

Preparing for Emergencies and Natural Disasters

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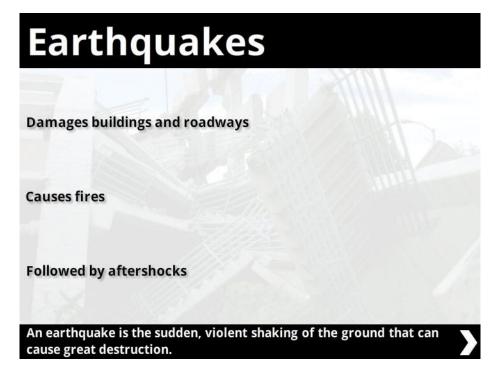




Do you know the steps you need to follow to prepare for an emergency situation, like a house fire? Do you know how to react prior to, during, and after a natural disaster? Has your family created an emergency action plan or set up a basic emergency kit? Click each tab to learn how to prepare, react, and deal with emergency situations and natural disasters.



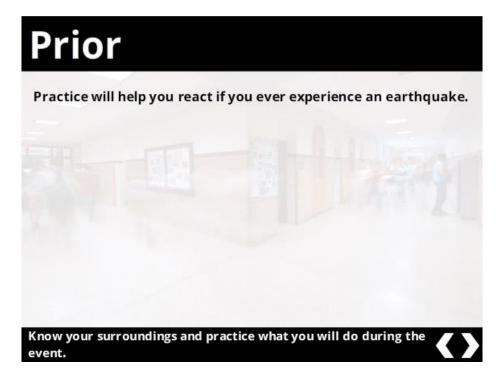
Earthquake



An earthquake is a sudden, violent shaking of the ground that can cause great destruction. Earthquakes have the ability to damage buildings and roadways. The rupturing of underground gas lines can cause fires to spread quickly during an earthquake. These fires can be difficult to extinguish because of the damage created by the earthquake. Earthquakes are commonly followed by aftershocks, which can cause additional damage.



Prior to an Earthquake

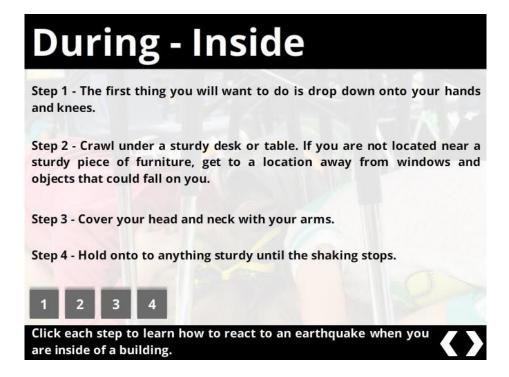


Earthquakes occur without any type of warning. Prior to the occurrence of an earthquake, it is best to know your surroundings and practice what you will do during the event. Practice will help you react if you ever experience an earthquake.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

During - Inside



If you are inside a building when an earthquake occurs, stay where you are until the shaking stops. Never run outside and do not get in a doorway.

Click each step to learn how to react to an earthquake when you are inside of a building.

- Step 1 The first thing you will want to do is drop down onto your hands and knees.
- **Step 2** Crawl under a sturdy desk or table. If you are not located near a sturdy piece of furniture, get to a location away from windows and objects that could fall on you.
- Step 3 Cover your head and neck with your arms.
- Step 4 Hold onto to anything sturdy until the shaking stops.



During - Outside Step 1 - Once you are in an open area, drop and cover your head and neck with your arms.

Step 2 - Stay where you are until the shaking stops.

1 2

Click each step to learn how to react to an earthquake when you are outside



If you are outdoors when an earthquake starts, move away from buildings, streetlights, and utility wires.

Click each step to learn how to react to an earthquake when you are outside.

- Step 1 Once you are in an open area, drop and cover you head and neck with your arms.
- Step 2 Stay where you are until the shaking stops.



