



STEP

Student Tools for Emergency Planning



ACTIVITY BOOK





STEP

STEP up your understanding of emergency preparedness with these fun games, puzzles, and worksheets!

Ready to exercise those brain cells? From the basics of emergency preparedness to making your own Emergency Kit and Family Communication Plan—and everything in between—the **Student Tools for Emergency Planning (STEP) Activity Book** is a new Federal Emergency Management Agency (FEMA) resource with engaging activities, including memory games; crossword puzzles; word searches; journaling; and Science, Technology, Engineering, Art, and Math (STEAM) projects, just to name a few. All of the activities appear by lesson so you can easily choose what area you would like to learn more about:



Introducing Emergency Preparedness

Creating an Emergency Kit



Designing a Family Communication Plan



Note: The Activity Book is available in both print and digital versions. Please note that some activities will have different design/activity elements depending on digital or paper versions.

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LESSON 1

ACTIVITIES



Introducing Emergency Preparedness



Activity 1

CROSSWORD PUZZLE



SKILLS

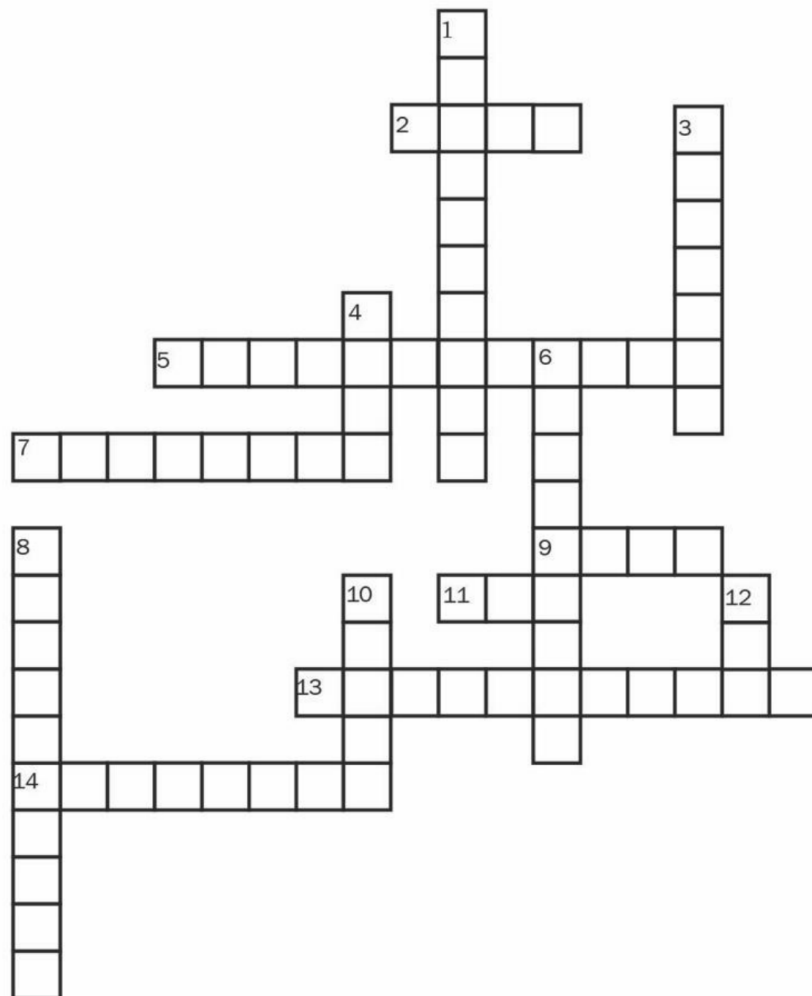
English
Preparedness

MATERIALS

Pencil

SOLVE THE PUZZLE

Use the clues below to fill in the preparedness word answers.



DOWN

1. Instead of candles, which could be dangerous, add this item to your disaster supply kit.
3. This item is important in your disaster supply kit because you may need something to keep you warm in case the heat goes out.
4. In this emergency, you should immediately get outside when you smell smoke or hear an alarm.
6. This accompanies thunder in a large rainstorm.
8. When visiting the dentist, ask for an extra one of these for your disaster supply kit.
10. This emergency is caused by too much snow melting or too much rain falling for the rivers and ground to hold.
12. Every family should gather water, food, batteries, and other supplies for their disaster supply _____.

ACROSS

2. Family members can write contact numbers on a family emergency communication plan _____ to carry around with them in a pocket or wallet.
5. Each family should designate a _____ _____ outside the home in case of an emergency. (2 words)
7. If you have a pet at home, you should put pet food, extra water, a picture of you and your pet, and any pet _____ they may need in your disaster supply kit.
9. During a lightning storm, the worst place to stand is under a tall object, such as a _____.
11. To prevent spoiling in your disaster supply kit, look for food found in this.
13. It is important for family members to be able to _____ during an emergency.
14. This is a very strong and often long-lasting winter storm with snow, wind, and ice.



Activity 2

MY CREATIVE WRITING JOURNAL



Think about the emergency preparedness lesson. What did you like? Was there anything you didn't like? Use this space to write or draw about what was most important to you.

Hone your powers of observation. Think creatively and scientifically!



Activity 3

READING ACTIVITY



SKILLS

Reading

Observation

Preparedness

A large thunderstorm knocked out power across parts of the city of Detroit, Michigan in July. Mateo wrote a report about it for his class. After you read Mateo's story, look for instructions and questions at the bottom of the page.

IN THE DARK

Every day of the week seemed hotter than the last one. On Friday, it was 97 degrees. We got all sweaty playing outside unless we were running through the sprinkler or skidding down the slip and slide.

The bright sun had been pounding down all day making the sidewalk too hot to walk on barefoot. But suddenly big gray clouds started to cover it up. Then thunder boomed and lightning crackled in the sky.

My mom likes to say, "When thunder roars go indoors." It wasn't raining yet, but I knew she'd be at our front door any minute telling me it was time to get inside, so I told my friends we should all go home.

