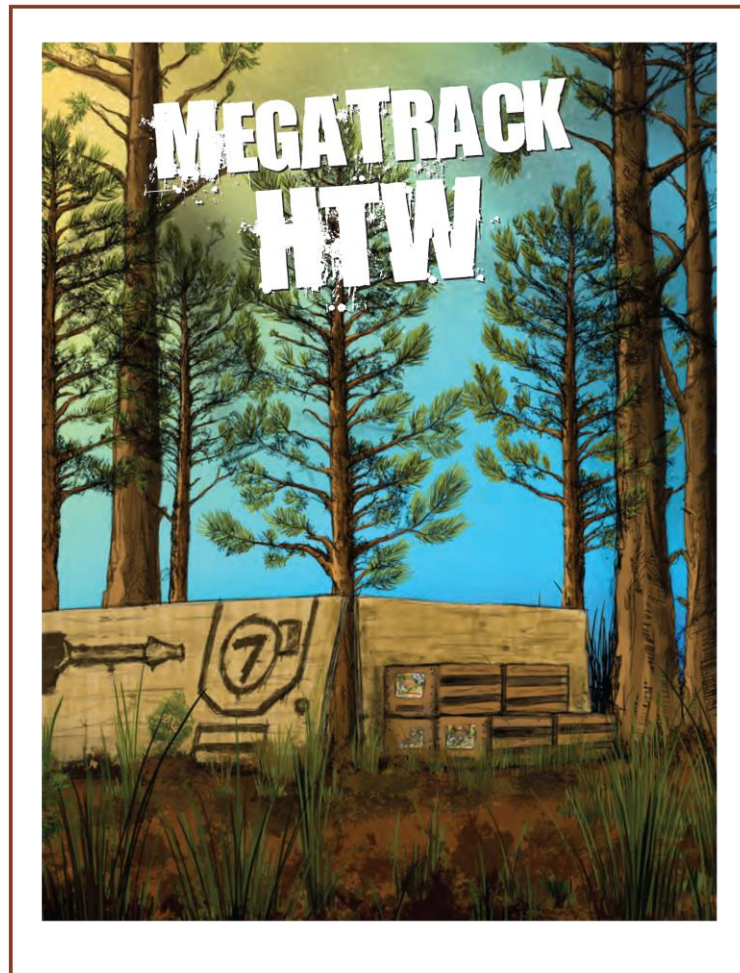


# A Guide for Teachers and Parents for MegaTrack HTW



Presented by the Florida Division of Emergency Management



**The Florida Division of Emergency Management**

*www.FloridaDisaster.org*  
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Dear Educators and Parents,

The mission of the Florida Division of Emergency Management is “*Working together to ensure that Florida is prepared to respond to emergencies, recover from them, and mitigate against their impacts.*” We work with local governments to respond to all types of disasters. Many of these disasters are due to severe weather events such as lightning, tornadoes, and hurricanes, which in Florida, are common occurrences.

While we cannot prevent severe weather, there is much each of us can do to prevent injury to ourselves and damage to our property. Awareness begins with each individual, no matter how young. To that end, the Florida Division of Emergency Management has commissioned IDEAS, [www.ideasorlando.com](http://www.ideasorlando.com), to create; three storybooks, an interactive website [www.KidsGetAPlan.com](http://www.KidsGetAPlan.com), mobile apps on Apple, Google Play and Amazon app stores, and museum exhibits that are intended to be utilized by first, second, and third grade students as well as older students.

The storybook for first graders, The Adventures of Rabbit, Possum, and Squirrel in The 30/30 Rule, teaches young children how they can protect themselves from lightning strikes. Professor Tinkermeister and the Wacky, Whiz-Bang, Weather-Watching Wonder, allows the second grade reader a chance to learn about and protect themselves from the powerful nature of thunderstorms while traveling on a fantastic journey in a magical machine. In The Oak Tree Club, third graders will learn about how they can create a Disaster Supply Kit for their families to prepare for a hurricane. The book for fourth and fifth graders, MegaTrack HTW, is a story of a ten-year-old boy whose family evacuates to a Red Cross shelter because a wild fire threatens their neighborhood. Each of these books was created at the appropriate reading level for each grade. The science is presented in a matter-of-fact and non-threatening manner so as not to create undue fears in our children.

