Ready
Prepare. Plan. Stay Informed.

FEMA

BE A HERO!™

Youth Emergency Preparedness

Grades 3-5

TM

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 3 through 5 with the knowledge, awareness, and life-saving skills needed to prepare for a variety of emergencies and disasters.

By engaging in three inquiry-based lessons, students will gain a personal and meaningful understanding of disaster preparedness in the context of real-world hazards. All learning activities lead to important learning through collaborative fact-finding and sharing.

By the final lesson, students will become "heroes" as they complete a Fact Mission Research Project and develop their own graphic novels. Using communication skills and creativity, they will generate awareness of emergency preparedness among friends, families, and the school community.

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

Sincerely,

Your Friends at FEMA

FEMA

Table of Contents

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; the graphic novel in Lesson 2 can be done in language arts; while the final creative project in Lesson 3 can be done in language arts, health, or a digital media or design class. (See page 25 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://www.ready.gov/kids/educators** or contacting FEMA at **Ready@fema.gov**. You can also tweet us with your experiences using the hashtag **#ReadyKids @Readygov**!

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 in advance of 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

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

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

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

Parent Pages

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

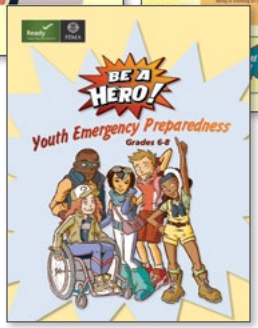
Tips and useful links for parents to involve kids in emergency preparation, and advice from child psychologists on how to help children cope during and after a disaster

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!*



Curriculum

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

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

Partner Sites and Links

Additional resources and useful information can be found in the Appendix on page 24.

Lesson 1 For Grades 3-5

Mission: Find the Facts

Different Kinds of Emergencies and Natural Disasters

Time Required:

Five 40-minute class periods

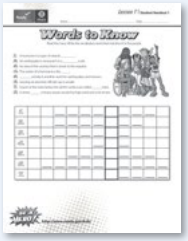
- **First Class** – Introduction to Emergencies and Natural Disasters; Fact Mission Research Project set-up and initial session
- **Second – Fifth Class** – Fact Mission Research Project work; Presentations

Supplies/Preparation:

- Make copies of student handouts
- Download and print 15 **Disaster Factsheets** from **http://www.ready.gov/kids/know-the-facts**
- Chart paper, markers
- Computer, projector/interactive whiteboard
- Student notebooks
- Pens, pencils
- Access to Internet and computers

Student Handouts:

- ***Fact Mission***
- ***Natural Disaster Contrast***
- ***Words to Know***



Lesson Overview:

Emergencies and natural disasters can be both scary and fascinating topics for children as they learn about the wonder and the fright of them all. But, children can find reassurance and empowerment when taught about these situations – what could happen, what they should do to prepare, and what they should do during such an event. In this introductory lesson, students will learn about different emergencies and natural disasters, including disaster-prone areas.

21st-Century Learning Skills

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

Learning Objectives:

Students will…

- Identify several emergencies that could impact communities locally and nationally
- Explain the causes (or risks) of various emergencies based on geography, climate, or season
- Identify the dangers to people in various emergencies

Essential Questions:

What is an emergency? What kind of emergencies can occur in our community, as well as in different geographic locations?

Instruction Steps

1. Introduction/Discussion

Begin your lesson by assessing what students already know about emergencies and natural disasters. First, review key vocabulary with students (see sidebar).

Jump-start your introductory discussion by asking students: *What is an emergency? What is a natural disaster?* Invite students to brainstorm examples of each. You can prompt your students by using the charts on this and the following page.

Create a word web, list, or K-W-L table on the board or chart paper to keep track of the various emergencies and natural disasters you learn about.

For a more visual discovery, project the **Map Locator Page** found at **http://www.ready.gov/kids/maps** on the whiteboard or a screen. Invite student volunteers to select different areas of the country on the map – starting with your own – to see what disasters can happen in different areas.

Tip! Combine this with a study on geography to practice identifying states, major cities, and natural landmarks like mountain ranges, rivers, and lakes.

As you and your students learn about different disasters, add them to your word web, list, or table. Have volunteers come up and put a check mark next to emergencies and natural disasters that have occurred in your community during their lifetime.

Ask: *Have you ever seen or been a part of an emergency or natural disaster?* Give students some time to discuss with a partner or journal in their notebooks, about any personal experiences, then invite them to share. (Alternatively, as this may be a sensitive topic, you may assign this as a personal writing essay or as homework.)

WORDS TO KNOW

Emergency: a time when something serious happens and immediate help is needed

Disaster: an emergency that causes great harm to people or an area

Natural Disaster: something that happens in nature, sometimes caused by weather or climate, that can harm our surroundings

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

Emergencies

Use this chart for your introductory discussion with students. Ask students:

- *What is an emergency?* (A time when something serious happens and immediate help is needed, such as a fire at school or home, or when a person is in need of medical help)
- *What is a natural disaster?* (Something that happens in nature, sometimes caused by weather or climate, that can harm us and our surroundings)
- *What do you think causes some of the natural disasters?* (Weather/climate, shifts in the earth's surface)

