Bulldog Math

with Mr. Jones

2018 - 2019

Class Information Packet

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A Quick Glance at What Is Inside ...

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Welcome to Mr. Jones' Bulldog Math

The *"Most Fun You Can Have and Still Call it Math"* class!

Greetings!

I wanted to take a very brief moment to introduce myself before you wade through all of the procedural information on what we do and how we will do it. If you have any questions or concerns, please **NEVER** hesitate to speak to me so we can address the situation right away.

Meet Mr. Jones:

- ***Math Guru*** -- My daughter labels me a math nerd, but I just happen to love math … and I love making math fun and interesting for my students. Thus, I prefer the term ***math guru***! I received my B.S. in Math and Secondary Education from the University of Illinois. I actually student taught under the direction of Coach Frank Dutton right here in Mahomet (at the high school). I then earned a Master of Divinity and spent 17 years as a youth pastor in the Chicago suburbs, in Ohio and in Champaign.

  My teaching experience includes teaching as a substitute in the Chicago suburbs, and teaching as a full-time 8th grade math teacher for 3 years in Champaign (Franklin Middle School). I have also spent 6 summers teaching high school Algebra, working as an instructor in the Merit Workshop Program through the University of Illinois, presenting a workshop at a technology in education conference in Springfield, presenting at two separate national conferences for education (one in San Francisco and one in Philadelphia), and teaching as an adjunct faculty at Urbana Theological Seminary. This will be my 11th year here at Mahomet-Seymour Junior High.

- ***Fisherman Extraordinaire*** -- One of my passions (and certainly main hobby) is fishing. I love to fish (actually, it is the catching part that I find most fun). I have spent weeks in the Boundary Waters wilderness area of Canada, many days on Lake Shelbyville, Lake Clinton and Lake of the Woods (not to mention more private lakes and ponds than you ever thought existed).

  I have taken students out fishing as a part of my desire to give back to the community. If you have any fishermen in your family, please let me know!

- ***On-the-Job-Trainee Dad*** -- I have 2 beautiful daughters (ages 23 and 20). As any parent knows, we as parents are always learning and growing as parents and as individuals. I have dealt with enough teenagers over the past 25+ years to know that this will be my most challenging and rewarding time as a parent.

What to Expect in Bulldog Math:

- ***Critical Thinking*** -- Math is **FAR** more than numbers ... It is more about critical thinking and problem solving. The process by which we solve problems is as important as the "right" answer. My expectation is that every student is engaged in the learning process, using critical thinking and problem solving skills to achieve success …. and to prepare for future success as well.

- ***Cooperative Learning*** -- Research clearly shows that cooperative groups generate more discussion and stimulate multiple brain regions. Students also learn better and retain more information when working cooperatively. The students help one another and teach one another as they work together.

- ***Write to learn*** -- when you write in class or take notes, you need to write things that will help you interpret, understand and recall vital information. Writing in math allows you to organize your thoughts, ideas and questions in a way that will lead too further understanding of the material.

- ***Challenge*** -- I challenge my students to work hard, think deep and enjoy the learning process. Research shows that productive struggle actually helps students learn more. Expect to be challenged in many ways as you learn critical mathematical and life skills.

- ***Individuality*** -- Each student is an individual worthy of dignity and respect. I understand that students learn differently. Thus, each student is seen as an individual and the class will include many diversified teaching techniques in an attempt to speak to each learning style.

Overview of the Curriculum

The Master Plan for CPM Core Connections 3 *

Chapter 1: Problem Solving

- Problem Solving and Critical Thinking
- Recognizing and Extending Patterns
- Graphing and Interpreting Graphs
- Proportional and Linear Relationships
- Absolute value
- Exponents

Chapter 2: Simplifying with Variables

- What is a variable?
- Combining Like Terms
- Re-writing Expressions – simplifying
- Writing simple equations
- Solving Equations

Chapter 3: Graphs and Equations

- Functions and Rules
- Making Predictions from Rules
- Using Graphs to Solve Problems
- Solving Equations

Chapter 4: Multiple Representations

- Graphs – Tables – Equations
- Connections Between Graphs and Equations
- Using the Slope-Intercept Form of an Equation
- Finding Growth and Patterns

