

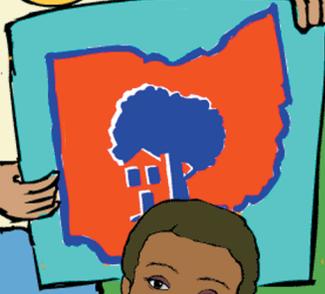
# Disaster Detectives

Activity Book



SMART  
RECOVERY  
MAKES  
SENSE!

BE A  
DISASTER  
DETECTIVE



BE SAFE,  
BE  
PREPARED!

# Emergency Phone Numbers

- 911 -

My Name: \_\_\_\_\_

My Address: \_\_\_\_\_

My Phone Number: \_\_\_\_\_

Mom's Work: \_\_\_\_\_

Dad's Work: \_\_\_\_\_

Others: \_\_\_\_\_

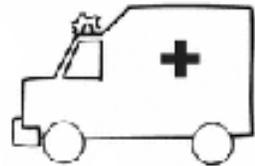
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Fire Department



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Ambulance



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Local Emergency  
Management Agency

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Poison Control



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Police Department



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Out of Town Relative

# Ohio

Which county do you live in?



# Adult's Introduction

This activity book is intended to help children learn about the natural disasters that affect Ohio: floods, winter storms, tornadoes and earthquakes. Each page is a different puzzle that teaches your child safety precautions to take in the event of a natural disaster. The book also teaches them about Ohio's mitigation program. Mitigation is action taken now to prevent damage in the future.

This activity book is designed for you and your children to work on together. On the page opposite each puzzle are key messages you should relay to your children. It is important to make sure they understand each message. You will find mitigation or preparedness information on each page. You may want to quiz your child when each page is complete.

For more information, visit the Ohio EMA Kids Page by logging onto [http://www.ema.ohio.gov/kids\\_page/index.htm](http://www.ema.ohio.gov/kids_page/index.htm). You can also visit FEMA's Ready Kids at <http://www.ready.gov/kids>, which takes an interactive approach to teach preschool and school-aged children how to prepare for emergencies.

Every county by law has an emergency management agency. If you have questions specific to your county's emergency management activities, please call your local EMA. Telephone numbers can be found online and in the government section of your local phone directory.

If you have questions on any of the topics covered in this activity book, contact the Ohio EMA Internal-External Affairs Office at 614-799-3695.

The more children know about how to protect themselves from natural disasters, the better prepared they are ... and being prepared is their best defense.

# Children's Introduction



Disaster Detectives know what to do when a natural disaster strikes. Do you?

Disaster Detectives know how to protect themselves during a natural disaster. Do you?

Disaster Detectives look for ways to protect themselves against natural disasters. Do you?

The Disaster Detective activity book is filled with fun games to help you learn about natural disasters that affect Ohio - floods, winter storms, tornadoes and earthquakes.

Have a parent or other adult read this book to you while you finish each puzzle. When you complete all the activities, you are an official Disaster Detective!

## Have Fun!

# Mitigation Safety Messages for Adults



- Get your children involved in making your home prepared by asking them what mitigation techniques can be performed on your house.
- Mitigation is the best way to protect your family, home and property against natural disasters. There are easy, affordable mitigation techniques every home owner can use to make homes safer and stronger. The techniques pictured on the opposite page are specific to floods. Encourage your children to color the pictures and talk about what they see.
- Whether you take on the mitigation project yourself or hire a contractor, be sure all work conforms with state and local building codes. Check with your local building officials for information on safe building methods and necessary permits.

When selecting a qualified contractor, look at the following factors:

- Experience in the type of work you need
- Local building code knowledge
- Good references, license, bond and proper insurance
- A time schedule that meets your needs
- Once you have found qualified contractors, obtain a minimum of three bids
- Compare equal bids for price and qualifications

# Mitigation - (Mit'-i-ga'tion) (n.)

*Steps you can take now to prevent damage in the future. For example, wearing your seatbelt is mitigation. It can protect you from injuries during a car crash by holding you securely in your seat.*

Another term for mitigation is Smart Recovery. We want you and your family to make a smart recovery if you ever experience a natural disaster. One way to do that is to make your home a Smart Recovery home by using what you have learned in this activity book.

Flooding happens when it rains too much and the rivers, creeks and streams can't hold all the water. A flood can cause damage to whatever is in its path. Flooding is Ohio's most common natural disaster. Below are two examples of flood mitigation. The first example is to build your home on higher ground and the second is to elevate homes located in flood-prone areas.

You can color the pictures!



