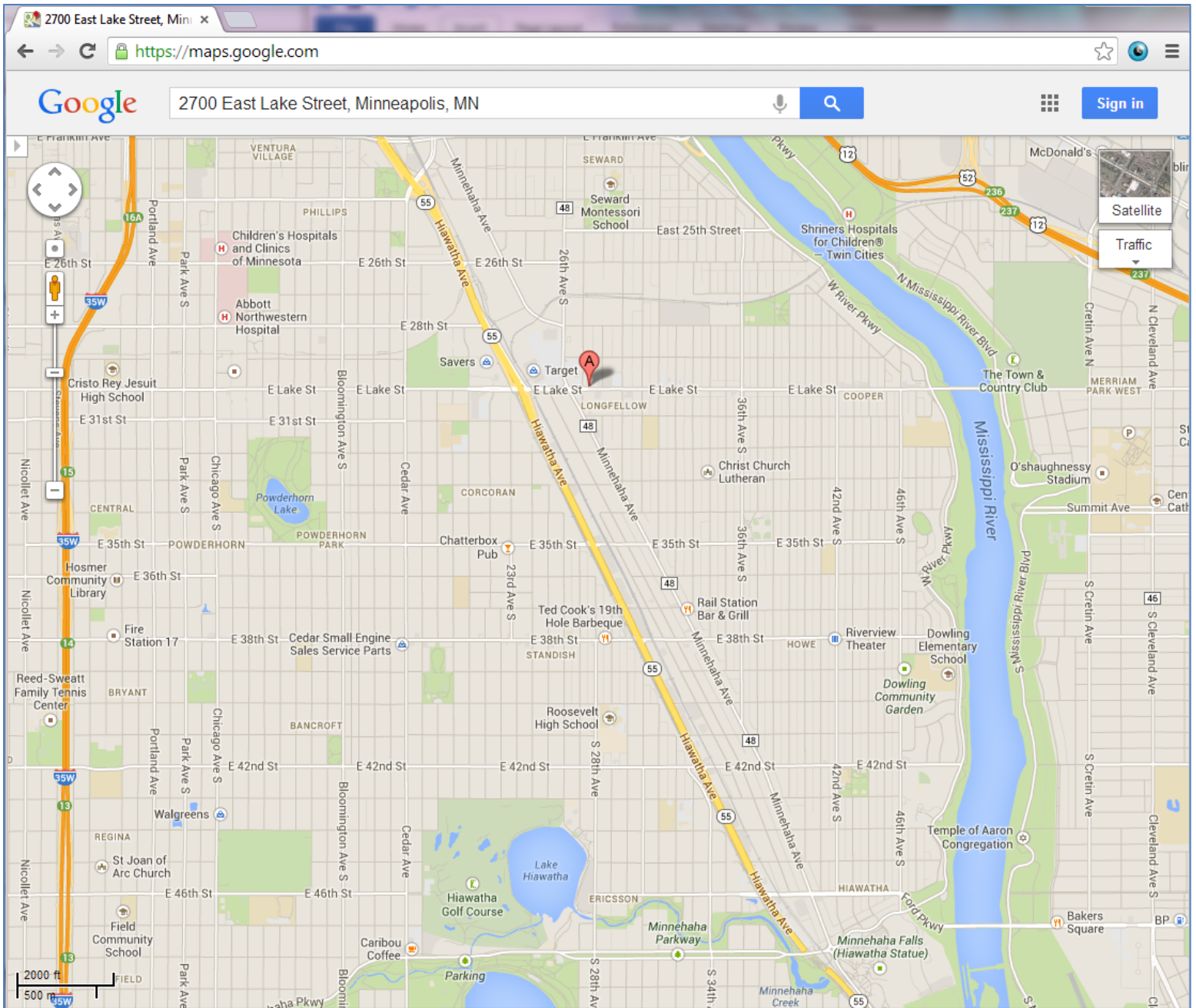
p

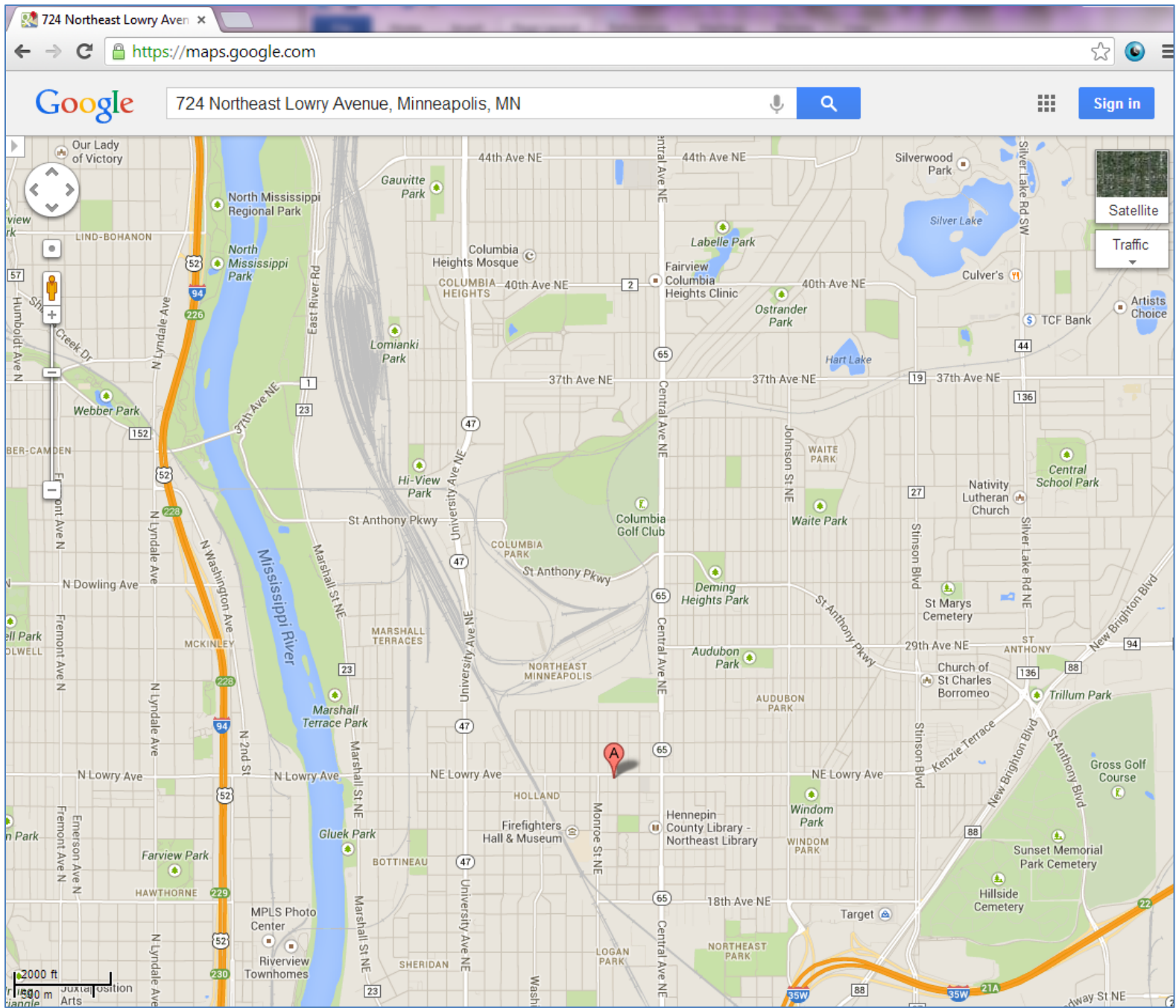


<p>Flashlight with extra batteries</p> 	<p>A heavy blanket</p> 	<p>Something red to tie to the car if you get stuck. It makes the car easier to find in a blizzard.</p> 
<p>A first aid kit</p> 	<p>Food and water</p> 	<p>An ice scraper</p> 
<p>Extra clothes, hat, gloves</p> 	<p>Jumper cables for a car battery that stopped working.</p> 	<p>A cell phone charger</p> 
<p>A small shovel</p> 	<p>Matches and candles</p> 	<p>Sand or cat litter to put under the tires if you get stuck.</p> 

