



PART 6: LOCAL HAZARD SUPPLEMENT (10 MINUTES)

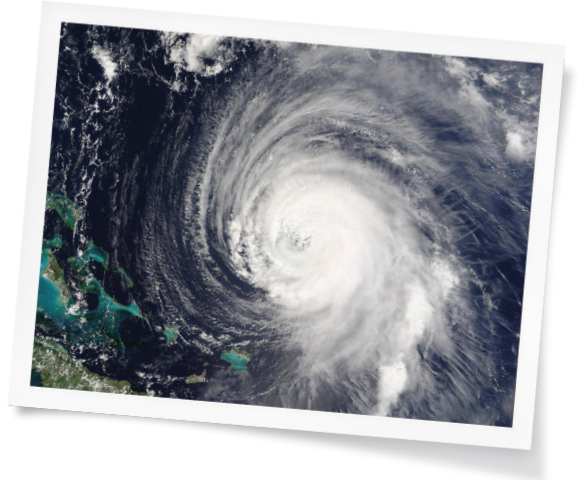
Hurricane Preparedness

Learning Objectives

- Students will be able to explain how hurricanes form and how they behave.
- Students will understand what to do during a hurricane WATCH and a hurricane WARNING.
- Students will know how to stay safe during a hurricane.

Key Facts for Presenters

- A hurricane is a large, spiral-shaped storm that forms over the ocean and moves toward land, bringing strong winds with heavy rain and high tides that can cause flooding.
- Weather scientists call the storm a *hurricane* if it has winds blowing faster than 74 miles per hour. If the winds are blowing slower, it's called a *tropical storm*.
- Most hurricanes form over the Atlantic Ocean, the Caribbean Sea, or the Gulf of Mexico, and travel toward the south and east coasts of the United States. Hurricanes also form over the eastern Pacific Ocean and travel toward the west coast of the United States.
- On the east coast, the period between June and November is sometimes called “hurricane season” because the majority of hurricanes in that region occur during those months.
- Hurricane winds blow in a spiral around a relatively calm center called the “eye” of the hurricane. The spiral can be hundreds of miles in diameter, and a hurricane can take 12 hours or more to pass over an area.
- Hurricanes hit hardest along the coastline, where they cause fast-rising tides called a “storm surge” that can wash away buildings and wash out roads. But hurricanes can also travel far inland, where the strong winds and rain can blow down power lines and cause flooding. Wherever they are, hurricanes can also cause tornadoes.
- Weather scientists use satellites to watch hurricanes forming over the ocean. Several days before a hurricane comes close, they can estimate how large it will be, where it will go, and when it will reach land.
- Weather scientists issue a hurricane (or tropical storm) WATCH when they expect hurricane winds and weather within the next 3 days. They issue a hurricane (or tropical storm) WARNING when they expect hurricane winds and weather within the next 24 hours.
- During a hurricane WATCH, families should lock all their windows and bring all outdoor things inside so they do not get blown away, unplug the television and computer, and gather supplies, especially extra water in case the water is not running during or after the storm.
- During a hurricane WARNING, families may be advised to evacuate their home for a safer location, which could be a community shelter, or a friend or relative's house. It's important to evacuate as soon as possible because potential evacuation routes may be closed due to flooding or long traffic lines may make it difficult to leave in time.



