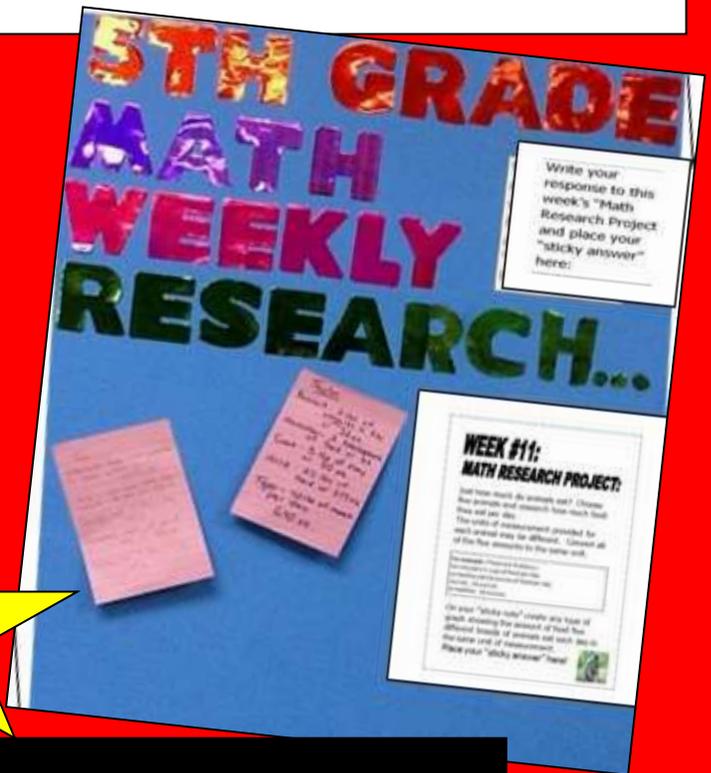


# 5<sup>th</sup> GRADE "WEEKLY" MATH RESEARCH PROJECTS "32" WEEKLY MATH ENRRICHMENT RESEARCH PROJECTS



**NO-PREP!**

**BY GINA KENNEDY**

# Weekly “Math Research Projects!”

Adding enrichment to your classroom shouldn't have to be time consuming and difficult to manage. This program is easy to manage and extremely rewarding for your students. I began using the weekly “Math Research Projects” strategy last year in my classroom and I'm happy to make it available to others to use in their classroom as well.

When my students finish their work at any given point during the week they are responsible for completing their math weekly research project and posting their response on a large sticky note.

On Mondays I introduce the projects for the week ahead. On Fridays we share their responses to their projects.

At the end of the year each student creates a scrapbook with all of the research that they've completed throughout the school year by compiling their sticky notes.

I use the larger post-it notes as some of the responses are quite lengthy.

There are many safe kid search engines out there as well as opinions as to the most effective; but the main search engines my students use include the following:

<http://www.kidzsearch.com/> (Google for kids)

<http://www.kidrex.org/>

<http://quinturakids.com/>

<http://kidsclick.org/>

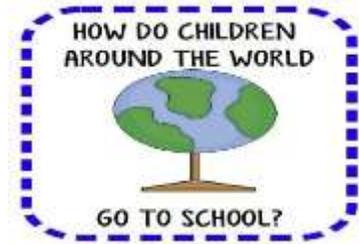
[http://www.squirrelnet.com/search/Google\\_SafeSearch.asp](http://www.squirrelnet.com/search/Google_SafeSearch.asp)

Thanks,

Gina

Write your  
response to this  
week's "Math  
Research Project"  
and place your  
"sticky answer"  
here:

# ***WEEK #1:***



# ***MATH RESEARCH PROJECT:***

Research the number of days per school year that students attend school in two countries other than the United States.

On your "sticky note" record the name of the countries you researched and the number of days, hours and minutes that students in each country attend school. **Place your "sticky answer" here!**

# ***WEEK #2:***

# ***MATH RESEARCH PROJECT:***

Research the total gross sales for five popular Disney movies.