As soon as I got in the door, the rain started. It got so heavy I could barely see the houses across the street. Then I heard this weird pinging sound and little ice balls called hail started falling, too. The thunder was super loud, but all of a sudden we heard a big crashing sound, then a boom, and all the lights in the house went out. I looked out the front window, and a big tree branch had fallen, pulling down an electric wire with it.

My mom asked me to turn on a radio we have that gets power when you crank its handle round and round. It's kind of fun getting it ready. The news announcer said more than 40,000 people across the city were without power because there were so many powerlines down.

My dad couldn't cook the dinner he planned since the stove doesn't work without electricity. However, we had extra peanut butter and jelly for sandwiches and crackers, along with my favorite little individual containers of peaches. So we had plenty to eat from food we keep stored in a cupboard in our kitchen.

As it got dark, we turned on our flashlights and started to tell ghost stories as shadows flickered on the walls. Suddenly, there was a knock on the door, and my little sister screamed. But it was only my friend from next door asking if we had an extra flashlight since they didn't have any at his house. My parents like to be prepared for emergencies like this, so we had one we could give him.

After that we went to bed, and when I woke up my bedroom light was shining in my eyes because I forgot to flip the switch off when we didn't have power. I was happy that not only did we have lights, but we had air conditioning. I was also really excited that I could hang out with my friends again.

QUESTIONS

1. What did Mateo do to stay safe when the thunderstorm started? Underline that part of his report.
2. Circle the things did Mateo's family had at home to help them when the power went out.
3. Use another color to circle adjectives that you see in the story. Adjectives describe nouns. One example in the story is "bright," which describes the sun.
4. Use another color to circle words that describe sounds.
5. List three things you need to get ready in your house in case there is a storm.
 - a. _____
 - b. _____
 - c. _____



Activity 5

EMERGENCY PREPAREDNESS SCAVENGER HUNT



FIND AND COLOR

Find the following items and color them in! What else can you find?

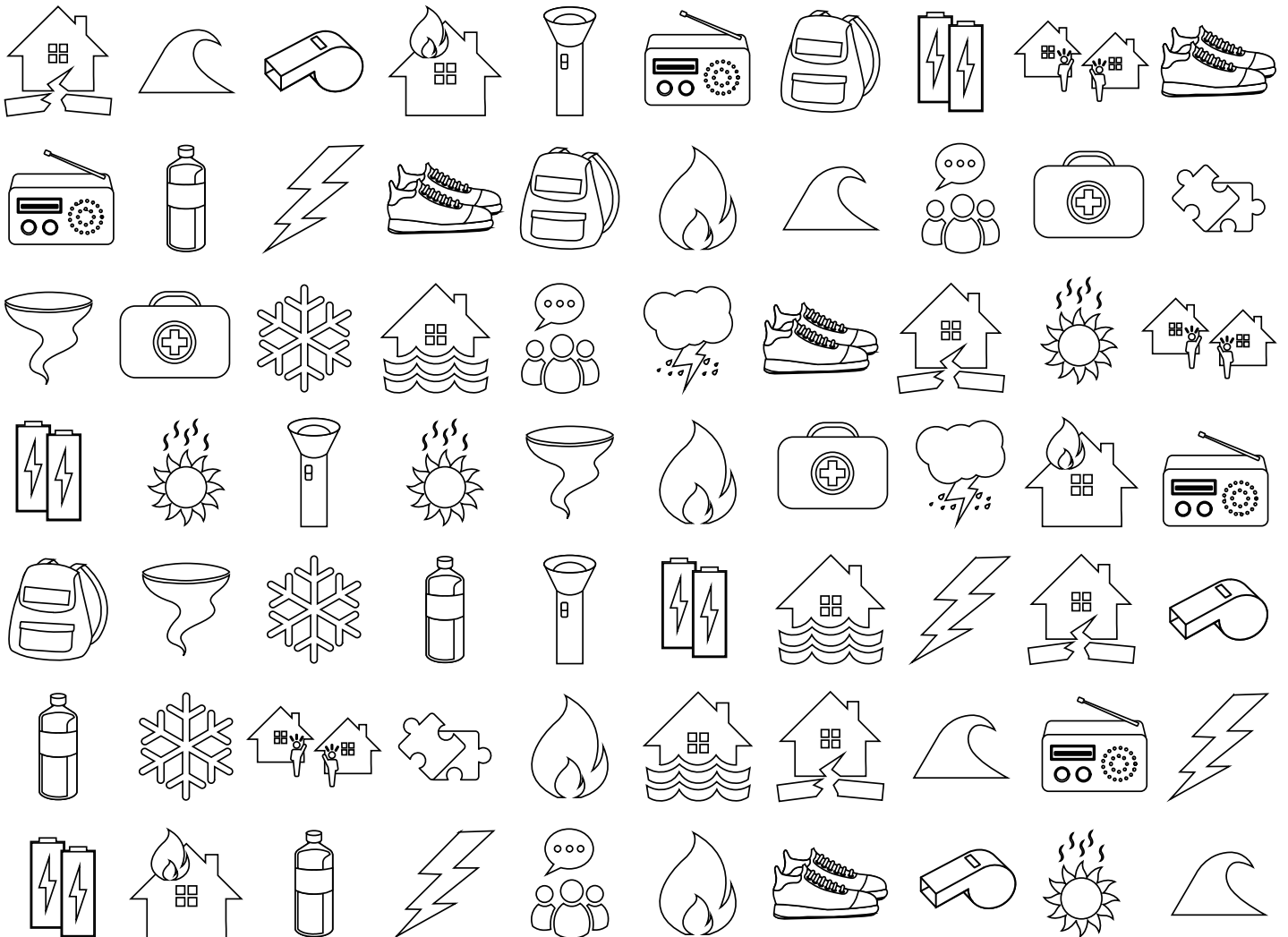
SKILLS

- Observation
- Reading

MATERIALS

- Crayons
- Colored Pencils
- Colored Markers

- | | | |
|--------------------------|-------------------------|-------------------------------------|
| 4 Lightning Bolts | 4 Scorching Suns | 3 Extreme Colds |
| 4 Water Bottles | 4 Fire Hazards | 3 Flood Hazards |
| 3 Home Fires | 2 Games | 4 Ocean Waves |
| 2 Storms | 3 Flashlights | 3 Family Emergency Kits |
| 3 Tornadoes | 4 Earthquakes | 3 Family Communication Plans |
| 3 Whistles | 4 Hiking Shoes | 3 Check on Neighbors |



LESSON 2

ACTIVITIES



Creating an Emergency Kit



Activity 6

MY CREATIVE WRITING JOURNAL



The lesson was on How to Build a Family Emergency Kit. You may have watched a Disaster Dodgers video and thought about what should go in an emergency backpack. What else did you learn? What was your favorite part? Least favorite? Why?

