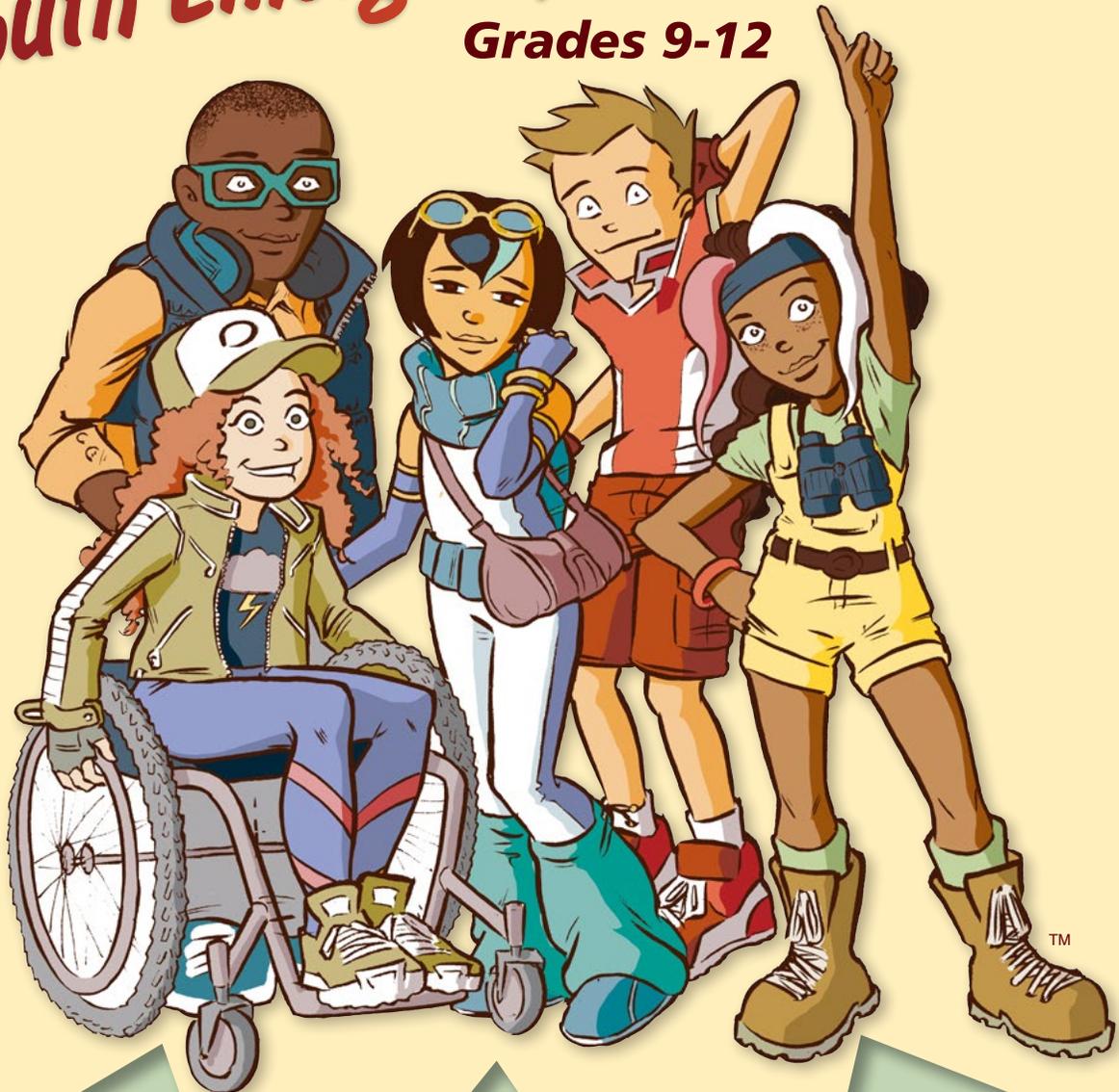


BE A HERO!

Youth Emergency Preparedness Grades 9-12





Dear Educator,

Welcome to FEMA's **Be a Hero** curriculum, an empowering educational journey into emergency preparedness! This standards-based, cross-curricular program is designed to provide students in grades 9 through 12 with the knowledge, awareness, and life-protecting skills needed to prepare for a variety of emergencies and disasters.

By engaging in three project-based lessons, students will gain a personal and meaningful understanding of disaster preparedness by creating solutions for real-world problems. All inquiry-based activities lead to important learning through independent and collaborative work, research, investigations, discussions, and presentations.

By the final lesson, students will become "heroes" as they develop their own emergency preparedness campaign project. Using communication skills and creativity, they will generate awareness of emergency preparedness among friends, families, and the community at large.

Knowledge empowers! We hope this program will help you, your students, and their families feel prepared.

Sincerely,

Your Friends at FEMA



FEMA

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Getting Started

FEMA's **Be a Hero** curriculum was designed with you, the 21st-century educator, in mind!

Flexible & Teacher Vetted

Experienced teachers have developed and reviewed the curriculum to ensure that it is aligned to current standards and incorporates current education practices. Knowing each classroom is unique, lessons were designed to be flexible. You may want to adapt activities to your needs and student population, or collaborate with a colleague who teaches another subject.

21st-century

Lessons are designed for students to develop and exercise important 21st-century skills such as: critical thinking, creativity, problem solving, communication and collaboration, independent thinking and research, information and media literacy, and leadership and responsibility.

Project-Based

Activities are student-centered and inquiry-led. The three lessons build upon one another, answering the following questions: *What is a disaster? How can I prepare myself? How can I help prepare others?* Students get to demonstrate their understanding of the material through various assessments and a culminating project.

Multidisciplinary & Cross Curricular

Learning activities cover various topics and connect to several core subjects, including history, math, English language arts, science, social studies, and Technology. For example, the research project in Lesson 1 can be done in a humanities or science class; Lesson 2's infographic activity, in math; while the final emergency preparedness campaign activity in Lesson 3 can be done in language arts, digital media, technology or design class. (See page 27 in the Appendix for a full list of standards met by each lesson.)

A Real-World Focus That Empowers

The education approach is based on the belief that students are motivated to learn, and understand more, when they can connect a topic to their lives. Lessons offer students an opportunity to gain awareness about the world around them and then impact their world in a positive and real way!

We want to hear from you!

Share your learning experiences and student work, and connect with other educators across the country by visiting <http://community.fema.gov> or contacting FEMA at Ready@fema.dhs.gov. You can also tweet us with your experiences, using the hashtag [#ReadyKids @ReadyGov!](https://twitter.com/ReadyGov)



BE A HERO! Components

Be a Hero has developed several components to support your teaching, broaden your students' understanding, and inform parents and communities about emergency preparedness. Many of the following are already integrated into the lessons and can be found on FEMA's website (www.ready.gov/kids). Explore and familiarize yourself with them before teaching the first lesson:

Map Locator Page

<http://www.ready.gov/kids/maps>

An interactive map of the U.S. that lets you learn more about recent events and what types of disasters each state is at risk for



Build a Kit

<http://www.ready.gov/kids/build-a-kit>

Information about why we need an emergency kit, and downloadable checklists for both kids and adults



Parent Pages

<http://www.ready.gov/kids/parents>

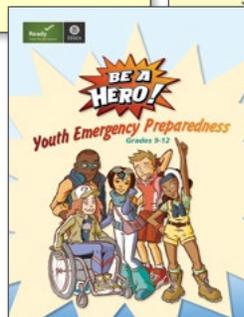
Tips and useful links for parents to involve kids in emergency preparation, and advice from child psychologists on how to help children cope during and after a disaster



Curriculum

<http://www.ready.gov/kids/educators>

In addition to lessons for high school, the program includes curricula for elementary and middle school students.