# Preparedness Safety Messages for Adults

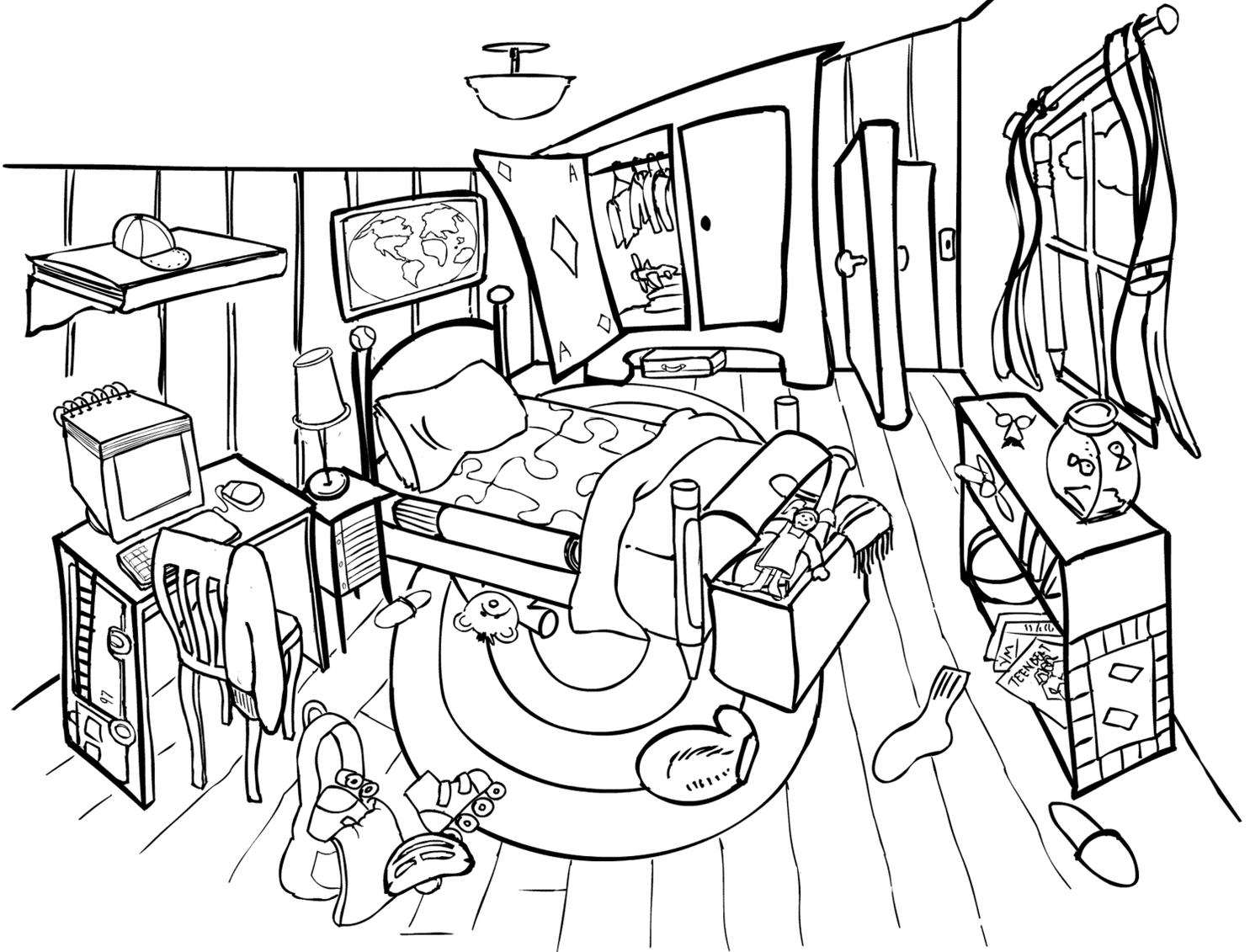
- Have an out-of-town relative serve as a contact person for your family. In the event of a disaster, tell your children to call the contact person if you get separated. Put the name and phone number on an index card in your child's Activity Survival Kit.
- Have an evacuation meeting place your children can meet you if you are asked to evacuate.
- Children should bring toys.
- To prepare you and your family for a disaster, you need to develop a Family Disaster Preparedness Kit. The kit should include the following items:
  - **Water**, one gallon of water per person per day, for drinking and sanitation
  - **Food**, at least a three-day supply of non-perishable food
  - **Battery-powered radio**, and a **NOAA Weather Radio** with tone alert, and **extra batteries** for both
  - **Flashlight** and **extra batteries**
  - **First aid kit**
  - **Whistle to signal for help**
  - **Dust mask** or cotton t-shirt, to help filter the air
  - **Moist towelettes** for sanitation
  - **Wrench** or **pliers** to turn off utilities
  - **Can opener** for food
  - **Plastic sheeting** and **duct tape** to shelter-in-place
  - **Unique family needs**, such as daily prescription medications, infant formula or diapers, and important family documents
  - **Garbage bags** and **plastic ties** for personal sanitation
  - **Clothing** and **bedding**
  - **Cash** or **credit cards**
  - **Fire extinguisher**

Your Family Preparedness Kit should be inventoried and updated every six months. Keep the kit in a convenient place, known to everyone. Remember to keep important documents in a waterproof container.

# Activity Survival Kit

One way for you to become a great Disaster Detective is to put together your own Activity Survival Kit. In case you have to leave your house for a while, you will have things to do and share with other kids. Keep items in a backpack or book bag you can easily carry. The following is a list of suggested items for your Activity Survival Kit.

See if you can find the hidden items in this picture.



sailboat  
pencil  
playing card  
book  
puzzle  
suitcase

crayon  
notebook paper  
fat marker  
doll  
fire truck  
teddy bear

board game  
baseball mitt  
baseball  
newspaper  
magazines  
spiral notebook

# Flood Safety Messages for Adults

- Tell your children it is dangerous to play near flood waters. Less than six inches of fast-moving water can knock people off their feet. Two feet of water can float a car.
- Tell your children to turn around and get to high ground immediately if they come upon flood waters.
- Tell your children it is dangerous to play near flood waters. Less than six inches of fast moving water can knock people off their feet. Two feet of water can float a car. Also, the water could be contaminated with debris, sewage or fuel.
- Know the elevation of your property in relation to nearby streams and dams.
- Find out if you live in a floodplain by calling your local emergency management agency or your local floodplain manager.
- There are three types of flooding Ohio experiences:
  - **General river flooding** occurs after heavy rain has fallen over an extended period of time.
  - **Urban and small stream flooding** occurs when rain falls in a short period of time.
  - **Flash flooding** occurs when heavy rains fall in a short period of time. Flash floods can also be caused by dam failure.
- Know the difference between a flood watch and flood warning:
  - A **flood watch** means flooding may occur in your area; watch television or listen to the radio for further information and instructions.
  - A **flood warning** means flooding has been reported in your area or is likely to occur. You may be asked to leave the area.
- If you are driving and come to a flooded area, turn around and go another way. Do not attempt to drive through floodwaters.
- You can log onto <http://www.ready.gov/publications> to download or order FEMA Ready publications.

