

SIXTH GRADE DIS ACCELERATED MATH GUIDE 2016-2017

ManghamMath.com

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WELCOME! I hope that sixth grade math will be a positive experience for both you and your student. The following guide is to help you through our class this year and to make the most of all the opportunities available to you. I have designed the guide this year to put the main focus on why this will hopefully be the best math class your student has ever taken.

THE GOALS

- **For your student to enjoy math!**
- For your student to learn how to think.
- For your student to want to be a part of math class each and every day.
- For your student to master all math objectives through the end of 8th grade (pre-Algebra).
- For your student to learn better ways to study, take notes, and plan their work assignments.

THE EXCITING STUFF

What makes Mangham Math different?

We are focusing on real world uses for mathematics. While the second semester lends itself more to incorporating the math into everyday life, this will be a focus all year. There are several units that have been developed for this class over the years:

- **Architecture: Design Your Dream Home** – Three weeks combining geometry along with numerous other math concepts culminating in each group designing a home to scale
- **Food and Restaurants** – Three weeks of students creating menus, determining tax and tips, and completing income/expense reports for their newly created restaurant.
- **Fantasy Football** – Students draft and run their team each week computing their fantasy score and competing against others. We make it fun even if you know nothing about football!!!
- **The Stock Market** – After many years it is back as part of our financial literacy unit. Which companies will get part of your \$100,000? Think you can out pick your teachers and parents?
- **The Hunger Games** – Integrated within our probability unit, students enjoy using many aspects of this best-selling series to determine if the odds are really in their favor.
- **The Titanic** – A unit combining statistics and measurement will look at the events that shaped the RMS Titanic from construction to setting sail and from the iceberg to the recovery effort.
- **Battle of the 80s Number 1 Hits** – Combining all our statistics and graphing concepts, the students will compare the chart run of four songs to determine which one was the biggest hit.
- **Star Wars** – Utilizing math concepts such as variables and expressions, our students use the force to gain math knowledge while completing activities related to the Star Wars trilogies.
- **Integers in Sports** – Negative numbers are used all the time in sports. Golfers want negative number, running backs lose yardage, and hockey players have plus/minus ratings.
- **Animals Big and Small** – We will study animals from the standpoint of volume and surface area.

The online math book is a great resource to use at home when you need help. There are many more exciting things for us to do in class every day.

THE CLASS ENVIRONMENT

- **21st Century Learning** – From the moment you walk through the door you should notice this is not your normal classroom. There are plenty of comfortable work spaces to choose from depending on your learning style. We have a flexible learning environment because we often work in pairs or small groups.
- **The Handshake** – Mr. Mangham greets his students every day at the door with a handshake. This is extremely important to me and my students learn not to enter until I am there to greet them. I always want to start on a positive note and thank my students for coming to class each day.
- **ManghamMornings** – My room is open from 8:00-8:30 every day. This time can be used as a quiet time to work on any assignment, a great opportunity to ask me questions, or just a time to come help set-up the room for the day.
- **The Songs** – As students enter the room there is always music playing! We have a wide variety of songs from “Monday Monday” starting the week to “Vacation” to end the week. From current hits to blasts from the past, music is a fun way to start each class as the students work on their warm-up.
- **Mangham’s Most Wanted** – As a parent you will be signing or initialing many of these throughout the year. They are given out every day for anything good, creative, helpful, or brilliant!
- **Friday Video** – Each Friday we watch a YouTube favorite from Kid Snippets, Kids React, or some other similar site.
- **Hands-On** – Math is not all pencil and paper. We will be using centimeter cubes, two-color counters, HandsOn Equations, dice, flags, and more! Students will be working in groups, acting things out, discussing a wide variety of solutions, and learning together.

TECHNOLOGY

We embrace technology in our class! Edmodo/Canvas will become an integral part of each student’s academic life this year. Through grants, money from my camps, and parental donations we have 18 iPads just for our classroom. The technology does not teach the math, but it allows us to run the class more efficiently and it offers alternative ways to learn certain concepts.

If your student has a mobile device, *he or she is welcome to bring it to class every day*. My hope is that they will see their device as a conduit to learning and not just for games and texting. Last year some students kept their entire math spiral electronically.

