Math 7 Plus Scope and Sequence
(Year 1 Implementation)
2018-2019

We subscribe to the philosophy that our curriculum provides enough depth to allow for differentiation (enrichment) without an accelerated track. However, we recognize there are many practices regarding compacting courses and therefore have carefully crafted a draft of accelerated coursework. The goal of this document is to provide North Carolina schools with a curriculum map for compacting Grades 6, 7, 8, and NC Math I into three courses in middle school; 6/7 Accelerated, 7/8 Accelerated, and NC Math I. Note that this Scope & Sequence is intended for just the first full year of implementation of our curriculum. A different accelerated map will be provided for year two and beyond.

Rationale for Selection and Sequencing of Units

The intentional selection and ordering of units promotes the preservation of the original flow of the curriculum as much as possible and thus various components do not lose impact. For example, distributed practice, pre-unit diagnostics and end-unit assessments can still be used with only slight modifications. Procedural fluency is built into the activities and practice problems in a progressive manner as students move through the units and the building of fluency does remain effective within the accelerated sequence. Conceptual development of concepts also builds over time and through progression of units and was taken into consideration when choosing and ordering the units as well. Please note that there were several options for unit selection and sequencing, but the included scope and sequence is one that most effectively preserves the development of procedural skill and conceptual understanding within the program.

Instructional Considerations

Activities have been omitted as a result of compacting, which changes the original flow and structure of the lesson. This results in instructional choices for the teacher.

- For example, warm-ups and cool downs can be inserted within any lesson if there is a need for students to independently show their level of understanding.
- The timing assigned to each activity will be at the discretion of the teacher and not what is listed within the lessons.
- Some of the activities not included in this scope and sequence provide additional fluency work. These activities can be included when student needs suggest more procedural fluency work is necessary.
- Review days, or partial days, can be inserted where needed for appropriate practice time.

The following scope and sequence is intended for 7th grade students in the 7/8 Accelerated Course. It covers all the remaining Grade 7 content and all the Grade 8 content.

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Unit	Open Up Topic	Covers these IM Units	Number of Lessons	Estimated Number of Days
1	Scale Drawings	7.1	8	11 days
2	Proportional Relationships	7.2	13	16 days
3	Rational Number Arithmetic	7.5	12	15 days
Quarter 1 Review				
4	Expressions, Equations and Inequalities	7.6	16	19 days
5	Angles, Triangles, and Prisms	7.7	9	12 days
6	Probability, Sampling and Variability in Data Sets	7.8	17	19 days
Quarter 2 Review				
7	Rigid Transformations and Congruence	8.1	12	14 days
8	Dilations, Similarity, and Introducing Slope	8.2	10	12 days
9	Linear Relationships	8.3	7	9 days
10	Linear Equations and Linear Systems	8.4	8	10 days
Quarter 3 Review				
11	Functions and Volume	8.5	12	14 days
12	Exponents and Scientific Notation	8.7	9	11 days
13	Putting it All Together ***(Optional)***	7.9	0 - 13	0 - 13 days
EOG Preparation, EOGs and Post EOGs				

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Unit 1: Scale Drawings

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
1.1	Corresponding Part and Scale Factors in Scaled Copies	7.1.1	Printing Portraits
		7.1.1	Scaling F
		7.1.1	Pairs of Scaled Polygons
		7.1.2	Corresponding Parts
		7.1.2	Scaled Triangles
		7.1.2	Comparing Polygons ABCD and PQRS
1.2	Making Scaled Copies	7.1.3	More or Less?
		7.1.3	Which Operations? (Part 1)
		7.1.3	Which Operations? (Part 2)
		7.1.3	More Scaled Copies
		7.1.4	Three Quadrilaterals (Part 1)
		7.1.4	Three Quadrilaterals (Part 2)
		7.1.4	Scaled or Not Scaled?
		7.1.4	Comparing Pictures of Birds
1.3	The Size of the Scale Factor	7.1.5	Number Talk: Missing Factor
		7.1.5	Scaled Copies Card Sort
		7.1.5	Missing Figure, Factor, or Copy
		7.1.5	Scaling a Rectangle
1.4	Scaling and Area	7.1.6	Scaling a Pattern Block
		7.1.6	Scaling More Pattern Blocks
		7.1.6	Area of Scaled Parallelograms and Triangles
		7.1.6	Enlarged Areas
1.5	Scale Drawings and Maps	7.1.7	What is a Scale Drawing?
		7.1.7	Sizing Up a Basketball Court
		7.1.7	Tall Structures
		7.1.7	Length of a Bus and Width of a Lake