Hone your powers of observation. Think creatively!



Activity 7

SKETCH, DRAW, & DESIGN YOUR OWN EMERGENCY KIT



SKILLS

- Arts/Literacy
- Engineering
- Math
- Problem Solving
- Creative Thinking

MATERIALS

- Pencils
- Colored Pencils and Other Art Materials

THINK AHEAD

How would you like your emergency kit to look? Talk to your instructor if you have questions.

START SKETCHING

Do three quick sketches. Take only a few minutes for each sketch and keep it simple!

Try not to judge “good” or “bad,” just keep moving forward.

I'm feeling inspired already!

Have fun with this!

IMAGINE

Remember these are your first ideas and do not need to be too detailed.

After you finish the three sketches, choose your favorite one. This is called your first design prototype.

Ideas. They are the most important thing to have. And unlike things you buy at the store, they're free!

What do you mean by...

Sketch – A rough drawing.

Drawing – A picture or diagram made with a pencil, pen, or crayon rather than paint.

Design Brief – The details about what your emergency kit will look like once it is finished; what materials will be used.

Prototype – A prototype is an early sample or model of a product built to test an idea or to see how well something will work.

Talk about your drawing with others. Look at other students' designs to gather more ideas if you are all working on this activity together. You can always add things you like to your design as you go.

PLAN

Add in details: Add in the colors, special text, and patterns. Make notes of the materials you plan to use. What is the size of my kit? The dimensions are: _____ Width _____ Height

DRAW

Make your final drawing based on the things you like most from the prototype.

COMMUNICATE

After completing your drawing, take 5-10 minutes to do a show and tell with other students to present your emergency kit design. You can always go back and make changes based on what you have learned.

My design:	My name:
What I am designing:	
What materials I will use:	Design notes:
My design looks like this:	



Activity 8

SAFETY TREASURE HUNT



SKILLS

- Observation
- Creative Thinking

MATERIALS

- Pencil
- Pen

Your home and neighborhood are full of things that can help you in an emergency. The important thing is to know where they are before the winds start swirling or the earth begins to shake.

Take this assignment home with you and answer the questions as you walk around your house and nearby neighborhood on a search for ways to stay safe. If you're not sure about some of the answers, ask a parent or another older family member for help.



ON THE HUNT FOR ANSWERS

1. How many doors to the outside or to a hallway does your house or apartment have? _____

It's important to know where doors are so you can escape quickly in case of fire.

2. Does your house or apartment building have a basement? _____

If there is a tornado warning, head down to your basement.

3. Are there any rooms or large closets without windows? _____

These are bad places to go in case of fire, but if you don't have a basement, they are the best places to close yourself into if there's a tornado warning.

4. How many smoke detectors does your house or apartment have? _____ What rooms are they in or outside of? _____

Make sure you have a smoke detector in each bedroom and outside each separate sleeping area, like a hallway. You need to have a smoke detector on each level of your home, including the basement.

5. How many flashlights are in your house? _____ Are there extra batteries? _____

Know where these are in case you have to find them in the dark.

6. Do you have bottled water? _____ How much? _____

You should keep one gallon per person in your family and have at least enough for three days in case of an emergency where you are unable to use water from your sink. That means if there are four people in your family, you need 12 gallons. (3 x 4 = 12)

7. Does your family have an emergency kit? _____ Where is it? _____

As you learn more about building an emergency kit at school, talk to your parents about starting one at home if you don't already have one.



8. Look where you store your food. Do you have food in boxes or cans that doesn't need to be refrigerated?
 _____ If so, what would be your favorite thing to eat if your electricity went out? _____

Your emergency kit should include at least a three-day supply of non-perishable food, which is food that doesn't need to be kept in the refrigerator and can be eaten without heating if necessary.

9. Now go outside in your yard or the front of the apartment building. Look for a big tree or rock away from your house or building that you can go to if you have to leave because of a fire or other emergency in your home. Where is it? _____

When you make your family communication plan, decide on places to meet near your house and outside your neighborhood depending on the type of emergency.

10. While you're outside, do you see a fire hydrant that firefighters will connect hoses to if there is a fire?
 _____ Where is it? _____

It's important that cars don't ever park too close to the hydrant so that firetrucks can get close enough to connect their hoses.

Activity 9

WORD SEARCH



FIND THE PREPAREDNESS WORDS BELOW!

SKILLS

Identification
Preparedness

MATERIALS

Pencil
Pen

Communication Plan
Disaster
Text
Emergency Kit
Water

Batteries
Radio
Flashlight
First Aid Kit
Map

Prepare
Phone
Food
Toothbrush

S M D T A T J X R A D F Q N Q H M
R A E Y B J F X R V L H O A H H X
N P R E P A R E Q X P K A O S I K
U T K N W N T D J F M T I U D X W
Q V F X V A D T I C I D R T D R B
T I Y K W S B V E K A B H F X O P
K M E P V J C U Y R H G G U S N S
C O M M U N I C A T I O N P L A N
D N Q A R T N U O L U E S H P E T
I Z Y W W E D O H T N U S O F Z Y
S U X I G X T S W R Q T J N D L Y
A F I R S T A I D K I T U E N P Q
S H E K F L L D G K B D P U S K Z
T M R I F V Q S S I I L T M Y S G
E L H W V R D I W J U X O K T I W
R U A G Q Q Z K A J X U V V O D I
V B D P E M N Q I N G S G P Q B R



Activity 10

ROLE-PLAYING NEWS HEADLINES



SKILLS

- Communication
- Performance

Do you like to mimic people in high-profile careers, such as TV broadcasters, news correspondents, or weather forecasters?

If so, this activity is for you!