Each of the books also comes with an accompanying guide for teachers and parents. Each guide explains some of the science presented in the books and answers questions that children are likely to have while reading the stories. The guides also explain how the books can be used to help our children to become better readers.

We hope you find the books, interactive website, and accompanying guides for teachers and parents helpful. Thank you for your continued support in helping Florida’s children protect themselves from the hazards of severe weather.

Sincerely,

Florida Division of Emergency Management

**Be Smart! Be Safe! Be A Survivor!**

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## Before you read together...

MegaTrack HTW is a story about a ten-year-old boy and his family and their experiences before, during, and after a wildfire threatened their neighborhood. Although technically written at a grade four *reading* level the story itself should appeal to fourth and fifth graders alike. The science concepts presented in the story are aligned with the Next Generation Sunshine State Standard for Grade 5 Science, “Big Idea 7: Earth Systems and Patterns” and the Benchmark found below<sup>1</sup>:

<b>Benchmark Number:</b>	SC.5.E.7.7
<b>Benchmark Description:</b>	Design a family preparedness plan for natural disasters and identify the reasons for having such a plan.
<b>Subject Area:</b>	Science
<b>Grade Level:</b>	5
<b>BODY OF KNOWLEDGE:</b>	Earth and Space Science
<b>Big Idea:</b>	Earth Systems and Patterns - Humans continue to explore the interactions among water, air, and land. Air and water are in constant motion that results in changing conditions that can be observed over time.
<b>Date Adopted or Revised:</b>	02/08
<b>Date of Last Rating:</b>	05/08
<b>Cognitive Complexity:</b>	Moderate
<b>Status:</b>	State Board Approved

Students will benefit from discussion of some of the science concepts and new vocabulary *before* reading the book. The pre-reading and research suggestions below will help the readers to comprehend the story better.

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<sup>1</sup> Retrieved on March 29, 2010 from <http://www.floridastandards.org/Standards/FLStandardSearch.aspx>

## **Pre-Reading Research**

### **Activity #1: The Natural Role of Fire**

Most children are familiar with the term *forest fire*, but few may know that wildfires are a normal part of nature and are even beneficial in some ways. You might wish to have your students research “The Natural Role of Fire” which can be found at:

[http://www.fl-dof.com/publications/fires\\_natural\\_role.html](http://www.fl-dof.com/publications/fires_natural_role.html)

Here they will learn about the two faces of fire, how lightning may start a natural wildfire (as was the case in the story), how some plants have adapted to naturally occurring fires, and how fire is a necessary agent of change in the forest.

If your students do not have easy access to a web-based computer, you might wish to print the article found at the website above as well as the Activity #1 Worksheet (found in the Appendix) and include them both in a classroom reading center. The main objective of this activity is to help your students to understand that fire is natural and not necessarily a “bad” thing in the forest.

## **Introduction of New Vocabulary Words by Chapter**

In order to understand the story, and grasp the meaning of the science concepts introduced in it, it is important that the readers know and understand the following words and concepts that will be found in this book.

You might try different activities using the words. For instance, perhaps you might write the words on the board along with the appropriate page number (from the book). Ask your students to try to figure out the meaning of the words from the context. Or, break your students into cooperative learning groups and have them write a word on one 3x5 card and its meaning on another. Then let them play a game of “memory” or “concentration” to match the words to help them learn them. Make learning new vocabulary a fun experience!

If you find other words that you believe your students will not understand, be sure to include them in your assignments.

### **Chapter 1**

- (p. 1) sauntered: walked slowly
- (p. 2) mimicking: imitating
- (p. 3) emphatically: forcefully

### **Chapter 2**

- (p. 6) crude: not well made
- (p. 6) turrets: structures where the water guns are mounted that allow the gun to move from side to side
- (p. 6) mammoth: huge
- (p. 8) water restriction: a ban in the use of water outside your home or business, usually due to lack of rainfall
- (p. 8) drought index : a measure of soil or vegetation dryness; the higher it is, the less moisture there is
- (p. 10) Firewise : a series of steps you complete to lessen the chance of property loss in case of wildfires