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		7.1.8	Driving on I-90
		7.1.8	Biking Through Kansas
1.6	Changing Scales in Scale Drawings	7.1.9	Two Maps of Utah
		7.1.10	Appropriate Measurements
		7.1.10	Same Plot, Different Drawings
		7.1.10	A New Drawing of the Playground
1.7	Scales Without Units	7.1.11	One to One Hundred
		7.1.11	Apollo Lunar Module
		7.1.11	Same Drawing, Different Scales
		7.1.11	Scaled Courtyard Drawings
1.8	Units in Scale Drawings	7.1.12	Centimeters in a Mile
		7.1.12	Scales Card Sort
		7.1.12	The World's Largest Flag (optional)
		7.1.12	Pondering Pools (optional)
		7.1.12	Drawing the Backyard

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Unit 2: Proportional Relationships

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
2.1	Representing Proportional Relationships with Tables	7.2.2	Notice and Wonder: Paper Towels by the Case
		7.2.2	Feeding a Crowd
		7.2.2	Making Bread Dough
		7.2.2	Quarters and Dimes
		7.2.2	Green Paint
2.2	Constant of Proportionality	7.2.3	Equal Measures
		7.2.3	Centimeters and Millimeters
		7.2.3	Pittsburgh to Phoenix
		7.2.3	Fish Tank
2.3	Two Equations for Each Relationship	7.2.4	Feeding a Crowd, Revisited
		7.2.4	Denver to Chicago
		7.2.5	Meters and Centimeters
		7.2.5	Filling a Water Cooler
2.4	Using Equations to Solve Problems	7.2.6	Number Talk: Quotients with Decimal Points
		7.2.6	Concert Ticket Sales
		7.2.6	Recycling
		7.2.6	Granola
2.5	Comparing Relationships with Tables	7.2.7	Adjusting a Recipe
		7.2.7	Visiting the State Park
		7.2.7	Running Laps
		7.2.7	Apples and Pizza
2.6	Comparing Relationships with Equations	7.2.8	Notice and Wonder: Patterns with Rectangles
		7.2.8	More Conversions
		7.2.8	Total Edge Length, Surface Area, and Volume
		7.2.8	All Kinds of Equations

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		7.2.8	Tables and Chairs
		7.2.9	What Do You Want to Know?
2.7	Solving Problems About Proportional Relationships	7.2.9	Infor Gap: Biking and Rain
		7.2.9	Moderating Comments
		7.2.9	Steel Beams
2.8	Interpreting Graphs of Proportional Relationships	7.2.10	Notice These Points
		7.2.10	T-shirts for Sale
		7.2.10	Matching Tables and Graphs
		7.2.11	What Could the Graph Represent?
		7.2.11	Seagulls Eat What?
2.9	Comparing Relationships with Graphs	7.2.12	Number Talk: Fraction Multiplication and Division
		7.2.12	Race to the Bumper Cars
		7.2.12	Space Rocks and the Price of Rope
		7.2.12	Revisiting the Amusement Park
2.10	Two Graphs for Each Relationship	7.2.13	True or False? Fractions and Decimals
		7.2.13	Tables, Graphs, and Equations
		7.2.13	Hot Dog Eating Contest
		7.2.13	Spicy Popcorn
2.11	Understanding and Graphing Proportional Relationships	7.2.14	Moving Through Representations
		7.2.14	Moving Twice as Fast
		7.2.15	An Unknown Situation
		7.2.15	Card Sort: Proportional Relationships
2.12	Representing Proportional Relationships	7.2.15	Different Scales
		7.2.16	Representations of Proportional Relationships
		7.2.16	Info Gap: Proportional Relationships

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2.13	Comparing Proportional Relationships	7.2.16	Number Talk: Multiplication
		7.2.17	What's the Relationship?
		7.2.17	Comparing Two Different Representations
		7.2.17	Different Salt Mixtures

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Unit 3: Rational Number Arithmetic

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
3.1	Changing Temperatures and Elevations	7.5.2	Winter Temperatures
		7.5.3	Cliffs and Caves
		7.5.3	Adding Rational Numbers
		7.5.3	School Supply Number Line
		7.5.3	Add 'Em Up
3.2	Money and Debts	7.5.4	Concert Tickets
		7.5.4	Cafeteria Food Debt
		7.5.4	Bank Statement
		7.5.4	Buying a Bike
3.3	Subtracting Rational Numbers	7.5.5	Equivalent Equations
		7.5.5	Subtraction with Number Lines
		7.5.5	We Can Add Instead
		7.5.5	Same Value
3.4	Adding and Subtracting to Solve Problems	7.5.6	Number Talk: Missing Addend
		7.5.6	Equations with Altitude
		7.5.6	Does the Order Matter?
		7.5.6	A Subtraction Expression
		7.5.7	Differences and Distances
		7.5.7	Coffee Shop Cups
3.5	Position, Speed, and Direction	7.5.8	Distance, Rate, Time
		7.5.8	Going Left, Going Right
		7.5.8	Velocity
		7.5.8	Multiplication Expressions
3.6	Multiplying Rational Numbers	7.5.9	Before and After
		7.5.9	Backwards in Time
		7.5.9	Cruising