Chapter 5: Systems of Equations

- Multi-Variable Equations
- Introduction to Systems of Equations
- Real-World Problems
- Solving Systems of Equations

Chapter 6: Transformations and Similarity

- Transformations on Graphs
- Multiplication and Dilation
- Similar Figures
- Similar Figures and Transformations

Chapter 7: Slope and Association

- Representing Data
- Data and Connections
- Slope

Chapter 8: Exponents and Functions

- Growth – Linear and Exponential
- Scientific Notation
- Rules for Exponents
- Functions in Graphs and Tables

Chapter 9: Angles and Pythagoras

- Angle Relationships
- Classifying Triangles
- Similarity in Triangles
- Radicals (Square Roots)
- Pythagorean Theorem

Chapter 10: Geometry

- 3 Dimensional Shapes
- Area
- Surface Area
- Volume

*The curriculum overview is our guide but is subject to change as the year progresses and students are assessed as to their mastery of certain concepts. The main concepts, goals and objectives will not change, but the pace and schedule may be amended throughout the year.

Overview of the Curriculum

The Master Plan for CPM Core Connections 2 *

Chapter 1: Problem Solving and Probability

- Problem Solving and Critical Thinking
- Recognizing and Extending Patterns
- Introduction to Basic Probability
- Sample Spaces
- Fractions and Percents
- Compound Probability

Chapter 2: Fraction and Integer Addition

- Fraction-Decimal Conversions
- Orders of Operations with Integers
- Multiplying Fractions
- Multiplying Portions

Chapter 3: Arithmetic Properties

- Re-writing Expressions
- Identifying Terms in Expressions
- Subtracting Integers
- Multiplication of Decimals and Integers
- Division of Decimals and Integers

Chapter 4: Proportions

- Similar Figures
- Scale Drawings
- Proportional Relationships in Graphs and Tables
- Unit Rates

Chapter 5: Probability and Word Problems

- Finding and Using Percentages
- Probability Games
- Simulations of Probability
- Solving Real-World Problems

Chapter 6: Inequalities and Equations

- Comparing Expression
- Introducing Variables
- Solving Basic Equations in one variable
- Distributive Property

Chapter 7: Proportions and Percents

- Distance, Rate and Time
- Solving Problems Involving Percents
- Percent Increase and Decrease
- Integer and Fractional Coefficients

Chapter 8: Statistics / Angle Relationships

- Comparing Distributions
- Representative and Random Samples
- Angle Relationships
- Constructing Shapes
- Classifying Triangles

Chapter 9: Circles and Volume

- Circumference, Diameter and Pi
- Area
- Surface Area
- Volume
- Pythagorean Theorem

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Classroom Expectations

Helpful Hints so That There Are NO Surprises

EXPECTATIONS: (WE SET HIGH STANDARDS IN OUR CLASS)

Be Respectful

- This is **THE** most important element in my classroom — see below

Be Ready

- Come to class ready to learn and grow each day
- Be in your seat when the bell rings
- Be prepared with the necessary materials

Be Productive

- Begin the warm-up immediately
- Pay attention, take notes and participate in class
- Contribute to the work your cooperative group is doing
- Do your homework … especially if given time in class … and submit assignments when due

Be Honest

- Academic integrity is a worthy goal
- Do your own work – cheating will not be tolerated and will be addressed immediately

Be Kind

- Whenever possible give sincere compliments. Positive interactions and encouragement are essential components to creating the type of environment where all feel safe and all have a chance to succeed.

Have FUN!!!

THE ONE ASPECT MOST CRITICAL TO THE CLASSROOM LEARNING ENVIRONMENT: RESPECT

Respect Yourself

- Believe in yourself
- Do your best work
- Care enough about yourself and your work to ask the questions that you have or seek additional help when needed

Respect Your Classmates/Peers

- Respect the personal space of others
- Respect the property of others
- Respect the individuality of each person

Respect Your Teachers/Tutors/Other Adults

- Address them appropriately – Mr., Mrs., Ms., Miss
- Be polite and confident when speaking to them ... make eye contact when speaking to another person
- Listen carefully and follow any instructions or explanations

Classroom Procedures

Helping All Students Become Successful

Entering the Classroom

You should enter into the classroom under control (no running, yelling, pushing, etc) and prepare for class. This means that you should have the necessary supplies out and ready, and begin your warm-up.