Know the Facts Disaster Factsheets

<http://www.ready.gov/kids/know-the-facts>

15 downloadable factsheets with information about what to do before, during, and after specific disasters



Make a Plan

<http://www.ready.gov/kids/make-a-plan>

Information on the importance of developing a family communications plan, and tips for kids and adults on how to develop one

Two Online Games*

<http://www.ready.gov/kids/games>

Test student know-how in a wide range of emergencies, and help teach how to build the perfect Emergency Kit!

*Designed for younger audiences, but still fun to play!



Partner Sites and Links

Additional resources and useful information can be found in the Appendix on page 26.



Lesson 1

For Grades 9-12

Know Your Disasters!

Learning the Facts about Disasters and Emergencies

Time Required:

Three 45-minute class periods

- **First Class** – Introduction to Disasters; What Is FEMA?; Disaster Research Project
- **Second Class** – Disaster Presentations
- **Third Class** – Infographics; Did You Know? Writing Reflection

Note: Extra class periods can be added to accommodate more time for research.

Supplies/Preparation:

- Download and print copies of the 15 **Disaster Factsheets** from <http://www.ready.gov/kids/know-the-facts>
- Secure access to the **Map Locator** feature on <http://www.ready.gov/kids/maps>
- Make copies of student handouts
- Access to Internet and computers

Student Handouts:

- **Disaster Info-Collector**
- **Disaster Graphing**



Lesson Overview:

Disasters and emergencies can be scary, but understanding more about them and how they happen is the first step toward student empowerment. In this introductory lesson, students will explore and learn about various disasters and emergencies, and communicate their findings to their peers through the creation of disaster-specific infographics, presentations, and informative texts.

21st-century Learning Skills

- Communication and Collaboration
- Information Literacy
- ICT Literacy



Learning Objectives:

Students will...

- Identify various emergencies and natural disasters that could impact communities by geographic area (local & national)
- Explain the causes or risks of various disasters based on geography, climate, or season
- Describe the environmental and human impact of disasters and emergencies.

Essential Questions:

What is a disaster/emergency? How do natural disasters happen? What role does geography play in disasters? What impact can a disaster/emergency have on a community?



Instruction Steps

FACT CHECK

Test your students' knowledge with trivia questions found on the **Disaster Factsheets**.

WORDS TO KNOW

FEMA stands for **Federal Emergency Management Agency**. FEMA's mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.

FEMA Facts!

Have each team create and present a poster sharing ten facts about FEMA they found interesting/important. Display around the classroom or school to share with other students.

1. Introduction Discussion:

What are emergencies and natural disasters? Begin by asking students if they have ever personally experienced, or know someone who has experienced an emergency or disaster. *What happened? What did you/they do? How did you/they feel?* Have students share their experiences or stories with one another, then use this opportunity to assess prior knowledge and identify any personal connections students might have.



Students can journal their experiences or share their stories in pairs.

After students have shared their stories, make a list of the emergencies mentioned. Ask: *What are some other emergencies that you can think of?* Note student responses on the board. Ask students to consider if any emergencies listed are natural disasters. Ask: *How is a natural disaster different from an emergency?* Prompt students to think of all emergencies featured on the 15 **Disaster Factsheets**. Ask: *Which emergencies are preventable? Which disasters occur naturally and depend on geographic location or climate? Have there been any disasters in our area recently? Nationally? Globally?*

Remind students that disasters can be scary situations, but the more we know about them, the more we can prepare and respond. Explain that over the next three class periods students will become disaster experts, and take on the role of ambassadors to help others be prepared for disasters.

Emergencies and Natural Disasters

- Blackouts
- Drought
- Earthquakes
- Extreme Heat
- Floods
- Home Fires
- Hurricanes
- Landslides/Debris Flows
- Space Weather
- Thunderstorms and Lightning
- Tornadoes
- Tsunamis
- Volcanoes
- Wildfires
- Winter Storms and Extreme Cold

2. What Is FEMA?

Write FEMA on the board, and ask students what it stands for. Have students work in groups and explore the FEMA website <http://www.fema.gov> to inform themselves about FEMA. Ask: *What information does FEMA provide? Who do they share it with? What is their main purpose? What can you learn from their website?*

3. Disaster Research Project

Randomly assign each student to a different disaster. (Larger classes can work in pairs.) Ask students to gather information and evidence (such as images, articles, videos, interviews) about the science behind their assigned disaster and its potential danger(s). Share with students the criteria for their projects (see sidebar). Use the **Disaster Factsheets** (found at <http://www.ready.gov/kids/know-the-facts>) and additional resources listed on page 26 to get students started. Students may also visit the library or use the Internet to conduct research.



Instruction Steps (cont'd)

Disaster Research Project Criteria

- Answer the following questions:
 - How does the disaster happen? What is the science behind it?
 - What impact does the disaster have on humans? The environment?
 - Where can the disaster occur? In a specific region? Low-lying areas? Coastal communities? Anywhere?
 - What is the history of the disaster? Where has it happened before? When?
- Include at least five facts or interesting trivia about the disaster.
- Include visuals.
- Include a bibliography citing at least five sources.

Tip! Direct students to the **Map Locator** feature at <http://www.ready.gov/kids/maps> to find out what disasters occur in their community and region.

Presentation of Findings:

Have students create and share a five-minute presentation with their class using digital software to best share the information they have learned. Provide each student with copies of the **Disaster Info-Collector** handout, enough for each disaster, to fill out during the presentations. This will become a valuable reference for each student.

- Tip!**
- Students can create their own **Disaster Handbook** or binder to store all of their **Disaster Info-Collector** handouts and other useful resources.
 - Play **Fact Check!** found on each **Disaster Factsheet** to test student knowledge.

4. Infographics: Making it Visual!

Using the **Disaster Graphing** handout, students will create three (line or bar) graphs to show the occurrence of the disaster they researched in their own region, the country, and globally over the past 100 years. Have them label the y-axis "number of occurrences" and the x-axis "years." See the sidebar on page 8 for more tips on researching and graphing data.

Tip! **Graphing Data**

It might help for students to collect the data in a table before moving into graphing.

- See http://www.nifc.gov/fireInfo/fireInfo_stats_histSigFires.html for information on historically significant wildfires

If needed, give students a refresher on labeling and drawing graphs. Students will need to:

- Identify what units (years, occurrences, etc.) to use, and label them
- Identify the range in values for each unit
- Determine a scale to make sure the greatest value will fit on the graph
- Plot the points
- Give the graph a title
- Cite sources

Modification

Challenge students to map the same data on a bar graph, line graph, and scatter plot graph. Ask: *Do you perceive the information differently because of how it looks? How can visual communication of data change its meaning?*



Instruction Steps (cont'd)

Infographic Tips for Your Students

Try something different.

Sometimes bar and line graphs can be boring. How can you display your information in an unexpected way?

Cite your sources.

Where did you get your information? Include any books or urls you used during your research at the bottom of your infographic.

Be accurate.

Make sure that your visualization doesn't skew or change any of the data. This can get you in trouble!

Include visuals.

Pictures or drawings can make the information easier to understand.

Make it professional.

Include a title and subtitle to tell your viewers what they are looking at.

Keep it simple.

Don't clutter the page with words; use only what is necessary, and see how you can deliver information visually.

Once students have completed their graphs on the **Disaster Graphing** handout, ask them to compare and contrast the occurrence of the disaster across the three locations. Ask them to evaluate whether they think this is something that is likely to happen in their community. *Why or why not? Which disasters are related to climate? Do they notice a change in frequency of a disaster over a period of time? What conclusions can students draw based on the data they found?*

Next, explain that students will turn their graph information into an "infographic." An infographic presents complex information and data in a way that is visually engaging and easy to understand. Have students get creative and use different imagery to help visualize their information. For example: A bar graph showing the occurrence of wildfires can use flames instead of bars and a line graph showing the occurrence of landslides can use rock formations instead of points.

Tip! Infographics

- Share samples of infographics with students. Good examples can be found in newspapers, business magazines, and on the Internet.
- Infographics may be created by hand using basic art supplies, construction paper, and poster board, or if your students have the skills, using digital illustration software (see extensions).

