

Name: _____

WAMI Activity Day 1
7th Grade



WAMI Day 1 Writing Activity

Purpose and Audience:

You are writing a booklet called *What to Do If* that will be distributed in schools throughout the country. The booklet will explain different kinds of emergencies and give directions for what to do.

Prewriting:

What emergency situations have you been in or worried about? Make a list.

Writing:

Give information about or directions for each of these emergency situations. Each answer should be one paragraph in length, so you have three total paragraphs to write.

1. A tornado, or hurricane
2. A blizzard, or other storm
3. A house fire

Illustrate:

Draw a picture or a plan representing an emergency situation.
(On a separate piece of paper.)

Name: _____

WAMI Activity Day 1
7th Grade

Math Activity

During a disaster, you may have to evacuate quickly. You might not have time to gather all of the supplies you need. It is important to have an Emergency Kit prepared for these situations. Use the table below to answer the questions.

Item	Price
Flashlight	\$16.49
Battery-powered radio	\$39.95
Extra batteries	\$11.37
Manual can opener	\$13.95
3-day supply of non-perishable food	\$20.20 x _____ (# of people in your household)
3-day supply of water	\$1.25 x _____ (# of people in the household)
First-aid kit	\$29.99
Blanket	\$8.78

Name: _____

WAMI Activity Day 1
7th Grade

Math Activity

A) You are purchasing all of the items you need at Walmart. Sales tax is 8%. **What is the total cost of your family's Emergency Kit?** Your answer will depend on how many people are in your household.

B) You can purchase a pre-packaged Emergency Kit at Walmart for \$189.99. The pre-packaged kit has enough supplies for a family of 4. **Including sales tax of 8%, what is the cheaper option for your family: building the Emergency Kit yourself or purchasing the pre-packaged Emergency Kit?** Your answer will depend on how many people are in your household.

CCSS.7.NS.A.3, CCSS.7.RP.A.3

Name: _____

WAMI Activity Day 2
7th Grade



Writing Activity

Prewriting:

Think about a typical snow day. Students are out of school because the roads are too hazardous for busses to drive. How does a weather event (snow day) impact our community?

Writing:

Write a paragraph for each:

1. Explain how a snow day can affect animals.
2. Explain how a snow day can affect adults and children.

Be sure to include at least three details for each paragraph to support your explanation.

Standards: W.7. 4, W.7.10, PS1-4, E.S.9.7.1., E.S.9.7.2

Name: _____

WAMI Activity Day 3
7th Grade



1. Study the picture above of a boy sledding down a snowy hill. Choose a story title from the list below to match the picture. Title options:
 - a. Curing the Winter Blahs
 - b. The Many Uses of Snow
 - c. If at First You Don't Succeed- Then What?
 - d. Why Winter is my Favorite (Least Favorite) Season
 - e. Whoops!
 - f. Hold it! Let's Take it Again from the Top.
2. Write a one-page short story that goes with the picture and title you chose. Be sure to write the title at the top of your story.
3. Draw a diagram that shows how the molecules of snow would change in the sledding scene if you were to add large amounts of salt to the snow on the ground. Be sure to illustrate the spacing of the molecules as the temperature increases.

Standards: W.7.3, PS1-1,PS1-4, E.S.9.7.1., E.S.9.7.2

Name: _____

WAMI Activity Day 4
7th Grade

1. Read the article, "Extent of Damage Hurricane Irma Inflicted on Florida Remains Unclear."
2. Answer the questions about the article.
3. Find and circle the coordinate adjectives on the first page of the article.

Standards: L.7.2c, ESS3-2, E.S.9.7.1., E.S.9.7.2

Extent of damage Hurricane Irma inflicted on Florida remains unclear

By. Associated Press, adapted by Newsela staff on 09.12.17



Kelly McClethen (left) returns to see the flood damage to her home with her boyfriend Daniel Harrison in the aftermath of Hurricane Irma in Bonita Springs, Florida, September 11, 2017. Photo by: AP Photo/Gerald Herbert

Name: _____

WAMI Activity Day 4

7th Grade

TAMPA, Florida — Over the weekend, Hurricane Irma barreled through the Caribbean Sea and many parts of Florida. Irma weakened into a still-dangerous tropical storm Monday.

Irma brought high winds, rain and even tornadoes.

The storm triggered record flooding in Florida's northeastern corner. Rescuers in its soggy, wind-battered wake moved to reach victims and learn the full extent of the damage.

