

Unit Start Date (May Change)	Seventh Math Our books use the word block instead of Chapters or units.	Example problem for mastery
Sept 1	Orientation, 8 Math Practices	Find Master strategy in Poison Game. Explain what tools helped you to solve the problem.
Sept. 16	RNE: Block 2 Add and Subtract Negative numbers	Find the temperature that would make negative 10 degrees the weekly average temperature for Juneau, Alaska
Sept. 23	RNE: Block 3 Multiply and divide Negative numbers	Calculate the total cost for owning a car for 10 years with insurance, gas, price, and oil changes.
Oct. 7	RNE: Block 4: 2-Step Equations, Distributive Property, Solving equations for Variables	Use Graph, Algebra, and functions to determine When someone should buy a season pass at Great Divide Ski Area
Oct. 26	RNE: Block 1 Rational Numbers and Equations	Convert a cookie recipe's fraction measurements for banquet size crowd and find cost. Or cake in a mug.
Nov 1	PP: Proportions and Probability Block 1, 5 Ratios and Direct Variation	Convert your sprinting speed for 60 feet to Miles per hours
	PP: Block 2 Similarities and Aspect Ratio	Use geometric similarity and a mirror to find the height of a flagpole, tree, school or other tall object.
Dec. 2	PP: Block 3 Percent	Find the fastest method to calculate the cost of item with %-off coupon and resort tax.
Jan 6	PP: Block 4 Probabilities	Determine which combination lock is the safest. Calculate the trout population with Random sampling.
Feb 3	SA: Block 2 Two Dimensional Geometry, Area and Perimeter of Triangle, Parallelogram, Trapezoid, Circle	Make a trundle wheel that measures your height in distance. Create a Triangular/trapezoidal percent Infographic
Feb 24	SA: Shapes and Angles Block 1 Angle Relationships	Use Algebra to determine missing angles.
Mar9	SA: Block 3 Volume and Surface Area of Prisms and Pyramids	Make a cylindrical can with the same volume and height of a box drink.
Apr 6	Mouse Trap Car Project	Use all Skills learned this year to design the fastest mousetrap car.
Apr 27	8 th Grade Exploratory Math	TBD

Materials for each unit will predominantly use the Core Focus on Math Curriculum.

Supplemental materials will be used from the following sources based on daily and weekly formative assessment of student performance as related to the Montana Core Standards:

- Desmos.com
- Deltamath.com
- IXL.com
- map.mathshell.org
- Teacher made materials

Anticipated Start Date (May Change)	ADVANCED	Example Problem for mastery
Sept 1	Orientation, 8 Math Practices	Find Master strategy in Poison Game. Explain what tools helped you to solve the problem.
Sept 11	Linear Equations Block 1 Expressions and Equations	Make a Triangle, Trapezoid, and Circle with the Area of n.
Oct 2	Geometry Block 4 Exponents and Volume	Use Scientific notation to calculate how many more grains of rice can fill the gym vs classroom.
Oct 30	Geometry Block 2 Pythagorean Theorem	Use the Pythagorean theorem to find the dimensions of a 42in Screen.
Nov 20	Linear Equations Block 2 Sequence and Slope	Use Algebraic formulas to design a ADA Ramp for_____. And/or Create a algebraic formula to convert Celsius to Fahrenheit
Jan 1	Linear Equations Block 3 Using Linear Equations	Graph, Table and formula to calculate when to buy a season pass to Great Divide
Jan 29	Linear Equations Block 4 Systems of Equations	Use Algebra to determine when a Prius is a better deal.
Feb 26	Linear Equations Block 5 Two-Variable Data	Use Data and Line of best fit to get the best estimate for the number of pieces or cost of a Lego set
Mar 19	Geometry Block 1 Angles and Triangles	Use Algebra to determine missing angles.
Apr 16	Geometry Block 3 Transformations	Create a function that will create changes to a picture on a coordinate grid.
May 7	Mousetrap Car	Use all Skills learned this year to design the fastest mousetrap car.
May 14	Exploratory	TBD

Stage 2 Scope and Sequence

The Core Focus on Math Stage 2 scope and sequence accounts for 150 class periods for instruction, targeted interventions and assessments. This allows for any remaining days to be used for additional components which may include (1) beginning of the year review and team building, (2) Tic-Tac-Toe extensions, (3) performance tasks, (4) state test review and (5) state testing.