Display completed infographics, then have students present them to the class. Discuss the difference between the initial graphs and the infographics. Ask: *Which is more interesting? More memorable?* Ask students to hypothesize why making data visually compelling helps to communicate its meaning. After debriefing the activity, display infographics outside the classroom for others to see.

5. Reflection: Did You Know?

Have students synthesize the research from their disaster presentation by creating a "Did you know?" paragraph or trivia handout about the disaster they researched. Challenge them to inform peers, family members, and community members about the disaster in just one page.

Extension Activities

Blog:

Have students create and contribute to a class blog to share research, information, and class projects online. They can also "report" on emergency-related events happening in their communities or across the country.

Digital Media:

Have students take their infographic projects to the next level by creating a digital version of it in a design or technology class.



Name: _____ Date: _____

Disaster Info-Collector

WHAT

Disaster: _____

WHEN

History:

Year: _____ Community: _____

Year: _____ Community: _____

Year: _____ Community: _____

Year: _____ Community: _____

WHERE

Indicate on the map where it took place...



HOW

How does the disaster happen? What is the science behind it?

WHAT TO DO

Before:

During:

After:

Resources:

Top 5 Facts/Interesting Trivia:

1. _____
2. _____
3. _____
4. _____
5. _____

Draw what the disaster looks like to you





Lesson 2 For Grades 9-12

The Adventures of Disaster Preparedness

Preparing for Disasters and Emergencies

Time Required:

Two 45-minute class periods

- **First Class** – Introduction to Preparedness; Before, During, and After; Fire Safety, Emergency Kit Preparation; Family Meeting Agenda; Text, Don't Talk!
- **Second Class** – Emergency Problem Solving; Disaster Preparedness Survey

Supplies/Preparation:

- Copy and cut out *Emergency Problem-Solving* scenario slips
- Make copies of student handouts
- Access to Internet and computers

Student Handouts:

- *Family Meeting Planner*
- *Are You Ready? Survey*



Lesson Overview/Introduction:

We might not be able to predict when all disasters or emergencies will happen, but we can be prepared for them. Using disaster research from the previous lesson, students will realize how important it is to be prepared, and will take the necessary steps toward emergency preparedness by creating their own family communications plan and emergency kit.

21st-century Learning Skills

- Communication and Collaboration
- Information Literacy
- ICT Literacy
- Critical Thinking and Problem Solving



Learning Objectives:

Students will...

- Create a family communications plan for emergency situations to share at home
- Identify what is required in an emergency kit
- Identify safe and proper responses to emergency situations

Essential Questions:

Why is preparing for a disaster important? How have other teens/communities prepared for a disaster? How can I help my family prepare for a disaster? Why is it important to have a family communications plan and an emergency kit? How can I prevent home fires?



Instruction Steps

1. Introduction Discussion

Ask students to discuss what being prepared means to them. Have them think of examples of preparedness. (For example: studying for a test, reading a recipe before cooking, making a shopping or to-do list, practicing lines for a play, etc.) Ask students to analyze why it is important to be prepared in those situations.

Tip! Ready, Year-Round

Reinforcing preparedness doesn't have to end with this lesson! Incorporate it into your class year-round by celebrating Fire Prevention Week, Flood Safety Awareness Week, and National Hurricane Preparedness Week, and by revisiting important concepts like winter weather safety and heat safety when seasonally appropriate. Visit <http://www.fema.gov> for accurate dates.

2. Before, During, and After

Ask students if they think they know what to before, during, and after disasters. Have students revisit the **Disaster Info-Collector** handouts from Lesson 1. Ask them to fill out the bottom of the handout using any resources they found helpful during their research.

3. Home Fire Prevention and Safety

Tip! Play the **Fact Check!** found on the **Home Fire Disaster Factsheet** at <http://www.ready.gov/kids/know-the-facts>.

Explain that home fires are emergencies that can happen anywhere, to anyone. Have students do a think-pair-share about what can be done to prevent and prepare for home fires. Ask pairs to share with the rest of the class and keep track of responses with a word web on the board. Emphasize that students should plan two ways out of every room, practice fire escape drills at home with families twice a year, check for home fire hazards, and ask their parents to install, test, and maintain smoke alarms. Remind students that, above all, the most important thing to do when the smoke alarm sounds is to get out fast! Once you're out, stay out!

Tip! Have students who will head to college next year? Help them prepare for campus fire safety and prevention with helpful tips from the **U.S. Fire Administration**: <http://www.usfa.fema.gov>. Share these tips with their parents, too!

Did you know?

Fires kill more Americans each year than all natural disasters combined, and affect people from all backgrounds and geographic locations?

Did you know?

These things are often overlooked, but they can start a home fire!

- Unattended cooking
- Pot holders or kitchen towels too close to the stovetop
- Cigarette butts that may have fallen out of sight under furniture cushions or other places where people smoke
- Matches and lighters placed where kids can reach them
- Leaving a room while a candle is burning
- Lint that has built up in clothes-dryer filters and vent pipes
- Frayed cords on electrical appliances
- Electrical cords running underneath carpets or furniture
- Electrical appliances that are not plugged directly into wall outlets
- Fireplaces without metal or heat-tempered glass screens
- Paper, fabric, trash, or other materials that can burn if left too close to heat sources such as portable heaters, lamps and lightbulbs, furnaces, hot-water heaters, and fireplaces.



Instruction Steps (cont'd)

Did you know?

During an emergency, when phone lines are needed by emergency workers, they are often jammed. Texting or using social media are good alternatives, as they use lower bandwidth and can quickly reach a wider audience. Phone calls should be used for emergencies only so that responders (like 911) can get to those who need urgent help. Check out <http://www.ready.gov/get-tech-ready> for more tech-ready tips!

WORDS TO KNOW

Alerts received at the right time can help keep you safe during an emergency! **WEA** stands for **Wireless Emergency Alerts**. WEAs are emergency messages sent to cell phones by authorized government agencies to let you know about dangerous weather conditions, emergencies, and other local hazards. WEAs are sent straight to a phone without a need to download an app or subscribe to a service.

- Read the Alert
- Take Action
- Follow the Directions!

Learn more at <http://www.ready.gov/alerts>

<http://www.ready.gov/kids>

4. Emergency Preparedness Kit

Ask students if they have ever heard of an emergency kit. Do they know anyone who has one? Why could it be important to have one?

Have students brainstorm what items would be useful in a disaster kit. Ask students to discuss different what would go in a kit in different scenarios, what to consider for the number of people in each family, and provide rationale for their ideas. Make sure to emphasize that the kit must be prepared ahead of time, not right before or during an emergency. Also ask them to think of entertainment items that don't require electricity, since a kit would be used in the event of a loss of power.

Emergency Kit Examples:

- Canned food
- Clothes
- Flashlight
- Money
- Your favorite book
- First-aid supplies

After students have made a list of items, provide them with the **Emergency Kit Checklist** at <http://www.fema.gov/media-library/assets/documents/34326>. Ask students to go pack a disaster kit at home with their family as homework. This may require a trip to the store for some families, so make sure to give them enough time to complete this activity.

5. Text, Don't Talk!

Ask students what they would do right after an emergency has occurred. If they have a cellphone, explain that they should text their parents or family members to let them know they are OK. Ask them to discuss why it may be better to text instead of call during an emergency (see sidebar).

If they have a cellphone, give students time to put emergency contacts in their phones. Ask: *What happens if your phone runs out of juice, or gets lost? Have you memorized any phone numbers? Which ones and what for?* Have students note important numbers that should be memorized, just in case. Transition students into the family meeting agenda activity by explaining that if students don't have all of the information in class, they can collect it using the **Family Communications Plan** sheet during their family meeting.



Tell your students about WEAs (see sidebar Words to Know). Have any of them or their parents ever received a WEA on their cellphone? Remind students to listen to parents, teachers, or other adults for more guidance. Tune into a radio or TV station for more information after receiving a WEA.