**Gross Sales: Amount of money a movie made from box office tickets!**

On your “sticky note” record the name of the movies and the total gross sales in order from least to greatest!

**Place your “sticky answer” here!**



# ***WEEK #3:***

## ***MATH RESEARCH PROJECT:***

Research the price of admission for “Disneyworld” in Orlando, Florida for children and adults.

Then research the price of admission for “Universal Studios” in Orlando, Florida for children and adults.

Calculate how much it would cost for every person living in your household to enter both parks.

Record the total cost for both parks on your “sticky note”. **Place your “sticky answer” here!**



# ***WEEK #4:***

## ***MATH RESEARCH PROJECT:***

Research the price of the largest hamburger on the menu at five restaurants in your local area with online menus.

On your “sticky note” write the restaurant’s name and the price of the hamburger starting with the least priced hamburger first to the most expensive last.

**Place your “sticky answer” here!**



# **WEEK #5:**

## **MATH RESEARCH PROJECT:**

Research how many presidents have served office in the United States.

Then create four random data fractions using the number of presidents as the denominator.

For example:

$\frac{\_}{\_}$  of the presidents were lawyers before they served in office.

$\frac{\_}{\_}$  of the presidents were born in Texas.

Simplify or reduce each fraction that you record if possible.

Write each random data fraction on your “sticky note” with the smallest random data fraction listed first and the largest random data fraction listed last.

**Place your “sticky answer”  
here!**



# WEEK #6:



# MATH RESEARCH PROJECT

Research the times that a movie you'd like your family to see is playing at a local theater. Write down the start times that the movie is playing on any given day this week.

Calculate the difference between the beginning start time and the last start time of that film for that day.

Also research the exact length of the film in minutes and multiply that amount of minutes by the amount of times that movie is being showing on that day. Your answer should be converted to hours and minutes.

On your "sticky note" write down the name of the theater, name of the movie, date and times the movie will be shown. Also include the elapsed time between the first and last show and the total hours and minutes that film will be shown in one day.

**Place your "sticky answer" here!**

# **WEEK #7:**

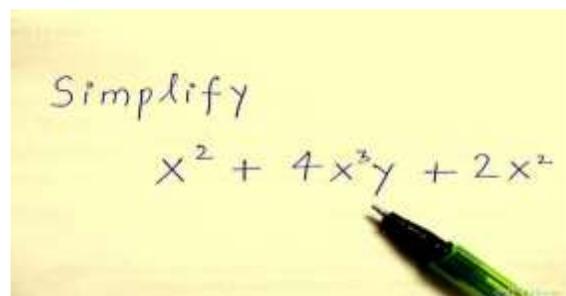
## **MATH RESEARCH PROJECT:**

Do you ever wonder when you will use algebra when you grow up?

Research two occupations that require the use of algebra.

Use two "sticky notes" this week. On each "sticky note" write the name of one of the occupations and provide at least three ways that someone in that occupation would use algebra.

**Place your "sticky answer" here!**



# ***WEEK #8:***

## ***MATH RESEARCH PROJECT:***

If you were given \$500 to help other children; how would you budget the money? Research organizations that help children.

You must use the money to help at least six organizations that help children.

The organizations could help needy children, sick children or even children that are homeless.

On your “sticky note” prepare a budget showing the names of all six organizations that you are donating to and the amounts that you are giving each organization. The six amounts must end in decimals to the hundredths and the six amounts must add up to exactly \$500.

**Place your “sticky answer”**

**here!**



# **WEEK #9:**

## **MATH RESEARCH PROJECT:**

The study of measurement dates back to ancient civilizations such as Rome, Greece and Babylonia.

Research the beginnings of three general terms that are related to standard units of capacity, weight or length. For example if you choose to research three units of length, you could research how the terms, "foot," "inch", and "yard" originated. Then show when and how each term began being used as a unit of measurement.