Homes Are Swamped And Trees Uprooted

Irma engulfed nearly all of Florida. The state is a peninsula, meaning it is surrounded by water on three sides. The hurricane caused chaos from Florida's southernmost point up to the Georgia state line, from the Atlantic coast to the Gulf side. It swamped homes, uprooted huge trees, flooded streets, cast boats ashore, snapped miles of power lines and toppled construction cranes.

"How are we going to survive from here?" asked Gwen Bush, who waded through thigh-deep floodwaters outside her central Florida home to reach National Guard rescuers. "What's going to happen now? I just don't know."

More than 6.2 million homes and businesses remained without power. Bush and 220,000 others escaped to shelters. Officials warned it could take weeks for electricity to be fully restored.

Storm Brings Record-Breaking Wind Speeds

No deaths in Florida were immediately linked to the storm. At least 34 people were killed in the Caribbean as Irma ravaged a string of resort islands long known as vacation spots for the rich. With winds up to 185 miles per hour (mph), Irma was measured as the most powerful hurricane in the open Atlantic Ocean's history.

By Monday morning, Irma was downgraded to a tropical storm, with winds of 65 mph. The storm first roared into the Florida Keys on Sunday morning with 130-mph winds. The Keys are islands off Florida's southern tip. Video showed houses shoved from their

Name: _____

WAMI Activity Day 4 7th Grade

foundations. Boats were tossed onto pavement. In Coral Gables, near Miami, fallen trees made streets look like a jungle and damaged power lines buzzed.

Full Extent Of The Damage Is Still Unclear

Jacksonville is more than 400 miles from where Irma first came ashore. Nevertheless, the storm surge, or rise in ocean level, brought record flooding to the area. Floodwaters measured higher than in more than 50 years. At least 46 people were pulled from swamped homes.

The Jacksonville Sheriff's Office warned residents along the St. Johns River to "Get out NOW." "If you need to get out, put a white flag in front of your house. A T-shirt, anything white," the office said on its Facebook page.

The full damage statewide remained unclear, though. Communications and travel had been cut off by high winds and flooding. Search crews planned to check on residents door-to-door in the hard-hit Keys.

Georgia And South Carolina Affected Too

Around the middle of the day on Monday, Irma's center began pushing into Georgia. A tornado spun off by the storm was reported on the coast. Firefighters inland had to rescue several people after trees fell on their homes.

A tropical storm warning was issued for the first time ever in Atlanta. School was canceled in communities around the state. More than 100,000 customers were without power in Georgia and more than 80,000 customers in South Carolina were without power.

Over the next two days, Irma is expected to push to the northwest, into Alabama, Mississippi and Tennessee.

The Tampa-St. Petersburg area has a high population, and people there braced for its first direct hit from a major hurricane since 1921. By the time it struck Monday night, though, its winds were down to 100 mph (161 kph) or less.

Name: _____

WAMI Activity Day 4 7th Grade

"What We Feared The Most Was The Surge"

Tampa Mayor Bob Buckhorn said the situation could have been worse. Still, Buckhorn warned residents that dangerous storm surge continued. He also reported downed power lines and other wreckage.

"What we feared the most was the surge," he said. "The surge is yet to be finished."

In Redington Shores west of Tampa, Carl Roberts spent a sleepless night, riding out Irma in his 17th-floor beachfront condo. After losing power late Sunday, he made it through the worst of the storm shaken but unhurt.

"The hurricane winds lashed the shutters violently, throughout the night," he wrote in a text message, "making sleep impossible."

As morning broke, he couldn't open the electric shutters to see outside.

First Responders Help People Who Rode Out The Storm

East of Tampa, winds knocked a utility pole and power lines onto a sheriff's car late Sunday. After helping an elderly patient to safety, a sheriff and paramedic were trapped for two hours until a crew freed them. Both were unhurt.

More than 120 homes were evacuated early Monday outside Orlando as floodwaters poured in. Firefighters and National Guardsmen went door-to-door and used boats to ferry families to safety.

A few miles away, 30 others were evacuated when a 60-foot sinkhole opened under an apartment building. No injuries were reported.

Name: _____

WAMI Activity Day 4
7th Grade

QUIZ

1. Read the section "Georgia and South Carolina Affected Too."

Select the paragraph that shows Irma caused other natural disasters to develop.