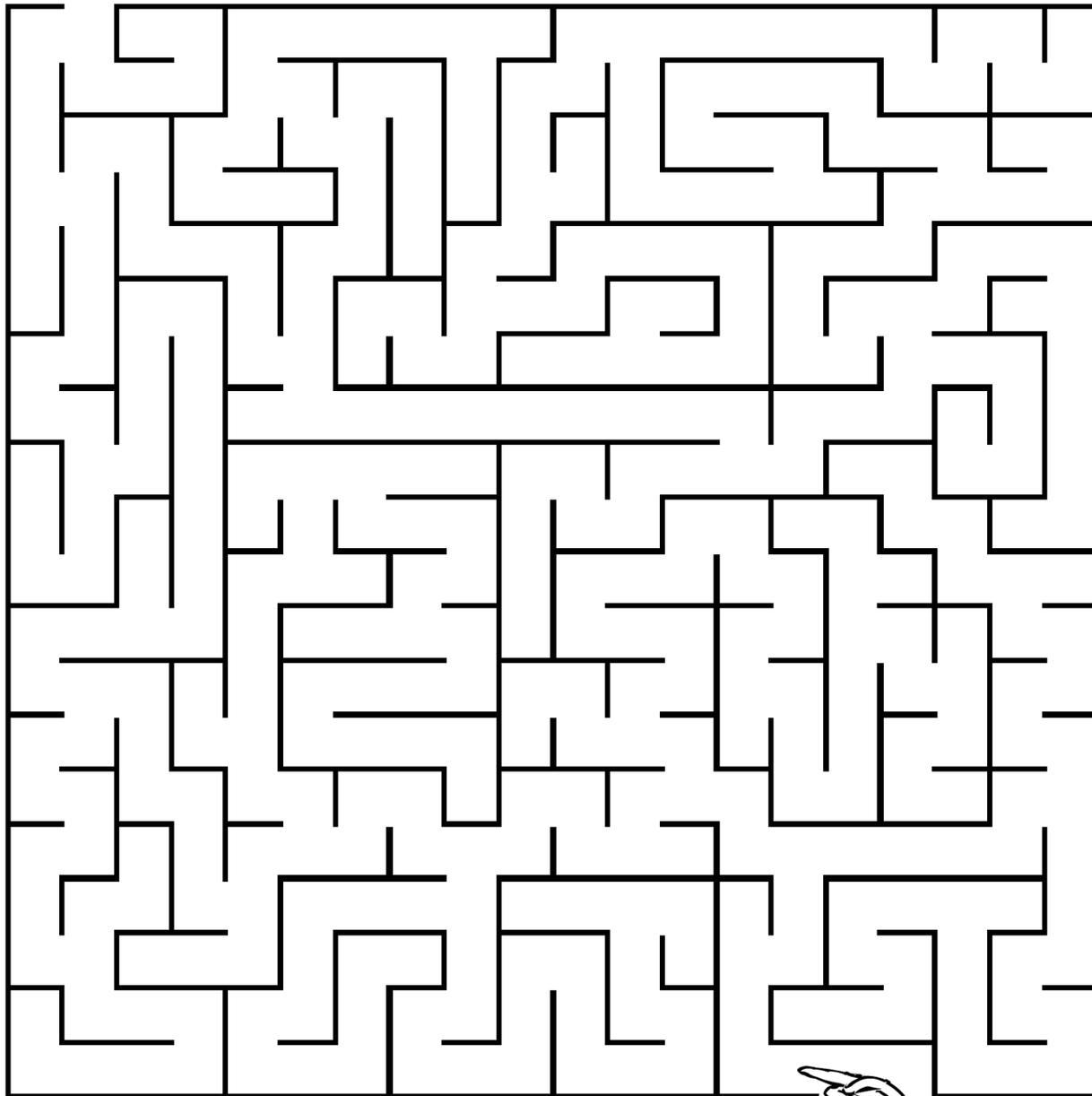
## Flood Mitigation Technique:

Relocate your home out of the floodplain. If this is not possible, move your major appliances, such as washer, dryer, water heater and furnace to an upper level, above the 100-year flood level.

# Floods



Danny, one of our Disaster Detectives, lives near a river. It's fun to live by a river, but Danny's house gets flooded a lot. So his family decided to move to higher ground. Help Danny find his way to his new, safe home.