On your "sticky note" write down the three terms you've researched and a brief explanation of how they originated as units of measurement.

**Place your "sticky answer"**

**here!**



# **WEEK #10:**

## **MATH RESEARCH PROJECT:**

Track records are everywhere. Each state documents track running records for their fastest track stars.

Choose any four states and find out the fastest runner ever recorded for a 100 yard dash for that particular state.

Record your results on a number line.

Each answer should end in a decimal.

On your "sticky note" write a number line that displays the four states, four names of the record holders and a number line that displays the four recorded times in their appropriate places.

**Place your "sticky answer"**

**here!**



# **WEEK #11:**

## **MATH RESEARCH PROJECT:**

Just how much do animals eat? Choose five animals and research how much food they eat per day.

The units of measurement provided for each animal may be different. Convert all of the five amounts to the same unit.

**For example:** (These are fictitious.)

Ferrets eat 4  $\frac{1}{2}$  cups of food per day

Armadillos eat 2 cups

Ferrets: 36 ounces

Armadillos: 16 ounces

On your “sticky note” create any type of graph showing the amount of food five different breeds of animals eat each day in the same unit of measurement.

**Place your “sticky answer”**

**here!**



# ***WEEK #12:***

## ***MATH RESEARCH PROJECT:***

Research the total square feet (footage) of three major buildings in the United States. (Example: Pentagon, Capital, or others.)

Then convert the square footage of each building to square yards.

On your "sticky note" write the name of the state, the building's square footage and the building's square yards.

**Place your "sticky answer" here!**



# **WEEK #13:**

## **MATH RESEARCH PROJECT:**

At an online department store that sells groceries such as Target or Walmart, research the price of a brand of laundry detergent such as "Tide" or "Cheer".

Find the detergent in four different volumes or sizes. Then calculate the approximate cost of each container's volume per ounce. (You may need to use an online calculator.)

**For example:**

If 48 ounces of a soda cost \$1.29.

$1.29 \div 48 = \$0.03$  per ounce (rounded to the nearest hundredth)

On your "sticky note" write the brand of detergent and the store in which you found the information. Also include the original price of the detergent, the volume and the approximate price of each container's volume per ounce.

**Place your "sticky answer"**

**here!**



# **WEEK #14:**

## **MATH RESEARCH PROJECT:**

Research three species of animals and find out the largest size of that animal that has ever been recorded.

The three animals must all be mammals, or they must all be reptiles or they must all be amphibians.

On your "sticky note" write the name of each animal, the largest size recorded of each animal and then create a small sketch of the outline of the animal so that the sizes are in proportion to each other.

**Place your "sticky answer" here!**



# ***WEEK #15:***

## ***MATH RESEARCH PROJECT:***

Research the length of four of the top twenty longest rivers in the United States.

Convert each river's length to yards and feet.

On your "sticky note" write the name of each river, each river's length in miles, yards and feet.

**Place your "sticky answer" here!**



# **WEEK #16:**



# **MATH RESEARCH PROJECT:**

Find out the age of death of eight signers of our country's Constitution or our country's "Founding Fathers".

Determine the mode, mean, range and median of the eight men's ages at the time of their death.

On your "sticky note" write the name of the "Founding Father" and the age that he passed. Then record the mode, mean, range, and median of our eight Founding Father's ages at the time of their death.

**Place your "sticky answer" here!**

# **WEEK #17:**

## **MATH RESEARCH PROJECT:**

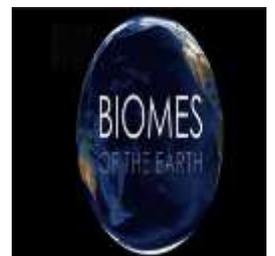
Choose five different biomes such as deserts, grasslands, or rainforests and research the percentage of Earth that each biome covers. Then convert each percentage to a fraction and create a number line to display your fraction answers from least to greatest.