INSTRUCTIONS

Pretend you are a TV, radio, or newspaper reporter relaying stories about important events.

News reporters gather news and information to keep the public informed about important events. They get their information through a number of sources. These may include interviews with people who know about or were affected by an event; news services (like the Associated Press); news briefings; and press releases written by companies, organizations, and the government. Newspapers, magazines, and television and radio stations rely on news reporters to keep their readers, viewers, and listeners informed.

What does that mean?

News services send news stories to many news organizations all at once to speed up getting the news out worldwide. **News briefings** are short, fact-based versions of a story. **Press releases** are official statements provided to reporters.

SUGGESTIONS

- Write a 30-second radio or TV commercial to explain the need for emergency preparedness using what you have learned so far.
- Pretend you are a weather announcer on the evening news reporting on a storm in your area. What kind of weather caused it? How many people did it affect? Did people lose electricity or get hurt?
- Record a two- to four-minute story as you pretend to be a national news correspondent reporting live from the scene of a flood.
- Write a blog story about a Girl or Boy Scout troop that is learning about emergency preparedness and making emergency kits.
- Report on a story about a group of day hikers who were prepared because they had emergency kits in their packs. What happened? Was there a sudden storm that trapped them? Did they need to provide first aid to someone?

THE 5 Ws AND THE H

Include the “five Ws and the H” — who, what, where, when, why, and how — in each story to make sure you have answered questions your viewers might have. After you write the story, be sure to proofread it to make sure you have not left out any of these basic details.

WATCH PARTY

When the group is ready to perform, plan a watch party day.



Activity 11

HOST AN EMERGENCY KIT DRIVE



HOW YOU CAN GET INVOLVED

SKILLS

- Preparedness
- Communications
- Teamwork
- Leadership

You can do this!

You've got this!

STEP 1: DECIDE WHAT ITEMS YOUR CLASS NEEDS

Make a list! Talk about any special items that may come in handy in your area.

STEP 2: DECIDE HOW YOU WANT TO COLLECT ITEMS

Where do you collect items?

Single-site drop off: Ask people to bring family emergency kit donations to one location during set hours on a specific day. Volunteers stay at the collection site.

Extended emergency kit drive: Set up multiple collection points with drop boxes where people can leave kit items over the course of multiple days or weeks. Volunteers collect the donations once per week.

Event-related emergency kit drive: Your team partners with a local event — like a sports game, music festival, or county fair — and sets up collection sites at the event.

STEP 3: PLAN

Establish a small committee to plan and coordinate the emergency kit drive. Select a coordinator(s) (parent, teacher, or student) and team leaders for individual tasks.

- Help recruit volunteers
- Promote the emergency kit drive with flyers
- Ensure local media are aware of the drive
- Set up the collection site

STEP 4: WORK OUT THE DETAILS

- Where the emergency kit drive will be held (such as at the entrance of the store, at sporting events, or a section of the parking lot)
- The date and time for the drive
- Bad weather backup plan
- Where the kit items will be stored before pick up



STEP 5: GET THE WORD OUT WITH FLYERS

Be creative, but also be sure to provide key information such as:

- Suggested items
- Date, time, and location of the event
- Brief information on the emergency kit project

Ask your family, friends, and neighbors to help make the emergency kit drive a success. Check with local community organizations, libraries, schools, and community centers to see if they are interested in volunteering.

STEP 6: EVENT DAY

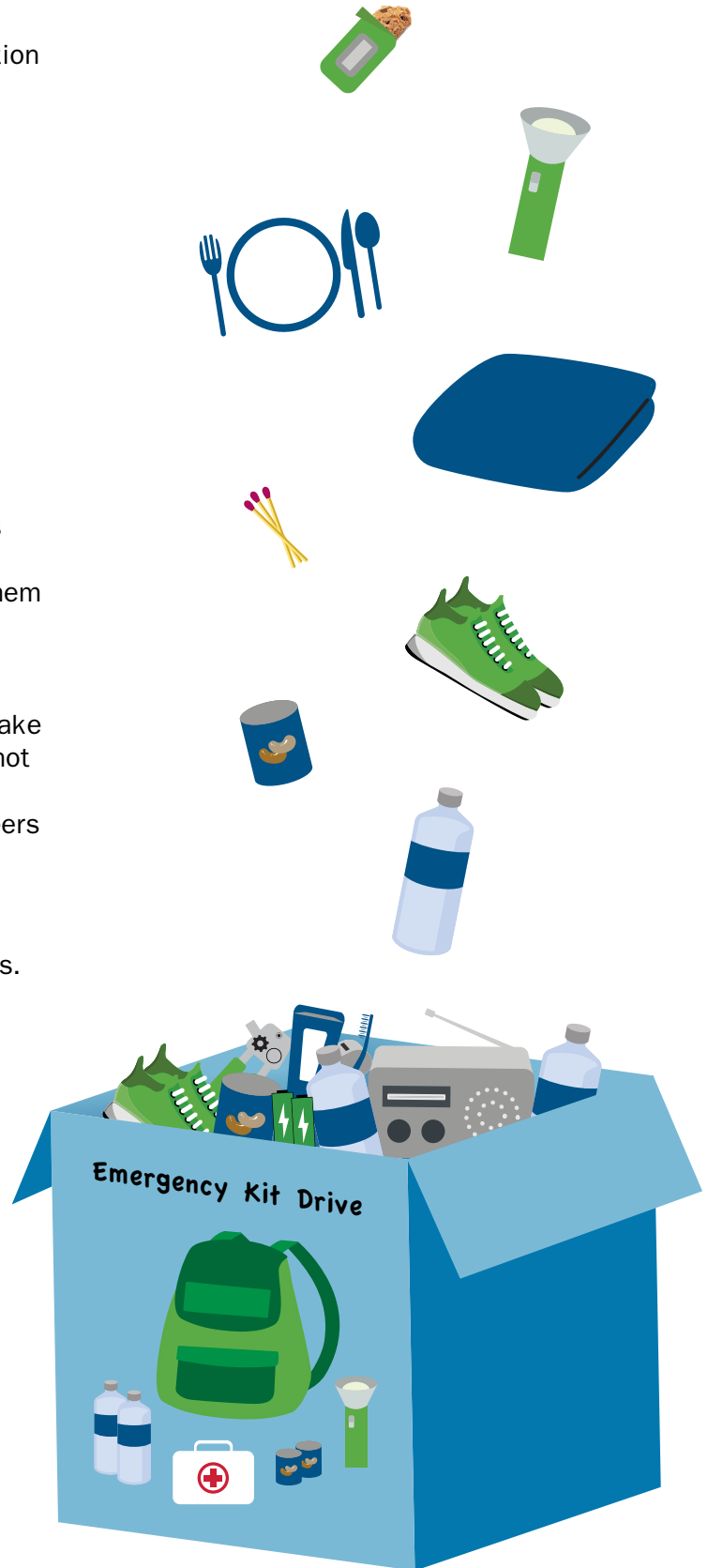
- Set up the emergency kit items collection site
- Post Emergency Kit Drive signs in visible areas and have flyers available
- Welcome volunteers as they arrive and show them how things will work
- Relax, smile, and enjoy this event, which is bringing together the community
- When the drive is over, clean up the area and take down the signs — leave the area the same (if not cleaner) than when you arrived
- Thank the hosting organization and the volunteers