- a. Around the middle of the day on Monday, Irma's center began pushing into Georgia. A tornado spun off by the storm was reported on the coast. Firefighters inland had to rescue several people after trees fell on their homes.
- b. A tropical storm warning was issued for the first time ever in Atlanta. School was canceled in communities around the state. More than 100,000 customers were without power in Georgia and more than 80,000 customers in South Carolina were without power.
- c. Over the next two days, Irma is expected to push to the northwest, into Alabama, Mississippi and Tennessee.
- d. The Tampa-St. Petersburg area has a high population, and people there braced for its first direct hit from a major hurricane since 1921. By the time it struck Monday night, though, its winds were down to 100 mph (161 kph) or less.

2. Which detail from the article shows that rescuers risked their lives to help others affected by Irma?

- a. Rescuers in its soggy, wind-battered wake moved to reach victims and learn the full extent of the damage.
- b. "If you need to get out, put a white flag in front of your house. A T-shirt, anything white," the office said on its Facebook page.
- c. Search crews planned to check on residents door-to-door in the hard-hit Keys.
- d. After helping an elderly patient to safety, a sheriff and paramedic were trapped for two hours until a crew freed them.

Name: _____

WAMI Activity Day 4
7th Grade

3. Read the paragraph from the section “What We Feared the Most was the Surge.”

In Redington Shores west of Tampa, Carl Roberts spent a sleepless night, riding out Irma in his 17th floor beachfront condo. After losing power late Sunday, he made it through the worst of the storm shaken but unharmed.

Which answer choice is the BEST definition of the phrase “riding out” as it is used in the paragraph above?

- a. Trying to avoid something dangerous
- b. Trying to survive something dangerous
- c. Trying to evacuate before experiencing danger
- d. Trying to ignore warnings about danger

Name: _____

**WAMI Activity Day 4
7th Grade**

Math Activity

****SHOW ALL WORK****

A severe winter storm causes dangerous road conditions and power outages across town. Mr. Baker owns a hardware store and is trying to decide whether to close his store during the storm.

1. It costs Mr. Baker \$380.00 a day to operate his store. For every 3 customers who visit the store, Mr. Baker sells approximately \$70.00 of merchandise. **How many customers have to visit Mr. Baker's store each day in order for him to break even? Write an equation to demonstrate your answer.**

2. Mr. Baker usually has 2 employees at a time working in his store. Each employee makes \$10.25 an hour. **How much money could Mr. Baker save each day if he only uses 1 employee at a time during the storm?** (The store is open 6:00am - 8:00pm each day.)

Name: _____

WAMI Activity Day 4
7th Grade

3. Many people buy generators during power outages. Mr. Baker buys generators wholesale for \$500.00 each. He sells them for \$697.00. **What is his percentage of profit for each generator?**

Hint: percentage profit = (actual profit ÷ starting cost) x 100

Name: _____

WAMI Activity Day 5
7th Grade

1. Read the article, “Meet the 11-Year Old Science Whiz who Invented Water Testing Device.”
2. Answer the questions about the article.
3. Gitanjali Rao’s water testing system would be a useful tool in a disaster stricken area. Write a paragraph to explain an invention you could design to aid community members during a natural disaster crisis. Include a diagram or illustration of your invention.

Standards: W.7.2, ESS3-2, H.S.8.7.2

Meet the 11-year-old science whiz who invented water-testing device

By Christian Science Monitor, adapted by Newsela staff on 12.04.17



Name: _____

WAMI Activity Day 5
7th Grade

HIGHLANDS RANCH, COLO. — In many ways, Gitanjali Rao is a typical 11-year-old. She's lively, chatty and often smiling. Yet, she can also talk easily about carbon nanotubes and Arduino processors. She knows how to think through a long-term design process, from concept to experimentation and building. Plus, she's driven to come up with real solutions to big problems.

Last month, Gitanjali earned the top prize at the Discovery Education 3M Young Scientist Challenge. She invented a portable device that can test for lead in water.

The city of Flint, Michigan, has been facing a water emergency because there was too much lead in its water. This story inspired her work.

A "Passion For Making A Difference"

Kathleen Shafer is a researcher in plastics technologies. She works at 3M, a company that makes thousands of different products, including post-it notes and scotch tape. Shafer was paired with Gitanjali over the summer to help her with her project. She says that Gitanjali has a "passion for making a difference" through science.

For Gitanjali, who is in seventh grade, coming up with new ideas is the reason science is her favorite subject. It allows her to solve real-world problems.

Name: _____

**WAMI Activity Day 5
7th Grade**

Drinking Water Problem In Michigan Spurred Project

Gitanjali focused on water testing as she learned more about the situation in Flint, Michigan. She heard about how limited the options were for people to determine if their water had dangerous amounts of lead.