6. Communications Plan

Give each student a copy of the **Family Communications Plan** (<http://www.fema.gov/media-library/assets/documents/34330>) and **Family Meeting Agenda Planner**. Ask students to study both, then discuss why it's important to have a communications plan.

7. Create a Family Meeting Agenda

Have students create an agenda of talking points and action items for a family meeting about emergency preparedness. Ask students to identify where and when the meeting will take place, who should be there, and what goals they want to meet by the end of the meeting.



Encourage students to make the family meeting creative and fun. Students can pick a favorite meeting place or plan a fun activity for all to do together after it is done.

Assign students to talk with their family members when they get home and schedule a meeting for a place and time that everyone can be present within the next week. As students complete their family meetings, ask them to report back and share how they go with the rest of the class.



Instruction Steps (cont'd)

Did you know?

During an emergency, you might be living without power for awhile. FEMA recommends having your own food, water, and other supplies in sufficient quantity to last for at least 72 hours. This will allow local officials and relief workers to focus efforts on more heavily effective areas.

8. Disaster Problem Solving

Use the **Emergency Problem Solving** teacher tool to test student knowledge of safe responses in real-world emergency scenarios. Have the class work together or in teams to solve them (like Pictionary or Charades). They may also role-play or act out their responses to the event or solve them individually in a writing or drawing assignment.

After the activity, ask students to discuss whether there were any disaster scenarios that stumped them. Why? What did they learn during the activity that could help them solve the scenario in the future?

9. Disaster Preparedness Survey

Have students create a survey (on paper or online using a free/secure online survey tool) about disaster preparedness. Provide them with an **Are You Ready? Survey** handout to generate ten different questions to ask about disaster preparedness using what they have learned so far. The goal of the survey is to find out how prepared others are for a disaster. Explain that they will give it to at least ten different people: peers, family or community members.

Practice Makes Perfect

Before students go out in the world with their surveys, have them self evaluate their surveys based on the objectives and essential questions. Have students share and discuss their survey questions and goals with the rest of the class, then make any final edits to their surveys.

10. Reflection: Evaluating the Results

Studying the results of the survey, ask students to reflect on what they learned. Have students share the results with the class and decide whether they think their peers, family, and community are prepared for a disaster. Ask: *What are some ways to help people become more prepared?* Have students brainstorm some ideas. They will use these reflections to create their own campaign in Lesson 3.

Extension Activities

- **Get to Know Emergency Responders:** Take students on a field trip to interview someone from their community (fire department, city hall/mayor, school principal) and learn more about disaster preparedness in their community. Have students prepare interview questions ahead of time and discuss responses afterwards.
- **Be the Ambassador:** Ask students to take on the ambassador role by sharing information about disasters with a younger grade or by helping younger siblings become prepared for emergencies, too.
- **Fire Safety Before and After:** Have students identify fire hazards in their homes and correct them before they become dangerous. They can take before and after pictures of the scenarios to share with the class.
- **Learn from History:** Ask students to return to a disaster they researched in Lesson 1 and find a real-life example, either recent or historic. (For example: Hurricane Katrina, earthquake in Haiti.) Have them evaluate the impact it had on the community. Ask: *How did people prepare for and respond to the disaster? In hindsight, what could they have done to prepare/respond better?*
- **Community Plan:** Have students research existing community emergency/evacuation plans, and then pitch their own emergency preparedness plan to the school and local community.

Teacher Tool

Emergency Problem Solving

Cut out the following emergency scenarios and hand out to students to solve.

1. News reporters keep talking about how there hasn't been enough rainfall and the water levels are getting dangerously low.

What should you do?

2. You're at a school and all of a sudden you feel the room start to shake. A couple of things fall off your desk.

What do you do?

3. It's extremely hot outside, and the weather reporter says it's a heat wave. You had plans to go play basketball with some friends.

What do you do?

4. The rain is coming down hard outside and the radio is warning of flash floods. You live in a low-lying area next to a river.

What do you do?

5. You live in Florida. All of the news stations are talking about a hurricane coming to the area.

What do you do?

6. You are hiking in the mountains. All of a sudden, you hear trees cracking.

What do you do?

7. You try to call a friend, but your cell phone doesn't work. When you go to the computer, the Internet isn't working either. All of a sudden the power starts cutting in and out.

What do you do?

8. You are hanging out with friends outside, and someone notices lightning.

What do you do?

9. It's summertime in Texas. Suddenly, you see a large, dark, low-lying cloud and hear something that sounds like a freight train.

What do you do?

10. You live near a beach in Hawaii and there have been tsunami warnings on TV.

What do you do?

11. You live in Washington state near an active volcano. Emergency officials are starting to issue evacuation orders.

What do you do?

12. You live in an area where lots of people like to go camping. One camper didn't take care of the campfire properly, and now a wildfire is threatening your community.

What should your family do?

13. It's wintertime, and the temperature is dangerously low. The weather report is predicting strong winds, sleet, and freezing rain later in the day.

What do you do?

14. You accidentally left a candle burning in your house and suddenly the room is on fire.

What do you do?

15. The power just went out at your house and you're hungry.

What do you do about a snack?

Teacher Tool Answer Key

1. News reporters keep talking about how there hasn't been enough rainfall and the water levels are getting dangerously low. What should you do?

This is a drought. During a drought,

- Listen to the rules from authorities. They want to make sure there's enough water for the things we really need.
- Take a shower, not a bath. Showers use less water.
- Don't let the water run when you brush your teeth.
- Wait to water your garden or set the sprinkler. When the drought ends, you can use them again.

2. You're at school, and all of a sudden you feel the room start to shake. A couple of things fall off your desk. What do you do?

This is an earthquake. During an earthquake,

If inside:

- DROP to the ground.
- Take COVER under a sturdy table or other heavy furniture. If there is nothing to get under, cover your face and head with your arms and crouch near an inside wall.
- HOLD ON until the shaking stops.
- STAY AWAY from windows, glass, lighting fixtures, or furniture that could fall – like bookcases.
- STAY INSIDE!
- Do not use elevators!

If outside:

- Stay there.
- Move away from buildings, streetlights, and wires.
- Stay out in the open until the shaking stops. Buildings could collapse and hurt you.

If trapped under debris:

- Cover your mouth with your shirt.
- Do not scream – you could breathe in dust.
- Tap on a pipe or wall so rescuers can find you.

3. It's extremely hot outside, and the weather reporter says it's a heat wave. You had plans to go play basketball with some friends. What do you do?

During a heat wave,

- Never sit in a parked car.
- Stay inside as much as possible.
- Play indoor games and sports.
- Drink lots of water. This is your body's air conditioning!
- Wear loose-fitting clothes in light colors. Did you know dark colors absorb the sun's rays?
- Wear a hat with a wide brim to protect your face and head.
- Spend time in places with air conditioning, like a library or movie theater.

4. The rain is coming down hard outside and the radio is warning of flash floods. You live in a low-lying area next to a river. What do you do?

During a flash flood,

- Tell an adult that you heard a flood warning on the TV or radio.
- Listen to authorities and safety officials.
- If there is any possibility of a flash flood, move immediately to higher ground.
- Help your family move important items to an upper floor.
- Do not walk through moving water. Even 6" of water can make you fall.
- If you have to walk through water, walk where it is not moving.

<http://www.ready.gov/kids>

5. You live in Florida. All of the news stations are talking about a hurricane coming to the area. What do you do?

Before the hurricane:

- Help your parents bring in outdoor items like potted plants, patio furniture, decorations, and garbage cans. They can fly in strong winds!

During the hurricane:

- Don't open the refrigerator or freezer. In case you lose power, you want the cold air to stay in!
- Stay away from windows and glass doors. They could break, and hurt you.
- Don't go outside when the rain or winds stop. This is the eye of the storm, or a short "rest," and it will start again.
- If need be, stay inside a closet or a room without windows. Or lie on the floor under a table or sturdy object.
- Listen to your parents or safety authorities for important instructions.

