Grade 6 Math: 2022-2023

*Manchester Essex Regional Middle School*

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| Mr. Schlegel – Room A109Email: schlegelm@mersd.orgWebsite: [www.mersd.org](http://www.mersd.org) 508-843-5147 (cell)Middle School - Team 6 |



## **Course Description**

## In grade 6 at the MEMS, we will cover many of the same topics you studied while in grade 5, but more in depth and more challenging. We have a textbook titled Math Connects: Course 1. It is also the same textbook series that is being used in grades 7 and 8 at the middle school. You will also be introduced to algebra this year. Finally, you will be asked you to explain your reasoning and strategies, both orally and in writing.

## In addition to the text, we will complete several activities and projects beyond the book in order to further enhance our math curriculum. Much of the focus will be on determining problem-solving strategies and applying math in the real world. Students will also complete several math projects both in and out of school, such as surveys for graphing, spreadsheets, data tables, blueprints, and models. MCAS Grade 6 Math tests will be given in May of 2023 during the upcoming year.

**Student Success**

Now that we are back in school full time, we will be using both a daily Homework Planner, as well as the online Google Classroom platform to track and record assignments. During Math in Grade 6, it is a necessity that students come to class willing to be an active learner and prepared to work hard and explore new ideas and topics. It is expected that you come to class every day fully prepared, not only with the proper materials but with the right attitude as well. It will be very difficult for you to succeed if you are not organized and following directions.

If you ever have any questions, concerns, or difficulty with an assignment or project, you must be willing to speak up and let me know if you are in need of help. We can always arrange to do a one-on-one session, either in school, or on Zoom when you are at home, for extra help. Nearly every day, I am available before school, during lunch, and after school for extra help. You are now at the age where you must begin to utilize a teacher’s willingness to give you that extra time. It is extremely important that my students feel comfortable approaching me if they have a question or concern. Please do not hesitate to ask questions in or out of class, whichever you feel more comfortable with.

#### Content & Topics of Study

 We will be covering a wide variety of math concepts and skills throughout the year, including writing rules for patterns, input/output tables, solving algebraic equations, fractions, decimals, percents, proportions and ratios, geometry, measurement and probability, and interpreting and creating graphs.

Our topics will include:

* **Patterns:** identifying patterns, following rules, writing rules, input/output tables
* **Number Sense**: place value, factors, multiples, GCF, LCM, integers and negative numbers, fractions, decimals, & percents, prime factorization, divisibility rules
* **Fractions & Decimals:** add, subtract, multiply, & divide, ordering fractions & mixed numbers
* **Percents**: conversions among decimals, fractions, and percents, comparing and ordering percents, calculating percent, finding the whole when % is given
* **Graphing & Statistics**: creating and interpreting graphs, analyzing data, mean, median, mode, & range, line, bar, and pie graphs, stem & leaf plots, histograms, pictographs
* **Geometry & Measurement**: angles, perimeter, geometric shapes, polygons and circles, geometric formulas, prisms, surface area and volume, line and rotational symmetry
* **Probability**: fairness, experimental and theoretical probability
* **Algebra:** understanding variables, writing algebraic equations, balancing equations, equivalent rules, backtracking, guess & check methods

### **Homework**

Math will be one of your classes where you may have occasional homework in order to practice skills we have reviewed in class and in order to prepare for quizzes and tests. When homework is given, it must be completed and all work must be shown. Since students are on the computer so often either during the school day or at home, most math homework will be with paper and pencil. We will cover proper procedures for assignments together in class to ensure there is no confusion as to how homework should be completed. In addition, unless you are told otherwise, all homework must have a full heading on your paper. Homework will often be posted online in Google Classroom.

### **Homework Grading Policy**

 All students begin the trimester with a 100% homework average. With each missing or incomplete assignment, a student receives a zero for the given assignment. Any assignment handed in late is scored as a 50, while completed homework assignments, regardless of accuracy, are scored as 100%. Homework is seen as practice in preparation for future assessments. All assignments and their respective scores can be viewed in Aspen and will be updated weekly.

### **Home-School Communication**

 Please note that student progress may be viewed through the Aspen system, where student and/or parent may access the student’s progress. This is a great tool for both student and parent to keep updated. In addition, it is important that you advocate for yourself by utilizing email. If you have any problems with homework, send me an email at schlegelm@mersd.org and we will work together to find the solution to your problem. If there is a pressing issue, parents can contact me via my personal cell phone, which is listed at the top of the syllabus.

### **Assessment**

Your work will be graded based on the following criteria:

Tests & Projects: 40%

Quizzes: 30%

Homework: 20%

Classwork: 10%

 At the completion of every major unit of study, a unit test will be given. These are generally given only 2-3 times per trimester. Therefore, it is extremely important that you prepare yourself well for each test. They will have a major impact on your grade. DO NOT WAIT TO STUDY until the night or two before the test only. Rather, it is best that you study for 20-30 minutes a day for several days. That way, if you do not understand a concept or lesson that was previously covered in class, you will have time to seek extra help from Mr. Schlegel before the test is given. A study guide with vocabulary and key information is often given approximately one week before every test. You will also often be asked to complete a practice test before exams with Mr. Schlegel.

 Quizzes will be given approximately every 2 weeks to ensure students are on the right track and keeping up with concepts and lessons being presented in class each week. You will usually be notified a few days in advance. This allows me to ensure my students understand all of their assigned work.

 As for chapter assessments, pupils may improve a test or quiz score by completing an *Assessment Error Analysis*, where they are asked to make corrections on the problems they missed the first time around. The improved score may not exceed a score of 70. For instance, if the score on the original test was a 60 (40 points missed), they may earn back points by successfully proving they can complete the skills and improve their test score to a 70.

### **Note Taking**

 While in class, you will be often be asked to take notes during class in your math journal/notebook. During the first few days of school, we will review standard methods in note taking to help everyone stay organized. I will ask that you bring your red spiral Math notebook to class every time we meet unless I tell you otherwise. This folder will be used to keep handouts given in class and to hopefully ensure that all my students are well organized. I NEVER want to see a student taking notes on loose sheets of paper; these eventually get lost! Your folder and notebook will play a critical role in class and will be extremely beneficial when it comes time to study for quizzes and tests.

### **Materials**

* Student planner
* Math textbook
* Math spiral notebook
* Math folder
* 2 sharpened pencils

The materials listed above are ones you have with you while we are in class every day. Please print the date on all notes you take in class (so you will later know in what order we covered items in class). Together, we will have wonderful year of exploration, investigation, and fun!

 Lastly, communication is critical to the success of any education program, so I encourage parents to continue to email me with any concerns or questions you may have. If, for some reason, your child is having difficulty with anything, please email me at schlegelm@mersd.org and let me know so we can work together to identify and solve the problem. Thank you and good luck.