

Wonder Here? 



HAZMAT(h)

Primary Math Project



HAZMAT(h) Primary Team Orders

Cleaning up the environment, one math problem at a time!

Primary Math Benchmarks Covered

- Focus on asking and answering questions
- Focus on drawing conclusions
- Focus on solving everyday problems
- Develop a concept of numeracy through play
- Follow simple step-by-step directions
- Sequence of numbers 0-100
- Skip-counting by 2's, 5's, 10's, and 100's
- Basic addition and subtraction 0-20
- Decomposition of numbers 0-10
- Identify values of coins and dollars - value of dollar then and now
- Examine and explore two- and three-dimensional shapes
- Compare, classify, and organize information through observations and measurements
- Follow simple step-by-step directions

Scenario

It was a beautiful day in sunny Central Florida, when suddenly a loud crash was heard from around the corner! Smoke is filling the city sky. What could have happened?! On the news it is now being reported that someone accidentally ran their car right into Mr. Bucket's Gas Station and the gas station is now on fire! First Responders are now on the scene!

What will YOU do to get the situation under control, before things turn into a REAL DISASTER?! It is time for your HAZMAT(h) team to suit up!

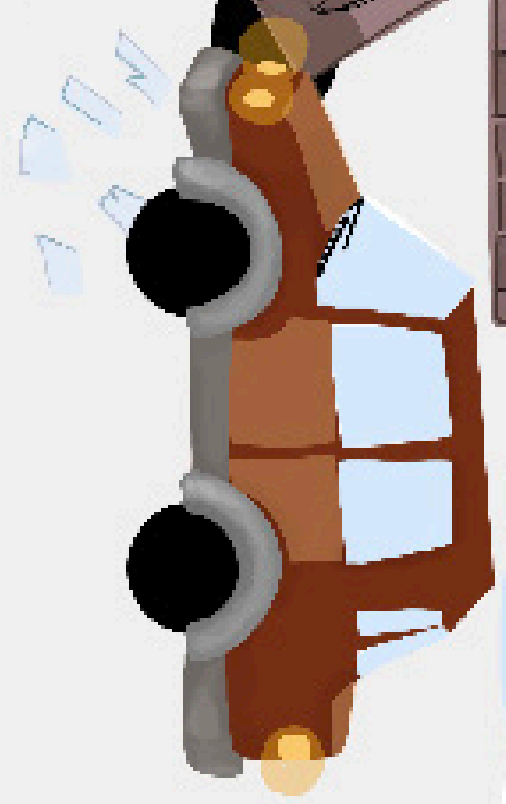
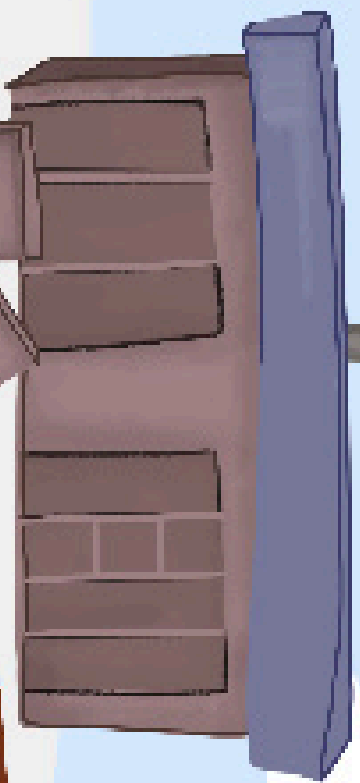
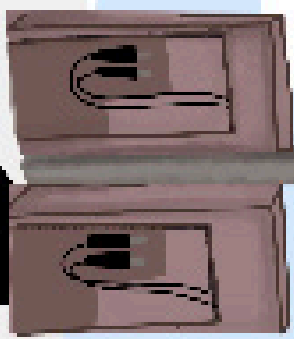
Job 1: Secure the Situation

Your first job upon arrival to the scene, is to secure the situation. Work fast and smart to get the situation under control! You need to assess the situation, identify the immediate dangers, and establish a wide perimeter to keep the community and civilians safe. Let's GET TO WORK!

Take a close look at the dangerous situation Image 1. What is going on? Circle what is wrong with the picture and what needs to be handled.



Mr. Bucket's gas



Think about what you observe in Image 1. When you get to the scene, what are questions you would ask to help you better understand the situation and know how to help. Write 3 thoughtful questions you are thinking when you look at Image 1.