6. You are hiking in the mountains. All of a sudden, you hear trees cracking. What do you do?

This could be a debris flow or landslide. During debris flow or landslide,

- Listen for unusual sounds like trees cracking or boulders knocking together. If you hear something, tell an adult immediately!
- Move away from the path of a landslide or debris flow as fast as you can.
- Avoid river valleys and low-lying areas.
- If you can't escape, curl into a tight ball and cover your head with your hands and arms.

7. You try to call a friend, but your cell phone doesn't work. When you go to the computer, the Internet isn't working either. All of the sudden, the power starts cutting in and out. What do you do?

This could be space weather. During space weather,

- Use as little electricity as possible so power companies don't have to impose a blackout. How? Shut off the TV, don't turn on lights unless you have to, turn off the computer.
- Don't use the telephone unless you have to.

8. You are hanging out with friends outside, and someone notices lightning. What do you do?

During a lightning storm,

- Remember the 30/30 rule! Go indoors if you see lightning and can't count to 30 before hearing thunder. Stay inside for 30 minutes after hearing the last clap of thunder.
- Stay inside.
- Don't use items that plug into electrical outlets. Power surges from lightning can come through the cords and be dangerous.
- Don't wash your hands, or take a bath or shower. Faucets can conduct electricity.
- Stay away from windows and doors.
- Don't lie on concrete floors or lean against concrete walls; they conduct electricity.
- Don't touch anything metal outside – bikes, playgrounds, fences.
- Stay away from open fields, hills, or the beach.
- Don't stand near "lightning rods" like tall trees in an open area, or a flagpole.

Answer Key (cont'd)

9. It's summertime in Texas. Suddenly, you see a large, dark, low-lying cloud and hear something that sounds like a freight train. What do you do?

This is a tornado. During a tornado,

If you are in a building:

- Go to a safe room, such as a basement or cellar, or to the lowest building level.
- If there is no basement, go to an inside room like a closet or hallway.
- Stay away from corners, windows, doors, and outside walls.
- Do not open windows.
- Put on sturdy shoes.
- Protect your head.

If you are in a trailer or mobile home:

- Get out immediately and go to the lowest floor of a sturdy nearby building or to a storm shelter.

If you are outside with no shelter nearby:

- If there is no car or shelter, try to find a ditch or area lower than the ground, and lie down. You are safer in a low, flat location than you are under a bridge or highway overpass.

10. You live near a beach in Hawaii and there have been tsunami warnings on TV. What do you do?

During a tsunami,

- Listen to evacuation orders and leave the area immediately.
- Take any pets with you.
- Move inland (away from the ocean) and toward higher ground.
- Stay away from the beach. Never go down to the water to watch a tsunami come in. If you can see the wave, you are too close to escape it.
- If the water recedes from the shoreline, or goes out to sea, in a very noticeable way, get away from the area immediately. This is nature's warning that a tsunami is coming.

11. You live in Washington state near an active volcano. Emergency officials are starting to issue evacuation orders. What do you do?

During a volcanic event,

- Follow evacuation orders from emergency officials.
- Look out for mudflows. Look upstream before you cross any bridges to make sure a mudflow is not coming. If it is, do not cross the bridge — the mudflow could destroy it.

12. You live in an area where lots of people like to go camping. One camper didn't take care of the campfire properly, and now a wildfire is threatening your community. What should your family do?

During a wildfire,

- Listen to emergency officials if they say to evacuate.
- Call 911. You may be the first person to have spotted it!
- Help your parents fill outdoor tubs, pools, or garbage cans with water.
- Help your parents put important papers and family photographs inside the car, inside the garage. Put your pets in the car, too, so if you need to leave immediately, everything is packed.
- Put important things that won't be damaged by water in a pool or pond.
- Turn on all lights inside and outside the house. This will allow it to be seen in heavy smoke.

13. It's wintertime, and the temperature is dangerously low. The weather report is predicting strong winds, sleet, and freezing rain later in the day. What do you do?

This is a winter storm. During a winter storm,

- Help your parents sprinkle sand on sidewalks and walkways. This helps to make them less slippery.
- Make sure you dress warm and have extra blankets!
- Bring pets inside.
- Stay inside! Sidewalks can be very slippery and you can hurt yourself if you fall.
- If you are outside helping to shovel snow, make sure you wear a hat. It helps keep you from losing body heat.
- Mittens are warmer than gloves.
- Cover your mouth with a scarf to protect your lungs from the cold air.
- Put on dry clothes as soon as you come inside.
- If you can't feel your fingers, toes, ears, or nose, or they appear pale white, tell a grown-up immediately — you need to see a doctor.
- Tell a grown-up immediately if you can't stop shivering, have trouble remembering things, feel tired, or talk funny. You may have hypothermia, which can be very dangerous.

14. You accidentally left a candle burning in your house and suddenly the room is on fire. What do you do?

This is a home fire. During a home fire,

- If you hear a smoke alarm, get out fast! You may have only a few seconds to escape.
- Get low and go! Crawl under the smoke toward an exit. Heavy smoke and deadly gases collect along the ceiling.
- If smoke is blocking the door, use your second way out of the room or house.
- Feel the doorknob and door before opening it. If either is hot, leave the door closed and use the second way out.
- If you see smoke coming around the door, use the second way out.
- If you do open a door, open it slowly and be ready to shut it quickly if there's smoke.
- Tell firefighters whether there are any pets trapped in the house. Don't try to get them yourself!
- If your clothes catch on fire, stop-drop-and-roll! Stop, drop to the ground, and cover your face with your hands. Then roll over and over or back and forth until the fire is out.

15. The power just went out at your house and you're hungry. What do you do about a snack?

This is a blackout. During a blackout,

- Don't open the fridge or freezer! You'll let out whatever cold air is in there and food will go bad quicker.
- Don't eat any food that was in the refrigerator if you were without power for more than a day. Food could have spoiled and will make you sick.
- Don't use the telephone unless you have to; text instead. You should conserve battery power and leave the phone lines open for emergency responders.

Name: _____ Date: _____

Family Meeting Planner

Use the following questions and checklist to guide you as you create a family meeting agenda and help your family become prepared. Make sure all family members can attend this important meeting!

- Where will the meeting be? _____
- What time will it take place? _____
- Who needs to be at the meeting?
(All family members should be there) _____

- What are the goals for the meeting?

- What topics do you want to cover?

- If you aren't able to cover everything in one meeting, pick another time to meet and continue the discussion. _____

- Assign jobs to different people during the meeting.

Person	Job
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Family Emergency Meeting Checklist:

- Discuss how you will get in touch with one another during or after an emergency.

- Pick two meeting places that are easy to find: one in the neighborhood, and one outside of the immediate neighborhood, in case the neighborhood is evacuated.
 1. _____
 2. _____
- Practice getting to your meeting places from different locations.
- Talk about what to do if the emergency happens during the day and you are at school, work, a friend's house, or an after-school activity.
- Create a home fire escape plan that has two ways out of every room.
- Practice your home fire escape plan twice a year, using different ways out and going to your family meeting place.
- Fill out the **Family Communication Plan** – make copies to keep in a safe place, like your wallet, backpack, or binder.
- Pack an emergency kit using the **Emergency Kit Checklist**.
- Plan for your pets. What will they need in the kit?

Does your family have a plan?



Name: _____ Date: _____

Survey Are you READY?

Create a survey to find out how many people in your school, family, and community are prepared for a disaster. Come up with 10 questions to ask at least 10 participants.

Survey Questions

Here are some sample survey questions to get you started:

1. Have you prepared a disaster kit?
2. Do you have a family communications plan?
3. Do you have a home fire escape plan?
4. Have you memorized important phone numbers?
5. Have you picked two family meeting places, one in the neighborhood and one outside of the neighborhood?
6. Do you have working smoke alarms installed on all levels of your home, as well as inside and outside of sleeping areas?
7. Do you test your smoke alarms monthly?
8. Do you know when to replace your smoke alarm batteries?

If the answer is no, ask "why not?" to get more information about the things that get in the way of being prepared.

