

# The MYSTERY CLUB

brought to you by **Captain Overalls**, the Safety Crusader



## MAZE CRAZE

Can you help Captain Overalls find his way safely back to the farm?



## FARM MISHAPS: WHO YOU GONNA CALL?

### Making the connection

*It began late Sunday night, October 8, 1871. Blamed on a cow that kicked over a lantern in the O'Leary barn, the fire quickly got out of control. Within two days, the fire had killed 250 people, left 90,000 homeless, and destroyed nearly a third of the city. People said debris from the fire fell from the sky like red snow, covering the prairie for miles around.*

Many legends surround the Great Chicago Fire, but the truth is that emergencies often turned into tragedies in those days. In 1871, fire departments hauled their own water by horses and pumped it by hand. People reported emergencies by sending someone to the fire department. Many responders were volunteers not trained to fight fires.

It is difficult to imagine a fire of such size happening today. Many homes have smoke detectors and fire extinguishers, and are connected to public water systems. Public buildings have automatic sprinkler systems and quick communication with people trained to fight fires and provide first aid.

One of the biggest changes in handling emergencies began in the late 1960s. Telephone systems were developed that could automatically route 9-1-1 emergency calls to local responders (police, fire, and ambulance services). In 2001, almost all counties in the United States had the 9-1-1 service from their traditional telephones. Counties without 9-1-1 service generally are rural areas with few people.

In the 1980s, many areas began to adopt an **enhanced** 9-1-1 system. This system automatically tracks the source of the telephone call. A dispatcher sees the telephone number and address of the caller on a computer screen as soon as the 9-1-1 call is received. For this system to work in rural areas, all homes must have a standardized address (street name and number).

Many areas of the United States still do not have enhanced 9-1-1 service. It is always a good idea to know your address and phone number in case the dispatcher needs it.

Wireless telephones, such as cell phones and mobile phones, can be a problem in emergencies. Although they are convenient, wireless telephones in most areas do not have enhanced 9-1-1 service. **All family members must know their location and cell or mobile phone number whenever they use a wireless telephone for an emergency.** In 1999, Americans made 190 million 9-1-1 calls. One of every four of those calls came from a wireless telephone.

### The dark side

Today's rescue systems still have a weak point: they rely on people to respond in the right ways. A good emergency response cannot prevent a tragedy from occurring, or make the ambulance arrive sooner. The best thing you can do in an emergency is to keep a cool head and know what to do.

IOWA STATE UNIVERSITY  
University Extension

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## 1 2 3 4 5 6 7 8 9 BY THE NUMBERS

8,200,000,000	Dollars of loss caused by fires in one year.
100	Number of lightning strikes to Earth every second.
500,000	Number of 9-1-1 calls each day in the U.S.
150,000	Number of disabling injuries reported in agriculture each year.

# Many farms, many emergencies

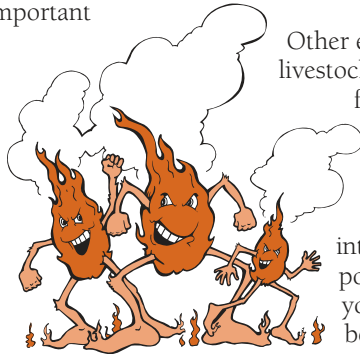
Farms can be a great place to grow up, but they also have many dangers not found anywhere else. That is why it is important for kids who live on farms to know what to do in an emergency. You could be the first person on the scene – the **first responder** – who has one of the most important jobs in an emergency.

What happens during the first hour after someone gets hurt can mean the difference between an injury that is easily treated and one that threatens someone's life. Rescue workers call this the "golden hour." As a first responder, your job is to see what has happened and get help as quickly as possible.

Many farms are in isolated areas where fire, police, and ambulance services might be some distance away. Injuries also can happen in remote areas on the farm, such as a field or building away from the house. This makes the job of the first responder especially important.

Many farm tasks are done outdoors, so weather can be a big factor. Know when to find shelter during a storm and try to keep an injured person warm and dry.

Fires pose unique dangers on a farm, too. Fire started by a spark from a combine can spread to an entire field. Fuel spilled on a hot engine can catch fire. Small fires quickly can become big fires, so it is always best to get help.



Other emergencies might include livestock and animals; tractors and farm equipment; confined spaces such as grain bins, silos, and manure pits; and slips and falls from tall equipment, buildings, or into uncovered wells or farm ponds. As a first responder, your job after getting help may be different for each situation.