Unit 1 – Positive Rational Numbers

Core Focus on Rational Numbers & Equations Block 1	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	1.1	Simplifying Fractions	4.NF.1	Including assessments and targeted interventions: 12 days
	1.2	Mixed Numbers and Improper Fractions	4.NF.1	
	1.3	Adding and Subtracting Fractions	5.NF.1/5.NF.2	
	1.4	Multiplying and Dividing Fractions	6.NS.1/5.NF.6	
	1.5	Operations with Mixed Numbers	6.NS.1/5.NF.1	
	1.6	Adding and Subtracting Decimals	6.NS.3	
	1.7	Multiplying and Dividing Decimals	6.NS.3	

Unit 2 – Integers

Core Focus on Rational Numbers & Equations Block 2	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	2.1	Understanding Integers	6.NS.5/6.NS.7	Including assessments and targeted interventions: 14 days
	2.2	Adding Integers	7.NS.1/7.NS.3 (M)	
	2.3	Subtracting Integers	7.NS.1a,b,d/ 7.NS.3 (M)	
	2.4	Multiplying Integers	7.NS.3a,c;7.NS.3 (M)	
	2.5	Dividing Integers	7.NS.2b,c/7.NS.3 (M)	
	2.6	Powers and Exponents	7.NS.3 (M)	
	2.7	Order of Operations	7.NS.3 (M)	

Unit 3 – Rational Number Operations

Core Focus on Rational Numbers & Equations Block 3	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	3.1	Estimating Sums and Differences	7.NS.1/7.NS.3 (M)	Including assessments and targeted interventions: 12 days
	3.2	Adding Rational Numbers	7.NS.1/7.NS.3 (M)	
	3.3	Subtracting Rational Numbers	7.NS.1a,b,c/ 7.NS.3 (M)	
	3.4	Estimating Products and Quotients	7.NS.2/7.NS.3 (M)	
	3.5	Multiplying Rational Numbers	7.NS.2a,c/7.NS.3 (M)	
	3.6	Dividing Rational Numbers	7.NS.2b,c/7.NS.3 (M)	

Unit 4 – Solving Equations

Core Focus on Rational Numbers & Equations Block 4	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	4.1	Expressions and Equations	6.EE.2	Including assessments and targeted interventions: 15 days
	4.2	Solving One-Step Equations	6.EE.7	
	4.3	Solving Two-Step Equations	7.EE.2/7.EE.3/ 7.EE.4a (M)	
	4.4	The Distributive Property	7.EE.1/7.EE.3/ 7.EE.4a (M)	
	4.5	Simplifying Expressions	7.EE.1/7.EE.2/ 7.EE.3 (M)	
	4.6	Simplifying and Solving Equations	7.EE.2/7.EE.3 (M)	
	4.7	Solving Equations with Variables on Both Sides	7.EE.2/7.EE.3 (M)	
4.8	Linear Inequalities	7.EE.4b (M)		

Unit 5 – Ratios and Rates

Core Focus on Proportions & Probability Block 1	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	1.1	Measurement	6.RP.3d	Including assessments and targeted interventions: 10 days
	1.2	Fractions and Decimals	7.NS.2d (M)	
	1.3	Ratios	7.RP.1 (M)	
	1.4	Unit Rates	7.RP.1 (M)	
	1.5	Rate Conversions	7.RP.1 (M)	
1.6	Rates and Ratios with Complex Fractions	7.RP.1 (M)		

Unit 6 – Proportions and Similarity

Core Focus on Proportions & Probability Block 2	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	2.1	Write and Solve Proportions	7.RP.2a (M)	Including assessments and targeted interventions: 11 days
	2.2	Problem Solving with Proportions	7.RP.3 (M)	
	2.3	Similar and Congruent Figures	7.RP.3 (M)/7.G.1 (A)	
	2.4	Proportions and Similar Figures	7.RP.3 (M)/ 7.G.1 (A)	
	2.5	Special Ratios for Similar Figures	7.G.1 (A)	
	2.6	Scale Drawings	7.G.1 (A)	

Unit 7 – Percents

Core Focus on Proportions & Probability Block 3	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	3.1	Fractions, Decimals and Percents	6.RP.3	Including assessments and targeted interventions: 11 days
	3.2	Solving Percents using Proportions	7.RP.3 (M)	
	3.3	Solving Percents using Equations	7.RP.3 (M)	
	3.4	Percent of Change	7.RP.3 (M)	
	3.5	Percent Applications	7.RP.3 (M)	

Unit 8 – Probability and Random Sampling

Core Focus on Proportions & Probability Block 4	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	4.1	Probability	7.SP.5/7.SP.6/ 7.SP.7 (S)	Including assessments and targeted interventions: 14 days
	4.2	Using Probability to Predict	7.SP.6/7.SP.7 (S)	
	4.3	Probabilities and Data Displays	7.SP.6/7.SP.7 (S)	
	4.4	Compound Probabilities using Lists, Tree Diagrams and Tables	7.SP.8 (S)	
	4.5	Compound Probabilities using Multiplication and Simulation	7.SP.8 (S)	
	4.6	Random Sampling	7.SP.1/7.SP.2 (S)	
	4.7	Inferences about a Population	7.SP.1/7.SP.2 (S)	
4.8	Measures of Center and Variability in Two Data Sets	7.SP.2 (S)/7.SP.3/ 7.SP.4 (A)		