Emergency	What is it? What does it do?
Home Fire	Fire is fast, hot, and dark. Most home fires can be prevented.
Winter Storm/ Extreme Cold	Can range from a normal snow over a few hours to a blizzard that lasts for several days; can bring low temperatures and sometimes, strong winds, icing, sleet, and freezing rain
Drought	Occurs when there has not been enough rainfall and the water levels get low
Blackout	Is a loss of power to an area; affects the electricity we get in our homes, as well as the transportation systems – from traffic lights to airplanes
Earthquake	Is the shaking, rolling, or sudden shock of the earth's surface
Extreme Heat	Makes the body work extra hard to maintain a normal temperature and keep the body comfortable
Wildfire	A fire that rages out of control. Wildfires can happen in the wilderness, small towns, and large cities
Landslide/Debris Flows	Are masses of rock, earth, or debris (rubble or trash) moving down a slope
Hurricane	Is a severe tropical storm; when it comes onto land, its heavy rain, strong winds, and large waves can damage buildings, trees, and cars
Space Weather	Refers to the changing conditions of the sun and space that can affect the technology we use on earth; can affect satellites (which control phones, Internet, and TV) and can affect the electric grid, leading to blackouts
Tornado	Nature's most violent storm; appears as a funnel or cone-shaped cloud with very strong winds
Thunderstorm/ Lightning	Storms with thunder and lightning; can lead to flash floods; usually occur in the summer when it's warm and humid; lightning is very dangerous – it can electrocute you!
Flood	Happens during heavy rains, when rivers overflow, when ocean waves come onshore, when snow melts too fast or when dams or levees break
Volcano	A mountain that opens downward to a pool of molten, or melted, rock below the surface of the earth and explodes, spewing the melted rock out into the air
Tsunami	*(Pronounced tsoo-nah-mee)* is a series of giant waves that happen after underwater movement

2. Fact Mission Research Project:

To gain a richer knowledge of one specific emergency or natural disaster, explain to students that they will work (individually or in pairs) on a research project. They will then create a presentation to share what they have learned.

Ask students to either choose or assign one of the 15 disasters listed in the sidebar. Make sure that the following disasters are researched by at least one student or pair: **home fires, flooding, blackouts, thunder and lightning**. They are most common and can happen anywhere.

Step 1– Research:

Students should use various Web and current printed resources to conduct their research. A good start and primary reference are the **Disaster Factsheets** (see sidebar) and list of resources in the Appendix found on page 24. List the following questions on the board for students to copy into their notebooks and reference during their research. Invite students to contribute additional questions to guide their research.

Key Questions

- What is the definition of this disaster/emergency?
- Where does it often occur?
- Can it occur in our community?
- How does it happen?
- What are the key vocabulary words related to it?
- How can we prepare for this?
- What happens during the event?
- What can be done to stay safe?
- What needs to be done after?

Step 2 – Create:

Once they have gathered enough information to answer the questions, they will prepare a presentation for the class. Students should use the ***Fact Mission*** student handout to organize their research and ensure they have:

- ✔ Information on where the disaster occurs geographically
- ✔ How it happens
- ✔ 3-5 interesting facts about the disaster
- ✔ What to do before, during, and after it occurs

Depending on the resources available, your students may choose to present their findings using digital presentation software, a skit, a video, a collage or slide show of photographs and illustrations with captions (or any other method you deem appropriate).

Step 3 – Present:

Allow students to work on this project over the course of one week, possibly through a combination of class time and homework. The research for this project can build as the lessons progress; students can add information they learn in Lesson 2, and more as they finalize their projects in Lesson 3. Have students present to their peers. Encourage students to take notes in a notebook or using the ***Fact Mission*** handout. Ask all students to write in their notebooks three new things they learned from each presentation.

Tip! Invite other classes, teachers, administrators, and parents to come and listen to student presentations.

Resource Tip

Disaster Factsheets

Visit **http://www.ready.gov/kids/know-the-facts** to download all 15 **Disaster Factsheets**. Collect and share them all as your class discovers more information on various emergencies throughout this unit. Print the PDFs in color and put them in sheet protectors in a resource binder. Make copies or scan them for students to share with their families.

3. Reflection:

Have students reflect in a journal entry about the new knowledge they've gained from this lesson. Ask them to write what empowers them or makes them feel more prepared. Have them write about the most interesting and surprising facts they learned.

4. Student Handouts: *Natural Disaster Contrast, Words to Know*

Make the **Disaster Factsheets** available to students for the next two handouts and activities. For ***Natural Disaster Contrast***, have students work in pairs to compare and contrast two different disasters they have researched. ***Words to Know*** reviews key vocabulary.

Answer Keys:

Natural Disaster Contrast Example (answers will vary)

Hurricanes		Earthquakes
are severe tropical storms that form in the southern Atlantic Ocean, Caribbean Sea, Gulf of Mexico, and in the eastern Pacific Ocean	**What are they?**	are the shaking, rolling, or sudden shock of the earth's surface
yes	**Can they be predicted?**	no
most often hit states like Florida, Alabama, Mississippi, Louisiana, Georgia, Texas, South Carolina, and North Carolina; but can affect all states along the eastern shore	**Where in the country do they occur?**	can occur in 45 states and territories across the United States; common on the West Coast
are most common between June and November	**What time of year can they occur?**	can happen at any time of the year
1. rotate in a counterclockwise direction around an "eye" 2. winds of at least 74 miles per hour 3. their heavy rain, strong winds, and large waves can damage buildings, trees, and cars	**List three additional facts about them.**	1. happen along cracks (called fault lines) in the earth's surface 2. can be felt over large areas 3. usually last less than one minute

Words to Know

1.			D	I	S	A	S	T	E	R	
2.			R	I	C	H	T	E	R		
3.	T	R	O	P	I	C	A	L			
4.						E	Y	E			
5.				S	E	I	S	M	I	C	
6.		E	V	A	C	U	A	T	I	O	N
7.							F	A	U	L	T
8.			S	U	R	G	E				

Extension

Share!
Have your students lead an ongoing program of school assemblies to share what they are learning about emergency preparedness with their peers.