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		7.5.9	Rational Numbers Multiplication Grid
		7.5.9	True Statements
		7.5.10	Making Mistakes
3.7	Dividing Rational Numbers	7.5.11	Tell Me Your Sign
		7.5.11	Multiplication and Division
		7.5.11	Drilling Down
		7.5.11	Matching Division Expressions
3.8	Negative Rates	7.5.12	Grapes per Minute
		7.5.12	Water Level in the Aquarium
		7.5.12	Up and Down with the Piccards
		7.5.12	Submarines
3.9	Expressions with Rational Numbers	7.5.13	True or False: Rational Numbers
		7.5.13	Card Sort: The Same But Different
		7.5.13	Near and Far From Zero
		7.5.13	Seagulls and Sharks Again
		7.5.13	Make Them True
3.10	Solving Problems with Rational Numbers	7.5.14	Which One Doesn't Belong: Equations
		7.5.14	Draining and Filling a Tank
		7.5.14	Buying and Selling Power
		7.5.14	Charges and Checks
3.11	Solving Equations with Rational Numbers	7.5.15	Number Talk: Opposites and Reciprocals
		7.5.15	Match Solutions
		7.5.15	Trip to the Mountains
		7.5.15	Card Sort: Matching Inverses
		7.5.15	Hiking Trip
3.12	Representing Contexts with Equations	7.5.16	Don't Solve It
		7.5.16	Warmer or Colder Than Before?

		7.5.16	Animals Changing Altitudes
		7.5.16	Equations Tell a Story
		7.5.16	Floating Above a Sunken Canoe

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Unit 4: Expressions, Equations, and Inequalities

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
4.1	Reasoning About Contexts with Tape Diagrams	7.6.2	Remembering Tape Diagrams
		7.6.2	Every Picture Tells a Story
		7.6.2	Every Story Needs a Picture
		7.6.2	Red and Yellow Apples
4.2	Reasoning About Equations and Tape Diagrams	7.6.3	Find Equivalent Expressions
		7.6.3	Matching Equations to Tape Diagrams
		7.6.3	Drawing Tape Diagrams to Represent Equations
		7.6.3	Three of These Equations Belong Together
4.3	Representing Situations with Tape Diagrams and Equations	7.6.4	Algebra Talk: Seeing Structure
		7.6.5	Algebra Talk: Seeing More Structure
		7.6.4	Situations and Diagrams
		7.6.4	Situations, Diagrams, and Equations
		7.6.5	More Situations and Diagrams
		7.6.5	More Situations, Diagrams, and Equations
4.4	Distinguishing Between Two Types of Situations	7.6.4	Finding Solutions
		7.6.5	More Finding Solutions
		7.6.6	Even More Situations, Diagrams, and Equations
		7.6.6	After School Tutoring
4.5	Reasoning About Solving Equations With Balanced Hangers	7.6.7	Hanger Diagrams
		7.6.7	Hanger and Equation Matching
		7.6.7	Use Hangers to Understand Equation Solving
		7.6.8	Either Or

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		7.6.8	Use Hangers to Understand Equation Solving, Again
		7.6.7	Solve the Equation
		7.6.8	Solve Another Equation
4.6	Dealing With Negative Numbers in Equations	7.6.9	Which One Doesn't Belong: Rational Number Arithmetic
		7.6.9	Old and New Ways to Solve
		7.6.9	Keeping It True
		7.6.9	Solve Two More Equations
4.7	Different Options for Solving One Equation	7.6.10	Algebra Talk: Solve Each Equation
		7.6.10	Analyzing Solution Methods
		7.6.10	Solution Pathways
		7.6.10	Solve Two Equations
4.8	Solving Problems 1	7.6.11	Remember Tape Diagrams
		7.6.11	At the Fair
		7.6.11	Running Around
		7.6.11	The Basketball Game
4.9	Solving Problems 2	7.6.12	20% Off
		7.6.12	Walking More Each Day
		7.6.12	A Sale on Shoes
		7.6.12	Timing the Relay Race
4.10	Comparing Solutions to Equations and Inequalities	7.6.13	Is the Inequality True or False?
		7.6.13	Some Values, All Values
		7.6.14	Solutions to Equations and Solutions to Inequalities
		7.6.14	Earning Money for Soccer Stuff
4.11	Inequalities with Negatives	7.6.14	Granola Bars and Savings
		7.6.14	Colder and colder
		7.6.15	Lots of Negatives
		7.6.15	Inequalities with Tables