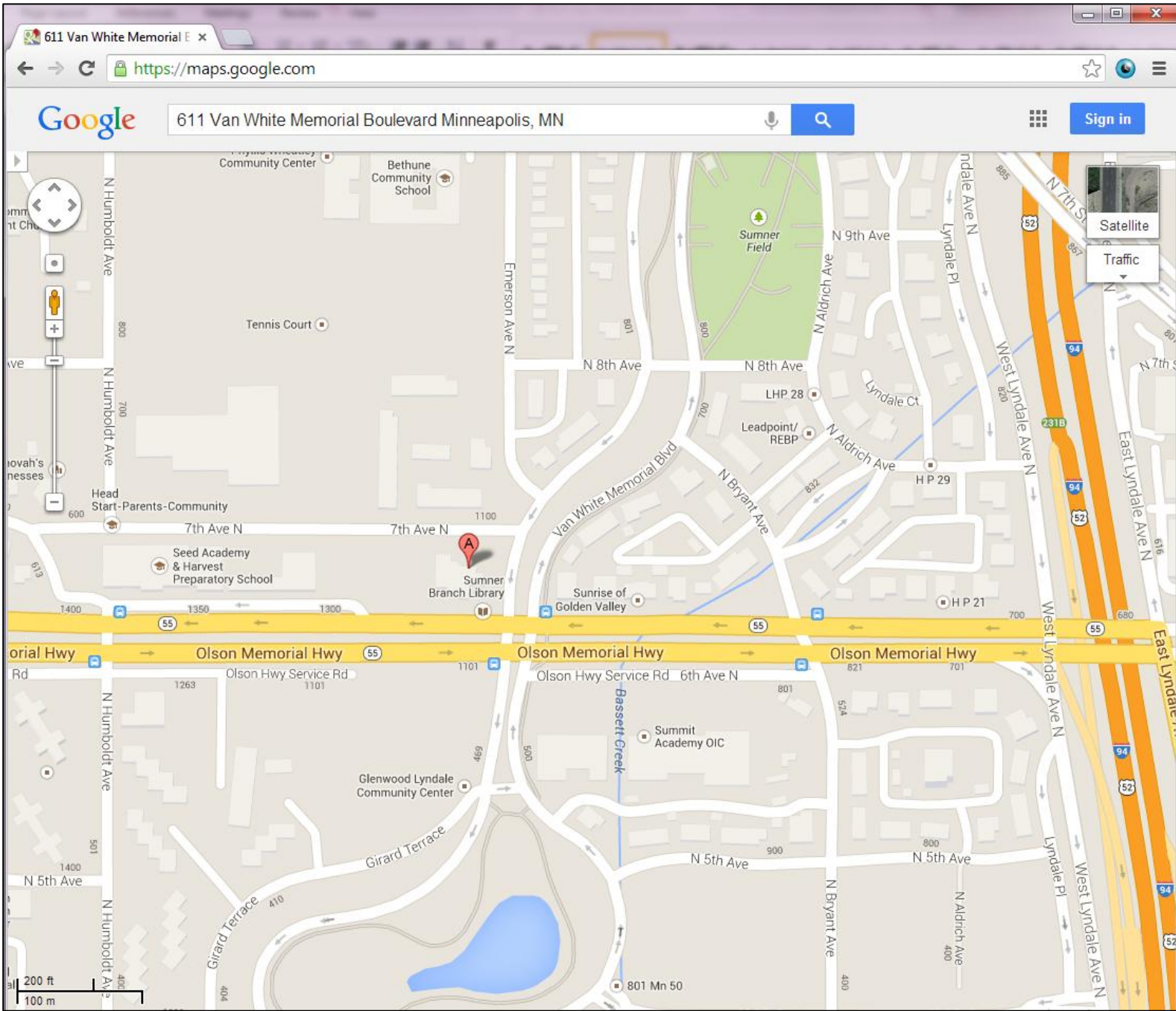
## Be Careful near Rivers and Lakes

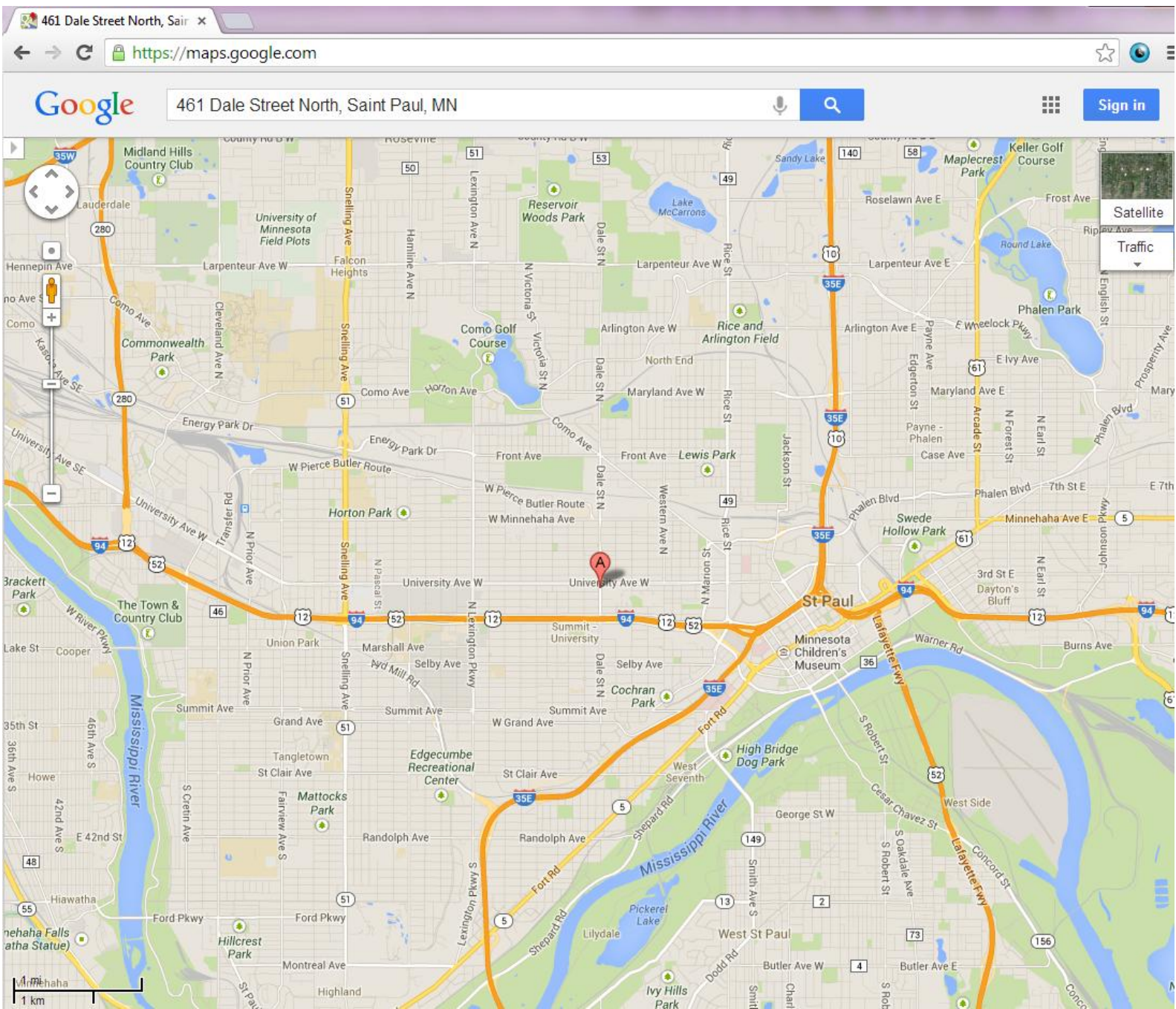












# Weather Preparedness Posttest

Name \_\_\_\_\_ Date \_\_\_\_\_

Answer the questions without help from other students.

1. What is a tornado?
  - a. a very dangerous storm with a lot of thunder and lightning
  - b. a big storm that is sometimes dangerous
  - c. a very dangerous, powerful storm with strong winds
  - d. it is the same thing as a hurricane
  
2. When are tornados likely to happen in Minnesota?
  - a. spring
  - b. summer
  - c. summer and fall
  - d. summer and spring
  
3. What is the difference between a tornado watch and a tornado warning?
  - a. A tornado warning means there is a tornado right now, and a tornado watch means there might be a tornado soon.
  
  - b. A tornado watch means there is a tornado right now, and a tornado warning means there might be a tornado soon.
  
  - c. There is no difference. They are the same.
  
4. Match the place with the instructions for what to do if there is a tornado.

t

\_\_\_\_\_ a house with a basemen

\_\_\_\_\_ a house without a basement

\_\_\_\_\_ an apartment with three floors

\_\_\_\_\_ a very tall apartment

- a. Go to the middle of the house in a place away from windows and cover yourself with a mattress, blanket, etc.
- b. Go to the middle of the building in the hall or stairwell and stay away from windows. Don't use elevators.
- c. Go to the lowest floor of the building, such as the parking garage or a neighbor's first floor apartment. Stay away from windows.
- d. Go to the basement and go under a table or a heavy blanket.