**For example:**

40% of the Earth is tundra or  $\frac{2}{5}$ .

On your “sticky note” write the name of each biome and create a fraction number line that displays all of the fractions created to represent the amount of Earth that is taken up by each biome from least to greatest.

**Place your “sticky answer” here!**



# **WEEK #18:**

## **MATH RESEARCH PROJECT:**

Research the height of the tallest building in two different countries other than the United States. Convert the height of each building to meters, decimeters, centimeters and millimeters. Create a graph to display your conversions.

On your "sticky note" write the country, name of the building and total height of each building. Include a graph to show the height of each country's tallest building in meters, decimeters, centimeters and millimeters.

**Place your "sticky answer" here!**



# **WEEK #19:**

## **MATH RESEARCH PROJECT:**

In the early 1200's, an Italian mathematician Leonardo of Pisa (nicknamed Fibonacci) discovered the famous Fibonacci sequence.

Research the Fibonacci sequence and explain the theory by writing four facts about the mathematical theory. Create an illustration to further explain the math theory.

On your "sticky note" write four facts about Fibonacci's rabbit theory and your illustration.

**Place your "sticky answer" here!**



# **WEEK #20:**

## **MATH RESEARCH PROJECT:**

Research all the governors of your state from past to present. Research the month that each governor of your state was born and keep records of your findings.

Then write the probability that the next governor has of being born during every month of the year.

**For example:**

If 13 presidents were born in January, the probability of the next president having a birthday in January will be  $13/44$ .

On your "sticky note" write what the probability will be for the next governor to be born during every month of the year.

**Place your "sticky answer" here!**



# **WEEK #21:**

## **MATH RESEARCH PROJECT:**

Research the record for the fastest car speed that has ever been recorded.

Multiply that car's fastest speed per hour by three hours.

Research where in the United States or abroad that you could travel to in the fastest recorded car in three hours going at that speed from your school.

On your "sticky note" write the record of the fastest recorded speed in a car. Write the amount of distance you could travel in three hours at that speed. Write a location you could travel to in three hours at that speed from your school.

**Place your "sticky answer" here!**



# **WEEK #22:**

## **MATH RESEARCH PROJECT:**

Research each of the following for any major city in the United States:

- a. Household median income
- b. Median House Value
- c. Median Rent (Two Bedroom)

Create a line plot graph to display your information.

On your "sticky note" write the name of your city and the line plot graph showing the median house value, median rent and household median income for your city.

**Place your "sticky answer" here!**



# **WEEK #23:**

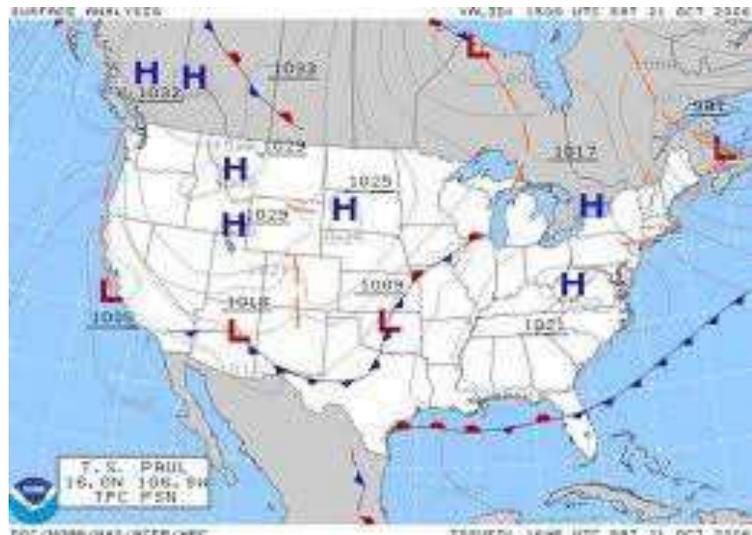
## **MATH RESEARCH PROJECT:**

Choose a day from this week and research and record the highest and lowest temperatures for that date in five different cities in five different states.