Unit 9 – Direct Variation

Core Focus on Proportions & Probability Block 5	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	5.1	The Coordinate Plane	6.NS.8	Including assessments and targeted interventions: 10 days
	5.2	Making Sense of Graphs	8.F.5	
	5.3	Direct Variation Tables and Graphs	7.RP.2a,b,d (M)	
	5.4	Direct Variation Equations	7.RP.2 (M)	
	5.5	Recognizing Direct Variation	7.RP.2 (M)	

Unit 10 – Angle Relationships

Core Focus on Shapes & Angles Block 1	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	1.1	Measuring and Naming Angles	4.MD.5/4.MD.6	Including assessments and targeted interventions: 11 days
	1.2	Classifying Angles	4.MD.5/4.MD.6/ 4.MD.7	
	1.3	Complementary and Supplementary Angles	7.G.5 (A)	
	1.4	Vertical Angles and Adjacent Angles	7.G.5 (A)	
	1.5	Drawing Geometric Shapes	7.G.2 (A)	

Unit 11 – Two-Dimensional Geometry

Core Focus on Shapes & Angles Block 2	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	2.1	Areas of Triangles and Parallelograms	7.G.6 (A)	Including assessments and targeted interventions: 15 days
	2.2	Area of a Trapezoid	7.G.6 (A)	
	2.3	Parts of a Circle	7.G.4 (A)	
	2.4	Circumference and Pi	7.G.4 (A)	
	2.5	Area of a Circle	7.G.4 (A)	
	2.6	More Pi	7.G.4 (A)	
	2.7	Composite Figures	7.G.4/7.G.6 (A)	
	2.8	Circle Similarity	7.G.4/8.G.4 (A)	
	2.9	Area of Sectors	7.G.4 (A)/HS.G-C.5	

Unit 12 – Surface Area and Volume

Core Focus on Shapes & Angles Block 3	Lesson	Lesson Title	CCSS Alignment	Recommended Pacing
	3.1	Three-Dimensional Figures	7.G.6 (A)	Including assessments and targeted interventions: 15 days
	3.2	Drawing Solids	7.G.6 (A)	
	3.3	Slicing Solids	7.G.3 (A)	
	3.4	Surface Area of Prisms	7.G.6 (A)	
	3.5	Volume of Prisms	7.G.6 (A)	
	3.6	Surface Area of Regular Pyramids	7.G.6 (A)	
	3.7	Volume of Pyramids	7.G.6 (A)	

Compacted Scope and Sequence Overview

Grades 7 & 8

The Compacted Program follows the recommendations of the CCSS Appendix A Compacted Traditional Program. In the CCSSM Appendix A, students complete Grades 7, 8 and Algebra I content in Grades 7 and 8. This is done in the Core Focus on Math series by moving Core Focus on Geometry from Stage 3 to the end of Stage 2. The Grade 8 Compacted Traditional Program contains linear and non-linear functions as well as statistics using the texts shown below.

Compacted Grade 7

- Unit 1: RNE Block 1 – 8 days
- Unit 2: RNE Block 2 – 10 days
- Unit 3: RNE Block 3 – 8 days
- Unit 4: RNE Block 4 – 10 days
- Unit 5: PP Block 1 – 8 days
- Unit 6: PP Block 2 – 8 days
- Unit 7: PP Block 3 – 8 days
- Unit 8: PP Block 4 – 10 days
- Unit 9: PP Block 5 – 10 days
- Unit 10: SA Block 1 – 9 days
- Unit 11: SA Block 2 – 12 days
- Unit 12: SA Block 3 – 11 days
- Unit 13: G Block 1 – 10 days
- Unit 14: G Block 2 – 10 days
- Unit 15: G Block 3 – 8 days
- Unit 16: G Block 4 – 10 days

150 days

Compacted Grade 8

- Unit 1: LE Block 1 – 12 days
- Unit 2: LE Block 2 – 13 days
- Unit 3: LE Block 3 – 14 days
- Unit 4: LE Block 4 – 18 days
- Unit 5: LE Block 5 – 14 days
- Unit 6: FD Block 1 – 12 days
- Unit 7: FD Block 2 – 10 days
- Unit 8: FD Block 3 – 22 days
- Unit 9: FD Block 4 – 12 days
- Unit 10: FD Block 5 – 13 days

140 days

Book Codes

RNE	Stage 2 - Core Focus on Rational Numbers & Equations
PP	Stage 2 - Core Focus on Proportions & Probability
SA	Stage 2 - Core Focus Shapes & Angles
G	Stage 3 - Core Focus on Geometry
LE	Stage 3 - Core Focus on Linear Equations
FD	Stage 3 - Core Focus on Functions & Data