During – Moving vehicle

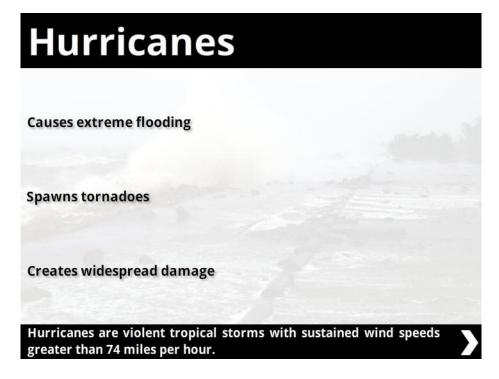


If you are in a moving vehicle during an earthquake, stop as quickly and safely as possible and stay in the vehicle. Avoid stopping near or under buildings, trees, overpasses, and utility wires. Proceed cautiously once the earthquake has concluded, being sure to avoid roads, bridges, or ramps that the earthquake may have damaged.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Hurricanes



Hurricanes are violent tropical storms with sustained wind speeds greater than 74 miles per hour. Hurricanes can cause extreme flooding, as well as spawn tornadoes. Hurricanes can create widespread damage due to high winds and flooding. Areas effected by hurricanes can be without power and safe drinkable water for days or weeks after the event has occurred.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Prior to an Hurricane

Prior

To prepare your home for a hurricane:

- Secure any loose rain gutters and downspouts and be sure your gutters are clear.
- Trim or remove any damaged trees or limbs to protect your property.
- Be sure any outside objects, such as patio furniture, grills, and garbage cans are secured.
- If you have a portable generator, review the instructions for using the generator to ensure you operate it safely.

Hurricane preparation begins days before the storm arrives.



Unlike some natural disasters, hurricanes are not sudden. This allows any areas that will be affected by the hurricane to prepare and plan days before the storm arrives. If hurricane conditions are possible within 48 hours, a hurricane watch is issued. A hurricane warning is issued if hurricane conditions are possible within 36 hours. During this time, you will need to review your families' evacuation routes and listen to local officials. It is best to make sure your home is prepared for the hurricane at this time.

To prepare your home for a hurricane do the following:

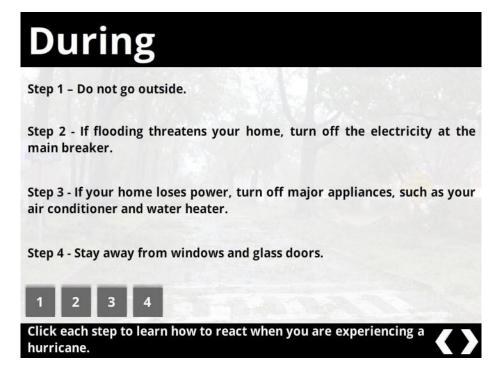
- Secure any loose rain gutters and downspouts and be sure your gutters are clear.
- Trim or remove any damaged trees or limbs to protect your property.
- Be sure any outside objects, such as patio furniture, grills, and garbage cans are secured.
- If you have a portable generator, review the instructions for using the generator to ensure you
 operate it safely.

In some cases, mandatory evacuations are issued for low-lying and coastal areas. If you are placed under a mandatory evacuation, prepare your home and follow evacuation procedures.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

During a Hurricane



The greatest risk to your personal safety occurs during a hurricane and immediately after a hurricane, when high winds can topple trees and heavy rains can produce flash flooding.

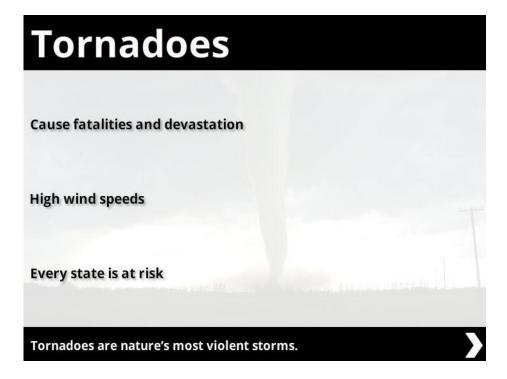
Click each step to learn how to react when you are experiencing a hurricane.

- Step 1 Do not go outside.
- Step 2 If flooding threatens your home, turn off the electricity at the main breaker.
- Step 3 If your home loses power, turn off major appliances, such as your air conditioner and water heater
- Step 4 Stay away from windows and glass doors.