Name: _____ Date: _____

Fact Mission

WHAT

Disaster: _____

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:

_____

_____

_____

_____

_____

_____

Top 5 Facts/Interesting Trivia:

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

Resources:

_____

_____

_____

_____

_____

BE A HERO!™

http://www.ready.gov/kids

Name: _____ Date: _____

Natural Disaster Contrast

Work with a partner to compare and contrast two disasters to learn more about each. Make sure your partner researched a different disaster than you did. *What do they have in common? How are they different?*

Disaster 1 ⟷ Disaster 2

	What are they?	
	Can they be predicted?	
	Where in the country do they occur?	
	What time of year can they occur?	
1. **2.** **3.**	**List three additional facts about them.**	**1.** **2.** **3.**

Name: _____ Date: _____

Words to Know

Read each clue. Write the vocabulary word that matches it in the puzzle.

1. A hurricane is a type of natural _____.
2. An earthquake is measured on a _____ scale.
3. An area of the country that is closer to the equator.
4. The center of a hurricane is the _____.
5. _____ activity is another word for earthquakes and tremors.
6. Leaving an area that officials say is unsafe
7. Cracks in the rocks below the earth's surface are called _____ lines.
8. A storm _____ is heavy waves caused by high wind and a lot of rain.

1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										

Lesson 2 For Grades 3-5

Disaster Masters!

Knowing How to Prepare for an Emergency/Natural Disaster

Time Required:

Three 40-minute class periods

- **First Class** – Introduction to Getting Ready for Disasters; Check It Twice
- **Second Class** – Graphic Novel
- **Third Class** – Graphic Novel Work; Reflection

Supplies/Preparation:

- Make copies of student handout
- Download and print 15 **Disaster Factsheets** from **http://www.ready.gov/kids/know-the-facts**
- Chart paper, markers
- Computer, projector/interactive whiteboard
- Download and print copies of ***Youth Emergency Kit Checklist*** and ***Youth Family Emergency Plan*** pages from **http://www.ready.gov/kids/make-a-plan**. (Make enough to send a copy of each home to parents.)
- Index cards, markers (for flashcards)
- Student notebooks
- Access to Internet and computers

Student Handouts:

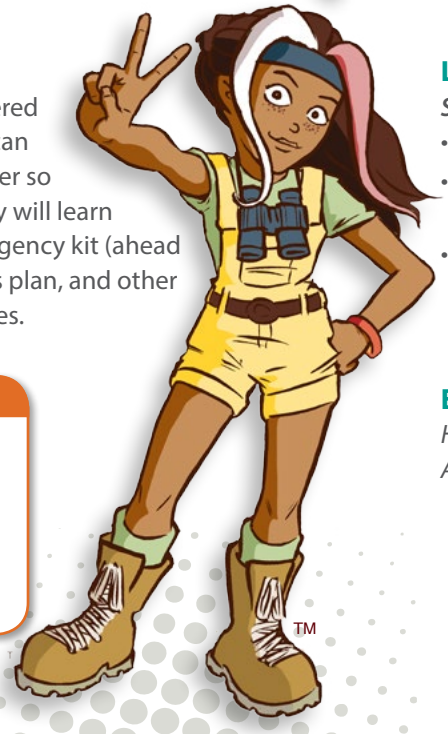
- ***Ready for Everything!***

Lesson Overview:

This lesson will help students feel empowered by teaching them that there are steps we can take to prepare for an emergency or disaster so that we can stay safe during and after. They will learn about the importance of building an emergency kit (ahead of time), creating a family communications plan, and other ways to prepare for a variety of emergencies.

21st-Century Learning Skills

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



Learning Objectives:

Students will…

- Identify what should go in an emergency kit
- Create a communications plan with their families
- Describe ways to prepare for various emergencies or disasters.

Essential Questions:

How can we prepare for an emergency or disaster?
Am I/is my family prepared?

Instruction Steps

1. Introduction/Discussion:

Begin the lesson by telling students that there are ways we can prepare for emergencies and natural disasters so that we can stay safe during them. Ask students to name a natural disaster or emergency that they remember preparing for, or read about. Perhaps their own family prepared for a large snowstorm or hurricane. Or, maybe they read about a city preparing for a hurricane. Ask: *Did anything happen recently – in the region, country, world? What did you or the community you heard about do to prepare? Do you do anything at home or at school to prepare for emergencies?* (For example, fire drills)

Parent Communication

This lesson requires parent and family involvement with two activities:

1. Make a Plan activity, p. 14

2. Fire Safety at Home, p. 16

Send a note home to parents before starting the lesson sharing the importance of emergency preparation and their involvement.

2. Check It Twice:

Ask students to share their ideas and answers to the following question: *How can we prepare for an emergency?* After letting students share their answers, tell them that the most important way we can be prepared for many disasters is by making a family communications plan, and having an emergency kit packed and ready ahead of time.

Build a Kit Checklist:

Project the **Youth's Emergency Kit** page from **http://www.fema.gov/media-library/assets/documents/34326** onto the whiteboard or screen. This page can also be printed for students to discuss. Review the items that should go into an emergency kit, and discuss why each is important.