# Winter Weather Safety Messages for Adults

- Many layers of thin clothing are warmer than single layers of thick clothing. Be sure outer garments are waterproof.
- Since most body heat escapes through the top of the head, be sure children wear a hat at all times when they are outside in cold weather.
- Remember that mittens are warmer than gloves.
- Cover children's mouths with a scarf to protect their lungs from the cold air.
- The best way to stay safe during a winter storm is to stay inside.
- If you are stranded in a car, tie a brightly colored cloth on the antenna or mirror to signal help is needed. Remain in your car until help arrives. Turn car on for 10 minutes each hour for heat. Be sure to crack a window for ventilation.
- Never eat snow. Instead, melt it in a clean container to drink.
- You should prepare a car emergency kit as well. Some suggested items are:
  - At least two blankets
  - Waterproof matches and candles
  - A change of clothing
  - Steel shovel and rope to use as a lifeline
  - Dry food, such as raisins, nuts and candy
  - A flashlight and emergency flares
  - Spare batteries
  - Garbage bags for insulation
  - Metal coffee can to melt snow for drinking
  - Sand or non-clumping cat litter for tire traction
  - Cell phone and cell phone battery charger
  - Jumper cables

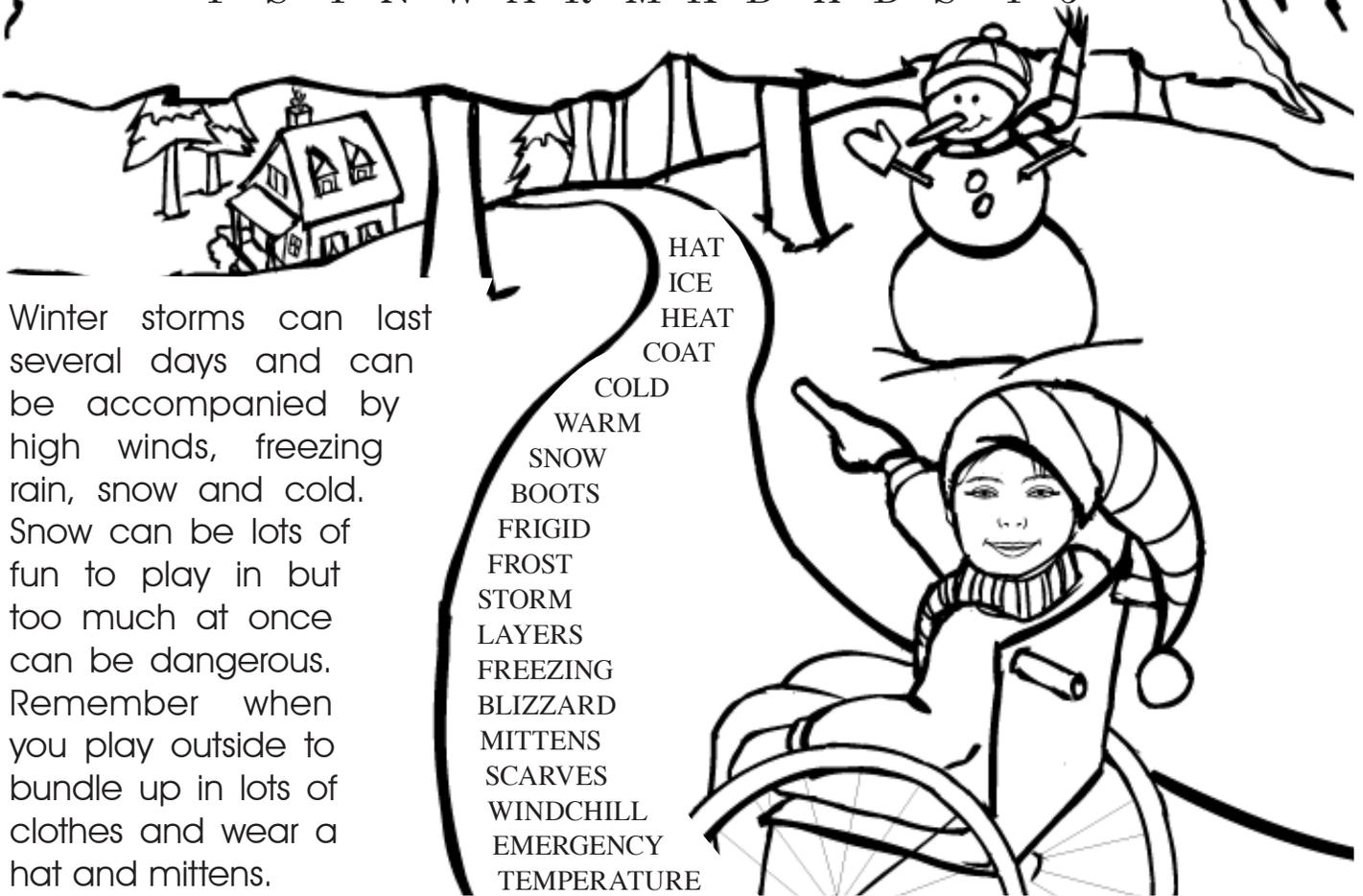
## Winter Storm Mitigation Technique:

- Have some emergency heating equipment stored that doesn't rely on electricity. You will need enough to heat at least one room in your home for several days.
- Clean gutters to prevent ice build up, which when melted, could cause water to back up under roof and eaves, resulting in ceiling damage. You may want to consider buying screening to keep gutters free of debris or installing heating cables along gutters.
- Check your homeowners insurance policy to make sure you have adequate coverage.

# Winter Storm

Can you help Disaster Detective Jenny find the words that go with winter storm safety?

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



Winter storms can last several days and can be accompanied by high winds, freezing rain, snow and cold. Snow can be lots of fun to play in but too much at once can be dangerous. Remember when you play outside to bundle up in lots of clothes and wear a hat and mittens.