### **Chapter 3**

- (p. 13) asthma: a breathing disorder where your air passages become irritated and inflamed
- (p. 14) festive: joyous or merry
- (p. 16) tromping: stomping their feet
- (p. 17) Keetch-Byram drought index : a measure used to determining forest fire potential
- (p. 17) authoritatively: as if he were the expert
- (p. 19) humidity: the amount of water vapor in the air
- (p. 19) relative humidity : a measure of how much water is in the air compared to how much it can hold, given as a percentage
- (p. 19) stagnant : not moving

- (p. 21) high pressure ridge: a long area of relatively high pressure on a weather map that is generally associated with cooler, drier air and clear skies
- (p. 21) squall line: a line of thunderstorms that forms along with or ahead of a cold front
- (p. 21) plagued: troubled or bothered
- (p. 21) dousing : throwing water or other liquid on
- (p. 21) State Emergency Operations Center: the building where state leaders meet to help coordinate response to big disasters like fires, floods, and storms
- (p. 22) Executive Order: a rule or regulation declared by the President or a Governor without need for consent by Congress or the Legislature
- (p. 22) Red Flag Warnings : A forecasting term that indicates that a critical fire weather pattern is probable
- (p. 22) rescind: officially cancel
- (p. 22) disaster supply kit: a package of basic tools and supplies prepared in advance as an aid to survival in an emergency

#### **Chapter 4**

- (p. 25) mandatory: required

#### **Chapter 5**

- (p. 36) meteorologist: a scientist who studies the atmosphere and examines its effects on the environment, predicts the weather, or investigates climate trends.
- (p. 36) Veterans of Foreign Wars : a U.S. organization of people who have served our country overseas during a war
- (p. 38) dejectedly: unhappily
- (p. 40) sulked: remained silent in a bad mood

#### **Chapter 6**

- (p. 42) in defiance: boldly resisting authority
- (p. 51) corralled: gathered
- (p. 51) perplexed: puzzled

#### **Chapter 7**

- (p. 53) droves: large groups
- (p. 58) famished: really hungry
- (p. 59) sarcastically: made a sneering or cutting remark
- (p. 59) reprimanded: said with stern disapproval
- (p. 65) timidly: without sureness; shyly
- (p. 66) cajoled: persuaded or coaxed

#### **Chapter 8**

- (p. 67) anxious: uneasy or afraid
- (p. 71) solemnly: seriously and without excitement
- (p. 71) embers: small pieces of wood still burning
- (p. 71) smoldering: burning without flame

- (p. 72) undergrowth: low-lying plants or trees growing beneath other trees
- (p. 73) salvage: save

### **Chapter 9**

- (p. 76) warily: suggesting there was danger
- (p. 77) wearily: with fatigue or tiredness
- (p. 78) commotion: a noisy disturbance
- (p. 80) immense: huge
- (p. 80) 60% grade: The angle of a slope is called a grade. A 90% grade would mean straight up and a 0% grade would mean flat ground; thus a 60% grade is a very steep hill.



## **Introduce the Characters**

**The primary family in the story is the Perez family.**

- Ramon Perez is the father.
- Beth Perez is the mother.
- Victoria Perez is their daughter. She is fifteen years old. She is a cheerleader at Thomas Atkins High School where she will soon be in the 10<sup>th</sup> grade. She texts constantly on her cell phone.
- Sam Perez is their son. He is ten years old, but very proud that he will soon be eleven! It is the summer between his 4<sup>th</sup> and 5<sup>th</sup> grade year in school. Adam is an outdoor kid...but like most boys his age, he likes video games. He is very competitive in both his video games and his sports.
- Emily Perez is three years old. She has a doll, named Gretchen that she pretends is real.
- Beth's mother, whom everyone calls Nana, does not look or act like the typical grandma. She likes to dress fashionably. She and her grandchildren get along great! She plays golf as her hobby. She watches Emily during the day when the adults are at work. She has a cell phone which she relies upon for almost everything. Even though she does not live with them, she shows up in the story early on because she evacuates to the Perez's house since the fire has caused lots of smoke in her own neighborhood and she has asthma. She, of course, drove herself to their house.
- Nana has a dog named "Bogart" but they often call him "Bogey." The pet becomes a problem in the story because of the evacuation and the unavailability of a pet shelter.

OTHERS in the story...

Mary Barton works for the Red Cross and in that capacity, visited Sam's schools to teach fire safety. She also coordinates volunteers in the community and works at the shelter that the Perez's visit.