Emergency Kit Flash Cards

- Flashlight
- Batteries
- Can opener
- Canned food
- Book
- Board game
- Blanket
- Bottled water
- Snacks
- Change of clothes
- Hand crank radio or battery-operated

To underscore why it's important to build a kit before a disaster strikes, use this demonstration about blackouts. Make flash cards of several items from an emergency kit (see sidebar), and pass them out to students. If students were not given a card, ask them to stand at the back of the room and to name something they do at home. Ask: *Is this something you can do during a blackout?* If the answer is no, ask which items from the emergency kit could help them, or could replace the activity they named. For example:

- If a student named eating dinner, then point out that in a blackout, he/she cannot open the refrigerator, turn on a stove, or use the microwave. Instead, he/she will need canned food and a can opener, or other nonperishable foods and snacks.
- If a student named playing with an electronic device, explain it's not an option in a blackout. While that device may work at the onset of a blackout, one must save the battery of that device for as long as possible so it can be used to access emergency information or make phone calls. Instead, have him/her come up with ideas of what to do without power, like playing a board game or reading a book if it's daytime, or by flashlight at night.

Ask students to find alternatives for their actions and correctly identify supplies they will need, then have them move to the front of the room.

Make a Plan:

Project the **Youth Family Communications Plan** page, and provide students with copies (put an extra one in their homework folder to go home). Discuss what it means to have a family communications plan, and why it's another important step to being prepared. Play the game on the next page; then, for homework have students bring home, discuss, and complete the family communications plan with their families.

Tip! Be sure to go over school safety plans and drills with your students. This will help them feel calm and prepared. Talk about what they should do in different scenarios. For example, what should they do if they are in the bathroom when the fire alarm goes off, or an emergency happens? Where should they go if they are not with a teacher?

Emergency Clue Game!

If you have extra time, play the following game to help students see the importance of having a communications plan in advance of an emergency.

1. Prepare 10 small slips of folded paper. Leave seven blank. On three of them write a different location from around the school. For example: the gym, lunchroom, main office, nurse's office, computer lab, library, classroom #, playground. Be as specific as possible. In advance, decide which three students will get which location.
2. Next, tell students to put their heads down on their desks and close their eyes. Explain to the class that you will be handing out secret slips of paper. Some may be blank, and some may have something written on them. Whoever receives a slip of paper should look at it, memorize what is on it, and then put it away. They should be very secretive about what they receive.
3. Once all slips of paper have been handed out, let students open their eyes. Explain to the class that, while they were taking a break, an emergency occurred and the class must evacuate. They must assemble together to receive an important message about what to do next. But there are some class members missing. Explain that the class must figure out who is missing, and find out where each missing student is (in the school) to be able to evacuate.

   Tell students who received a slip of paper that if they had something written on their paper, they are one of the missing students, and if their paper was blank they are not; but that they should stay secretive about it. It's up to the other students to figure out who they are.
4. Go around the room and allow each student to ask a "yes" or "no" question to another student. Write their questions on the board. Advise that they first should find out **who** could be missing (or who got a slip of paper), then which of those people had something written on it. Next, they should find out **where** those students could be in the school. For example:

   • *Did you receive a slip of paper?*

   • *Did your slip of paper have something written on it?*

   • *Are you in the gym?*

   Begin timing or set a limit (10 minutes) as students ask their "yes" or "no" questions.
5. Continue playing until the end of your time limit, or until the class has figured out who is missing and where they are located. Invite students to share their observations about the game and what they learned. Discuss the length of time it would take to find someone if they were not sure where to look or meet them. In an emergency, you may not have that amount of time. Ask them how they could solve this problem.

Explain that, in an emergency, it is important to meet up with your class or family so that everyone is accounted for. That way, emergency responders know whom they need to look for if someone is missing. An emergency meeting spot should be decided on in advance as part of a family communications plan. Compare the importance of conducting school emergency drills and establishing meeting locations.

Build a Virtual Kit:
To practice what they have learned, make the **Build a Kit** online game available for students to play during computer or study time. The game explores what needs to go into a kit for use in a variety of emergences, from blackouts to hurricanes.

Fire Safety at Home:
It is important to have a home fire escape plan, and to check for safety precautions and hazards in the home (see Home Fire Safety Tips sidebar). Discuss this with students and ask that they map a fire escape floor plan at home with parents, clearly showing at least two safe exits out of each room through windows and doors. Use the sidebar **Home Fire Fact Check** to quiz your students about home fire trivia. More information can be found on the **Home Fire Disaster Factsheet** at **http://www.fema.gov/media-library/assets/documents/34288**.

Have students conduct a home fire safety audit with their families at home, looking for precautions such as working smoke alarms, clear steps and doorways, and paths to exits. Ask: *Do any paths need to be cleared for exits to be accessible? Are windows easy to open?*

FACT CHECK

Home Fires

Since home fires can happen anywhere in the country, and most home fires can be prevented, review these trivia questions with your class:

- What is a smoke alarm and how does it work? *(A: It's a tool that senses smoke in the air. When it senses smoke, it makes a very loud beeping noise to warn you that a fire has started.)*
- True or False? Cooking fires are the leading cause of home fires. *(A: True)*
- What should you do if you find matches or a lighter? *(A: b. Tell an adult.)*
  - **A.** Try to see if you can light them!
  - **B.** Tell a grown-up right away.
  - **C.** Give them to a friend.
  - **D.** Hide them.
- You should have at least ___ escape routes from each room? *(A: c. Two)*
  - **A.** Zero
  - **B.** One
  - **C.** Two

Home Fire Safety Tips

Before (prevention tips and escape routes):

- **Fire escape plan:** Create a fire escape plan and practice it twice a year. Mark your family's calendar to remind everyone.
- **Two ways out:** Have two ways to get out of each room. A window might be a second way if the door is blocked by fire or smoke.
- **Feel your way out:** Practice feeling your way out of the house in the dark or with your eyes closed.
- **Don't hide:** Don't hide from firefighters! They are there to help you.
- **Know the smoke alarm:** A smoke alarm is a tool that senses if there is smoke in the air. When it senses smoke, it makes a very loud beeping noise to warn you that a fire has started.
- **Tell an adult:** If you find matches or a lighter, tell an adult. Do not touch them.