Supplies

You will need the following supplies every day that you come to class:

- Binder
- Pencils --- ***all math work should be done in pencil***
- Any assignments or projects that are due for that day
- A ***GREAT*** attitude ☺ (it makes life better for everyone)

Use of Materials and Equipment

Equipment is available for your use in the classroom. It is your responsibility to keep the equipment in good condition and clean up before you leave the room. If you happen to break or ruin any piece of equipment, you will have to replace the item or provide the money for the item to be replaced.

A great rule of thumb: treat materials gently

Absences

When you return from being absent, you need to check with Mr. Jones to find out what you missed. ***Any assignment or activity needs to be made up***. For every day you are absent, you have two days in order to make up the missed work. If you have any questions, please ask!

Grading Policy

Student Effort Often Equals Success

Assessing Progress

There are many ways a teacher may assess progress of students. In this class, students are assessed through these various methods:

- Cooperative Group work in class
- Homework assignments
- Team Quizzes
- Individual Quizzes
- Individual Tests

Grade Percentages

Each category of assessment contributes to the overall grade for the course. Here is the breakdown:

- Formative: 20%
  - In-Class work
  - Homework
- Summative: 80%
  - Homework Quizzes
  - Team Quizzes and Team Tests
  - Individual Quizzes
  - Individual Tests

Homework

Homework is used for practice at mastering a specific concept. We do not expect perfection at this stage, but we do expect students to work hard and complete each assignment.

Study / Review Sessions for Tests

There is a study/review session before each test. Normally these are in the morning before school on the day of the test.

Quizzes / Tests

This is a chance for students to show that they have mastered the main concepts of the unit. They are also used to help determine the direction of instruction.

Request for re-assessment

If a student is unhappy with his or her score on a test, that student may fill out a formal "Request for Re-Assessment." The details for re-assessment are on the form.

Late Work

Work that is not completed on time may be made up. The grade will be 85% for one day, 70% for two days, and half-credit until two weeks before the end of the grading period. If a student has missing assignments for any length of time, then parents will be notified.

Extra Help

I am available almost any day before and after school to work with students who need extra help with homework, assessments or any other mathematical concepts. I also hope to have several tutors (through the university) who are available throughout the week. Please do not hesitate to ask for extra help!

Your Chance to Shine

Wish List

A Chance to Give Back to the Classroom

Each year, we have some specific requests for help in terms of resources for our classroom. If you feel led in any way to contribute, we would GREATLY appreciate any help you can provide. Below is a list of ways you could contribute to our class.

Volunteer Your Time

- **ELT** -- During our **E**xtended **L**earning **T**ime, we have several needs. Each Thursday, we have a "Student Choice Day." If you have any expertise or any extra time, we could use help.
- **Fun Fridays** -- For our Fun Fridays, we have plenty of need for help getting materials, assembly materials, and leading activities. This is a great way to get to know your student's classmates.
- **Birthday help** -- I try to give little treat bags to each student on his or her birthday. Putting 150+ of these together can be time-consuming. An hour or two from you would greatly help!
- **Tutoring** -- we can always use extra hands to help students who are struggling or to help with our new CPM curriculum and collaborative student work.
- **Pie Day** -- help serve pie on March 14 (which will be on Monday, March 14 this year)

Volunteer Your Resources

Free

- Empty paper towel rolls
- Radio controlled car for an activity on rates (if you have one we can borrow for a day or two)

$ 5 range

- Pencils, lead (for mechanical pencils) and erasers are always in demand
- Small bags (lunch bags or other treat bags) for the birthday treats
- M & M®'s and Skittles® -- we use these for several in-class activities
- Bags of bite size candies -- for our review games and other in-class activities
- Jolly Ranchers -- we use these during tests throughout the year (a student favorite)
- Any small treat for our birthday bags would be appreciated

$ 10 range

- Pie (for pie day on March 14) ... Homemade or store bought is fine
- Anything with M-S, Bulldogs or U of I to give as prizes during competitions

$ 20 range

- Calculators -- TI - 30XIIS ... we can always use more of these to help students who cannot afford them. Actually when they are on sale you can get for close to $10 (I saw them at Target this summer for $9)