Create a graph to display your information.

On your "sticky note" write the date you researched and include your graph with the highest and lowest recorded temperature in five different cities in five different states.

**Place your "sticky answer" here!**



# **WEEK #24:**

## **MATH RESEARCH PROJECT:**

Determining the age of a tree can be mathematical, research two different ways that a scientist might use math to determine the age of a tree.

Use a diagram or illustration to help explain each of your answers.

On your "sticky note" write your two explanations of how a scientist might use math to determine the age of a tree and your illustrations.

**Place your "sticky answer" here!**



# ***WEEK #25:***

## ***MATH RESEARCH PROJECT:***

Research the amount of gallons of water the average person uses during a 5 minute shower.

Create a graph showing how many gallons, quarts, pints, cups, and liters are used during an average 5 minute shower.

On your "sticky note" write how many gallons, quarts, pints, cups, and liters are used during an average 5 minute shower in a table and graph format.

**Place your "sticky answer" here!**



# **WEEK #26:**

## **MATH RESEARCH PROJECT:**

Mathematicians have changed the way people use mathematics for thousands of years.

Research three different famous mathematicians and write two sentences to explain the contribution that each mathematician has made to the world of mathematics.

On your "sticky note" write the names of the three mathematicians and your two thoughts describing their contributions.

**Place your "sticky answer" here!**



# **WEEK #27: MATH RESEARCH PROJECT:**

Research five famous volcanoes and write one mathematical fact about each volcano.

For example:

A volcano might have erupted 30 times.

On your "sticky note" write the names of the five volcanoes, location of the volcanoes and five mathematical facts.

**Place your "sticky answer" here!**



# **WEEK #28: MATH RESEARCH PROJECT**

Research the mass, diameter and weight of four different planets in the solar system.

Create a graph to display all of your information.

On your "sticky note" include the graph that displays the mass, diameter, and weight of four different planets in the solar system.

**Place your "sticky answer" here!**



# **WEEK #29: MATH RESEARCH PROJECT:**

Research the invention of the microwave oven. Write two paragraphs to explain how the microwave oven was invented.

Within the two paragraphs include five sentences that include mathematical information.

On your "sticky note" include your two paragraphs explaining the invention of the microwave oven with your five mathematical facts regarding the invention.

**Place your "sticky answer" here!**



# **WEEK #30: MATH RESEARCH PROJECT:**

Common “measures of temperature” were named after three important scientists; Daniel Fahrenheit, Anders Celsius, and Lord Kelvin William Thompson.

Research the three scientists and write two sentences about each scientist that thoroughly explains their contribution to the “measurement of temperature.”

On your “sticky note” write the name of each scientist and two thorough sentences to explain how they contributed to the “measurement of the temperature”.

**Place your “sticky answer” here!**



# **WEEK #31: MATH RESEARCH PROJECT:**

Human Brain Math Research:

1. Research the weight of the average human brain and show the amount in different values that are squared, cubed and also in powers of 4 and 5.
2. Research the percentage of the brain that is made of water, white matter, gray matter and fat. Create a graph to show your results.
3. Research the age that the brain stops growing.

On your "sticky note" write your answers to the brain research math problems above including your graph.

**Place your "sticky answer" here!**



# **WEEK #32: MATH RESEARCH PROJECT:**

Determine the year that you were born.  
Research the following information for the year that you were born:

- average price of a gallon of unleaded gas
- minimum wage
- average price of a gallon of milk
- average price of a loaf of bread
- average household income

Research all of the above information for the current year as well. Create a graph that compares all of the above information from the year you were born to the current year.

On your “sticky note” write all your information above comparing your birth year to the current year on a graph.

**Place your “sticky answer” here!**