STEP 10: FOLLOW UP

(within one week after the event)

Send a thank you note, call, or email to all volunteers. Let them know how many items were donated and whether there are plans for additional emergency kit drives in the future. Call or write a thank you note to the hosting organization. Again, let them know how many items were donated and convey their important role in the success of the program and the difference they are making.

Stay in touch with volunteers and local communities for further volunteer opportunities.

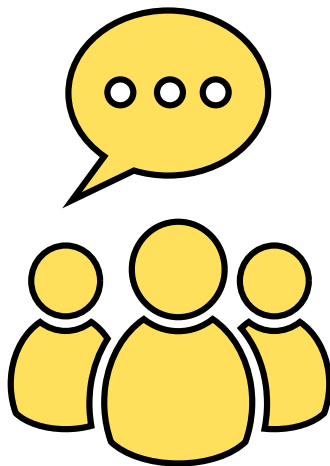


LESSON 3

ACTIVITIES



Designing a Family Communication Plan



Activity 12

CROSSWORD PUZZLE



SOLVE THE PUZZLE

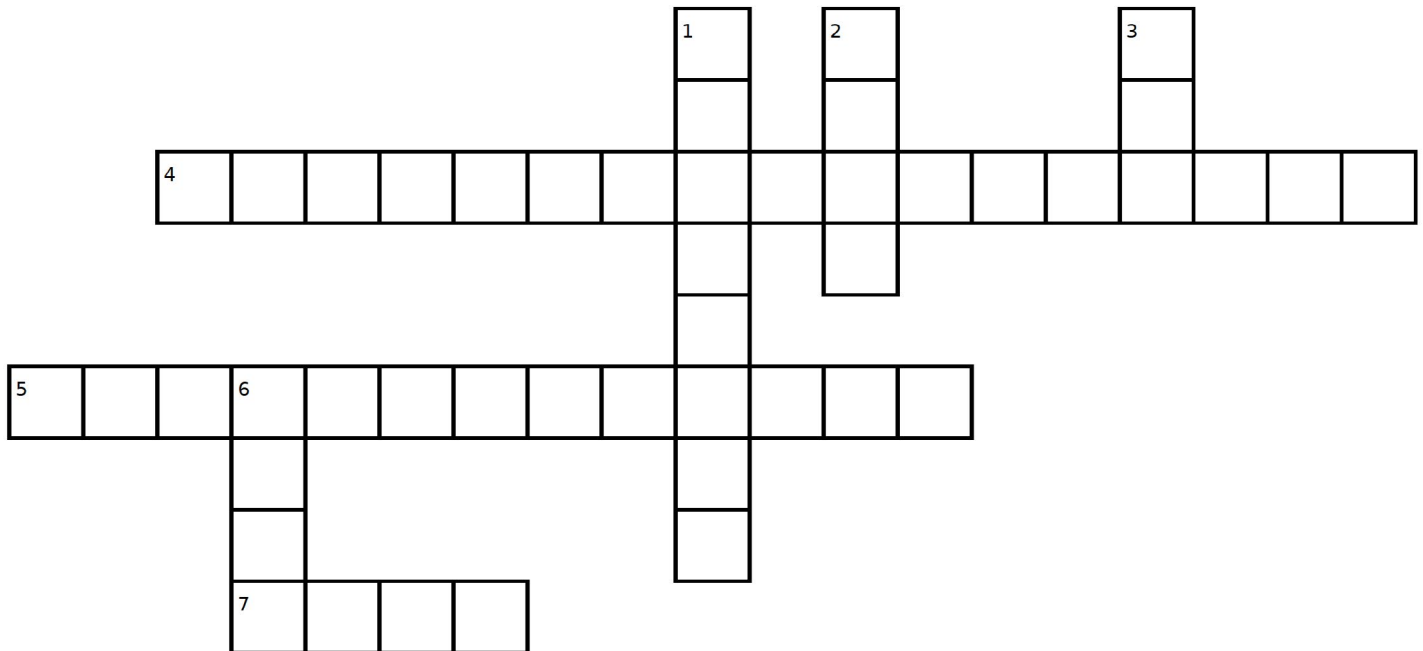
Use the clues below to fill in the preparedness word answers.

SKILLS

English
Preparedness

MATERIALS

Pencil



DOWN

1. Since you take your things to school in this every day, add your family communication plan as well.
2. Make sure you include your dog, cat, and other _____ in emergency plans.
3. If you get lost, looking at one of these can help.
6. Rather than using your phone to call during an emergency, _____ instead.

ACROSS

4. One of these will help your family find each other after an emergency.
5. Have two of these, one near your home and the other outside your neighborhood at a building like a library or community center.
7. A big one of these with lots of branches outside your house could be a good meeting place.



Activity 13

MY CREATIVE WRITING JOURNAL



Take some time to record what you learned. Do you think a Family Communication Plan is important? Reflect on the lesson and activities. What did you like? Was there anything you didn't like? Use this space to write or draw about what was most important to you.

