

Content Math  
Area  
Author  
Hopperstad

Grade Level/Course  
8th grade

District  
Date  
Jun-13

Unit #		Content	Essential questions	Objectives Skills Processes	Vocabulary	Assessment	Resources Chapters / Sections	Mn Standard & Benchmarks	Estimate # of days on Unit
1	Chapter 1	Variables, Expressions, Integers		1. Evaluate Expressions 2. Eval. Expres w/ Variables 3. Introduce Abs. Value 4. Compare and Order Integers 5. Coordinate Graphing	<u>order of operations variables</u> exponents integers absolute value coordinate graphing		Chapter 1 (all) Note: Combine sections 1.1 & 1.2 and 1.6 & 1.7	8.1.1.2, 8.2.3.1, 8.3.2.3, 8.2.3.1	
2	Chapter 2	Solving Equations			<u>Associative Property</u> <u>Commutative Property</u> <u>Additive Identity</u> <u>Multiplicative Identity</u> <u>Distributive Property</u> Like Terms - <u>Constant</u>		Chapter 2 (all) Note: Combine sections 2.3 & 2.4	8.2.3.2, 8.2.4.2	
3	Chapter 3	Multi-Step Equations and Inequalities			<u>Inverse operations</u> equations - <u>coefficient</u> like terms inequalities writing equations solving equations		Chapter 3 (all)	8.2.4.2, 8.2.4.5,	
4	Chapter 4	Rational Number and Proportions			monomial prime factorization equivalent fractions simpliest form positive exponents negative exponents <u>scientific notation</u>		Chapter 4 (all) Note: Very light on sections 4.2 & 4.4	8.1.1.1, 8.1.1.2, 8.1.1.4, 8.1.1.5,	
5	Chapter 5	Rational Numbers and Equations			Rational Number terminating Decimal repeating Decimal reciprocals inequalities solutions of inequalities		Chapter 5 Note: Skip 5.2 & 5.3 Note: 5.1 needs to have supplements		

6	Chapter 6	Ratio, Proportion, & Probability			<u>ratio</u> proportions similar figures corresponding parts congruent scale probability outcomes events theoretical prob. experimental prob.		Chapter 6 (skip 6.6) Note: Nothing in chapter is on the MCA math test		
7	Chapter 7	Percents			percents percent of change markup discount interest principal simple interest compound interest balance		Chapter 7 (all) Note: Nothing in chapter is on the MCA math test		
8	Chapter 8	Linear Functions		1. Solutions of linear equations. 2. Find the x and y intercepts. 3. Find slope. 4. Write equations in slope intercept form. 5. Graph linear equations in any form. 6. Graph parallel and perpendicular lines. 7. Solve systems of linear equations. 8. Relations and Functions. 9. Lines of Best Fit 10. Function Notation 11. Define Arithmetic Seq.	<u>Arithmetic Sequence</u> <u>dependent</u> <u>independent</u> <u>intersecting</u> <u>intercept</u> <u>linear - infinite</u> function notation <u>slope-intercept form</u> <u>standard form</u> <u>systems of equations</u> relation input, output function vertical line test <u>linear equation</u> x and y intercepts slope, rise, run <u>Line of best fit</u> <u>undefined slope</u> constant order of operations		Chapter 8 (all except section 8.9)	8.2.1.1, 8.2.1.2, 8.2.1.3, 8.2.1.4, 8.2.2.1, 8.2.2.2, 8.2.2.3, 8.2.2.4, 8.2.4.1, 8.2.4.3, 8.2.4.7, 8.2.4.8, 8.4.1.1, 8.4.1.2	

	Chapter 9	Real numbers and Right Triangles			<u>square roots</u> perfect squares <u>radical expressions</u> hypotenuse legs Pythagorean Theorem <u>irrational numbers</u> <u>real numbers</u> distance formula		Chapter 9 Note: Do all 9.1 to 9.5 with some supplements Note: 9.6 to 9.8 w/ only the Acc. Math Group	8.3.1.1, 8.3.1.2, Note: Needs supplements for 8.3.2.1 & 8.3.2.2	
	ALGEBRA BOOK CHAPTER 5 (Suppl.)	Writing Linear Equations		1. Write linear equations in slope-intercept form 2. Calculate slope. 3. Write a linear equation given two points 4. Write linear equations in point-slope form 5. Relate arithmetic sequences to linear functions. 6. Introduce Geometric Sequences 7. Write linear equations in standard form 8. Write equations of parallel and perpendicular lines 9. Fit a line to data 10. Perform linear regression 11. Identify a positive and negative correlation 12. Predict with linear models	<u>point-slope formula</u> parallel perpendicular <u>scatter plot</u> <u>positive correlation</u> <u>negative correlation</u> <u>line of best fit</u> <u>standard form</u> <u>slope-intercept form</u> slope constant rate of change arithmetic sequences <u>nth term - progression</u>		Chapter 5 ALG. Note: All sections need to be taught. Note: Geometric Sequences need to be supplemented	8.4.1.1, 8.4.1.2, 8.4.1.3, 8.2.2.1, 8.2.2.2, 8.2.2.4, 8.2.4.3, 8.2.4.7, 8.2.4.8,	
Chapter 12		Non-linear Functions		1. Make a table of values given a function then graph as ordered pairs 2. Find a common difference in an arithmetic sequence. 3. Find a common ratio in a geometric sequence.	<u>exponential growth</u> <u>geometric sequences</u> <u>arithmetic sequences</u> common difference common ratio		Section 12.7 & 12.8 only	8.2.1.5, 8.2.2.5,	