



# 8th Grade Resource Math

**Location:** CMS

**Period:** Block 3

**RM:** 30( Blue team), **RM** 50 (White Team)

**Instructors:** Karla Baumrucker (White Team) Cathy Britts - Axen (Blue Team)

**Email:** karla.baumrucker@central301.net  
catherine.britts-axen@central301.net

## Course Materials Required:

- *Charged Chromebook everyday*
- *Pencil and calculator everyday*

## Learning Activities

- Discovery Activities - Math Warm-ups
- Math Instructional Lesson
- Homework /Exit-Slips
- Kahn Academy
- Lesson/instructional videos

## Learning Outcomes

- (8.NS.A.1) Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.
- (8.NS.A.2) Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g.,  $\pi^2$ ). For example, by truncating the decimal expansion of  $\sqrt{2}$ , show that  $\sqrt{2}$  is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.
- (8.EE.A.2) Use square root and cube root symbols to represent solutions to equations of the form  $x^2 = p$  and  $x^3 = p$ , where  $p$  is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that  $\sqrt{2}$  is irrational.
- (8.EE.A.1) Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example,  $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$ .



- (8.EE.C.7.b) Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
- (8.EE.7.a) Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form  $x = a$ ,  $a = a$ , or  $a = b$  results (where  $a$  and  $b$  are different numbers).
- (8.EE.7.b) Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
- (8.F.A.1) Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.1
- Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.1
- (8.F.A.3) Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.
- (8.F.B.4) Interpret the equation  $y = mx + b$  as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function  $A = s^2$  giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.
- (8.F.B.5) Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

## Course Outline

Unit	Dates	Topics
<i>Number Systems</i>	<i>TBA</i>	<i>Rational and irrational number Square and cubed roots Placing all numbers on the number line</i>
<i>Exponents and Expressions</i>	<i>TBA</i>	<i>Understanding and using exponent rules Combining like terms, distributive property</i>
<i>Equations</i>	<i>TBA</i>	<i>Solving one, two, and multi -step equations</i>
<i>Functions</i>	<i>TBA</i>	<i>Compare properties of functions, understand <math>y=mx + b</math> equation</i>

## Major Course Assignments/Assessments

- Homework



- Quizzes
- Projects
- Classwork
- Unit Exams

### **Grading Procedures:**

- Grading will be based on total points. Each assignment and assessment will have a point total assigned. No weighted grades.

### **Grading Scale:**

<b>Letter Grade</b>	<b>Range</b>
A	100-90
B	89.99-80
C	79.99-70
D	69.99-60
F	59.99-below

### **Absences/Make-up Work:**

Students who are absent from school will be allowed to make up work for equivalent academic credit. The time allowed to make up work will generally be one school day for every school day missed, starting with the first day the student returns to school. In extenuating circumstances a student may ask his/her teacher for additional time to make up work. Students needing additional instruction can make arrangements to stay after school and sign -up for the activities bus. It is the responsibility of the student to arrange a time with the teacher to make up any missed homework, quizzes or tests. Incomplete work or failure to do the work may result in a lowering of grades.

### Procedure to follow to receive and submit makeup work:

1. Student will log into Canvas and go to date missed
2. Student will review the information covered for the day
3. Student will complete assignment stated in Canvas



4. *Student will submit assignment as stated in Canvas*

### **Technology Policy**

The District's electronic networks, including the Internet, are part of the District's instructional program and serve to promote educational excellence by facilitating resource sharing, innovation, and communication. Use of all electronic devices allowed as part of the District's Bring Your Own Device ("BYOD") program and the District issued Chromebook must be consistent with District policies and procedures. Such electronic devices may be used during instructional time only for educational purposes as approved by the Administration or teacher. Personal devices may be used by students during non-instructional time, such as during passing periods, and before or after school. Students may not place or receive phone calls during school day hours (8:00 am to 2:46pm). Use is a privilege, not a right. Students and staff members have no expectation of privacy in any material that is stored, transmitted, accessed via the District's electronic networks. The District's rules for behavior and communications apply when using the electronic networks. Refer to the Chromebook Handbook issued by the district.

### **Cell Phone Policy:**

*Cell Phone usage is permitted in self-contained math with teacher consent.*

### **Academic Integrity:**

Students engaging in academic dishonesty, including cheating, intentionally plagiarizing, wrongfully giving or receiving help during an academic examination, altering report cards, and wrongfully obtaining test copies or scores will be held to the standards of the 17-18 CMS Plagiarism Policy.

#### **Plagiarism/Cheating**

Using someone else's ideas, phrasing or words and representing those as your own, either on purpose or through carelessness, is plagiarism. This is the same as "copying" the ideas of someone else. This includes, but is not limited to: copying from the Internet, copying from a reference source, copying from a friend, etc. Plagiarism can encompass an entire paper, a paragraph, a sentence, or even just one word.

Any work that is turned in and is found to have been plagiarized will be disciplined as follows:

- All daily work, classwork, homework, and quizzes will result in a zero
- For large/unit assessments and projects:
  - 1st offense-Conference with the teacher with the option to redo the project/assessment for 50% off
  - 2nd offense- Conference with the teacher, parental contact, and a zero on the project/assessment



All subsequent offenses will result in a mandatory conference with the student, teacher, principal or student service coordinator. Consequences will be handled on a case by case basis.

**Resources:**

- *Kahn Academy*
- *No textbook assigned*
- *Class notes*
- *Canvas*