Hone your powers of observation. Think creatively and scientifically!



Activity 14

STEAM MATH WORKSHEET



SKILLS

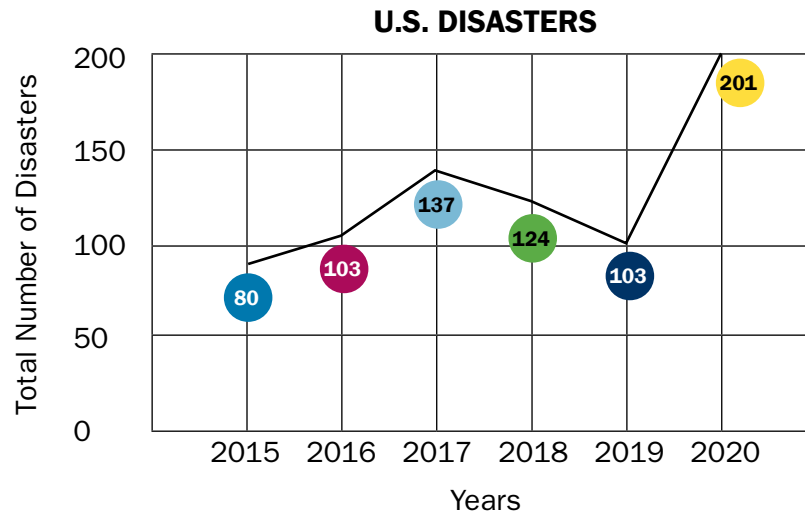
Math
Art
Linear Relationships

MATERIALS

Pencil
Pen
Crayon
Colored Markers
Ruler

FINDING AND GRAPHING POINTS

In a recent five year period, there have been a number of U.S. disasters. Review the **line graph** to learn about the frequency of U.S. disasters from the years of 2015 to 2020.



What does this mean?

Line graphs are a visual method for showing relationships between numbers.

The relationships between the numbers are shown on a **coordinate grid**.

A **coordinate grid** has two perpendicular lines, or axes, labeled like number lines.

The **horizontal axis** is called the **x-axis**.

The **vertical axis** is called the **y-axis**.

The point where the x-axis and y-axis intersect is called the **origin**.

The **origin** always has a value of 0.

Frequency is the rate at which something occurs or is repeated over a period of time.

PROBLEMS

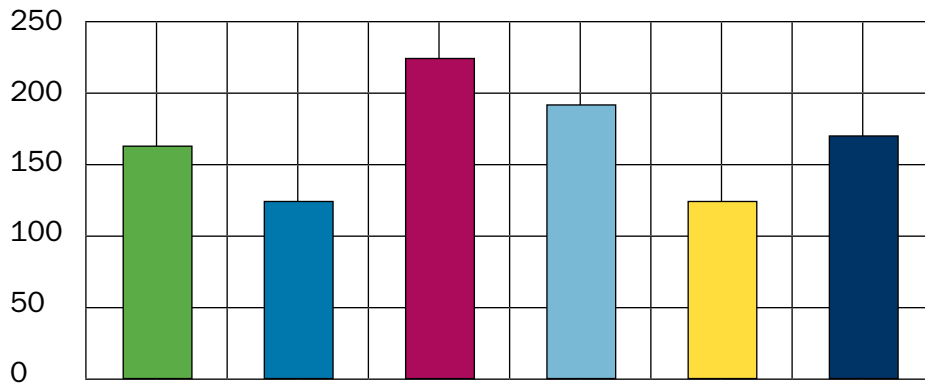
Using the line graph above, complete the following short answer questions.

- The name of the x-axis is _____.
 - Total Number of Disasters
 - Years
- The name of the y-axis is _____.
 - Total Number of Disasters
 - Years
- How many disasters were there in 2018?

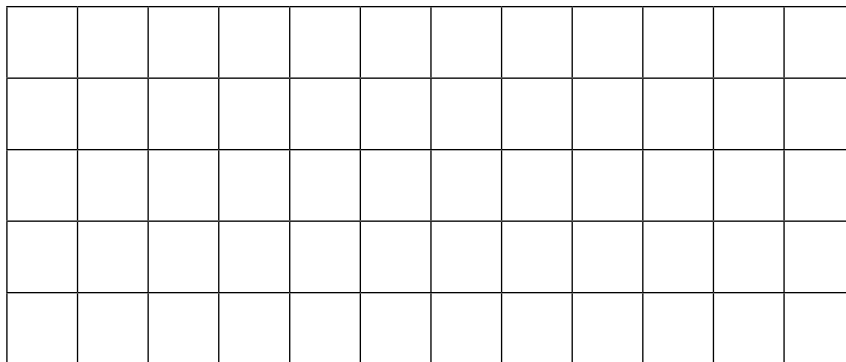
4. What year had the most disasters?
5. What year had the least disasters?
6. Create your own **bar graph**. Make it identical to the line graph. Use the following data points:
 (2015=80, 2016=103, 2017=137, 2018=124, 2019=101, 2020=201).
 - Add the Title
 - Label the x-axis and y-axis
 - Graph the bar points
 - Color in the bars

EXAMPLE

This is an example of a bar graph.



MY BAR GRAPH



Data Resource: FEMA Disaster Declarations Data (www.fema.gov/disasters/year)

Activity 15

READING ACTIVITY



SKILLS

Arts/Literacy
Communication
Performance

MATERIALS

Pencil

FAMILY COMMUNICATION PLAN SKIT

A skit is a short play, where each person gets a turn to speak. You can read the skit to yourself, or your teacher may assign you a character in the skit to act and read out loud what he or she has to say. After the skit are some questions about family communication plans.

A GAME PLAN TO STAY IN TOUCH

Characters

Mom

Dad

Brothers and sisters: Olivia – age 13,
Grace – age 10, Theo – age 4



Setting

The family's living room

Mom carries a bowl of popcorn into the room, and everyone grabs a handful.

Mom: I love it when we're all home together because most of the day, Dad and I are both at work and all three of you kids go to different schools.

Dad: Hey, Olivia, we need you stop looking at your phone because we need to talk about something important.

Olivia gives her phone one last scroll and sets it down noisily on the table.