- HAT
- ICE
- HEAT
- COAT
- COLD
- WARM
- SNOW
- BOOTS
- FRIGID
- FROST
- STORM
- LAYERS
- FREEZING
- BLIZZARD
- MITTENS
- SCARVES
- WINDCHILL
- EMERGENCY
- TEMPERATURE

# Tornado Safety Messages for Adults

- Make sure children know the difference between a tornado watch and a tornado warning.
  - Tornado watch** - weather conditions are right for tornadoes to develop. Listen to the radio or television for weather information.
  - Tornado warning** - a tornado has been sighted. Go to your safe place immediately.
- If a tornado warning is issued, go to your safe place:
  - Home or small building** - Go to the lowest floor or center of the room under a table. If there is no basement, go to an inside hallway, closet or bathroom away from windows.
  - In a car or mobile home** - seek shelter in a nearby building. If there is no shelter nearby, get out of the car or mobile home and lie in a low area using your hands to cover the back of your head and neck
  - Mall or large building** - Look for the designated shelter area or inside hallway on the lowest level.
- If a tornado warning has been issued, listen to the radio, TV or NOAA weather radio for information and instructions.
- Learn how to turn off the water, gas and electricity at the main switches or valves.
- Practice tornado drills in your home.
- You can log onto <http://www.ready.gov/publications> to download or order FEMA ready publications.

## Tornado Mitigation Technique:

Reinforce garage doors to protect against high winds by adding supports across the back of the door and by strengthening the glider wheel tracks.

# Tornadoes



A tornado is a rotating, funnel-shaped cloud that can carry winds up to 250 miles per hour! During a typical tornado, the sky turns dark and hailstones fall. Below are the definitions of a tornado watch and a tornado warning.

If a **tornado watch** is issued for your community, it means the conditions are right for a tornado to develop. Listen to the radio or watch TV to see if the weather gets worse.

If a **tornado warning** is issued,



it means a tornado has been sighted and you should go to your safe place immediately.

# Earthquake Safety Messages for Adults



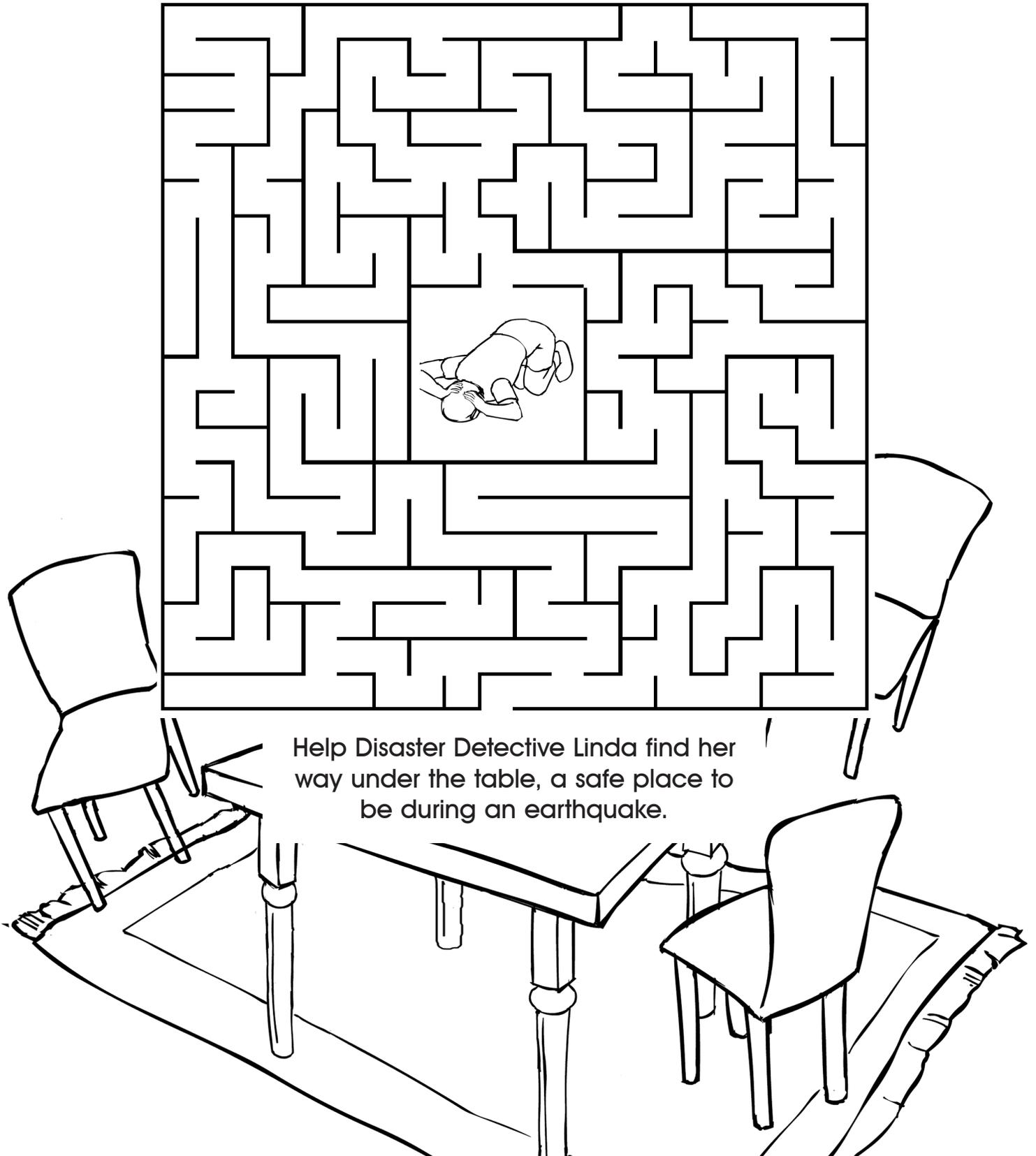
- Practice drop, cover and hold on. Drop to the ground, cover your head and hold on to a table, bench or desk leg.
- Tell children to expect aftershocks, which are smaller earthquakes that often follow a large earthquake.
- Stay away from walls, bookcases or tall furniture as they may fall during an earthquake.
- If children are outside, tell them to stay outside and move away from buildings, streetlights and power lines.
- If you are in a car when an earthquake hits, pull over and stop. Avoid overpasses and power lines. Stay in the car until the shaking is over.
- Identify safe places in each room in your house or classroom. Safe places include under sturdy furniture, against an inside wall, and away from windows. Avoid mirrors or anywhere glass can shatter.
- The most active areas for earthquakes in Ohio are Shelby and Auglaize counties and portions of adjacent counties in Western Ohio. At least 187 earthquakes have occurred there since 1875. Damage from earthquakes has been most severe in Anna in Shelby County. Northeastern Ohio has experienced over 60 earthquakes since 1836. Southeastern Ohio has experienced 10 earthquakes since 1776. Although earthquakes in Ohio tend to have long recurrence intervals, it is important to be prepared for such an event. Earthquakes that occur in Eastern United States and the Midwest can be felt in Ohio.