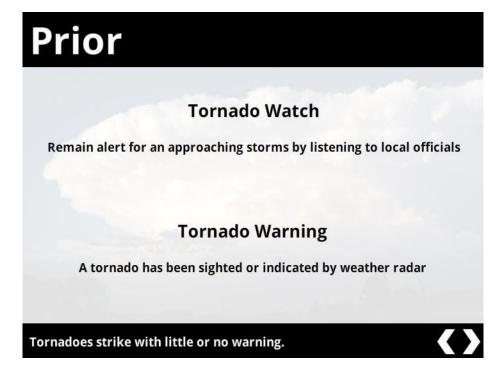
Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Tornadoes



Tornadoes are spawned from powerful thunderstorms and are considered nature's most violent storms. Tornadoes have the ability to cause fatalities and devastate a neighborhood in a matter of seconds. Tornadoes appear as a rotating, funnel-shaped cloud that extends from a thunderstorm to the ground. Wind speeds within the tornado can reach higher than 300 miles per hour and the damage path can be up to a mile wide. Every state is at risk for the possibility of tornadoes. Peak tornado season in the southern states occurs from March through May.





Tornadoes have the ability to strike with little or no warning. When conditions are favorable for the formation of tornadoes, a tornado watch is issued. During this time, you should remain alert for approaching storms by listening to local officials. A tornado warning is issued when a tornado has been sighted or indicated by weather radar. During both watches and warnings, you should seek shelter immediately.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

During a Tornado – Inside

During - Inside

If you are inside of structure:

- Go to a predesignated area away from corners, windows, doors, and outside walls.
- It is best to get under a sturdy table and cover your head and neck with your arms.

If you are inside a school:

 Follow the procedures you practiced during school-wide tornado drills.

React quickly and get away from outside walls, doors, and windows.



If you are inside a structure, such as a house or building, during a tornado, you should go to a predesignated area away from corners, windows, doors, and outside walls. It is best to get under a sturdy table and use your arms to protect your head and neck.

If you are in a school, you should follow the procedures you practiced during school-wide tornado drills. In many cases, this includes going into the hallway, getting down on your knees facing the lockers, and using your arms to protect your head and neck.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

During a Tornado - Outside

During - Outside

If you are caught outside:

- · Try to take shelter in a building.
- · Try to take shelter in a vehicle.
- Try to take shelter by lying in an area noticeably lower than the level of the roadway. Then, cover your head and neck with your arms.
- · Do not try to outrun the tornado, and watch out for flying debris.

If you are not in a sturdy building, there is no single researchbased recommendation to take during a tornado.



If you are not in a sturdy building, there is no single research-based recommendation to take during a tornado. It is best to try to take shelter in a building. If you are caught outside in a tornado, try to get into a vehicle, buckle your seat belt, and cover your head and neck with your arms. If there is no vehicle present, lie in an area noticeably lower than the level of the roadway. Then, cover your head and neck with your arms.

If you are stuck outside during a tornado, never try to outrun the tornado, and watch out for flying debris. Flying debris from tornadoes causes the most fatalities and injuries.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Floods

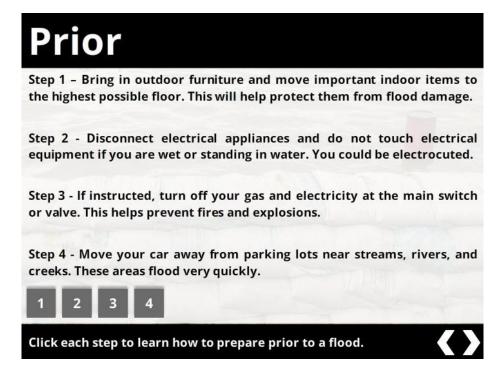


Flooding occurs when normally dry land is overcome by water. Floods can occur to due to heavy rain associated with thunderstorms or hurricanes. Heavy consistent rainfall can cause rivers and other water channels to overflow onto the land next to the river. Flooding is responsible for extensive property damage. Flooding is also responsible for hundreds of fatalities each year in the United States.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Prior to a Flood



Some flooding can be prepared for, while other flooding events happen suddenly. Flooding events that take place quickly are called flash floods. A flood watch is issued when flood conditions are possible in your area. During a flood watch, you should listen to local officials for instructions. If a flood warning is issued, flooding is occurring in your area. You should immediately move to higher ground or stay on high ground. In a flood event, never walk or drive through flood waters.

