# POWER MATH- ENRICHMENT PROJECTS

**Tallest Buildings**. Research and find out where the tallest five buildings in the United States are located. Create a book with an illustration or photo of each building with the building's names, locations and height in meters, yards and feet.
**Hint:** One meter = 1.09 yards (For example if a building is 121 Meters, you would multiply 121 x 1.09 to find out how many yards high the building is.)
At the end of the book create a graph to display your data in feet and yards.

**Shopping Spree.** You've just won a $500 shopping spree. Go online to a favorite department or super store and find at least fifteen items or more to buy for $500 without going over. There will be no tax.
Print out or draw a picture of each item, with its price, you decide to purchase and glue it to your "Shopping Spree" poster with its price listed nearby. On your poster include all your math calculations that you performed to show that you haven't went over $500.

**Going to the Movies.** Research the weekend box office totals for last weekend at the theaters. Find out what the top ten movies made and add them together. Then divide them by ten to find out the average that each movie made. Round the amounts to the nearest one million and organize the data into a graph showing which movie profited the most and which the least of the top ten.

**Fastest Animals.** Research the ten fastest land animals on earth. Write a report or create a Keynote or Powerpoint to record your information. Include photos or illustrations of each animal. Find out how many miles each animal can run per hour. Then calculate how many miles the animal can run in 10 hours and 24 hours. Record all your data in your book or powerpoint. You will have to freshen up on your multiplication skills!

**Vacation plans.** Plan a pretend trip from the city you live in to Orlando, Florida in which you will visit an amusement park like Disney World or The Wizarding World ofHarry Potter. After two days you will leave Orlando and fly to New York City. After spending a few days in New York City checking out the sights, fly to Los Angeles for sightseeing. After a few days in Los Angeles head back home to your original destination. Create a travel journal documenting each short trip from city to city. Write two paragraphs about each stop including a few tourist spots you visited.

**Math:** Pretend that each flight you took on your vacation left the local airport at exactly 7:30 a.m. headed to your next destination. Go to this site: **http://flighttime-calculator.com/** to find out how much time a flight between each of your two cities takes. On each journal entry include how long the flight was and exactly what time your plane landed remembering that each flight left at 7:30a.m. (Notes: You will have a total of four flights. Use the airport closest to where you live to begin your journey.)

**Heaviest Animals.** Research the five heaviest animals in the world. Create a set of five "heavy animal" trading cards. On each card include a photo or illustration of the animal. Name of the animal and how much each animal weighs in tons (if they're that big), pounds and ounces. You may have to do some converting if the amounts are not included for each unit.

**Design a car.**Automobile designers must be very good at mathematics. Research and write a list of fifteen different ways that an automobile designer would use math. Then design your own unique car model and illustrate it on poster board.Include at least ten notes by your car showing how you used math in your design.

**Create a menu.** Create a menu for your new "rocking" cafe. Decorate the cover of the menu with your own flair. You can offer any type of food you like at your cafe. You must put a price on every item on the menu. On the menu include three appetizers, four main dishes and three desserts.
In the center of the menu include two "special meals" which you created by putting two different combinations together that include: one of your appetizers, one of your main dishes and one of your desserts. But remember that the special dinners should be priced at $1.00 less than what they would cost if you purchased each item separately in the meal.

**Fairy Tale Fractions** Write a two page fairy tale parody of one of your favorite fairy tales adding fractions to the story. For example in "Goldilocks and the Three Bears", Goldilocks could be called "One-Half Pint". She could eat 3/4th of a bowl of porridge instead of a teaspoon and etc. There should be at least ten examples of fractions in your story. Underline all your references to fractions. Add illustrations.

**Drink Stand**. You have decided that you're going to start a drink stand this summer to earn extra money. You will prepare to serve 200 customers. You will sell juice boxes that you have purchased for $3.00 for eight boxes and water which you purchased for $4.00 for twelve bottles.
You will buy a quantity of 100 of each drink because the store won't break up a group so you may have to buy more than you need. Then use your math skills to calculate the following:

How much will you have to spend to purchase the juice and water?
How much will you spend on each individual water bottle and each individual juice box?
How much will you charge for the bottled water and juice boxes if you charge $. 50 more than what you paid for each one?
If you sell 50 bottles of water and 50 juice boxes will you make a profit? How much will you make?
Create a poster that advertises your juice and water for the price you will charge and entice customers to want to purchase your drinks.

**Medicine and Math.** Research how doctors use math in their career. Use this site: http://www.ehow.com/how-does_4565810_doctors-use-math.html or http://everydaylife.globalpost.com/kind-math-work-doctor-know-26082.html or any other site you can find to research this information. Create a brochure called, "Why Medicine and Math Go Together" using information from this article or others that explains how doctors use math. Add photos or illustrations to your brochure to make it interesting.

**Geometry Scrapbook.** Create a scrapbook called "Geometry is All Around Us." Take pictures or find photos in magazines, newspapers or on the internet of unusual objects that have interesting geometrical features such as a tree. Then write a description explaining all the angles, shapes and lines (parallel, perpendicular) of the object in a paragraph next to each photo. Make a decorative cover and include at least ten photos in your scrapbook.

**Large airplanes.** Research and write a two page report on the largest airplanes being used today. For example many aircraft companies use Boeing 747's. In your report provide at least ten mathematical facts (facts that have numbers) about the airplanes. Include pictures and illustrations in your report.

**Games and math**. Did you ever think about how really common games you play with your friends involve mathematical skills? Write a two page or more fiction story book that involves a game such as kickball, football, soccer or even tag. While telling your story, focus on all the mathematical skills involved to play the game. For example; in basketball, the hoop must be a certain height and the ball needs to be a certain circumference. Include illustrations and a cover page for your story book.

**Everybody loves candy**. Everybody loves candy. Brainstorm a list of your top four favorite brands of candy. Create four mini-posters showing different fraction amounts of your candy listed from least to greatest excluding ., 1/3, or 3/4. (For example you might show 6/8's, 1/3, 5/6 and 1/7 of a pixie stick.) You must have

at least four different fractions on each poster. (Only use each fraction once in your poster set.)

**Careers**. People that work in the food service industry (restaurants) use math everyday in their career. Determine all the ways that a person might use math in a restaurant and then create a story book called, "Why Math is Important to Know If You Work in a Restaurant."
At the bottom of each page in your story book create a word problem dealing with the information given.

**Treehouse Design.** Design your dream treehouse. Design your treehouse's architectural plans on graph paper. As you design the perimeter and area of the exterior walls of your treehouse remember that every cubic square is equal to a foot. It can be as big as you'd like.
Inside the walls of your tree house graph paper illustration, draw and add any furniture you would like (it is your dream treehouse after all.) You can add a television, sectional couch, desk or whatever fits your personality. Arrange the furniture and label each piece on the plans so that it all fits together and there is a walking path in your illustration.
Then draw a full color illustration to better display what your treehouse will look like with all the furnishings you have chosen. Draw an interior and exterior illustration. (Be sure and record the perimeter of your treehouse next to the exterior illustration.)

**Unusual Place Values** Create a list of "Unusual Place Values". Find five unusual things that come in values over a 1,000,000, five unusual things that come in values over 100,000, five unusual things that come in values over 1000 and five unusual things that come in values over 100. Choose your favorite ten examples off of all your lists and create a Powerpoint or book that displays your unique information.
**For example:** McDonalds hires over 1,000,000 people at year at their stores.
There are over 1000 leaves on the bush in front of our house.