Olivia: Okaaaaaaay. What's this about?

Grace: What do you want to talk about? I have softball practice at 7. And, Theo, stop hogging all the popcorn!

Theo shoves a handful of popcorn in his mouth.

Theo: I'm not!

Mom: Remember when we lost electricity last week after the big storm and all the power went out? The traffic was a mess because none of the traffic lights were working.

Olivia: Right. You were late picking Theo up from preschool.

Theo: My teacher said all the mommies and daddies would be there soon.

Dad: And she was. But we want to talk about how we can stay in better touch if something like that happens again.

Grace: That would be great. Remember, I was trying to call Mom but the call wouldn't go through?

Mom: Yes. That's because it's often easier to communicate by text than a phone call if there's a big emergency or power outage and lots of people are trying to use their phones at once. So that's one thing to remember, something I doubt you'll have any trouble with, Olivia, since you love to text so much.

Dad: We need to have a family communication plan.

Dad passes out the papers with the plan.

Dad: Theo, I know you can't read this, but it has all our names and phone numbers on it. It also has the phone number for the Chen family next door and Aunt Pat's phone number, too. I added their pictures to yours.

Olivia: I have all those numbers in my phone, but it's good to have them written down, too.

Grace: I can put this in my backpack so I have it at school.

Theo: Me, too. I'm going to take it to school, too.

Mom: Another thing we need to think about is where to meet if we are all out at different places and an emergency happens.

Olivia: My teacher told me that if there's a weather warning and it's time to go home from school we will stay at school.

Dad: That's right. You will likely be safe at school. But let's say you're walking home from school, and earlier in the day a tree and electric wires fell across a street on your way. Then you need to have another place to go.

Grace: What about the library?

Mom: That's a great idea. And if it's just our house that lost electricity or there was some reason we couldn't stay in it, Mrs. Chen knows that you're supposed to go over there. We'll come get you when it's safe.

Theo: What about me? I can't walk to the library.

Grace: That's right, but you will either be at preschool or with Mom or Dad, so they will know where you are.

Olivia: This sounds like good plan, but can I get on to my plans to hang out with Ana now?

Mom: I think we've covered everything we needed to. It's important to make sure we can know everyone is safe and can find each other in an emergency.

The End

After you have completed the reading activity, answer the questions below. Then be sure to check with your family to make sure you have a plan.

QUESTIONS

1. What are some places different members of your family might be when an emergency happens?
2. Do you know how to contact them?
3. What if you can't go to your neighborhood? Where are some places that you might be able to meet your family?



FAMILY COMMUNICATION PLAN

**BE
READY!**

STEP Program

FEMA Individual and Community
Preparedness Division

.....
Write your full name above

HOUSEHOLD INFORMATION

Home #: _____

Address: _____

Name: _____ Mobile #: _____

Other# or Social Media: _____ Email: _____

Important Medical or Other Information: _____

Name: _____ Mobile #: _____

Other# or Social Media: _____ Email: _____

Important Medical or Other Information: _____

Name: _____ Mobile #: _____

Other# or Social Media: _____ Email: _____

Important Medical or Other Information: _____

Name: _____ Mobile #: _____

Other# or Social Media: _____ Email: _____

Important Medical or Other Information: _____

Name: _____ Mobile #: _____

Other# or Social Media: _____ Email: _____

Important Medical or Other information: _____

Name: _____ Mobile #: _____

Other# or Social Media: _____ Email: _____

Important Medical or Other information: _____



Remember: Text don't talk!
Texts get through more easily during emergencies. Unless you are in immediate danger, send a text.

EMERGENCY CONTACTS

Name: _____ Mobile #: _____

Home #: _____ Email: _____

Address: _____

OUT-OF-TOWN CONTACT

Name: _____ Mobile #: _____

Home #: _____ Email: _____

Address: _____

FOLD
HERE

EMERGENCY MEETING PLACE

Indoor: _____

Instructions: _____

Neighborhood: _____

Instructions: _____

FOLD
HERE

Out-of-Town Neighborhood: _____

Address: _____

Instructions: _____

Out-of-Town Neighborhood: _____

Address: _____

Instructions: _____

FOLD
HERE

IMPORTANT NUMBERS/INFORMATION

Police: _____

Fire: _____

Doctor: _____

Dentist: _____

Medical Insurance: _____

Policy Number: _____

Hospital/Clinic: _____

FOLD
HERE

Go to [Ready.gov/kids](https://www.ready.gov/kids) for more info on how to be prepared for disasters!



FEMA Ready



Activity 17

EMERGENCY PREPAREDNESS DISPLAY TABLE



SKILLS

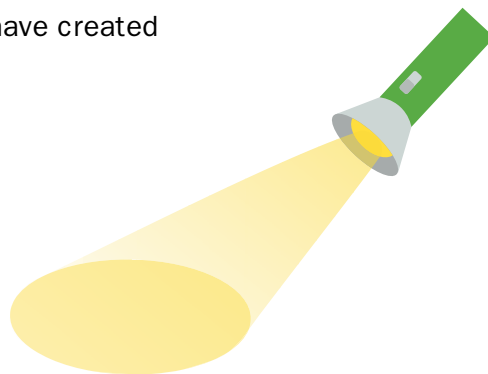
- Preparedness
- Leadership
- Teamwork
- Knowledge

DISPLAY YOUR BEST WORK FOR ALL TO SEE

At your next schoolwide assembly or event, set up a STEP display table to showcase your emergency preparedness projects. This is a great opportunity to share your class's preparedness knowledge with others and promote teamwork. Organize your table ahead of time with interesting exhibit items. Be sure to have student volunteers on hand to cover the table, answer questions, and help guests fill out raffle tickets before and after school programs.

Let your emergency flashlights shine!