- 1. _____
- 2. _____
- 3. _____

What do you think can be done to solve the problems you see in Image 1? Write or draw to show how you would solve the problem.

Take a look at Image 2. When entering a dangerous area, it is essential to immediately get control of the situation, by establishing a safe border around the hazardous area and securing a wide perimeter. To do this, draw a rectangle (directly on Image 2 using a yellow marker) around the gas station that is 10 centimeters long and 8 centimeters wide.

-  LAKE
-  Dog Park
-  HOSPITAL
-  UNIVERSITY
-  SCHOOL
-  STOP SIGN
-  HOUSE
-  PARK
-  TREE
-  Gas Station
-  PARKING
-  PLAYGROUND



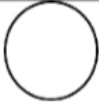



1 cm = 10 ft

made

WHAT ARE 2 DIMENSIONAL (2-D) SHAPES?

In geometry, a two-dimensional shape is any flat plane figure that has two dimensions – length and width. These shapes do NOT have any thickness and can be measured in only two faces. (A face is a flat surface, like the top of a box. An edge is a line along which two faces meet.)

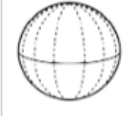

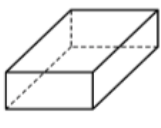



Use the chart below to identify common 2-D Shapes.

2-D Shapes	
	Circle
	Square
	Triangle
	Rectangle

WHAT ARE 3 DIMENSIONAL (3-D) SHAPES?

In geometry, a three-dimensional shape is a shape that has three dimensions- length, width, AND height. These shapes DO have thickness and can be measured in three faces or more.

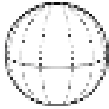

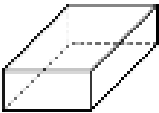



Use the chart below to identify common 3-D Shapes and their identifying attributes

3-D Shape	
	Sphere
	Cube
	Rectangular Prism
	Cone
	Cylinder
	Pyramid

Follow the directions below, to practice labeling the different 2-D shapes that you can find on Image 2.

1. Color all triangles blue
2. Place an X on each square
3. Draw a dotted line around each rectangle
4. Color all circles red

Complete the following chart to tell how many 3-D shapes you can find on Image 2

3-D Shapes		How many can you find?
	Sphere	
	Cube	
	Rectangular Prism	
	Cone	
	Cylinder	
	Pyramid	

Measuring Distance

Using a centimeter ruler, how far away is the gas station from the nearest hospital?

Distance in centimeters _____

Job 2: Contain the Spill & Ready for Transport

You have successfully secured the situation, now you need to clean up the mess! It is important to move swiftly and smartly, being sure to limit the disruption of business and transit in the surrounding areas.

Below are the barrels you can use to fill with the gas you collect from the spill site. Each barrel can hold 10 gallons. Skip count by 10s to see how many gallons you can hold in all.



10 gal.

30 gal.



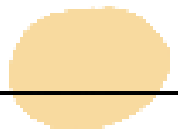
The barrels are full, but there is still gasoline on the ground. Use the small barrels to clean up the rest. These barrels can hold 5 gallons each. Skip count by 5s to see how many gallons these can hold.



5 gal.

20 gal.

25 gal.





Count the number of sandbags that are available. How many are there? _____

Great! You have plenty of sand to get the job done. You get started and use 3 bags. Cross out 3 bags. How many are left? Write a number sentence to show your thinking.

Your teammate pitches in to help cover the spill. They use 2 more bags. Now how many bags do you have? Write a number sentence to show your thinking.

Total cost of sand is \$ _____

How can you show this amount of money using dollars and coins? Show this amount in two different ways. Draw dollars and coins to show the amount of money spent on sand.

One Way

Another Way

Wrap Up: Final Report & Interview

Hip- hip hoorah! You have completed your job, the site has been secured, decontaminated, and everyone is safe! Now it is time for you to take an interview and file your final report.



You are being interviewed by the local news station about everything that occurred and the important role you played in keeping your community safe! Write or record your interview report to share everything that happened and the fast thinking that you did to keep the situation from turning from bad to worse!



When you first arrived on the scene, what did you see and what did you think about what had happened?

How did you help resolve the situation?

How did math help you resolve the situation quickly?

What did you do that was hard?