If the flooding is occurring because of a prolonged rain event, there are steps you can take to prepare your home. Click each step to learn how to prepare prior to a flood.

- **Step 1** Bring in outdoor furniture and move important indoor items to the highest possible floor. This will help protect them from flood damage.
- **Step 2** Disconnect electrical appliances and do not touch electrical equipment if you are wet or standing in water. You could be electrocuted.
- **Step 3** If instructed, turn off your gas and electricity at the main switch or valve. This helps prevent fires and explosions.
- **Step 4** Move your car away from parking lots located near streams, rivers, and creeks. These areas flood very quickly.

In some cases, mandatory evacuations are issued for low-lying and coastal areas. If you are placed under a mandatory evacuation, prepare your home and follow evacuation procedures.



During a Flood



If you are caught in a flooding event and you are inside, move to a higher floor. In many cases, flood victims are caught by flash flooding that occurs during driving. Never attempt to drive through a flooded area. Instead, find another way to drive around the flood waters. Just two feet of water can sweep your vehicle away. If floodwaters rise around your car but the water is not moving, abandon the car and move to higher ground. If the water is moving, do not enter the moving water.



House Fires

House Fires
Fire spreads quickly
Heat and smoke are dangerous
Asphyxiation is the leading cause of death
House fires are responsible for thousands of deaths and injuries each year.

House fires are responsible for thousands of deaths and injuries each year. Most importantly, house fires can be prevented. Fire spreads quickly, and during a fire event, there is never time to make a phone call or collect valuables. In just two minutes, a fire can become life-threatening. Within five minutes, your entire home could be engulfed in flames.

Heat and smoke from fire can be more dangerous than the flames. Inhaling the super-hot air can sear your lungs. Fire produces poisonous gases that make you disoriented and drowsy. Instead of being awakened by a fire, you may fall into a deeper sleep. Asphyxiation is the leading cause of fire deaths.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Prior to a House Fire

Prior

A properly installed and maintained smoke alarm is the only thing in your home that can alert you and your family to a fire 24-hours a day, seven days a week. A working smoke alarm significantly increases your chances of surviving a deadly home fire.

- Be sure the smoke alarms in your home are tested monthly and replace the batteries at least once per year.
- Specialized smoke alarms can be purchased to alert individuals with visual or hearing impairments.

It is extremely important to create and practice a fire evacuation plan.



Prior to a house fire, it is extremely important to create and practice a fire evacuation plan. In the event of a fire, remember that every second counts. Practicing an escape plan will help everyone get out safely.

When preparing your escape plan consider the following:

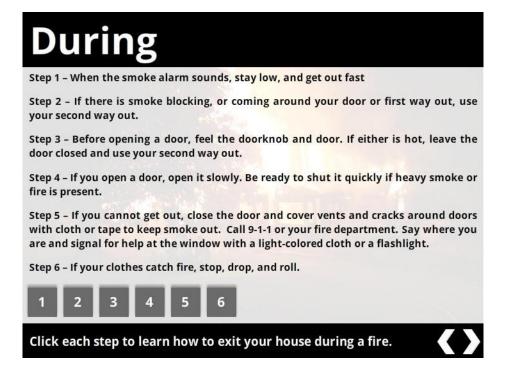
- Find two ways to get out of each room.
- If the primary way is blocked by fire or smoke, you will need a second way out. A secondary route
 might be a window onto a neighboring roof or a collapsible ladder for escape from upper story
 windows.
- Practice feeling your way out of the house in the dark or with your eyes closed.
- Be sure windows are not stuck, screens can be taken out quickly, and that security bars can be
 properly opened. Windows and doors with security bars must have quick release devices to allow
 them to be opened immediately in an emergency. Be sure everyone in the family understands and
 practices how to properly operate and open locked or barred doors and windows.