During (doing drills with family/students to practice):

- **Get low and go!:** Crawl under smoke to an exit. Heavy smoke and deadly gases collect along the ceiling.
- **Get out fast:** If you hear a smoke alarm, get out fast! You may have only a few seconds to escape.
- **Feel first!:** Feel the doorknob and door before opening it. If either is hot, leave the door closed and use the second way out.
- **Stop, drop, and roll:** If you have fire on your clothes, stop, drop, and roll! Stop where you are: if you run, the fire may spread. 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.

After (where to go after you exit – a safe meeting spot):

- **Get to your meeting spot:** If you are the first one out of a burning building, wait at the emergency meeting spot you and your family decided on and call 911.
- **Get out, stay out:** Don't go back into any building unless a firefighter says it is safe.

3. Graphic Novel

Using the **http://www.ready.gov/kids** website and other web and book resources, have students research ways to prepare for emergencies or disasters, including building an emergency kit and making a family communications plan. Using this information, have them create a graphic novel (similar to a comic strip, only without a comedic angle) about a family who experienced a disaster and how they fared during and after. It can be as short as three pages, or longer, depending on the class time you have available.

Graphic Novel Resources

Before you begin, provide your students with a few graphic novel resources. Check out graphic novels from your library. Spend time studying the common elements. You may also want to provide a graphic novel template. A variety of graphic novel resources can be found online. Search for "how to read a graphic novel" and "graphic novel template" to get started!

Step 1: Plan

First, ask students to decide on their characters, setting, and sequence of events. The end of the novel should reflect back on how the family had been prepared and how that impacted their experience.

Step 2: Create

After students have decided on the events of their novel, they can write an outline for it, and then illustrate it. Students can be given class time and homework over the course of a week to complete the assignment. They can choose to use their graphic novel as their final project, and make additions to it in Lesson 3.

Step 3: Present

After students complete their graphic novel, have them present it to the class. Assess students' work based on:

- ✔ Character formation
- ✔ A clear beginning, middle, and end of the story
- ✔ An organized sequence of events
- ✔ Use of dialogue to describe events or show character responses to situations

Tip! Have students check out the **Disaster Master** and **Build a Kit** game characters (Sonny, Misti, Raina, Gayle, and Ray) for inspiration on their character development. Students may want to create and include a character based on themselves.

4. Reflection

Ask students to think about the importance of being prepared for an emergency or disaster. *Why do you think it's important to be prepared? How can you prepare? Think about not being prepared for a test – how do you feel? How do you feel when you are prepared? How does it feel to know your family is prepared for an emergency?*

With that in mind, have students create flyers to post around school urging families to make a communications plan and build an emergency kit. The **http://www.ready.gov/kids** website should be displayed as a reference for families to download more information.

5. Student Handout: *Ready for Everything!*

The handout features illustrated scenes of a family discussing plans to prepare for a disaster or emergency. The handout reinforces what students have learned about the importance of having an emergency kit ready. They are asked to read and reflect on a story about a family during a blackout. Use this as a jumping-off point to discuss how to be ready for other emergencies or to review school emergency plans and safety drills.

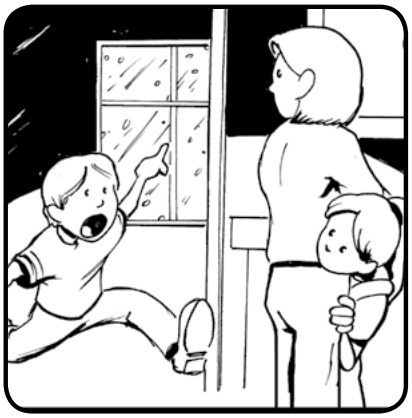
Answer Key:

1. **Why can't they cook?** If the power has gone out, you can't use the stove or microwave. You should keep the refrigerator door closed so that food can last up to 24 hours.
2. **Why is it important to have an emergency kit ready before a disaster happens?** You may not have time to gather the supplies you need at a moment's notice if a disaster occurs. You may also need to evacuate at a moment's notice.
3. **Name three things that might be in the emergency kit.** Answers could include: flashlight, batteries, canned food, bottled water, blankets, a board game, a first-aid kit, a battery-operated or hand-cranked radio, garbage bags, a map, and a change of clothes.
4. **Does your family have an emergency kit and communications plan ready?** Answers will vary.
5. **How would it make you feel to have an emergency kit and communications plan ready?** Answers will vary.

Name: _____ Date: _____

Ready for Everything!

Read the story below. Then answer the questions in a notebook.

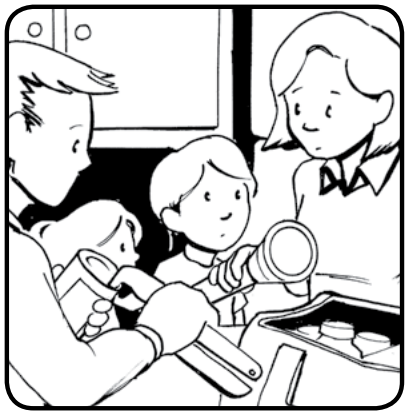


Girl: What happened?