## **Earthquake Mitigation Technique**

Anchor large pieces of furniture, such as bookcases and file cabinets, to the wall or floor so they remain upright during an earthquake.

# Earthquakes

An earthquake is a sudden and fast shaking of the earth. The best thing to do if you feel an earthquake is to drop to the ground, cover your head and hold on.



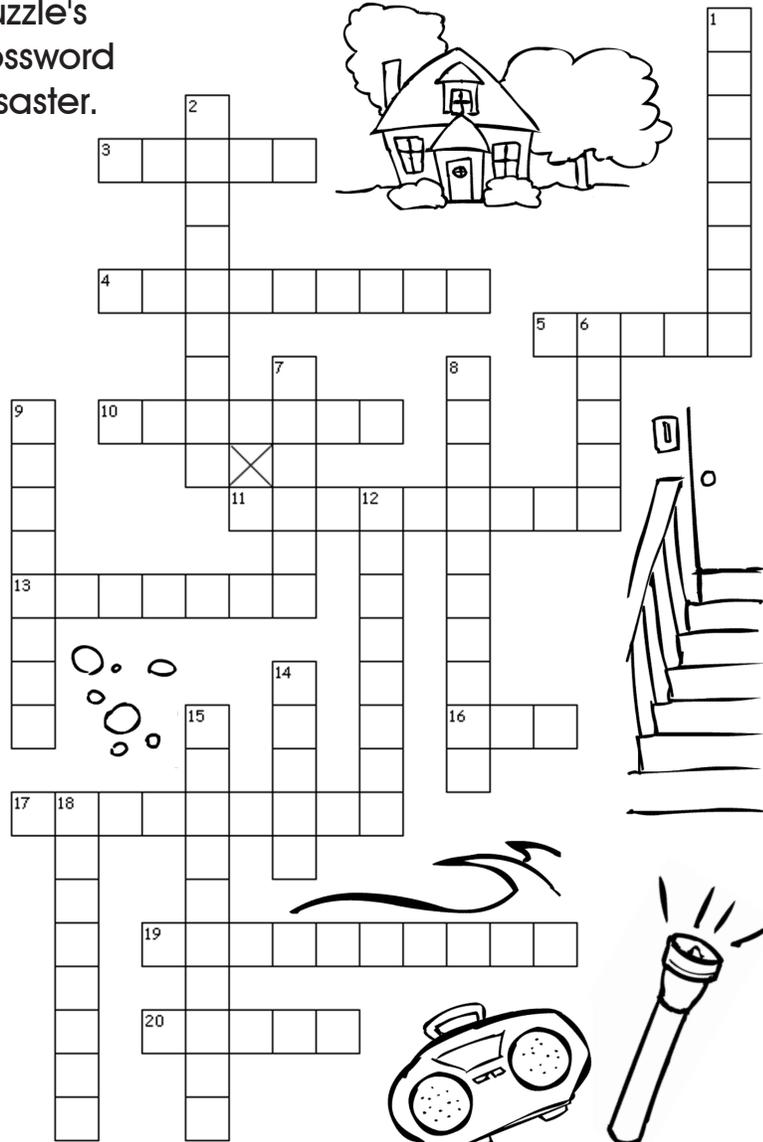
# Safety Messages for Adults



- It's important to help children understand the concept of a disaster. You could do this by:
  - Giving examples of several disasters that have occurred or could occur in your community. You can help them be prepared by being prepared yourself. Contact your local EMA for more information on potential disasters in your community.
  - Explaining that when people know what to expect from a disaster and what to do, everyone can handle disasters better.
- You can help children prepare for a disaster by creating a disaster plan. A disaster plan has four elements:
  - First, learn what disasters could affect your community.
  - Second, meet with your family to talk about what you would do in each situation.
  - Third, prepare your family by creating a disaster supplies kit, mentioned earlier in the activity book.
  - Fourth, practice your disaster plan and quiz family members often so they remember what to do in each situation.
- If children experience a disaster, it is important to try to reduce their anxiety and fears. You can achieve this by:
  - Keeping the group together.
  - Explaining the situation and what will happen next.
  - Encouraging children to talk about what happened and describe what they are feeling.
  - Including the children in recovery activities.
  - Understanding their fears and anxieties.