Julia Clark is a Florida Department of Forestry Public Information Officer. She and her husband and son live next door to the Perez's. She is their impromptu *Firewise* "teacher." In the story, she appears on television several times to give updates about the state of the wildfires in the region.

Don Clark is Julia's husband and the father of Jacob.

Jacob Clark is ten years old and is Sam's best friend. Jacob has heard his mother talk so much about her job that he is sort of a "kid authority" about the forest, meteorology, and science in general.

Tina is also ten years old. She and her mother live across the street from the Perez family.

Officer Cohen is the local law enforcement officer (police) who knocks on each door in the neighborhood to tell the families they must evacuate.

## **As the students read...**

As the students read, ask probing questions about the story after each chapter. This will help them comprehend what they are reading. Help them to begin to think about the story *before* they start to actually read the words on each page. Point out how they can use the pictures to benefit their comprehension. Ask the students about the things they see in each picture. Talk about what they see. If you model this kind of questioning with your students, you will help them build mental models of the story and increase their reading comprehension. Because children are great mimics, eventually, they will begin to create their own questions as they read on their own. There is no “exact right way” to do it. Use the suggestions below as a guide.

### **Chapter 1**

- What causes Sam to jump out of bed so excitedly?
- What is Sam hoping to see at the parade later?
- What does Sam do that scares his little sister, Emily?
- Who is Gretchen?

### **Chapter 2**

- What is causing the threat of wildfires?
- Why might Mrs. Clark have to work long hours?
- What does Mrs. Clark do for a living?
- What did Jacob and Sam use the old garden hose for?
- Why are there only certain times of day that the Perez family can water their lawn?

### **Chapter 3**

- Why might the fireworks be cancelled?
- Who is going to be walking in the parade, and why?
- Why is Nana coming to the party early?
- What does Mr. Clark do to be as Firewise as possible?
- Do you think the rain will put out the forest fires? Why or why not?
- What do you think is meant by “an ounce of prevention is worth a pound of cure?”

**Research Activity Suggestion:** Who was Thomas Atkins and why did the author choose to name Victoria’s school after him? (He is credited as being the first firefighting officer (or fire chief) in Colonial America.)

Reference:

[http://www.firefightercentral.com/history/firefighting\\_in\\_colonial\\_america.htm](http://www.firefightercentral.com/history/firefighting_in_colonial_america.htm)

#### **Chapter 4**

- According to Jacob, what is the perfect combination for wild fire trouble?
- What is meant by a persistent ridge of high pressure?
- According to the news cast, what are some of the desert like conditions Florida is experiencing?
- What was responsible for sparking numerous wildfires in northern Florida?
- What made the kids moan while they were watching the news?
- What do you think should go into a disaster supply kit?

#### **Chapter 5**

- What kind of supplies were on the list Victoria found online?
- Why did Miss Mary from the Red Cross visit Sam's school?
- What items did Sam put on his evacuation list?
- Why do you think the Clark family went in the opposite direction of the Perez family?
- Why was I-95 closed?
- What's the difference between a rain cloud and a storm cloud?
- What was different about the parade this year?

#### **Chapter 6**

- Why did Officer Cohen pay the Perez family a visit?
- What was on the flyer that Officer Cohen gave to the Perez family?
- Where do pets go during the evacuation?
- What kind of items was Mr. Perez removing from the shed and why?
- What kind of building was the shelter in?

#### **Chapter 7**

- What is the first thing the Perez family needs to do after arriving to the shelter?
- Who did Sam hope to see at the shelter?
- What bad news did Mrs. Clark announce while on the news?

**Research Activity Suggestion:** Why did the author choose to name the Red Cross Volunteer Ms. Barton? (Answer: Clara Barton founded the American Red Cross in 1881 at age 60, and led the organization for the next 23 years.)

Reference: <http://www.redcross.org/museum/history/claraBarton.asp>

**Chapter 8**

- How does a family receive information that it's okay to return home?
- Why did Mr. Perez want his family to remain in the car while he checked out the house?
- Why do you think the police were checking IDs to make sure people were residents?
- What did the fire damage at the Perez's house?
- Why can't the boys go into the woods even though the fire has been put out?

**Chapter 9**

- What happens that makes Jacob so nervous?
- Where were the sirens coming from?
- Why does Sam think this was the best Fourth of July ever?