Add your own survey questions.

9. _____

10. _____

11. _____

12. _____

Use the following survey tips!

- Keep questions simple and easy to understand.
- Define any vocabulary that people may not know.
- Think about what answers you want to get, and work backwards.
- Explain the purpose of your survey to participants.
- Challenge yourself to include both open-ended (questions that generate more than a one-word response) and close-ended (yes-or-no, multiple choice) questions.

Survey Results

Use your notebook to answer the following questions about your survey:

Whom did you survey? (For example, students, teachers, parents, community)

How many people did you survey?

Where did you distribute the surveys?

How did you give the survey to your participants? (For example, in person, by paper or mail, online)

Compile and analyze the results of your surveys:

Based on the results, do you think your peers, family, and community are prepared for a disaster? Why or why not? If not, what do you think is stopping them, and what are some ways you can help them become more prepared? Write out your analysis and ideas in your notebook.





Lesson 3

For Grades 9-12

Be an Emergency Ambassador!

Helping Others Prepare for and Respond to Disasters

Time Required:

Two 45-minute class periods

- **First Class** – Intro to Project; Examples; Campaign Planning
- **Second Class** – Create campaign

Note to teacher: Extra class periods can be added if more time is needed to create the campaign.

Supplies/Preparation:

- Make copies of student handouts
- Materials to create the campaign (will vary)
- Access to Internet and computers

Student Handouts:

- *Disaster Preparedness Campaign Planning Sheet*



Lesson Overview:

Now that students know how to respond to disasters, and have prepared themselves and their families by creating an emergency kit and a family communications plan, it's time for them to spread the word and help those around them! This lesson will focus on students becoming ambassadors and representatives of safe behavior for their peers, younger students, and their families. As a summative assessment, students will create a public campaign to motivate others to learn how to respond to and be prepared for emergencies.

21st-century Learning Skills

- Communication and Collaboration
- Information Literacy
- ICT Literacy
- Critical Thinking and Problem Solving
- Creativity and Innovation
- Media Literacy



Learning Objectives:

Students will...

- Communicate information and knowledge of emergency preparedness and response in a clear and engaging way, using a variety of media, that considers and empowers their target audience (e.g., peers, younger children, families, communities)

Essential Questions:

How can I help my community prepare for and respond to a disaster?



Instruction Steps

1. Introduction: Disaster Preparedness Campaign

Now that students have become disaster preparedness experts, challenge them to share what they know with others by creating their own disaster preparedness campaign. The goal is to raise awareness about disaster preparedness and response among their peers, families, and community. Depending on available resources at your school, and student interest, this can be a PSA (public-service announcement), song or music video, posters and advertisements, or social media campaign. Encourage students to be creative!

2. Disaster Preparedness Campaign Examples

To get your students' wheels turning, share examples of existing public-service campaigns:

- "The Day Before"
<http://youtu.be/4s7z05G5p4Y>
- Wireless Emergency Alerts
http://youtu.be/wDpcGypv2_U
- FEMA Ready Business
<http://www.adcouncil.org/Our-Work/Current-Work/Safety/Emergency-Preparedness-Business>
- Emergency Preparedness – NYC
<http://www.adcouncil.org/Our-Work/Current-Work/Safety/Emergency-Preparedness-NYC#Asset799>
- Weather Channel and FEMA
<http://multivu.prnewswire.com/mnr/adcouncil/45754/>
- PSA Campaign in Spanish
<http://multivu.prnewswire.com/mnr/adcouncil/46031/>
- Ready New York Advertisements
http://www.nyc.gov/html/oem/html/get_prepared/rny_ads_intro.shtml
- Boost Up – Attendance Campaign
<http://boostup.adcouncil.org/>
- Texting-and-Driving Prevention
<http://www.adcouncil.org/Our-Work/Current-Work/Safety/Texting-and-Driving-Prevention>
- Wildfire Prevention
<http://www.adcouncil.org/Our-Work/The-Classics/Wildfire-Prevention>
- FEMA Home-Fire Safety PSAs
<http://www.youtube.com/playlist?list=PL69D1444B992E92E8>
- Drunk-Driving Prevention
<http://www.adcouncil.org/Our-Work/The-Classics/Drunk-Driving-Prevention>

After viewing example campaigns, ask students to think about who the target audience might be for each. What was the call to action? Have them discuss whether they thought it was an effective campaign or not, and why.

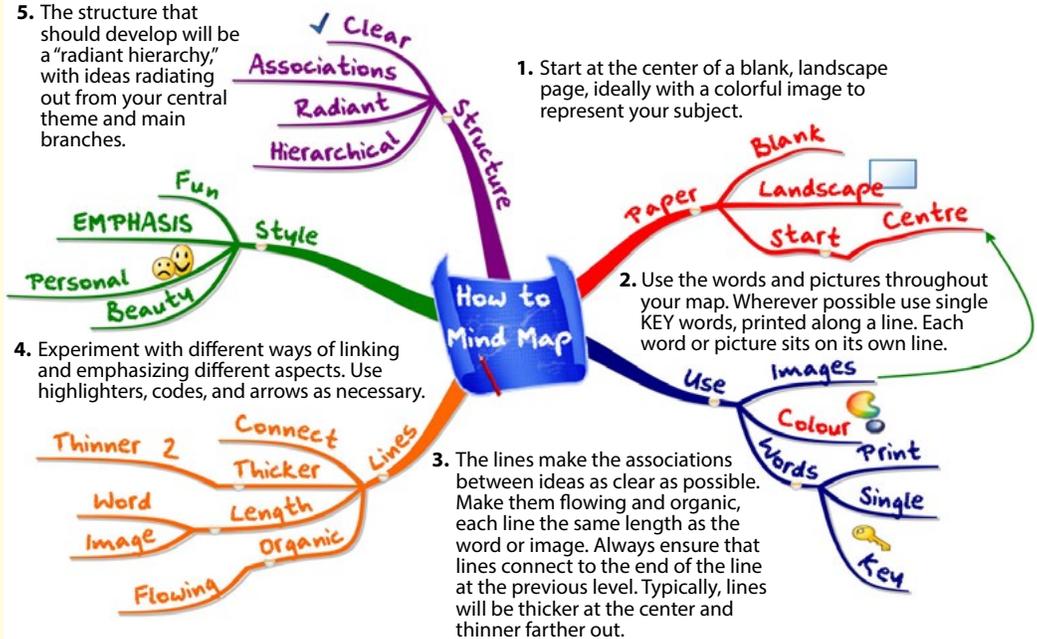


Instruction Steps (cont'd)

Brainstorming Tips and Techniques

- Provide students with post-it notes and challenge them to come up with as many different campaign slogans as possible in five minutes. If they get stuck, ask them to think of a slogan that rhymes, uses alliteration, or uses a popular phrase or lyrics from a song.
- Have students create mind maps. Place disaster preparedness in the middle, and have them free associate different words that relate back to the center. Challenge them to think in as many different directions as possible!

5. The structure that should develop will be a "radiant hierarchy," with ideas radiating out from your central theme and main branches.



4. Experiment with different ways of linking and emphasizing different aspects. Use highlighters, codes, and arrows as necessary.

Source: Illumine Training, UK

- Have students role-play and put themselves in the shoes of their target audience. Ask: *What do they do? How do they act? What messages and tactics appeal to them? What would convince them to pay attention to a campaign? Are there any incentives that would entice the audience?*

3. Campaign Planning

Assign students to teams and provide them with copies of the **Campaign Planner** handout for this assignment. Use the example handout to show students what a potential campaign plan can look like. Remind them to look back on survey results from Lesson 2 and their reflections. What information did they gain from those activities that can help them direct and plan their campaigns?

- **Problem Identification:** Ask students to define the problem they want to solve and generate a solution. Have them think back to what they discovered from the survey. Was there something in particular that people needed more information about?