# Safety Crossword

Safety's the name and a crossword puzzle's the game. Help Linda complete the crossword puzzle about keeping safe during a disaster.



## Across

3. Floods that happen quickly are called \_ \_ \_ \_ floods.
4. The state agency that handles disasters is the Ohio \_ \_ \_ \_ Management Agency.
5. A natural disaster involving very high water is called a \_ \_ \_ \_ .
10. It's important to \_ \_ \_ \_ for disasters.
11. Your house should have smoke \_ \_ \_ \_ .
13. During an earthquake, avoid \_ \_ \_ \_ and windows.
16. Families should have a Disaster Preparedness \_ \_ \_ \_ .
17. Be sure to keep fingers and toes warm during winter to avoid \_ \_ \_ \_ .
19. Small, hard balls of snow and ice that often happen with thunderstorms are called \_ \_ \_ \_ .
20. You should have a flash \_ \_ \_ \_ in your house.

## Down

1. A severe snow storm is a \_ \_ \_ \_ .
2. Emergency supplies should include a flashlight and extra \_ \_ \_ \_ .
6. Cover your mouth with a scarf to protect your \_ \_ \_ \_ from the cold air.



7. When playing outside in the snow, wear hats and gloves and dress in \_ \_ \_ \_ .
8. An \_ \_ \_ \_ is a disaster caused by the fast shaking of the earth.
9. A safe place to go during a tornado is your \_ \_ \_ \_ .
12. During an emergency, you may be asked to leave or \_ \_ \_ \_ your home.
14. An important part of your Family Disaster Preparedness Kit is a battery-powered \_ \_ \_ \_ .
15. Steps you can take now to prevent damage in the future is \_ \_ \_ \_ .
18. The winds of a tornado move in a circle. This is called \_ \_ \_ \_ .



# Safety Messages for Adults

Below is a list of disaster-related web sites that contain information on preparedness and mitigation.

**Ohio Emergency Management Agency**

<http://www.ema.ohio.gov>

**Federal Emergency Management Agency**

<http://www.fema.gov>

**FEMA's Ready**

<http://www.ready.gov>

**Emergency Management Association of Ohio**

<http://www.emaohio.org>

**Ohio Department of Natural Resources**

<http://www.dnr.state.oh.us>

**National Weather Service**

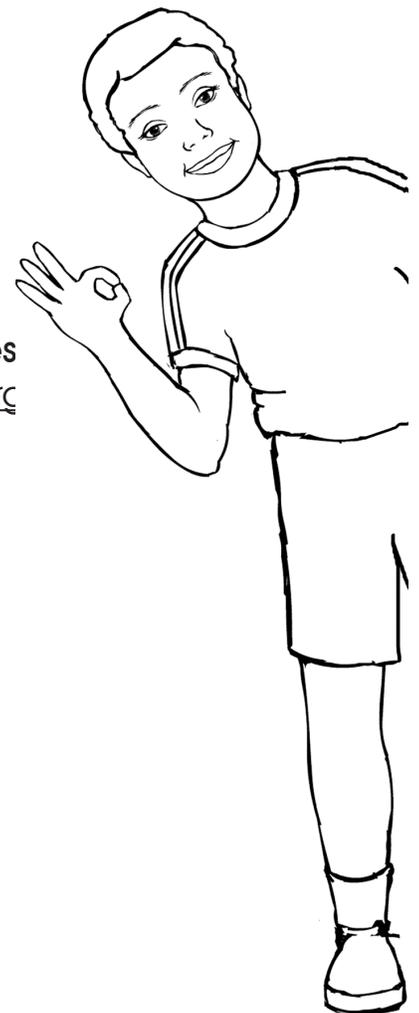
<http://www.weather.gov>

**American Red Cross**

<http://www.redcross.org>

**Ohio Department of Health, Emergency Preparednes**

<http://www.odh.ohio.gov/healthpreparedness/emercpreparedness.aspx>



# Break the Code



Hey Kids! Unscramble each of the clue words.

Then break the code for a special message about Smart Recovery. Copy the letters in the numbered cells to other cells with the same number.