Here are some rules to always follow:

- **Never** enter a manure pit.
- **Never** touch a person injured by electricity (you could be shocked, too).
- **Never** get in grain or water to rescue someone.

And the golden rule during the golden hour for a first responder: **NEVER put yourself in danger trying to help someone else!**



## TOP 10 Things You Need to Know for Emergencies

1. How to call for help\*
2. Where to find a first aid kit and fire extinguishers
3. How to use a fire extinguisher
4. The location of your family's designated safe meeting place
5. Your parent's cell phone or beeper number
6. Your parent's first and last names
7. Your last name (it is easy to forget when you are upset)
8. Directions to your farm
9. EDITH (not your Aunt Edith but **Exit Drills In The Home**, a family fire escape plan that you review and practice regularly)
10. Phone number for the nearest Poison Control Center

\* In most areas, 9-1-1 can be used for all emergencies.



A family that is ready to respond to injuries will have first aid kits in key locations. Every family member needs to know where to find the kits and be able to reach them.

Each kit should contain a list of emergency telephone numbers, a first aid booklet, and supplies. First aid kits are not used for minor aches and pains (like headaches), so they only will have items for major injuries. Each kit is likely to contain antiseptic, bandages, compresses, tape, splints, and plastic bags.

Being ready to respond to emergencies is more than knowing where to find first aid kits. Because of the time it may take for help to arrive, your response is critical.

First, remain calm and check the area. Is an overhead power line down? Is an angry animal still loose? Never put yourself in danger.

Then find out about the emergency. Never move someone who is hurt. If the person is unconscious, you need to get more help. If other people are around, send them to call for help while you stay with the injured person, or you go for help. Always try to keep an injured person awake until emergency crews arrive.

When you call emergency personnel, stay on the line. Be ready to tell the dispatcher where you are, what the problem is, how many people are hurt, your name and telephone number, and answers to other questions from the dispatcher.

# Wacky Science



Severe weather poses unique dangers. But we have the advantage over these natural hazards when we're prepared for them and understand the science behind weather extremes.

**Electricity.** Science has helped us get rid of the many myths we have had about lightning so we **can** prevent electrocutions. We have learned that lightning can strike the same place twice, it does **not** need to be raining in order for you to be struck by lightning, and you should **never** lie flat on the ground if you are outside during a thunderstorm. A couple interesting facts:

- The Empire State Building is struck by lightning, on average, about 25 times each year.
- The heat contained in one lightning strike is 50,000°F, three times hotter than the surface of the sun.

During a thunderstorm, it is always a good idea to seek shelter in an enclosed building, cars, or buses (but do not touch any metal). If you cannot go inside, bend in a crouching position on the balls of your feet with your feet together.

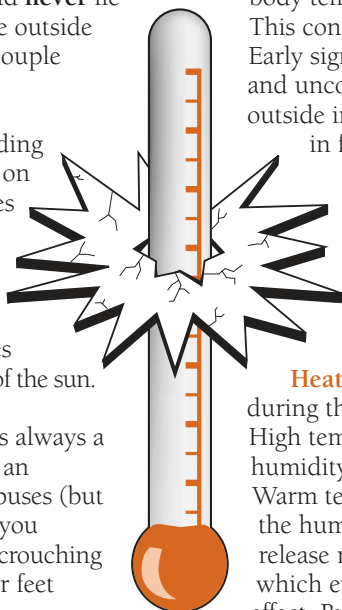
**Water.** Water is a powerful force of nature. The same power that cut gorges through granite mountain ranges also carries vehicles off roadways and people into danger during flash floods. Water flowing through the Black Canyon of the Gunnison in Colorado has enough power to pick up and carry boulders up to 6 ft. in diameter. That same force works in low-lying areas after heavy rainfall.

Streams with large watersheds can rise within hours, carrying water downstream to areas that may not have had any rain. If you live in a low-lying area, it is always a good idea to listen for flash flood warnings during and after heavy thunderstorms.

**Cold.** The city of Vostok, Antarctica has the lowest temperature on record – a minus 128.6°F – but you do not have to live at the South Pole to die from the cold. A person can die very quickly when the core body temperature drops below 96°F. This condition is called hypothermia. Early signs are confusion, drowsiness, and uncontrolled shivering. Being outside in cold weather also can result

in frostbite when skin freezes and is destroyed. In cold weather, it is a good idea to wear layers of clothes, keep dry (moisture takes heat away from our body), and stay inside on windy, cold days.