Mom: The lights just went out!

Boy: Mom! The computer just turned off in the middle of my game!

Mom: The power must have gone out because of the storm. It's OK, we'll be fine. Let's get our emergency kit!

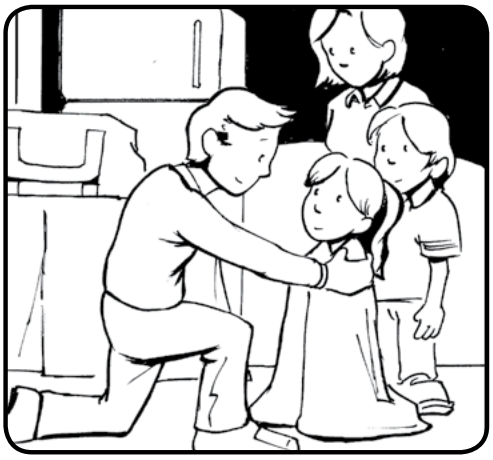


Boy: I'm hungry. What are we going to cook for dinner?

Dad: Well, we can't cook anything in a blackout, because we have no power.

Mom: We'll have to see what we have in our pantry or kit that doesn't need to be refrigerated or heated.

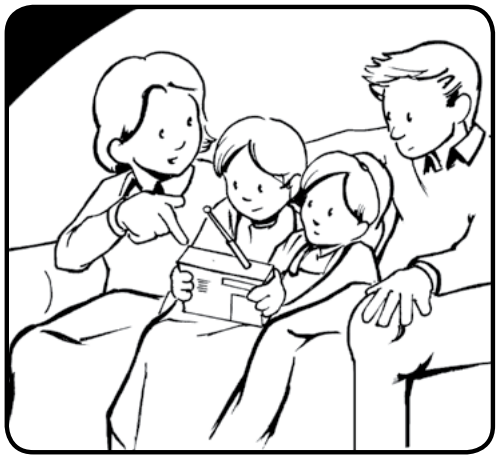
Dad: You'll need this.



Girl: I'm getting cold!

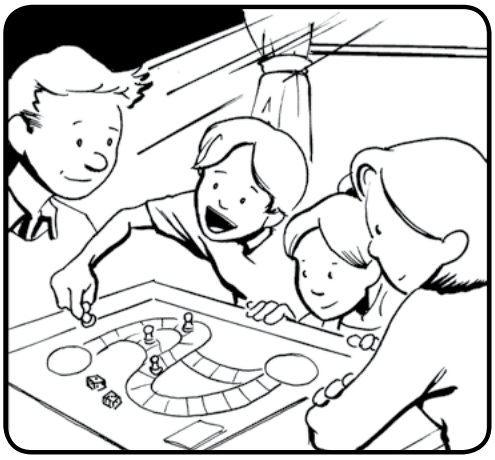
Dad: The heat is out in a blackout, too. Good thing we have sweatshirts in our kit!

Mom: We have extra blankets too!



Boy: I'm so bored. What are we going to do for fun? We can't watch TV?

Mom: We have those games you picked for the kit. We can use a flashlight and play one.



Girl: That was fun!

Mom: Yes, but it's time to get ready for bed. Go brush your teeth.

Boy: In the dark?

Dad: Here you go! Aren't you glad we were ready?

1. Why can't they cook?
2. Why is it important to have an emergency kit ready before a disaster happens?
3. Name three things that might be in the emergency kit.
4. Does your family have an emergency kit and communications plan ready?
5. How would it make you feel to have an emergency kit and communications plan ready?

BE A HERO!™

Lesson 3
For Grades 3-5

What To Do in an Emergency

Knowing How to Respond in an Emergency Situation

Time Required:

Five 40-minute class periods

- **First Class** – Introduction on What to Do in an Emergency
- **Second Class** – Creative Research Project
- **Third Class** – Creative Research Project
- **Fourth Class** – Creative Research Project
- **Fifth Class** – Spread the Word; Reflection

Supplies/Preparation:

- Computer, projector/interactive whiteboard
- Download and print 15 **Disaster Factsheets** from **http://www.ready.gov/kids/know-the-facts**
- Access to Internet and computers

Student Handout:

- ***Act Fast, Act Safe***

Lesson Overview:

Now that students know how to be prepared for disasters, they will learn how to respond in an emergency situation. Students will learn that it is important to stay as calm as possible and to listen to a trusted adult, like family members or their teachers, in an emergency. They will learn that there are different do's and don'ts in every situation. Finally, students will share what they have learned with their peers, families, and communities, through a creative research project.

21st-Century Learning Skills

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

Learning Objectives:

Students will…

- Identify and demonstrate safe behaviors and steps for how to respond in an emergency situation (e.g., home fire, tornado, extreme weather)

Essential Questions:

What should I do in an emergency?
What are safe actions in different emergency situations?

Instruction Steps

1. Introduction/Discussion

Not only is it important to be prepared, but there are certain actions we can take during and after an emergency that can help us stay safe. Review some of the specific emergencies and disaster situations below, what actions students can take in those situations, and why they are important. (For actions that should be taken during other disasters, refer to the **Disaster Factsheets** at **http://www.ready.gov/kids/know-the-facts**.) In your discussion, pay special attention to disasters and emergencies that could occur in your geographic area.