AYFSET

3		12	14	45			

VETCETISED

1	28	39	36	42	11	15	16	10	5	

MOATIIGITN

26	2		32						20	

URKAHTEEQA

41		40	6	30				37	18	31

RYGNEEMEC

44	35	46	8						13	

FODLO

		23	25	9	

DTNOROA

24	43	38	19	4		34	

WEERATH

21	17	27	29	22	7	33	

1	2	3	4	5	6	7	8

9	10	11	12	13	14	15	16	17	3	

18	19	20	21

22	23	21

24	25

26	27	18	28

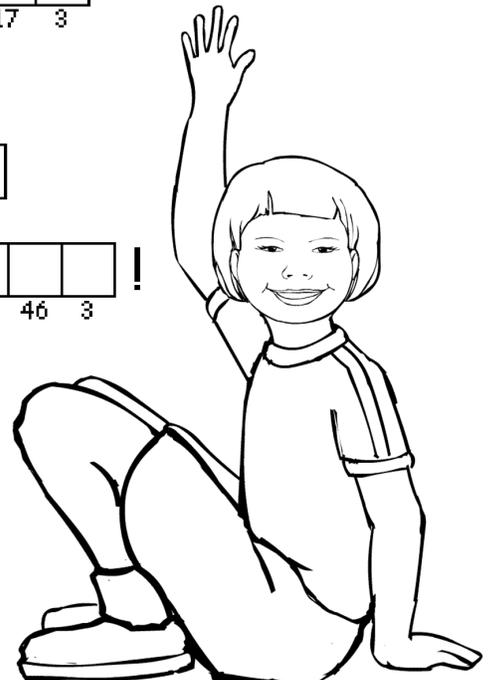
29	30	31	32	33	

30	34	35	36	3	

3	26	37	38	39

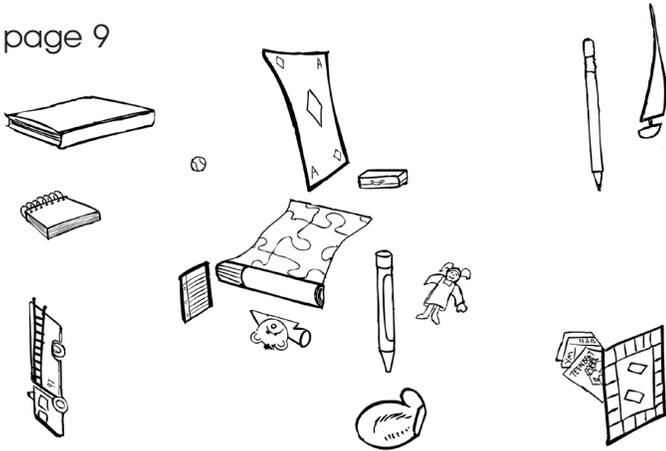
40	41	42	43	16	44	38	45

22	20	35	46	3	!

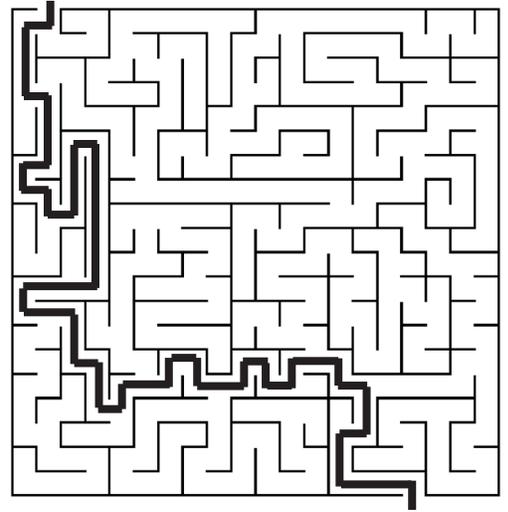


# Answer Page

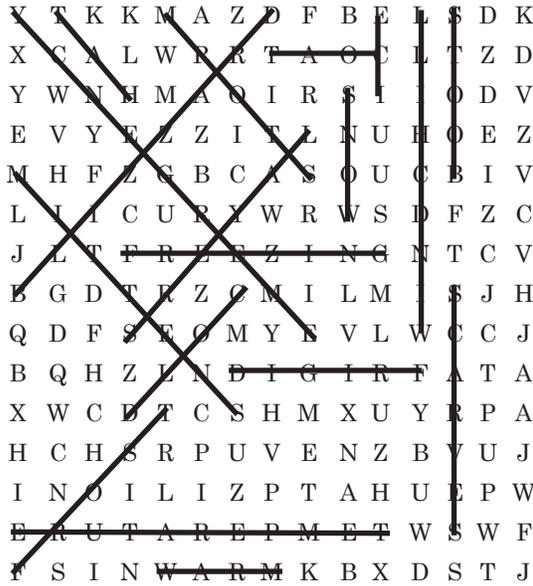
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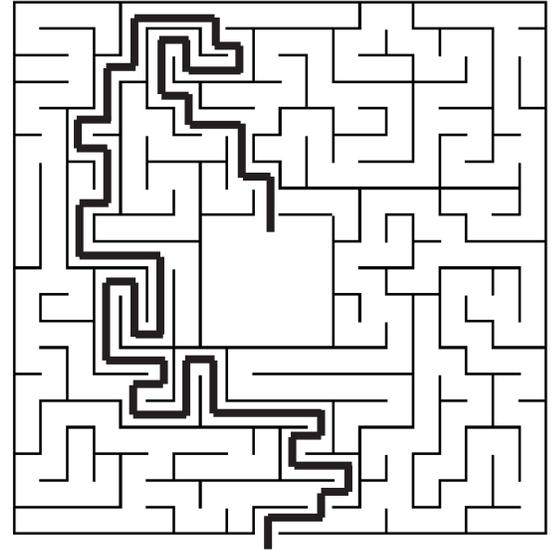
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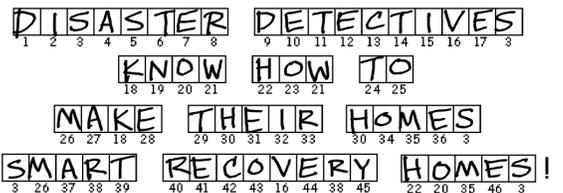
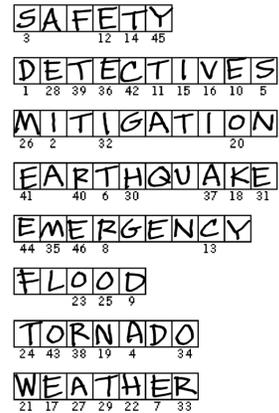
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# CERTIFICATE OF ACHIEVEMENT



presented to:



Is an official disaster detective,  
always finding new ways to protect  
themselves and their families against  
tornadoes, winter storms,  
earthquakes and floods.



Congratulations and keep up the  
good work!





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