PRESENTER NOTES	SCRIPT
	<p>Ask students:</p> <ul style="list-style-type: none"> ➔ <i>How many of you have seen satellite pictures of a hurricane on TV? What does a hurricane look like?</i> <p>Call on 1-2 students to respond.</p> <p>Tell students how hurricanes form:</p> <ul style="list-style-type: none"> ➔ <i>That's right – hurricanes are big, spiral-shaped storms that start out over the ocean and move toward land, bringing strong winds, heavy rain, and high tides.</i> ➔ <i>Weather scientists call the storm a hurricane if it has winds blowing faster than 74 miles per hour. If the winds are blowing slower, it's called a tropical storm.</i>
	<p>Use the Hazard Map poster (page 14 of the workbook) to show where hurricanes occur:</p> <ul style="list-style-type: none"> ➔ <i>In the United States, most hurricanes start in the Atlantic Ocean, the Caribbean Sea, or the Gulf of Mexico and move toward the south or east coast. But hurricanes can also start in the Pacific Ocean and move toward the west coast.</i> ➔ <i>Hurricanes can happen at any time, but in the eastern United States most hurricanes happen between June and November, a time some people call "hurricane season."</i> <p>Explain the damage hurricanes cause:</p> <ul style="list-style-type: none"> ➔ <i>Hurricanes hit hardest along the coastline, where they cause fast-rising high tides called a "storm surge" that can wash away buildings and wash out roads. Hurricanes can also move inland, traveling hundreds of miles from the ocean. Wherever they go, hurricanes bring strong winds that can blow down trees and power lines and heavy rains that cause dangerous flooding. Hurricanes can even cause tornadoes!</i>
	<p>Ask students:</p> <ul style="list-style-type: none"> ➔ <i>Does anyone know what weather scientists do with those satellite pictures of hurricanes?</i> <p>Call on 1-2 students to respond.</p> <p>Tell students how weather scientists track hurricanes:</p> <ul style="list-style-type: none"> ➔ <i>That's right – weather scientists use satellites to track hurricanes from the time when they first appear on the ocean. Several days before a hurricane comes close, the weather scientists can tell us how big it will be, where they think it will go, and when they expect it to reach land.</i> ➔ <i>Weather scientists issue a hurricane (or tropical storm) WATCH when they expect a hurricane to reach land within the next 3 days.</i> ➔ <i>They issue a hurricane (or tropical storm) WARNING when they expect a hurricane to hit within the next 24 hours.</i> <p>Ask students:</p> <ul style="list-style-type: none"> ➔ <i>So which comes first, a hurricane WATCH or a hurricane WARNING?</i> <p>Prompt students to respond "WATCH!"</p>

PRESENTER NOTES	SCRIPT
	<p>Ask students:</p> <p>→ <i>OK, so what do you think you should do to stay safe when there's a hurricane WATCH? There might not be any wind or rain yet – it might even be sunny. But you know a hurricane is coming, so what should you do?</i></p> <p>Call on 1-2 students to respond.</p> <p>Explain how to prepare for a hurricane:</p> <p>→ <i>Those are all good ideas, because they are all good ways to take precautions.</i></p> <p>→ <i>You know the wind is going to be blowing strong, so you should bring things in from outside that might get blown away, and lock your windows to keep out the wind-blown rain. Be sure to bring in your pets, too.</i></p> <p>→ <i>You know the hurricane could close roads and knock out the power, so the grownups in your home should gather supplies in case you can't get to a store and don't have electricity. You should check that your Pillowcase is packed for an emergency.</i></p> <p>→ <i>And you should all listen to the news so you're ready for when the hurricane gets closer.</i></p>
<p><i>This is a good time to reinforce that by getting your Pillowcase kit packed up during a WATCH, you are ready to go if you are told to evacuate during a WARNING.</i></p> <p><i>If appropriate, discuss briefly what it is like to stay in a shelter and what comfort items students might want to have there.</i></p>	<p>Ask students:</p> <p>→ <i>So let's say you're all prepared, and you're watching the hurricane get closer on TV, and you see that now there's a hurricane WARNING. Now what do you do to stay safe?</i></p> <p>Call on 1-2 students to respond.</p> <p>Explain how to stay safe during a hurricane:</p> <p>→ <i>You've got the right idea – you should stay inside during a hurricane. Lock your doors and stay away from windows and glass doors in case the glass breaks. You could be inside for a long time, because it can take 12 hours or more for a hurricane to pass by.</i></p> <p>→ <i>When there's a hurricane WARNING, you should also listen to the news to find out if people in your neighborhood should evacuate – that means take your emergency supplies, and your Pillowcase, and leave your home for a safer location.</i></p> <p>→ <i>If your neighborhood is told to evacuate, it's important to get out as fast as you can, because if you wait, you could get caught in traffic or not get to a safe location before the hurricane hits and the roads start flooding.</i></p> <p>→ <i>Most communities have evacuation routes already planned out, so different neighborhoods take different roads to avoid causing traffic. When you go home today, ask a grownup to check on the evacuation route for your neighborhood.</i></p> <p>→ <i>That way, next time there's a hurricane coming and you're told to evacuate, you'll be able to get out fast. Remind the grownups in your home to use your evacuation route, and head for a community shelter or go stay with a friend or relative who lives in a safe location.</i></p> <p>Ask students:</p> <p>→ <i>Does anyone have any questions?</i></p> <p>Respond to students' questions, especially questions that may reflect a family tradition of 'riding out' hurricanes or watching as a hurricane approaches. Reinforce that the only way to stay safe during a hurricane is to stay inside or evacuate if that's what you're told to do.</p>