"I hadn't thought about creating a device until I saw my parents try to test for lead in our water," Gitanjali says. "I realized it wasn't a very reliable process." They were using test strips that sometimes said their water was safe and other times showed that lead was present.

"I wanted to do something to change this not only for my parents, but for the residents of Flint and places like Flint around the world," says Gitanjali.

A Work In Progress For Girl

She stumbled onto the idea of carbon nanotube sensors after reading about them on an Massachusetts Institute of Technology website. Carbon nanotubes are tiny molecules that can be used to sense chemicals at a very small scale. Sensors made of carbon nanotubes can detect hazardous gases.

Gitanjali learned that she could take lead compounds from water and combine them with chloride. This would form a compound that the carbon nanotube sensors could test. A programmable computer chip called an Arduino processor could then receive and transmit the data. Gitanjali then started making the first model for her project.

Name: _____

WAMI Activity Day 5 7th Grade

Device Named After A Greek Goddess

The result was a device called Tethys, named for the Greek goddess of fresh water. It's a small blue housing that Gitanjali built using her school's 3-D printer. It has computer chips and a battery inside, a disposable container that can be dipped in water, and a Bluetooth device that sends the data to a phone. A free app which Gitanjali designed with support from her computer science teacher gives instant results.

The process wasn't always easy, though. That's what Gitanjali says she emphasizes most to other children who might want to invent.

"Failure is just another step to success," she says.

A Few Roadblocks Along The Way

In the course of developing Tethys, Gitanjali hit numerous roadblocks. Shafer, her 3M teacher, helped with cutting her presentation down to five minutes, which Gitanjali says was difficult.

Shafer notes that she's a big fan of the Young Scientist Challenge, because it makes connections between children and working scientists. It allows students to envision what a science career could look like.

11-Year-Old Also Awarded \$25,000 Check

Gitanjali is quick to credit not only her teachers with helping her, but also her parents.

She says they have constantly supported and encouraged her "crazy ideas."

Name: _____

**WAMI Activity Day 5
7th Grade**

Along with the honor of winning the contest, which is open to fifth- to eighth-graders, Gitanjali received a check for \$25,000. She plans to use the money to further develop her device and get production started. Her goal is for it to be available to buy within a year.

She already has big plans for the future, too. She wants to study diseases and genetics at the Massachusetts Institute of Technology in Cambridge.

For now, she's already thought of the next challenge she wants to try to solve: the growing problem of severe sadness among young people. And she has a working concept for what she wants to create. She calls it a "happiness detector."

Name: _____

WAMI Activity Day 5
7th Grade

QUIZ

1. Which answer choice accurately characterizes Gitanjali's reaction to the water emergency in Flint, Michigan?

- a. She thought it was terrible that Flint had too much lead in its water, but she knew there was nothing she could do about it.
- b. She felt certain that she could solve the water problem in Flint and win a contest for young scientists at the same time.
- c. She was motivated to learn more about the situation in Flint and then do something that could help the citizens of Flint.
- d. She felt angry about the situation in Flint and asked her parents to immediately do test to see if the water at home was safe to drink.

2. Read the selection below from the section "A Passion For Making a Difference."

Kathleen Shafer is a researcher in plastic technologies. She works at 3M, a company that makes thousands of different products, including post-it notes and scotch tape. Shafer was paired with Gitanjali over the summer to help her with her project. She says that Gitanjali has a "passion for making a difference" through science.

WHY did the author include this paragraph?

- a. To introduce the idea that there is a company that makes products like the one Gitanjali invented.
- b. To introduce the idea that Gitanjali is very interested in science and making products.
- c. To give examples of other products that are similar to the one that Gitanjali invented.
- d. To introduce that idea that Gitanjali accomplished her project with the help of an adult.

3. Read the sentence below from the section “Drinking Water Problem in Michigan Spurred Project.”

She heard about how limited the options were for people to determine if their water had dangerous amounts of lead.

Which word, if it replaced “determine,” would CHANGE the meaning of the sentence?

- a. Learn
 - b. Detect
 - c. Discover
 - d. Report
4. Read the sentence below from the section “A Work In Progress For Girl.”

She stumbled onto the idea of carbon nanotube sensors after reading about them on an Massachusetts Institute of Technology website.

What does the phrase “stumbled onto” in the sentence tell the reader?

- a. That Gitanjali discovered the idea by accident
- b. That it was a mistake for Gitanjali to discover the idea.
- c. That Gitanjali felt confused when she discovered the idea.
- d. That it was a problem for Gitanjali when she discovered the idea.