Instruction Steps (cont'd)

- **Target Audience:** Have students select a group of people they want to influence with their campaign. Ask: *Do they want to talk to younger children? Their peers? Parents? Community leaders? The general public? A specific locale?*
- **Call to Action:** Discuss with students why having a call to action is important. Have students think back to the example campaigns they saw. Have students identify what actions they expect their audience to take upon viewing their campaign. (For example: Do they pack an emergency kit? Do they visit the FEMA <http://www.ready.gov> website to learn more?) Have them discuss different ways they can empower and inspire their audience to act.
- **Implementation Plan:** Ask students to brainstorm ways they can share the campaign with their audience.



Invite a guest speaker in the communications, marketing, or design industry to talk to students and share his or her advice, experience, and case studies in public-service communications.

4. Pitch!

After teams have completed the **Campaign Planner** handout, have them share, or “pitch” their campaign proposal with the rest of the class. Teams may use visuals or chart paper to create sketches to aid in the presentation of their ideas. After each presentation, have each student write on post-it notes a “glow” (something the team did well) and a “grow” (something the team could work on) for the team.

Give teams time to reflect on the glow and grow feedback from their classmates and to plan for any changes they’d like to make to their campaign ideas.

5. Campaign Creation

Give students time to bring their ideas to life! Remind them to communicate their information in a clear and engaging way.



Share the following tips to create a successful campaign with your students during their creative process:

- **Keep your audience in mind.** Create something that you know they will be interested in.
 - **Keep it simple!** Make your call to action clear and easy to remember.
 - **Incorporate powerful images and colors.** Attract your viewer’s attention.
 - **Use hierarchy to organize your messages.** For example, on a poster or flyer the most important piece of information should be the largest and most visible, and any supporting information should be smaller.
 - **Go to where your target audience is!** For example, if your target audience is parents, share the campaign at a PTA meeting or at back-to-school night.
 - **Use a “celebrity” endorsement.** Ask the principal or teachers at your school to buy into and help promote your campaign.
-

6. Presentation

Have students present their final campaign to the class. Invite your school’s principal, other classes, and parents to come and see the results!



Instruction Steps (cont'd)

Reflection Prompts:

- Was the call to action clear?
- Can you guess who the target audience is?
- Is their plan to share the campaign realistic?
- Are they using the correct emergency facts and preparedness tips?
- Is the idea creative and engaging?
- Have they incorporated previous research or results from the survey?

7. Reflection/Self-Assessment

Have students write a journal entry reflecting on the campaign they created. Ask: *Was the campaign successful? Why or why not? How do you know? Did the people who saw it respond the way you wanted them to? Did they follow your call to action? What would you do differently next time?*



The Adventure Continues! Do you have students who have shown a special interest in learning about disasters and promoting preparedness to others? FEMA offers lots of ways for youth and community members to get involved.

• **Citizen Corps:**

Their mission is to harness the power of every individual through education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues, and disasters of all kinds. For more information, visit <http://www.ready.gov/citizen-corps>.

• **Fire Corps:**

Promotes the use of citizen advocates (volunteers) to support and augment the capacity of resource-constrained fire and emergency service departments at all levels: volunteer, combination, and career. For more information about Fire Corps, visit <http://www.firecorps.org/>.

• **Teen Community Emergency Response Team (CERT):**

Is a national program making communities and schools safer by having educated and trained teens capable of preparing for and responding to disasters. TEEN CERT prepares youth to help themselves, their families, and their schools in the event of a disaster by participating in ongoing training, drills and exercises. The Teen CERT program is adapted for adolescent learners, covering the same curriculum as the CERT program that was originally designed for adults. For more information, visit <http://www.fema.gov/community-emergency-response-teams/teen-community-emergency-response-team>.

• **Youth Preparedness Council:**

Provides an opportunity for young leaders between the ages of 12 and 17 to serve as members of a distinguished national council. Council members learn about youth disaster preparedness from the leadership at FEMA and other national organizations dedicated to youth preparedness, and complete a youth preparedness project of their choosing. For more information, visit <http://www.ready.gov/kids/get-involved>.

Extension Activities

- **In the Press:** Have students write a news article about the disaster preparedness campaign for the school paper, or write a press release about their campaign to send to local news outlets.
- **Preparedness for Everyone:** Have students lead an assembly or "Disaster Awareness" week at school and present their disaster preparedness campaigns.
- **Career Fair:** Have students research different jobs related to emergency preparedness and create a poster board describing the job. Prepare a small career fair to share options with others in the school.
- **Emergency Kit Drive:** Turn the next food drive into an emergency kit drive. Collect items that can be combined into an emergency kit (like batteries, flashlights, and bottled water) and give to families in need. Demonstrate how to pack a disaster kit.
- **Becoming the Expert:** Have students develop and run a short "workshop" for other classes to educate and share important emergency preparedness info.
- **Letter to the Mayor:** Have students research how other communities have prepared for and responded to disasters. Make a list of positive steps they took to stay prepared or lessons that they learned. Share the list in a letter to a community leader, like the Mayor.

Name: _____ Date: _____

Disaster Preparedness Campaign Planning Sheet

Problem	What is the problem I am trying to solve?
Solution/ Concept	What is my solution? What is my campaign plan?
Target Audience	Whom do I want to see and respond to my campaign?
Key Message	What is the key message I want my audience to take away from this campaign?
Supporting Facts and Research	What other pieces of information are important for the audience to know or understand?
Call to Action	What do I want my target audience to do after they see my campaign?
Distribution Channel	How and where will people see my campaign?





Additional Resources

Check out the following links for additional information about each organization, additional disasters, and emergencies.

FEMA

- www.ready.gov
- <http://www.fema.gov/>

Citizen Corps

- <http://www.ready.gov/citizen-corps>

Teen Community Emergency Response Team (CERT)

- <http://www.fema.gov/community-emergency-response-teams/teen-community-emergency-response-team>

Youth Preparedness Council

- <http://www.ready.gov/youth-preparedness-council>

More Information on Natural Disasters & Emergencies:

Blackouts

- <http://www.ready.gov/blackouts>
- <http://www.bt.cdc.gov/disasters/poweroutage/needtoknow.asp>

Drought

- <http://www.ready.gov/drought>
- http://waterwatch.usgs.gov/index.php?id=ww_drought

Earthquakes

- <http://www.fema.gov/earthquake>
- <http://earthquake.usgs.gov/learn/topics/>
- <http://pubs.usgs.gov/gip/2006/21/>
- <http://emergency.cdc.gov/disasters/earthquakes/index.asp>

Extreme Heat

- <http://www.ready.gov/heat>
- <http://emergency.cdc.gov/disasters/extremeheat/>
- <http://www.noaawatch.gov/themes/heat.php>

Floods

- <http://www.ready.gov/floods>
- <http://www.osha.gov/SLTC/emergencypreparedness/guides/floods.html>
- <http://emergency.cdc.gov/disasters/floods/>
- http://waterwatch.usgs.gov/index.php?id=ww_flood

Home Fires

- <http://www.usfa.fema.gov/>
- <http://www.cdc.gov/features/fireprevention/>

Hurricanes

- <http://www.ready.gov/hurricanes>
- <http://www.nhc.noaa.gov/prepare/ready.php>
- <http://emergency.cdc.gov/disasters/hurricanes/>
- <http://www.osha.gov/SLTC/emergencypreparedness/guides/hurricane.html>

<http://www.ready.gov/kids>

Landslides/Debris Flows

- <http://www.ready.gov/landslides-debris-flow>
- <http://emergency.cdc.gov/disasters/landslides.asp>
- <http://landslides.usgs.gov/>

Space Weather

- <http://www.ready.gov/space-weather>
- <http://www.noaawatch.gov/themes/space.php>
- http://www.nasa.gov/mission_pages/sunearth/space-weather/index.html
- <http://geomag.usgs.gov/>

Thunderstorms and Lightning

- <http://www.ready.gov/thunderstorms-lightning>
- <http://m.fema.gov/thunderstorms-lightning>

Tornadoes

- <http://www.ready.gov/tornadoes>
- <http://emergency.cdc.gov/disasters/tornadoes/index.asp>