PRESENTER NOTES	SCRIPT
	<p>Ask students:</p> <p>→ <i>Here's one more question for you – what should you do when a hurricane is over and you're finally able to go back outside or come back home from a shelter?</i></p> <p>Call on 1-2 students to respond.</p> <p>Explain the risks of cleaning up after a hurricane:</p> <p>→ <i>Sounds like some of you have cleaned up after a hurricane before! There can be lots of stuff to pick up and throw out. But you have to be careful. Watch out for sharp things, like broken glass, that could hurt you, and if you see a broken power line, stay far away and have a grownup call the electric company.</i></p>
	<p>Lead students in one of the Practice Activities below.</p> <p>→ <i>So, are you ready to practice what we've learned about being prepared for hurricanes?</i></p>
	<p>Lead students in one of the Sharing Activities below.</p> <p>→ <i>Now let's share what we've learned about hurricanes.</i></p>
	<p>Wrap up with a review:</p> <p>→ <i>When is hurricane season on the east coast?</i> A: <i>June through November.</i></p> <p>→ <i>What should you help the grownups in your home do when there is a hurricane WATCH?</i> A: <i>Take precautions – bring things in from outside that might get blown away, gather supplies, and listen to the news so you know when the hurricane is getting close.</i></p> <p>→ <i>And what should everyone in your home do if there is a hurricane WARNING?</i> A: <i>Stay inside, or evacuate fast if that's what your neighborhood is told to do.</i></p>
	<p>Transition:</p> <p>→ <i>So, now you're prepared for a hurricane. But remember, you need to share what you've learned to help everyone be prepared. So later today, tell someone how to take precautions when there is a hurricane WARNING. Even better, when you go home, share you've learned, and make a plan to stay safe if a hurricane happens.</i></p>

HURRICANE PREPAREDNESS ACTIVITIES

Practice Activities

• Practice Dash

Divide students into teams of 5-6 for a takeoff on “Jeopardy.” Explain that you will read an answer and that the student teams will compete by having one team member race toward you for the chance to give the correct question. The first student to arrive gives the question and wins a point for his/her team if correct, or loses a point if incorrect. Encourage students to figure out the correct question as a team before sending their runner toward you. Example answers and questions:

1. More than 74 miles per hour	How fast does the wind blow in a hurricane?
2. From June through November	When is hurricane season on the east coast?
3. A fast-rising high tide caused by a hurricane	What is a storm surge?
4. Satellites	What do weather scientists use to track hurricanes?
5. Within 24 hours	How soon is a hurricane expected to hit land when there is a hurricane WARNING?
6. Take your emergency supplies (and your Pillowcase) and head for a safer location	What should you do if you are told to evacuate during a hurricane WARNING?

• Hurricane Harmony

Introduce this activity by reminding students that lots of different things happen during a hurricane. There is strong wind, heavy rain, and a storm surge, usually flooding, and sometimes thunder and lightning, or even a tornado. Tell students that they are going to create a hurricane by making different sounds for all these different things. Divide the group into seven sections and assign each one a part of the hurricane, asking them to come up with a sound for their part. Then ‘conduct’ the group to create a hurricane by calling each section by name as you point to them one at a time, starting with the strong wind and heavy rain, then the thunder and lightning, then the storm surge and flooding, with the tornado coming last. Raise your hands high to make the hurricane roar, then bring them down slowly to make it quietly go away.

• Hurricane Helpers

This activity uses a variation on the old “What’s My Line?” game to introduce students to the network of emergency workers who help families stay safe during a hurricane emergency. Ask for nine student volunteers and, in a whisper, assign each of them one of the following roles: (1) town emergency manager, (2) firefighter, (3) emergency medical worker, (4) police officer, (5) health department worker, (6) public works employee, (7) electric company worker, (8) telephone company worker, (9) American Red Cross worker. Then explain the game: you will be giving hints about how each of these people helps families during a hurricane emergency, and it will be up to each of the volunteers to figure out if you are describing him or her. If they think you are, the student shouts out, “That’s me! I’m a _____,” saying his or her role. If the student is correct, he or she takes a bow and sit down. If not, you keep giving hints. Meanwhile, all the other students in the group are

able to guess as well, and if one of them guesses correctly (or nearly correctly), he or she takes a bow and the student who has that role sits down. Play until all nine roles have been revealed. As a follow-up, remind students to learn more about all the people who are ready to help them in an emergency by completing the “My Preparedness Network” activity in their *My Preparedness Workbook* (page 13). Note: Emergency worker name cards for the students and a list of hints for the presenter are provided at the back of this Supplement.