### **Activity #2: Becoming Firewise**

Even though Florida is the lightning capital of the world, arson and escaped debris burning are still the two *main* causes of wildfires in Florida. Prevention is the key in helping to reduce the number of *human*-caused fires—one of the most important goals for the Florida Division of Forestry.

While completing this research activity, your students will learn about how to protect their homes from wildfires by applying Firewise principles. First, you might wish to handout Activity #2 Worksheet (found in the Appendix). Then, have your students go to:

[http://www.fl-dof.com/wildfire/firewise\\_index.html](http://www.fl-dof.com/wildfire/firewise_index.html)

After reading the article there, they should click on all the links at the *bottom* of the same page to find the answers to the questions on the worksheet.

NOTE: Your best researchers are likely to find the answers to the worksheet questions at:

[http://www.fl-dof.com/wildfire/firewise\\_quiz\\_answers.html](http://www.fl-dof.com/wildfire/firewise_quiz_answers.html)

The term “Firewise” is mentioned in the story and we hear some of the characters talking about how they have made their homes Firewise. This research will help them to understand all that they and their families can do to mitigate losses in property even from a natural wildfire. Taking proper precautions and being prepared could even save their lives!

### **Activity #3: Building a Disaster Supply Kit**

Use the Activity #3 worksheet (found in the Appendix) as a homework assignment for students to do with their parents. When they return the certificates, display them proudly on a “Be Smart! Be Safe! Be A Survivor!” bulletin board in your classroom.

Allow the students to draw a picture of a wildfire and write their own story. Post these on the bulletin board, too.

### **Activity #4: Things I Wouldn't Want to Live Without**

In the story, Sam mentions that Miss Mary, the Red Cross worker, visited his classroom to remind students of the importance of creating a disaster supply kit for their homes. One of the other activities she promoted was for the students to create a list of things that were very important to them so that in the event of an emergency, they would be able to grab the items in a hurry. Sam relayed this information to his family at the lunch table before they went to the parade. After he shared what was on *his* list, his mother discussed that the family pictures were one of the things that simply couldn't be replaced should they lose their home. Eventually, this became an important element of the story as we read that Sam collected his favorite items as well as his “treasure box” as he is packing for the

shelter. After packing up the car, his mother actually returns to the house at the last minute to retrieve the family pictures to take them with her to the shelter.

Use the Activity #4 worksheet (found in the Appendix) as a handout or simply copy the directions on the board in your classroom. Have each student make their own list of “Things I Wouldn’t Want to Live Without” and share it with the class or small group. You might even want to have them do this activity as a homework assignment and make a list with their family!

### **Activity #5: Kids Get a Plan**

Make sure you visit [www.kidsgetaplan.com](http://www.kidsgetaplan.com) with your students. Simply enter your grade level and Zip Code and click the “Let’s Go” button to enter the website. Here you will find a PDF version of all of the books provided to you and your students without cost by the Florida Division of Emergency Management. You will also find interactivities, audio books, and an interactive version of each of the books. You can also order printed copies of the book for a nominal fee.

## **APPENDIX**

## Activity #1: The Natural Role of Fire

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

**Directions:** Go to: [http://www.fl-dof.com/publications/fires\\_natural\\_role.html](http://www.fl-dof.com/publications/fires_natural_role.html) and read the article “The Natural Role of Fire.” Then complete this worksheet.

Circle *True* or *False* for each statement below.

1. Fire in the forest and woodlands is always a bad thing.	True	False
2. Fire, along with air, water, and earth, is a basic environmental factor that we need to understand and make our friend.	True	False
3. Fire in the forest not only destroys trees, it also destroys all the seeds which prevents new forest growth.	True	False
4. Lightning fires can occur in an area where it is not raining.	True	False
5. Wildfires are always started by a person being careless.	True	False
6. Wildfires can start when lightning strikes forest “fuel” and smolders until the rain stops.	True	False

7. Some plants have adapted so that they can survive wildfires. List three of them here:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

8. List the three conditions that help cone-bearing trees sprout and grow after a fire.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

9. List the two conditions that help oaks, gums, cypress and cedar trees to reseed after a fire.

1. \_\_\_\_\_
2. \_\_\_\_\_



## Activity #2: Becoming Firewise

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

**Directions:** Go to [http://www.fl-dof.com/wildfire/fire\\_prevention\\_index.html](http://www.fl-dof.com/wildfire/fire_prevention_index.html)  
**Read the page and also click on each link to find the answers to the following questions**

