Summer Math Enrichment Challenge

Stephen Decatur School

Student Work Packet

Students are welcome to complete the math work in a notebook or on some scratch paper. This is totally optional and just intended to provide students with extra practice!

- ❏ Entering 1st Grade
- ❏ Entering 2nd Grade
- ❏ Entering 3rd Grade
- ❏ Entering 4th Grade
- ❏ Entering 5th Grade
- ❏ Entering 6th Grade
- ❏ Entering 7th Grade - Part 1
- ❏ Entering 7th Grade - Part 2
- ❏ Entering 8th Grade

Gardens of Eating... and Math!

Besides providing a great source of delicious summer vegetables and fresh flowers, gardens grow great opportunities to show practical applications for math.

- ❏ How big is that garden? How much fencing is needed to keep out the deer? How much fertilizer do you need to keep the garden (or yard) growing?
- ❏ How much mulch do you need to order if you want to put it down 3" thick in your flower beds?
- ❏ What is the weight of that prize-winning tomato or pumpkin? How many peppers are on the pepper plant? If you need to keep your bean plants 3 inches apart, how many plants will grow on a 12 foot row? How many seeds should you plant?
- ❏ Go to the supermarket or farmer's market and find out the cost of fresh vegetables you can grow at home. How much money will you save if you grow it yourself?

In the Kitchen – Cook up Some Math!

- ❏ Measure all of the ingredients (especially the liquids in the glass measuring cups).
- ❏ Challenge yourself to double the recipe or cut the recipe in half – fractions are everywhere!

Take Me out to the Ballgame!

Take in a summer baseball game – either at the ballpark or on TV. Baseball's a natural place to see math in action – from a pitcher's ERA to a hitter's on-base percentage. Record the

events of the game using a scorecard. To find out all about how to keep score, go to Patrick McGovern's fantastic website: The Baseball Scorecard. Then, calculate some statistics about your favorite players! If you really like baseball, run your own team!

Take a Vacation!

Before you take off on that family trip, help your adults and get in on the planning! Here are a few examples of where math can be used when taking that family trip:

- ❏ Use an atlas and figure out how many miles you'll be driving – the scale of miles is a great example of proportion and measurement used in real life!
- ❏ What's your car's fuel efficiency? Add to find out the total cost to fill up the tank throughout your trip; divide to calculate the miles driven per gallon of gas; multiply to determine the cost of a fill-up based on your expected travel distance?
- ❏ How fast did you get there? Use the car's trip odometer to find out how many miles you've driven, and determine your average speed.

Take a Trip to the Grocery Store!

- ❏ Estimate the total bill based on prices of what you are purchasing.
- ❏ How much does that bunch of bananas weigh? How much will it cost?
- ❏ What is the unit price of your favorite box of cereal?
- ❏ What is the unit of measurement, and how much is the total cost of that box?

Board Games

There are great games you can play to pass a rainy day... and practice your math, too! You probably already have many of them at home. Here are just a few:

Basic Operations:

- ❏ Monopoly
- ❏ Life
- ❏ Payday

Coordinate Graphing:

- ❏ Battleship

Probability:

- ❏ Deal or No Deal?

Logical Reasoning:

- ❏ Clue
- ❏ Stratego
- ❏ SuDoKu

Strategy Games:

- ❏ Mancala
- ❏ Othello
- ❏ Connect 4
- ❏ Chess and Checkers

There are many other ways to use math in real life over the summer. These are just a few suggestions. Feel free to make up your own ideas! You are also welcome to share all of your hard work with Mrs. Goetz (jbeck@philasd.org) Mr. McAllister (dmcallister@philasd.org) or any other Math Teacher! We would love to recognize students who are practicing Math. Have a great summer... and don't forget – MATH IS EVERYWHERE!