**Heat.** Nearly 500 people died during the 1995 heat wave in Chicago. High temperatures, combined with high humidity, can be a deadly combination. Warm temperatures are bearable when the humidity is low because our bodies release moisture in the form of sweat, which evaporates and creates a cooling effect. But when the air already has lots of moisture (high humidity), it is more difficult for sweat to evaporate and keep us cool. Our bodies begin to overheat and lose energy. This can lead to heat exhaustion, heat cramps, sunstroke, and eventually death. In warm weather, it is a good idea to reduce physical activity, wear light-coloring clothes to reflect sunlight, find a cool place during the hottest part of the day, and drink plenty of water.



**Q: Why did Susie turn off all the lights?**

**A: She wanted to avoid lightning!**

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## Jeers and Cheers



**Cheers** – to the 11-year-old boy who heard the storm warning on the radio and went to the basement.



**Jeers** – to all families who do not have fire escape plans for their home and other farm buildings.



**Cheers** – to the farmer who keeps a first aid kit in the tractor cab and checks it regularly.



**Jeers** – to your friend who wants to play around with the fire extinguisher in the workshop.



**Cheers** – to the brother and sister who stayed away from a downed power line after the windstorm and told their parents.



**Jeers** – to the 12-year-old girl who hung up after dialing 9-1-1.

# The **Mystery** of the "Muffled Cry"



Samuel did not pay much attention the first time he heard the sound. It was probably the television in the other room. But when he heard a faint cry again, he was concerned.

The muffled sound grew louder as Samuel opened the door to the basement. He could barely make out the words: "Help, help. I'm down here." It was his brother!

Samuel followed the whimpers to the store room. There was five-year-old Johnny in a crumpled heap beside a tall stack of boxes. Beside him was a stool that Johnny must have used to climb the cardboard tower and started to open the top box marked "holiday decorations."

"Come get me!" Johnny wailed as soon as he saw his older brother. "My neck hurts!"

Samuel knew they were alone in the house until Mom and Dad finished chores. He also knew that he shouldn't try to move Johnny. "I'll get the cell phone and be right back," Samuel said.

A few minutes later, Samuel returned and dialed 9-1-1. The dispatcher asked lots of questions, and Samuel could answer every one. Johnny seemed more calm, too.

"You are a good responder," the dispatcher told Samuel as they all waited for the

ambulance. "You knew exactly what to do, who to call, and to stay on the line. Johnny is lucky to have a brother like you."

## Your Challenge:

Why did Samuel not want to move his brother?

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What did he do instead?

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What other emergencies could happen on your farm where you might be the first responder?

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## Word Find



Can you help Captain Overalls find these key words?

F	R	Y	I	O	N	A	T	N
N	E	C	N	S	A	T	T	F
I	C	N	D	M	T	T	H	I
D	O	E	E	T	E	T	N	
	G	G	A	E	R	N	I	D
D	N	R	M	T	G	T	D	
I	I	E	E	I	I	I	E	H
R	Z	M	I	N		O	M	E
E	E	E		G	H	N	N	L
C	A	L	L		H	E	L	P
T	N	L	M	P		B	L	L
I	G		P	L	O	B	O	A
O	H	G	D	A	N	G	E	R
N	I	E	G	C	E	O	L	A
S	L	E	L	E	N	L	P	Y

ATTENTION  
CALL HELP  
DANGER  
DIRECTIONS  
EDITH

EMERGENCY  
FIND HELP  
MEETING PLACE  
NEIGHBOR  
RECOGNIZE

## USE YOUR



## NOGGIN

Fires can happen to anyone at any time. Hannah, Chris, and Camy from the Mystery Club each found a different kind of fire. Luckily, they all knew where to find the right extinguisher to use on the fire.

Using the chart below, can you figure out what each person saw and did?

HINT: When you put a \* in a box, put a "0" in the other boxes in that column and row.

- Neither Chris nor Hannah was in the kitchen when they saw a fire.
- Camy used a Type C fire extinguisher.
- Chris did not find the fire near the lawnmower, but he used a Type ABC extinguisher to put out what he found.

Who?	Where was the fire?			Which extinguisher did they need?*		
	Wooden fence	Toaster	Spilled fuel by lawnmower	Type AB	Type ABC	Type C
Hannah						
Chris						
Camy						

\* A sharp safety sleuth knows that a Type ABC extinguisher can be used on most fires. Type C is only for electrical fires, Type B is only for fires involving fuels and flammable liquids, and Type A is used with other ordinary combustibles such as paper and wood.

ANSWERS: Hannah used the Type AB extinguisher on the lawnmower. Chris used the Type ABC extinguisher on the fence. Camy used the Type C extinguisher on the toaster.