- Display family emergency kits that you and your classmates have created
- Talk up the STEP Program
- Provide Emergency Backpack Kit information
- Provide Emergency Kit Checklists
- Tell others why it is important to be prepared
- Show off your STEP Badges and explain how they are earned
- Consider preparedness-themed prizes or a raffle to help bring people to the table



Activity 18

SCIENCE & INNOVATION



SKILLS

- Science
- Technology
- Engineering
- Math
- Preparedness
- Conservation

MATERIALS

- 3-sided Poster Board
- Pencils and Pens
- Construction Paper
- Colored Markers
- Ruler

INNOVATIVE POSTER IDEAS

Each of you, in your own way, are science rock stars waiting to happen. Science fairs are good ways to discover your strengths and can spark your interest in learning more about the natural world. Would you like to do something unique for your science project this year? Read about ways to show your emergency preparedness know-how to others by using the poster ideas below.

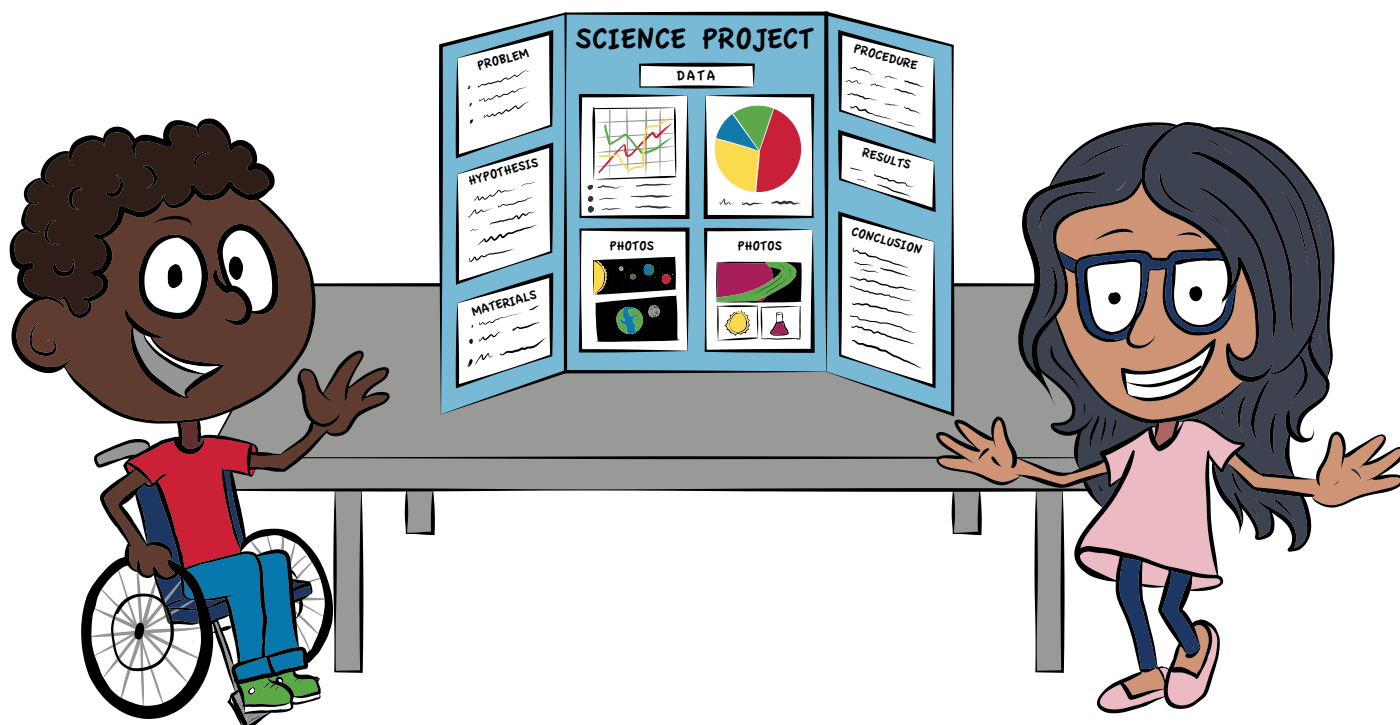
A HURRICANE OF INFORMATION

Use [Ready.gov/kids/disaster-facts](https://www.ready.gov/kids/disaster-facts) as a primary source to gather facts to explain the science behind tornadoes, hurricanes, earthquakes, floods, tsunamis, volcanoes, wildfires, winter storms, or droughts. Think of creative poster titles like *Beat the Storm*, *Survive Tornadoes*, *Rainfall and Flood Threat*, *The Science of Winter Storms*, and *Stay Away from Hurricanes*.



What does that mean?

A **primary source** is an original source of information that documents an event, a person, or an idea to verify evidence.



DESIGN AN ECO-FRIENDLY HOUSE FOR SEVERE WEATHER CONDITIONS

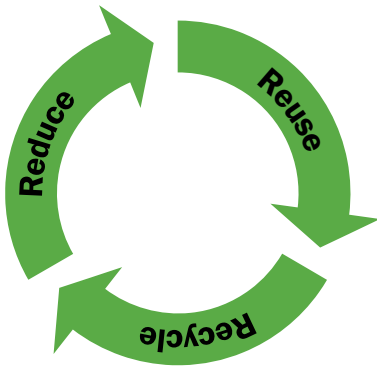
Design an eco-friendly house for a severe weather poster that shows your ideas of how you would build a house to keep your family safe from storms and bad weather. Think about the materials that would work well in different weather conditions, such as high winds, rain, snow, extreme heat, and flooding. Decide how you want your house to look and where your home will be built (near the ocean, in the mountains, in the city, where it is hot or cold, etc.).



What does that mean?

An **eco-friendly** house is environmentally friendly.

Conservation is the wise use of our natural resources.



You want to design your house with a sturdy roof, walls, windows, doors, flooring, and overall structure. What kind of roof is best? Shingles or tin? Should you use recycled bricks or mud for the walls? What kind of glass is the safest for windows? More windows provides better lighting, but must be strong enough to work well to keep everyone comfortable and dry. Take all of these things into consideration and decide what would work best for you!

What about your energy systems? Solar energy panels, radiant floor heat, or wind power (to heat or cool your house, pump water, keep the refrigerator working, and generate electricity for lights and other appliances) are some options.

In your conclusion, make a case for the benefits of your eco-friendly home being safer and healthier for your family. Show how it will be less costly, use cleaner energy, last longer, and help the environment by:

- Using fewer local resources
- Being more energy efficient
- Using materials that will last longer
- Helping to conserve the environment





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