Explain to students that the most important thing to do in an emergency is to "listen and stay calm." Tell them to always listen to a trusted adult (including teachers, family members, police officers, firefighters, and other helpers) during an emergency. If they stay calm and listen to what the adults say, they will stay safe.

Tip!

Who is a trusted adult?

Have a discussion with students about which adults they feel they can trust. Make a list of whom they trust at school, at home, and in their neighborhood. Although students are taught to be wary of strangers, tell them they should not be afraid of emergency personnel. Invite firefighters and police officers to come in and speak to the class.
(See extension on page 22)

Fact-Check Game:

Working in teams of approximately five, have groups write game-show-type questions using trivia about the emergencies they've studied. They may use the **Disaster Factsheets** as a reference. Then, allow two teams at a time to play against each other, asking each other questions. The first team to answer five questions correctly wins. That group plays the next group of students, and so on, until one team becomes the "Disaster Masters!"

Disaster Masters:

Have students play the **Disaster Master** game at **http://www.ready.gov/kids/games/disaster-master** as a class using a projector (prompting class responses at each question), or encourage students to play it in pairs, or individually at home. In the game, students collect comic book chapters along the way to reinforce the facts they've learned.

2. Creative Research Project

To summarize and communicate what they know to their peers, families, and communities, students will complete a creative research project. Offer them the choice of creating a: poster, live performance, slide show presentation, or adding to their graphic novel (from Lesson 2).

Students should first present their projects to the rest of the class. You can assess the projects on:

- Organization of facts
- Descriptive details used to support main ideas
- Student's ability to speak clearly and communicate effectively

Finally, to share student work with families and community members, add portions of their projects to your school website or class blog. You may also want to display them in common areas like the hallway, school lobby, or local library. Invite a few students to share their presentations with the rest of the school in an assembly.

Tip! For students who have chosen to add to their graphic novel for their final creative project, have them add one to three pages. They may add a storyline to their existing graphic novel wherein their characters are faced with a disaster or emergency. They should include information to explain what happens during the disaster (using what they have learned), and how the characters respond during, and how they feel after the disaster.

3. Spread the Word

As a class, work with students to create a skit, chant, song, or rhyme to share with neighboring classrooms, the larger school community, or a local radio station to communicate important information about what to do during different disasters.

Students can also create a presentation, like a "TV News Show," for younger elementary classes to help them feel safe and prepared. As part of their "live report," they can interview local emergency responders and share what they have learned.

4. Reflection

Have students write a journal entry in their notebooks reflecting on why it is important to be prepared and know what to do during an emergency, including how they feel now that they have this knowledge. Ask students: *Do you feel empowered now that you know what to do to help keep yourself and your family safe?*

5. Student Handout: *Act Fast, Act Safe*

Students are given four story starters that they will need to rewrite using descriptive details and then add an ending. The ending should reflect appropriate and safe reactions during and after the emergencies. Provide copies of the **Disaster Factsheets** to students as a resource when completing this activity.

Extension

Take a Visit

Arrange a class visit to a local emergency facility (city shelters, firehouses, hospitals, etc.) where students can learn from and talk to emergency responders like firefighters, doctors, coast guard, police, etc. Or, invite emergency responders to visit your class. This can become part of larger school assembly on what to do before, during, and after emergencies and disasters.

Name: _____ Date: _____

Act Fast, Act Safe!

Read the passages below. On a separate sheet of paper, rewrite the story in your own words. Elaborate and add more details about the story. Think about: *How are the characters feeling? What is happening around them?* Write an ending to each that shows safe ways to act during and after the emergencies. Draw illustrations to go with each story.

1

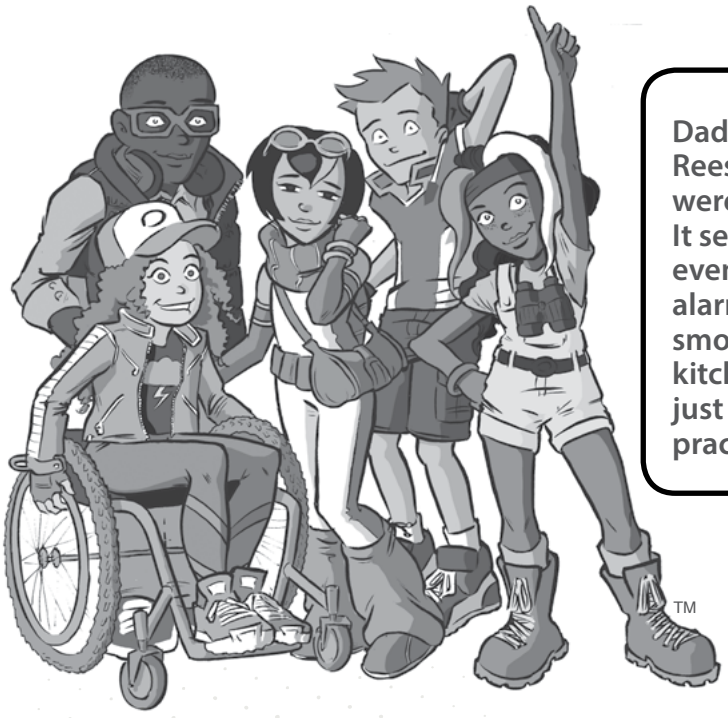
My team made it. We were playing the championship game. We waited all season for this. It was a hot morning. My coach heard it first. The low roar of thunder in the distance.