Sharing Activities

Divide students into small groups of 5-6 each and appoint a spokesperson for each group. Have all groups discuss one of the scenarios below, and come up with ideas for what to do in that situation. Have the group spokespersons report on each group’s ideas, then lead a whole group discussion to decide on the best way to handle the situation.

• Worried about Wind

Marcus and his family live in a town where there are hurricane watches almost every summer. But this summer, his cousin Jason was coming to stay with Marcus for a few weeks, and Jason had only seen hurricanes on TV. Marcus knew that Jason would be worried about what might happen if a hurricane hit the town. He was already asking Marcus to tell him what it was like to see trees blown over and water flooding down the street. Marcus remembered from The Pillowcase Project that learning how to be prepared for a hurricane and for what you might think or feel during a hurricane can help when a hurricane really happens.

What coping skills could Marcus teach Jason to help him cope with his thoughts and feelings about what might happen during a hurricane?

Answer:

- Taking slow breaths to calm down when you feel worried or scared.
- Sticking with a buddy so you don’t feel alone.
- Singing a favorite song together or telling each other favorite stories, so you don’t think so much about feeling scared.
- Reminding each other how working together helps everyone get through a tough situation.
- Remembering that Parker’s family is prepared for hurricanes and will show Ray how to stay safe if a hurricane happens.
- Listening to grownups for other ways to help each other feel safe.

• Hurricane Myth-Busters

It had been about a week since a hurricane blew through town, and everyone was back at school, but Dara was complaining. “The police came and told us we had to evacuate,” she said, “so we packed up our stuff and drove twenty miles to my aunt’s house. But it turned out, nothing happened. There was some wind and rain, but that was all. A TOTAL false alarm. We’ve all decided that next time, we’re going to ride it out.” What would you say to Dara to help her and her family stay safe the next time there is a hurricane warning?

Answer:

With so many people living along the coast, it takes a lot of time to evacuate everyone who might be in danger, so emergency workers often have to start an evacuation before they know exactly where the hurricane will hit. That’s why, sometimes, a family might be told to evacuate and find out later that the hurricane practically missed them entirely. It’s not a false alarm. It’s just emergency workers taking extra precautions to make sure everyone stays safe. Next time, it could be another family that’s complaining about false alarms, while Dara’s family is being thankful that they evacuated when they were told to.



REPRODUCIBLE MASTER



Hurricane Preparedness

Sharing Activities

Read the activity assigned to your group. Then talk with the members of your group to come up with ideas for that situation. Help the spokesperson for your group take notes on the group's ideas. After your spokesperson shares your group's ideas with the class, join in the discussion to decide on the best ideas for the situation.

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What would you say to Dara to help her and her family stay safe the next time there is a hurricane warning?



Hurricane Helper Hints

Town Emergency Manager

- It's my job to plan how to keep everyone in town safe during any emergency.
- I work with the mayor and other town officials to make sure everybody who lives in our town knows what to do during a hurricane, especially if we have to evacuate.
- I work with the public works department to make sure our evacuation routes are safe.
- I work with the police department to prevent traffic jams.
- I work with the fire department and emergency medical teams to rescue people who need help.
- I work with the American Red Cross to provide people with shelter.
- After the hurricane, I work with the phone company and the power company to manage how they will restore phone service and electricity.
- I work with the health department to make sure it is safe for people to come back home after a hurricane

Firefighter

- It's my job to make sure people don't get hurt during a hurricane.
- I help spread the word to people who should evacuate.
- I rescue people who need help getting out of their homes.
- I search for people who get separated or lost during the hurricane.
- I put out the flames when a power line comes down and starts a fire.
- I help medical emergency workers get people to a hospital if they get injured.
- After the hurricane, I help the public works department clean up dangerous waste and check that buildings are safe.

Emergency Medical Worker

- It's my job to help people who get hurt or injured during a hurricane.
- I drive an ambulance to get people to a hospital fast when they need care.
- I know how to help people who are in shock during a hurricane.
- I can use first aid to help people who are injured during a hurricane.
- I help firefighters rescue people who need help evacuating to a hurricane shelter.
- I work with the American Red Cross to make sure no one at hurricane shelter is hurt or needs a doctor.