Tsunamis

- <http://www.ready.gov/tsunamis>
- <http://www.tsunami.noaa.gov/>
- http://www.stormready.noaa.gov/tsunamiready/resources/Tsmi_Brochure10.pdf
- <http://emergency.cdc.gov/disasters/tsunamis/index.asp>
- <http://wcatwc.arh.noaa.gov/?page=tsunamiFAQ>
- <http://walrus.wr.usgs.gov/tsunami/CIHH.html>

Volcanoes

- <http://www.ready.gov/volcanoes>
- <http://volcanoes.usgs.gov/>
- <http://emergency.cdc.gov/disasters/volcanoes/index.asp>

Wildfires

- <http://www.ready.gov/wildfires>
- <http://www.usfa.fema.gov/>
- <http://www.fws.gov/fire/>
- <http://www.smokeybear.com/>
- <http://www.fs.fed.us/>
- <http://www.stateforesters.org/>
- <http://www.nifc.gov/>
- <http://firewise.org>

Winter Storms and Extreme Cold

- <http://www.ready.gov/winter-weather>
- <http://emergency.cdc.gov/disasters/winter/index.asp>



BE A HERO! Standards

Common Core English Language Arts Standards:	Lesson 1	Lesson 2	Lesson 3
R.1 Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	X	X	
R.7 Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.	X	X	
R.10 Read and comprehend complex literary and informational texts independently and proficiently.	X	X	
W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.			X
W.6 Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.			X
W.7 Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	X	X	
W.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.	X	X	
W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.	X	X	
SL.1 Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on each others' ideas and expressing his or her own ideas clearly and persuasively.	X	X	X
SL.2 Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.	X	X	
SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	X	X	
SL.5 Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	X	X	

Common Core Mathematics Standards:	Lesson 1	Lesson 2	Lesson 3
N-Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	X		

Standards (cont'd)

National Curriculum Standards for Social Studies:	Lesson 1	Lesson 2	Lesson 3
Understand the theme of people, places, and environments involves the study of the relationships between human populations in different locations and regional and global geographic phenomena, such as landforms, soils, climate, vegetation, and natural resources.	X		
Understand concepts such as: location, physical and human characteristics of national and global regions in the past and present, and the interactions of humans with the environment.	X		
Understand consequences of changes in regional and global physical systems, such as seasons, climate, and weather, and the water cycle.	X		
Understand the social and economic effects of environmental changes and crises resulting from phenomena such as floods, storms, and drought.	X		
Understand the use of a variety of maps, globes, graphic representations, and geospatial technologies to help investigate spatial relations, resources and population density and distribution, and changes in these phenomena over time.	X		
Ask and find answers to geographic questions related to regions, nations, and the world in the past and present.	X		
Research, organize, analyze, synthesize, and evaluate information from atlases, databases, grid systems, statistical presentations, charts, graphs, and maps to interpret relationships among geographic factors and events at the local, regional, national, and global levels, and assess policy options.	X		
Acquire, organize, and analyze geographic information from data sources, geographic tools and geospatial technologies such as aerial photographs, satellite images, and geographic information systems (GIS) to determine patterns.	X		
Evaluate the consequences of human actions in environmental terms.	X		
Construct reasoned judgments about specific cultural responses to persistent human issues.		X	
Understand concepts such as: era, chronology, causality, change, continuity, conflict, historiography, historical method, primary and secondary sources, cause and effect, and multiple perspectives.	X		
Understand the importance of knowledge of the past to an understanding of the present and to informed decision-making about the future.	X	X	X
Formulate research questions to investigate topics in history, identify possible answers, and use historical methods of inquiry and literacy skills to select, organize, analyze, synthesize, and interpret sources, and present findings.	X		
Research and analyze past periods, events, and recurring issues, using a variety of primary sources (e.g., documents, letters, artifacts, and testimony), as well as secondary sources; validate and weigh evidence for claims, check the usefulness and degree of reliability of sources, and evaluate different interpretations in order to develop their own interpretation supported by the evidence.	X		
Use historical facts, concepts, and methods to evaluate an issue of importance today, and make informed decisions as responsible citizens to propose policies, and take action on it.		X	
Understand the influence of individuals, groups, and institutions on people and events in historical and contemporary settings.	X		
Understand how groups and institutions work to meet individual needs, and can promote the common good and address persistent social issues.	X	X	
Understand mechanisms by which governments meet the needs and wants of citizens, regulate territory, manage conflict, establish order and security, and balance competing conceptions of a just society.	X		
Understand that seeking multiple perspectives is required in order effectively to grasp the complexity of issues involving civic ideals and practices.		X	
Understand the importance of becoming informed as the basis for thoughtful and positive contributions through civic action.			X
Ask and find answers to questions about how to become informed and take civic action.			X
Research primary and secondary sources to make decisions and propose solutions to selected civic issues in the past and present.			X
Identify, seek, describe, and evaluate multiple points of view about selected issues, noting the strengths, weaknesses, and consequences associated with holding each position.			X

Standards (cont'd)

National Association of Science Standards:	Lesson 1	Lesson 2	Lesson 3
Energy in the Earth System			
Global climate is determined by energy transfer from the sun at and near the earth's surface. This energy transfer is influenced by dynamic processes such as cloud cover and the earth's rotation, and static conditions such as the position of mountain ranges and oceans.	X		
Natural and Human-Induced Hazards			
Normal adjustments of Earth may be hazardous for humans. Humans live at the interface between the atmosphere driven by solar energy and the upper mantle, where convection creates changes in the earth's solid crust. As societies have grown, become stable, and come to value aspects of the environment, vulnerability to natural processes of change has increased.	X		
Human activities can enhance potential for hazards. Acquisition of resources, urban growth, and waste disposal can accelerate rates of natural change.	X		
Some hazards, such as earthquakes, volcanic eruptions, and severe weather, are rapid and spectacular. But there are slow and progressive changes that also result in problems for individuals and societies. For example, change in stream channel position, erosion of bridge foundations, sedimentation in lakes and harbors, coastal erosions, and continuing erosion and wasting of soil and landscapes can all negatively affect society.	X		
Natural and human-induced hazards present the need for humans to assess potential danger and risk. Many changes in the environment designed by humans bring benefits to society, as well as cause risks. Students should understand the costs and trade-offs of various hazards – ranging from those with minor risk to a few people to major catastrophes with major risk to many people. The scale of events and the accuracy with which scientists and engineers can (and cannot) predict events are important considerations.	X		
Personal Health			
Hazards and the potential for accidents exist. Regardless of the environment, the possibility of injury, illness, disability, or death may be present. Humans have a variety of mechanisms – sensory, motor, emotional, social, and technological – that can reduce and modify hazards.	X	X	X

American Cancer Society Health Standards	Lesson 1	Lesson 2	Lesson 3
1.12.3 Analyze how environment and personal health are interrelated.	X		
2.12.4 Evaluate how the school and community can affect personal health practice and behaviors.		X	
2.12.5 Evaluate the effect of media on personal and family health.			X
3.12.1 Evaluate the validity of health information, products, and services.		X	
3.12.2 Use resources from home, school, and community that provide valid health information.		X	
5.12.4 Generate alternatives to health-related issues or problems.		X	
5.12.5 Predict the potential short-term and long-term impact of each alternative on self and others.		X	
5.12.6 Defend the healthy choice when making decisions.		X	
5.12.7 Evaluate the effectiveness of health-related decisions.		X	
7.12.2 Demonstrate a variety of healthy practices and behaviors that will maintain or improve the health of self and others.			X
7.12.3 Demonstrate a variety of behaviors to avoid or reduce health risks to self and others.			X
8.12.1 Utilize accurate peer and societal norms to formulate a health-enhancing message.			X
8.12.2 Demonstrate how to influence and support others to make positive health choices.			X
8.12.3 Work cooperatively as an advocate for improving personal, family, and community health.			X
8.12.4 Adapt health messages and communication techniques to a specific target audience.			X