5. Write a list of as many clothes as you can that people should wear in winter when it is very cold outside. Write at least five things.
  
6. What is frostbite?
  - a. Frostbite is when the wind makes the weather feel very cold.
  - b. Frostbite is when you feel a little cold in the winter.
  - c. Frostbite is when some frost bites your fingers, toes, ears or nose.
  - d. Frostbite is when your fingers, toes, ears, nose or other part of your body starts to freeze.
  
7. What should you do if you think you have frostbite?
  - a. Stay outside.
  - b. Go inside and warm up very slowly, using warm water.
  - c. Go inside and stand in front of a very hot heater.
  - d. Call 911.
  
8. What should someone keep in his or her car during winter? Write at least four things.
  
  
  
  
  
  
  
  
  
  
9. Why is it important to know where the lakes and rivers are near you home during early and late winter?
  - a. Children like to play near them, but the water might flood.
  - b. Children like to play near them, but the ice may be thin and they could fall into the very cold water.
  - c. Children like to play near them, but there is a law that they cannot.
  - d. Children like to play near them, and you can show the children where the water is so that they can go play.

# Weather Preparedness Posttest

## Answer Key—For Teacher Reference Only

Answer the questions without help from other students.

2. What is a tornado?
  - a. a very dangerous storm with a lot of thunder and lightning
  - b. a big storm that is sometimes dangerous
  - c. a very dangerous, powerful storm with strong winds**
  - d. it is the same thing as a hurricane
  
3. When are tornados likely to happen in Minnesota?
  - a. spring
  - b. summer
  - c. summer and fall
  - d. summer and spring**
  
4. What is the difference between a tornado watch and a tornado warning?
  - a. A tornado warning means there is a tornado right now, and a tornado watch means there might be a tornado soon.**
  - b. A tornado watch means there is a tornado right now, and a tornado warning means there might be a tornado soon.
  - c. There is no difference. They are the same.
  
5. Match the place with the instructions for what to do if there is a tornado.

<p><u>  <b>d</b>  </u> a house with a basement</p> <p><u>  <b>a</b>  </u> a house without a basement</p> <p><u>  <b>c</b>  </u> an apartment with three floors</p> <p><u>  <b>b</b>  </u> a very tall apartment</p>	<ol style="list-style-type: none"><li>a. Go to the middle of the house in a place away from windows and cover yourself with a mattress, blanket, etc.</li><li>b. Go to the middle of the building in the hall or stairwell and stay away from windows. Don't use elevators.</li><li>c. Go to the lowest floor of the building, such as the parking garage or a neighbor's first floor apartment. Stay away from windows.</li><li>d. Go to the basement and go under a table or a heavy blanket.</li></ol>
---	---

6. Write a list of as many clothes as you can that people should wear in winter when it is very cold outside. Write at least five things.

**Hat, scarf, mittens, gloves, boots, jacket, extra socks, sweater, extra pants, extra shirt, long underwear**

7. What is frostbite?

- a. Frostbite is when the wind makes the weather feel very cold.
- b. Frostbite is when you feel a little cold in the winter.
- c. Frostbite is when some frost bites your fingers, toes, ears or nose.

**d. Frostbite is when your fingers, toes, ears, nose or other part of your body starts to freeze.**

8. What should you do if you think you have frostbite?

- a. Stay outside.

**b. Go inside and warm up very slowly, using warm water.**

- c. Go inside and stand in front of a very hot heater.
- d. Call 911.

9. What should someone keep in his or her car during winter? Write at least four things.

**Food, water, flashlight with extra batteries, sand or cat litter, jumper cables, small shovel, extra clothes, candle and matches, a red bandana or cloth, first aid kit, cell phone charger**

10. Why is it important to know where the lakes and rivers are near you home during early and late winter?

- a. Children like to play near them, but the water might flood.

**b. Children like to play near them, but the ice may be thin and they could fall into the very cold water.**

- c. Children like to play near them, but there is a law that they cannot.
- d. Children like to play near them, and you can show the children where the water is so that they can go play.