

Summer Math Challenge for OLMA Middle School Students

We ask your child to read over the summer... but we also ask that they practice math skills, too!

Practice can include playing multiplication games online to keep fluent with math facts, or can incorporate real-life use of math such as helping to plan parts of a family vacation or estimating costs of back-to-school supplies and clothes while looking at newspaper sales circulars.



How to get started? It's as easy as

1

Do the Math!" Check out the links below to find some fun websites and activities.

2

Document what your child completed on the chart found at the end of this document and sign it.

3

Have your child hand in the chart to his/her math teacher during the first week of school.

Participating in the math challenge is as easy as !

Students: What can you do? Well, listed below are links to resources and activities that can help you get started!

Multiplication Games:



* Fact fluency is one of the first casualties of the long summer vacation.

***Multiplication War:** Use playing cards. Throw down two cards. The person who finds the product of the two cards first keeps the pair.

Keep those math facts fluent with fun **on-line practice!**



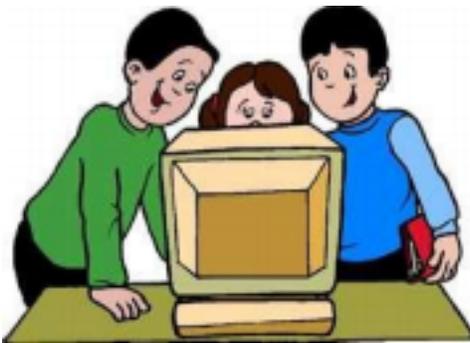
*Multiplication.com has some great games to play by alone or against other kids online! Brown Student favorites include [Penguin Jump](#) and [Multiplication Grand Prix](#)

*You can print out Mad Minutes to see how much you know at superteacherworksheets.com, and you can find worksheets covering fractions, decimals, and more at Education.com.

Other Online Games:

* arcademicskillbuilders.com is a great resource to refresh all math operation areas. Play arcade games to review basic operations, fractions, decimals, and working with money!

*<http://www.math-play.com/Factors-and-Multiples-Jeopardy/Factors-and-Multiples-Jeopardy.html> Remember the difference between factors and multiples with this fun on-line game!



*Go to the mathplayground.com to practice skills like measuring angles, working with fractions, and creating congruent or similar shapes using transformations

*For fun logic games, try out <http://teacher.scholastic.com/maven/index.html>

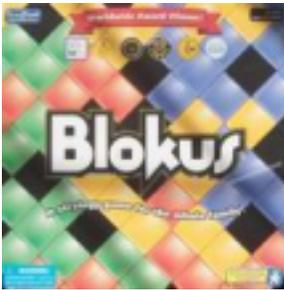
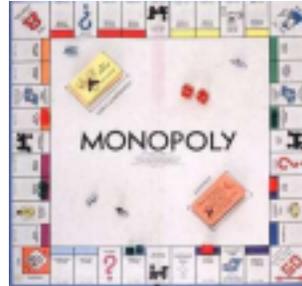
*Other favorite sites include: hoodamath.com, jmathpage.com/wpjmp, <https://www.setgame.com/set/puzzle>, and gamesforthebrain.com. In addition, check <https://student-tutor.com/blog/top-10-math-websites/>

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 that we like.

Basic Operations:

- Monopoly
- Life
- Payday
- S'Math
- Tripoly



Patterns and Geometry:

- Sequence
- Blokus
- Geoshapes
- Quirkle



Coordinate Graphing:

- Battleship

Logical Reasoning:

- Clue
- Stratego
- SuDoKu



Probability:

- Deal or No Deal?



Strategy Games:

- Mancala
- Othello
- Connect 4
- Chess and Checkers

Math with Cards and Dice

Almost everyone has a deck of cards in their house, and there are so many ways a deck of cards can be used to practice math skills! Check out the activities to reinforce math concepts found on this fantastic

website: <https://boredteachers.com/blog/20-activities-for-learning-math-with-card-games>

Other Real-Life Math Activities:

Take a Vacation!

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



- Determine the number of miles from your home to your final vacation destination. If a map had a key that for every 100 miles traveled is an inch, calculate how many inches it would show between the two locations on the map. 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... is it time to purchase a hybrid vehicle?
- 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.

Your Backyard... and Math!

Besides providing a great area for fun, your backyard has great opportunities to show practical applications for math.

- How big is your backyard?
- How much fencing is needed to keep out the deer?
- How much fertilizer do you need to keep the grass growing?
- If an herb planter measures 2 feet by 3 feet by 1 foot. How much dirt would you need to grow your herb garden?



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



https://www.startwithabook.org/content/pdfs/keepingscore_baseball.pdf. Then go to , <http://www.baseballscorecard.com/statistics.htm> and calculate statistics about your favorite players!

Take a trip to the grocery store!



- Create a shopping list and 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?
 - Compare the final cost to your estimate.

In the kitchen – cook up some math!

- Pick your favorite recipe and 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!



Back-To-School

- You've gotten that list of needed school supplies from the OLMA website... How much will that cost? Use the advertisements in the Sunday newspapers to find the best deals... and calculate how much you'll spend to get set for the new school year. Do you have any supplies leftover from this year that you can use to save some money?



How is the weather?



- Record the temperatures for one week. Find the mean, median, mode and range.
- Create an appropriate graph to display the data. (Hint: Not all graphs can represent the change in temperature!!)

And since you're going to read, how about combining reading with math! Check out these great titles...

Title	Author
<i>I Hate Mathematics! Book</i>	Burns, Marilyn
<i>The Phantom Tollbooth</i>	Juster, Norton
<i>Janice Van Cleave's Math for Every Kid: Easy Activities That Make Learning Math Fun</i>	Van Cleave, Janice Pratt
<i>G Is for Googol: A Math Alphabet Book</i>	Schwartz, David M.
<i>Janice Van Cleave's Geometry for Every Kid: Easy Activities That Make Learning Geometry Fun</i>	Van Cleave, Janice Pratt
<i>Math Curse</i>	Scieszka, Jon
<i>Brown Paper School Book: Math for Smarty Pants</i>	Burns, Marilyn
<i>This Book Is about Time</i>	Burns, Marilyn
<i>Math for Kids and Other People, Too!</i>	Pappas, Theoni

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! Just remember to keep track of what you do. There's a chart on the next page to help you.

Have a great summer... and don't forget – math is everywhere! So practice, and turn in your log – We will see you in September!!