A properly installed and maintained smoke alarm is the only thing in your home that can alert you and your family to a fire 24-hours a day, seven days a week. A working smoke alarm significantly increases your chances of surviving a deadly home fire. Be sure the smoke alarms in your home are tested monthly and replace the batteries at least once per year. Specialized smoke alarms can be purchased to alert individuals with visual or hearing impairments.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

During a Fire



During a house fire, you need to evacuate your house immediately. This is why having and practicing an emergency fire escape plan is so important.

Click each step to learn how to exit your house during a fire.

- When the smoke alarm sounds, stay low, and get out fast.
- If there is smoke blocking, or coming around your door or first way out, use your second way out.
- Before opening a door, feel the doorknob and door. If either is hot, leave the door closed and use your second way out.
- If you open a door, open it slowly. Be ready to shut it quickly if heavy smoke or fire is present.
- If you cannot get out, close the door and cover vents and cracks around doors with cloth or tape to keep smoke out. Call 9-1-1 or your fire department. Say where you are and signal for help at the window with a light-colored cloth or a flashlight.
- If your clothes catch fire, stop, drop, and roll.

If you cannot get to someone needing assistance, leave the home and call 9-1-1 or the fire department. Tell the emergency operator where the person is located.



Module 7: Public Health Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes Thunderstorms and Lightning

Thunder and Lightning
Produces lightning
Associated with strong winds, tornadoes, hail, and flash flooding
Creates wildfires
Thunderstorms are common and have the potential to be dangerous.

Thunderstorms are common and have the potential to be dangerous. Every thunderstorm produces lightning. Thunder is the result of the rapidly expanding air caused by lightning. If you hear thunder, lightning has occurred, even if you did not see it.

Thunderstorms can also include tornadoes, strong winds, hail, and flash flooding. In some cases, lightning can reach the ground and create wildfires.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Prior to a Thunderstorm

Prior To prepare your home for a thunderstorm: Trim or remove any damaged trees or limbs to protect your property. Be sure any outside objects, such as patio furniture, grills, and garbage cans are secured. Postpone any outdoor activities.

While thunderstorms are not as severe as other natural disasters, you still need to prepare for these strong storms. To prepare your home for a thunderstorm, you should do the following:

While thunderstorms are not as severe as other natural disasters,

• Trim or remove any damaged trees or limbs to protect your property.

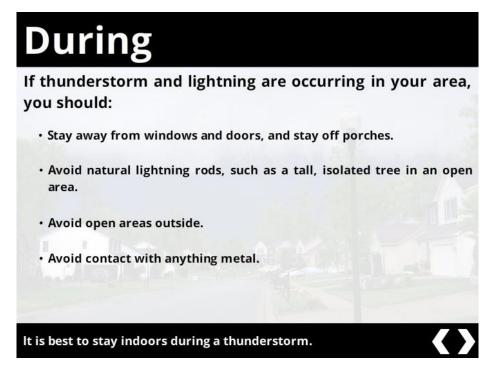
you still need to prepare for these strong storms.

- Be sure any outside objects, such as patio furniture, grills, and garbage cans are secured.
- Postpone any outdoor activities



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

During a Thunderstorm



It is best to stay indoors during a thunderstorm. If thunder and lightning are occurring in your area, you should:

- Take shelter in a sturdy building. Avoid isolated sheds or other small structures in open areas.
- Listen to local officials for storm updates.
- Avoid contact with corded phones and devices, including those plugged into electric for recharging.
- Unplug appliances and other electrical equipment and turn off air conditioners.
- Avoid contact with plumbing.
- Stay away from windows and doors, and stay off porches.
- Avoid natural lightning rods, such as a tall, isolated tree in an open area.
- Avoid open areas outside
- Avoid contact with anything metal



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Winter Storms

Winter Storms

Freezing rain hits the ground creating a coating of ice of roads, walkways, trees, and power lines.

Sleet is rain that turns into ice before reaching the ground.

Snow can make roads impassable and has the ability to accumulate at a rapid rate.

Blizzards has wind speeds greater than 35 miles per hour, reduced visibility, and considerable amounts of snow.