1. To effectively reduce home losses from wildfires, \_\_\_\_\_ must become partners with local fire protection agencies and assume greater responsibility for home fire safety.
  - a. developers
  - b. homeowners
  - c. architects
  
2. Roofs should be kept free of \_\_\_\_\_.
  - a. leaves
  - b. branches
  - c. debris
  - d. all of the above
  
3. A Firewise Landscape can also provide food and cover for wildlife, require less water for irrigation and provide shade to cool the home and reduce energy bills.  
True or False
  
4. \_\_\_\_\_ is the most important tool that land managers have for fuel reduction in the wildland/urban interface.
  - a. Prescribed burning
  - b. Firefighter training
  - c. Smokey Bear
  
5. When assessing wildland fuels (vegetation), the biggest concern should be the vegetation that surrounds the home. Experts recommend creating at least 30 feet of \_\_\_\_\_ to protect a home.
  - a. fire zone
  - b. defensible space
  - c. wildfire line
  
6. During a wildfire, windblown embers called \_\_\_\_\_ can be blown under raised homes igniting debris and eventually the flooring of the structure.
  - a. fire brands
  - b. wind devils
  - c. spark arrestors
  
7. Firewise Communities USA is a \_\_\_\_\_ for communities that take action to protect themselves from wildfire.
  - a. research program
  - b. reward program
  - c. recognition program

## Activity #2: Becoming Firewise

8. The \_\_\_\_\_ program is a national initiative promoting community action and individual responsibility as the only effective way to solve the growing problem of homes lost to wildland fire.
- Fire Prevention
  - National Fire
  - Firewise Communities
9. \_\_\_\_\_ and \_\_\_\_\_ are two effective ways to reduce hazardous accumulations of wildland fuel near communities.
- Mowing and prescribed burning
  - Flooding and drainage
  - Insects and diseases
10. Fire is a natural part of almost all of our Florida ecosystems.  
True or False

### Activity #3: Building a Disaster Supply Kit

Dear Parent,

Your child has been reading a book called MegaTrack HTW. In the story, students read about a Florida family that evacuated to a nearby shelter because of a wildfire. Each family should have a Disaster Supply Kit in the home to prepare for such emergencies. Please use the information below to put together a Disaster Supply Kit for your home. Once you have done so, please sign and return this form. We will post all of the certificates on the bulletin board in our classroom.

Thank you for helping your child to “Be Smart! Be Safe! Be A Survivor!”

Signed,  
Your child’s teacher

This certifies that the family of \_\_\_\_\_ has assembled the  
(Child’s name)  
following supplies to go in our Disaster Supply Kit.

Signed \_\_\_\_\_  
(Parent or Guardian)

#### Disaster Supply Kit Recommendations

- An all-hazards (NOAA) weather radio
- Other battery powered radio
- Flashlights
- Batteries for all of the above
- 3-7 gallons of water for each person in the family
- A three-day supply of non-perishable food items including baby food if necessary
- A non-electric can opener
- Portable grill and pans
- A change of clothing for each family member including rain gear
- A blanket or sleeping bag for each person
- A first aid kit including prescription medicines for your family
- Hygiene items like soap, washcloths, toothbrush, toothpaste, and disposable diapers for babies
- Important family documents (including insurance papers, social security cards, medical records, and shot records in a fireproof and waterproof container)
- Board games, toys, and books
- Pet food and a carrying cage and leash for your animals
- An extra set of house keys
- Credit cards and cash
- And don’t forget to fill up your car’s gas tank!

## Activity #4: Things I Wouldn't Want to Live Without

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

**Directions:** In the book MegaTrack HTW you read about how Sam created a list of his favorite things so that in case of an emergency evacuation, he could grab the items he would want to take with him in a hurry. Now it's your turn to plan. Think about things that are special to you and that you might not be able to replace. (Remember, Sam's mom said that it was the family pictures that were special to her.) Then, make a list of your favorite items below. You might even want to do this with your family so everyone gets the chance to plan!

### Items I Wouldn't Want to Live Without

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

**“Be Smart! Be Safe! Be A Survivor!”**