2

I didn't know tornadoes could happen where I lived. But, I saw the warning alert on TV while I was watching my favorite show. I told my mom right away. We looked outside and saw the sky had turned yellow. Then we snapped into action!

3

There was a big storm that afternoon. Heavy rain and wind caused the power to go out at Marcia's house. But, now it was dinnertime and everyone was hungry. Luckily, Marcia's mom had a few ideas on what, and how, to eat.



4

Dad was making dinner. Reese and her brother were doing homework. It seemed like a normal evening. Then the smoke alarm sounded and heavy smoke quickly filled the kitchen. Luckily, they knew just what to do. They had practiced it many times.

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

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/spaceweather/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
Reading: Informational Text			
RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	✗	✗	✗
RI.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	✗	✗	✗
RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.	✗	✗	✗
RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect..	✗	✗	✗
RI.4.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.	✗	✗	✗
RI.5.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.	✗	✗	✗
RI.3.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.	✗	✗	✗
RI.4.4 Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.	✗	✗	✗
RI.5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	✗	✗	✗
RI.3.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.	✗	✗	✗
RI.4.5 Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.	✗	✗	✗
RI.5.5 Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.	✗	✗	✗
RI.3.7 Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).	✗	✗	✗
RI.4.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	✗	✗	✗
RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.	✗	✗	✗
RI.3.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third)	✗	✗	✗
RI.4.9 Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.	✗	✗	✗
RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.	✗	✗	✗
RI.3.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.	✗	✗	✗
RI.4.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	✗	✗	✗
RI.5.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.	✗	✗	✗

Standards (cont'd)

Common Core English Language Arts Standards (cont'd):	Lesson 1	Lesson 2	Lesson 3
Writing			
W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	✗	✗	✗
W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	✗	✗	✗
RI.4.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.	✗	✗	✗
W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	✗	✗	✗
W.3.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	✗	✗	✗
W.4.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	✗	✗	✗
W.5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	✗	✗	✗
W.3.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.	✗	✗	✗
W.4.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.	✗	✗	✗
W.5.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.	✗	✗	✗
W.3.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.	✗	✗	✗
W.4.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.	✗	✗	✗
W.5.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.	✗	✗	✗
W.3.7 Conduct short research projects that build knowledge about a topic.	✗	✗	✗
W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.	✗	✗	✗
W.5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	✗	✗	✗
W.3.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	✗	✗	✗
W.4.8 Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.	✗	✗	✗
W.5.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.	✗	✗	✗
W.4.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.	✗	✗	✗
W.5.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.	✗	✗	✗
W.3.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	✗	✗	✗
W.4.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	✗	✗	✗
W.5.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	✗	✗	✗

Standards (cont'd)

Common Core English Language Arts Standards (cont'd):	Lesson 1	Lesson 2	Lesson 3
Speaking & Listening			
SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.	✗	✗	✗
SL.4.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	✗	✗	✗
SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.	✗	✗	✗
SL.3.2 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	✗	✗	✗
SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	✗	✗	✗
SL.5.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	✗	✗	✗
SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.	✗	✗	✗
SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	✗	✗	✗
SL.5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	✗	✗	✗

National Geography Standards from the Geography Education Standards Project:	Lesson 1	Lesson 2	Lesson 3
1.II.1. Knows the basic elements of maps and globes (e.g., title, legend, cardinal and intermediate directions, scale, grid, principal parallels, meridians, projection)	✗		
2.II.1. Knows major physical and human features of places as they are represented on maps and globes	✗		
3.II.2. Understands the spatial organization of places through such concepts as location, distance, direction, scale, movement, and region	✗		
4.II.1. Knows how the characteristics of places are shaped by physical and human processes (e.g., effects of agriculture on changing land use and vegetation; effects of settlement on the building of roads; relationship of population distribution to land forms, climate, vegetation, or resources)	✗		
5.II.1. Knows the characteristics of a variety of regions (e.g., land form, climate, vegetation, shopping, housing, manufacturing, religion, language)	✗		
7.II.1. Knows the physical components of Earth's atmosphere (e.g., weather and climate), lithosphere (e.g., land forms such as mountains, hills, plateaus, plains), hydrosphere (e.g., oceans, lakes, rivers), and biosphere (e.g., vegetation and biomes)	✗		
7.II.2. Understands how physical processes help to shape features and patterns on Earth's surface (e.g., the effects of climate and weather on vegetation, erosion and deposition on land forms, mud slides on hills)	✗		
15.II.3. Knows the ways in which human activities are constrained by the physical environment (e.g., effects of weather, climate, and land forms on agriculture, recreational activities, availability of water, expansion of settlement)	✗	✗	
15.II.4. Knows natural hazards that occur in the physical environment (e.g., floods, wind storms, tornadoes, earthquakes)	✗	✗	

National Association of Science Standards:	Lesson 1	Lesson 2	Lesson 3
Earth and Space Sciences			
1.II.1. Knows that water exists in the air in different forms (e.g., in clouds and fog as tiny droplets; in rain, snow, and hail) and changes from one form to another through various processes (e.g., freezing, condensation, precipitation, evaporation)	X		
2.II.1. Knows how features on the Earth's surface are constantly changed by a combination of slow and rapid processes (e.g., slow processes, such as weathering, erosion, transport, and deposition of sediment caused by waves, wind, water, and ice; rapid processes, such as landslides, volcanic eruptions, and earthquakes)	X		
Nature of Science			
12.II.2. Knows that scientists use different kinds of investigations (e.g., naturalistic observation of things or events, data collection, controlled experiments), depending on the questions they are trying to answer		X	