ManghamMath.com will be the hub of all activities and assignments throughout the school year. You can always visit the site to view tonight’s homework, download the latest chapter packet, or start the review for next test.

THE BASICS

Why am I in this class? What will we be doing in this class? What is the goal of this class?

You are in this class because you have tested at a level indicating this you are ready for accelerated math. We will cover all of 7th grade math and all of 8th grade math. The class was developed so students as 7th graders are ready for Algebra class. Algebra is usually a 9th grade class, so this class prepares as many students as possible to jump two years ahead in math.

So what exactly are the topics you plan to cover?

The most important new topics will be equations, linear relationships, and geometry. Do not worry, though, we will also be covering topics from the past such as fractions, integers, probability, and statistics.

So what would an alien see if he walked into your room for the first time?

Each day is different, but here are some things I hope he would discover:

- Students engaged in problem solving by exploring, investigating, estimating, questioning, predicting, and testing their ideas about math.
- Students working together to solve math problems and talking about math.
- Students using materials they can touch and feel to explore and develop their understanding.
- Students will experience math in terms of daily life and seeing the connections both within mathematics and other disciplines.

So what should I expect to see at home in terms of homework?

This class is like a select soccer team compared a recreational soccer team. You should expect to see your student doing homework every night. We are covering two years in one. Assignments are always given in advance so that students can plan ahead. Your student should NOT be spending inordinate amounts of time on homework. When 15 problems can cover what they need to learn I don't assign 50. Students surveyed averaged 33 minutes of homework each night.

Can I get assignments in advance?

The HW for the entire week is posted each Monday in class and on the website. Students copy down all assignment first thing when they walk into class on Monday. More than 90% of the time students also have these assignments with them or they are available for pick up in advance – so you can plan your schedule!

How can I be better prepared for tests?

Before most tests you have a review that is very similar to the test so it is the best way to study. Reviews are not due until test day. Reviews and answer keys for the entire year are already posted online.

What are your expectations of my assignments, Mr. Mangham?

1. I will accept all work that is completed in **PENCIL**.
2. I will accept all papers which **SHOW ALL WORK** unless specific directions state otherwise.
3. I will accept work always completed **ON A SEPARATE SHEET OF PAPER** unless otherwise directed.

How are the longer projects graded?

On any long-term project, I am very careful to assign individual grades. If you do the whole project and your partner Elmo sleeps, you get the credit, not Elmo.

So exactly what makes up my grade?

Grades are available online you can always go check them. Tests are usually graded within 24 hours.

Tests/Projects – 50% , Quizzes/Daily Work/HW/Warm-Ups – 50%,

Is it okay if I turn in most of my assignments late?

You must also be responsible and a hard-worker. I expect no late work. Anything more than 2 days late becomes a zero, which could jeopardize you staying in accelerated math. I realize everyone can leave something at home once or twice, but repeated late and missing work is not acceptable.

Tutoring is for dummies, right?

Wrong!!! I am available every morning for tutoring starting at 8:00am. Many students take advantage of this extra time to ask questions or work on problems. The students who do the best in the class are often the ones I see during tutoring time. Over the past years I have had students who show up in my room every single morning before school.

What can I find on the internet for your class?

In addition to overall grades, test grades are posted within 24 hours. All reviews for tests are posted on my site. All chapter packets are also placed on the internet – that means all your homework assignments! You can't use the excuse, "I left my HW at school!"

Is that true that you are a hard teacher?

I have high expectations of my students, but we like to have a lot of fun along the way as well. If you like a challenge and are willing to work hard, my class might even be your favorite! I can guarantee you will have the opportunity to learn more than you ever imagined in one year.

I do not treat all students equally. I treat all students equitably.

What can I do as a parent to help?

Please feel free to always email me with questions or concerns. With assignments at home, I suggest:

1. Never pick up the pencil! Ask questions and give directions, but have the student do all the work!
2. Give the smallest hint you can without telling how to solve the problem.
3. Always be encouraging. Please don't ever say "This is so easy" or "I already know how to do this".

Also do not tell your student, "Well, I was never good at math!" Some students believe that since mom or dad was never good at math that they will never be successful either.

Thanks in advance for what is going to be a spectacular year!