Police Officer

- It's my job to protect people during a hurricane.
- I help spread the word to people who should evacuate.
- I direct traffic on the evacuation routes to help people get out fast.
- I help rescue people who need help getting out of their homes.
- I help search for people who get separated or lost during the hurricane.
- I guard people's homes while they are staying at a hurricane shelter.
- After the hurricane, I help make sure people cooperate to clean up and repair the damage.



Hurricane Helper Hints (continued)

Health Department Worker

- It's my job to make sure people don't get sick during a hurricane.
- I check the water supply to make sure people have clean water in their homes.
- I watch out for dangerous chemicals and other hazardous materials in hurricane flood water.
- I get rid of rats and snakes and other dangerous animals that come out of their hiding places during a hurricane.
- After the hurricane, I help make sure houses and apartment buildings are safe before people go back home.

Public Works Employee

- It's my job to keep the roads and streets open during a hurricane.
- People call my office to get sandbags to keep hurricane flood waters off the roads and away from buildings.
- I work with the phone company and the power company to clear away power lines that fall onto the street.
- I use special equipment to clear away trees that get blown over onto the street.
- After the hurricane, I make sure the work crews use bulldozers and dump trucks to haul away the trees, fences, mud and all the other stuff that makes the streets dangerous.

Electric Company Worker

- It's my job to make sure people have power during an hurricane.
- I use sandbags to keep hurricane flood waters away from important power equipment.
- I help the public works department clear away power lines that get blown down during a hurricane.
- I change switches on the power grid to send electricity away from broken power lines.
- After the hurricane, I repair power lines to make sure everyone has electricity in their homes again.

Phone Company Worker

- It's my job to help people stay in touch with each other during a hurricane.
- I help make sure people get help when they call 9-1-1 during a hurricane.
- I use satellites and special equipment to make sure all emergency workers can talk with each other during a hurricane.
- I help the public works department clear away telephone poles that get blown down during a hurricane.
- I replace cell phone towers that get damaged during a hurricane.
- After the hurricane, I repair phone lines to make sure everyone can stay in contact once they get back home.

American Red Cross Worker

- It's my job to help everyone stay safe during a hurricane.
- I help the town emergency manager take care of people who need to evacuate during a hurricane.
- I help firefighters and emergency medical workers rescue people from their homes during a hurricane.
- I work with the town emergency manager and others to set up hurricane shelters where people can have a safe place to stay for a while.
- I help children and grownups who feel scared or nervous cope with those feelings during a hurricane.
- After a hurricane, I help people bounce back and get everything back to normal.

TOWN EMERGENCY
MANAGER

FIREFIGHTER

EMERGENCY
MEDICAL WORKER

POLICE OFFICER

HEALTH DEPARTMENT
WORKER

WORKS
EMPLOYEE

ELECTRIC COMPANY
WORKER

PHONE COMPANY
WORKER

AMERICAN RED CROSS
WORKER



Student Pre-Assessment

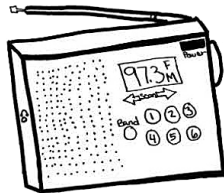
1. Circle all of the items that should be in the emergency supplies kit you keep at home.



First Aid Kit



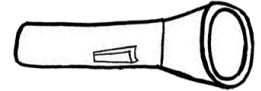
Fresh Fruit



Radio



Canned Food



Flashlight

2. How often should a grownup test the smoke alarms in your home?

A: Never

B: Once a month

C: Every Day

D: Don't know

3. What should you take with you when you are escaping from a home fire?

A: Nothing – just get out fast

B: Your pillowcase kit

C: Your home fire escape plan

D: Don't know

4. What can help you stay calm and relaxed during an emergency?

A: Breathing with color

B: Running around in circles

C: Holding your breath

D: Don't know

5. What should you do during a hurricane warning?

A: Be prepared to leave home for a safe location

B: Test your smoke alarms

C: Go to the store for emergency supplies

D: Don't Know



Student Post-Assessment

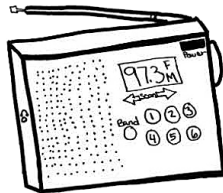
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First Aid Kit



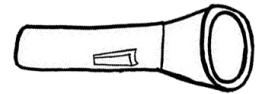
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Radio



Canned Food



Flashlight

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5. What should you do during a hurricane warning?

A: Be prepared to leave home for a safe location

B: Test your smoke alarms

C: Go to the store for emergency supplies

D: Don't Know

6. Do you feel more prepared for an emergency? (Please circle yes or no)

Yes



No