Winter storms can include freezing rain, sleet, and snow.



Winter storms can include freezing rain, sleet, and snow. Freezing rain hits the ground creating a coating of ice of roads, walkways, trees, and power lines. Sleet is rain that turns into ice before reaching the ground. Sleet causes roadways to become very slippery. Snow can make roads impassable and has the ability to accumulate at a rapid rate.

Severe winter storms, like blizzards, have wind speeds greater than 35 miles per hour, reduced visibility, and considerable amounts of snow that falls for periods of three hours or longer. Whether the winter storm is a blizzard, or just a few minutes of freezing rain and sleet, it is important to prepare for this type of weather.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Prior to a Winter Storm

Prior

To prepare your home for a winter storm:

- Be sure all fuel-burning equipment is vented to the outside and kept clear.
- Keep fire extinguishers on hand, and be sure everyone in your house knows how to use them. House fires pose an additional risk, as more people turn to alternate heating sources without taking the necessary safety precautions.
- Learn how to shut off water valves in case the freezing temperatures cause a pipe to burst.
- Install carbon monoxide alarms in central locations on every level of your home and outside sleeping areas to provide early warning of accumulating carbon monoxide.

Winter storm preparation begins days before the storm arrives.



Unlike some natural disasters, winter storms are not sudden. This allows any areas that will be affected by winter storms to prepare and plan days before the storm arrives. The National Weather Service will issue appropriate watches and warnings for all winter storms. During this time, you will need to review your families' evacuation routes and listen to local officials. It is best to make sure your home is prepared for the winter storm at this time.

To prepare for a winter storm, you should do the following:

- Secure any loose rain gutters and downspouts and be sure your gutters are clear.
- Trim or remove any damaged trees or limbs to protect your property.
- Be sure any outside objects, such as patio furniture, grills, and garbage cans are secured.
- Insulate pipes with insulation, newspapers, or plastic, and allow faucets to drip a little during cold weather to avoid freezing. Running water, even at a trickle, helps prevent pipes from freezing.
- Be sure all fuel-burning equipment is vented to the outside and kept clear.
- Keep fire extinguishers on hand, and be sure everyone in your house knows how to use them. House fires pose an additional risk, as more people turn to alternate heating sources without taking the necessary safety precautions.
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Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

During a Winter Storm

During

If a winter storm is occurring in your area, you should:

- Drive only if it is absolutely necessary. If you must drive, travel in the day and do not travel alone. Stay on main roads and avoid back road shortcuts.
- If pipes freeze, remove any insulation or layers of newspapers and wrap pipes in rags. Completely open all faucets and pour hot water over the pipes, starting where they were most exposed to the cold.
- Maintain ventilation when using kerosene heaters to avoid build-up of toxic fumes and carbon monoxide.
- If you will be going away during cold weather, leave the heat on in your home, set to a temperature no lower than 55°F.

It is best to stay indoors during a winter storm.

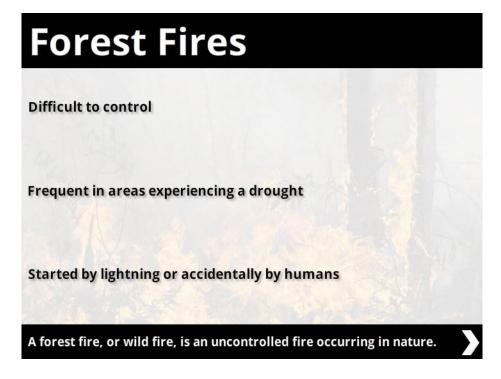


If a winter storm is occurring in your area, you should:

- Stay indoors during the storm.
- Dress for the weather if you must go outside.
- Walk carefully on snowy, icy, walkways.
- Avoid overexertion when shoveling snow. Use caution, take breaks, push the snow instead of lifting it when possible, and lift lighter loads.
- Keep dry. Change wet clothing frequently to prevent a loss of body heat. Wet clothing loses all of its insulating value and transmits heat rapidly.
- Drive only if it is absolutely necessary. If you must drive, travel in the day and do not travel alone. Stay on main roads and avoid back road shortcuts.
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Forest Fires

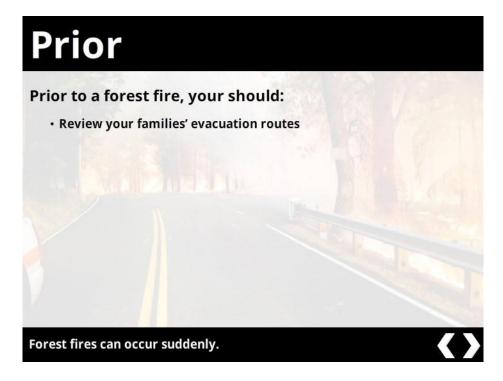


A forest fire, or wildfire, is an uncontrolled fire occurring in nature. Sometimes the forest fire is so large that it takes a long time for the firefighting crews to gain control over the situation. Forest fires are more frequent in areas experiencing a drought or dry conditions. Forest fires can be started by lightening or accidentally by humans.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Prior to a Forest Fire



Forest fires can occur suddenly. Before a forest fire occurs in your area, you should review your families' evacuation routes. If a forest fire occurs near your home, you will most likely be forced to evacuate until the fire is under control.



During If a forest fire is in the vicinity of your home: • Evacuate and let the firefighting crews gain control over the situation. Evacuate safely

If a forest fire is in the vicinity of your home, it is best to evacuate your home and let the firefighting crews gain control over the situation.



After a Disaster



After any natural disaster or emergency situation, it is best to take precautions when returning or exiting your house. Check-in with family members and friends by texting or using social media. In all situations, be sure to monitor local news reports via battery operated radio, TV, social media, and cell phone text alerts for emergency information and instructions.

If you were evacuated from your house, return only when authorities indicate it is safe. If you must travel through an area effected by a disaster, watch out for debris and downed power lines. Always avoid walking or driving through flood waters. Flood waters are unsafe and unsanitary. In some cases, flood waters can be electrically charged by downed power lines.

If your home loses power or heat for more than a few hours, or if you do not have adequate supplies to stay in your home overnight, travel to a designated public shelter if you can get there safely. If your home is unsafe to enter, contact your local disaster relief services to acquire temporary housing. If you are not allowed to enter your home, let your local police department know the site will be unoccupied.

Knowing how you will communicate with family members after a disaster is important. Having a prepared family emergency communication plan and up-to-date disaster kit prior to a disaster is critical. Click each button to view recommended items for your disaster kit and an example family emergency communication plan.



Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Basic Emergency Kit



A basic emergency supply kit should include the essential items that are shown. Click each item to listen to a description.

- One gallon of water per person per day for at least three days
- A three-day supply of non-perishable food
- Battery-powered or hand crank radio
- Flashlights
- Extra batteries
- First aid kit
- A whistle to signal for help
- A dust mask to help filter contaminated air
- Any needed medications
- A multifunction knife with a manual can opener
- Candles
- Matches

Basic Emergency Supply Kit Adapted from FEMA's Be a Hero! Youth Emergency Preparedness Curriculum

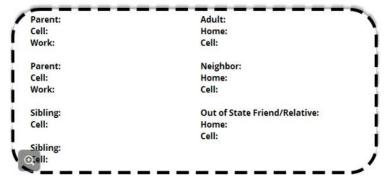


Topic 2 Content: Preparing for Emergencies and Natural Disasters Notes

Communication Plan

Communication Plan

Your family communication plan should include the phone numbers of parents, siblings, trusted adults, neighbors, and out of state friends and relatives.



Communication Plan Adapted from FEMA's Be a Hero! Youth Emergency Preparedness Curriculum

Write down the numbers



Do you know how to get in touch with your family if you are not all together during an emergency situation? Your family communication plan should include the phone numbers of parents, siblings, trusted adults, neighbors, and out of state friends and relatives.

In addition to creating your communication plan, your family should determine a safe place to meet within your neighborhood and outside your neighborhood. Knowing these locations will help if you need to evacuate your home suddenly. You should also plan the best way to exit your home by indicating at least two ways to get outside quickly.

Communication Plan Adapted from FEMA's Be a Hero! Youth Emergency Preparedness Curriculum