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4.12	Which Side Are the Solutions?	7.6.15	Which Side are the Solutions?
		7.6.15	Testing for Solutions
		7.6.16	Solve Some Inequalities!
		7.6.16	Club Activities Matching
4.13	Solving Problems with Inequalities	7.6.16	Club Activities Display
	(choose among these)	7.6.16	Party Decorations
		7.6.17	Possible Values
		7.6.17	Elevator
		7.6.17	Giving Advice
		7.6.17	Movies on a Hard Drive
4.14	Expanding and Factoring	7.6.18	Number Talk: Additive Inverse
		7.6.18	Organizing Work
		7.6.19	Factoring and Expanding with Negative Numbers
		7.6.19	Equivalent Expressions
4.15	Combining Like Terms	7.6.20	A's and B's
		7.6.20	Making Sides Equal
		7.6.21	Seeing It Differently
		7.6.21	Grouping Differently
4.16	More With Combining Like Terms	7.6.21	How Many Are Equivalent?
		7.6.22	X's and Y's
		7.6.22	Seeing Structure and Factoring
		7.6.22	R's and T's

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Unit 5: Angles, Triangles and Prisms

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
5.1	Relationships of Angles	7.7.1	Pattern Block Angles
		7.7.1	More Pattern Block Angles
		7.7.1	Identical Isosceles Triangles
		7.7.2	Is it a Complement or Supplement?
		7.7.2	Finding Measurements
5.2	Nonadjacent Angles	7.7.3	Finding Related Statements
		7.7.3	Polygon Angles
		7.7.3	Vertical Angles
		7.7.4	Info Gap: Angle Finding
		7.7.4	What's the Match?
5.3	Using Equations to Solve for Unknown Angles	7.7.4	Missing Circle Angles
		7.7.5	Calculate the Measure
		7.7.5	In Words
		7.7.6	What Can You Build?
5.4	Building Polygons	7.7.6	Building Diego and Jada's Shapes
		7.7.7	Where is Lin?
		7.7.7	How Long is the Third Side?
		7.7.7	Swinging the Sides Around
5.5	Triangles with 3 Common Measures	7.7.8	2 Sides and 1 Angle
		7.7.8	2 Angles and 1 Side
		7.7.9	Does Your Triangle Match Theirs?
		7.7.8	Comparing Andre and Noah's Triangles

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5.6	Drawing Triangles	7.7.9	Checking Diego's Triangle
		7.7.9	How Many Can You Draw?
		7.7.10	Revisiting How Many Can You Draw?
		7.7.10	Three Angles
		7.7.10	Finishing Noah's Triangle
5.7	Volume and Decomposing Bases for Area	7.7.11	Three Prisms with the Same Volume
		7.7.11	Can You Find the Volume?
		7.7.11	What's the Prism's Height?
		7.7.11	Octagonal Box
		7.7.12	A Box of Chocolates
		7.7.12	Volume of a Pentagonal Prism
5.8	Surface Area of Right Prisms	7.7.13	So Many Faces
		7.7.13	Revisiting a Pentagonal Prism
		7.7.14	Volume or Surface Area Card Sort
5.9	Applying Volume and Surface Area	7.7.14	The Science Fair
		7.7.14	A Wheelbarrow of Concrete
		7.7.15	Foam Play Structure
		7.7.15	Filling the Sandbox
		7.7.15	Preparing for the Play

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Unit 6: Probability, Sampling and Variability in Data Sets

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
6.1	Chance Experiments and Probability	7.8.2	Which is More Likely?
		7.8.2	How Likely Is It?
		7.8.2	Card Sort: Likelihood
		7.8.3	Which Game Would You Choose?
		7.8.3	What's possible?
6.2	Estimating Probabilities	7.8.4	In the Long Run
		7.8.4	Due For a Win
		7.8.4	Fiction or Non-fiction?
		7.8.5	Making My Head Spin
6.3	Estimating Probabilities Using Simulation	7.8.5	How Much Green?
		7.8.6	Diego's Walk
		7.8.6	Designing Experiments
		7.8.5	The Probability of Spinning B
6.4	Simulating Multi-step Experiments and Keeping Track of Possible Outcome	7.8.7	Alpine Zoom
		7.8.7	Simulation Nation
		7.8.8	How Many Different Meals?
		7.8.8	Lists, Tables, and Trees
6.5	Multi-step Experiments	7.8.8	How Many Sandwiches?
		7.8.9	Spinning a Color and a Number
		7.8.9	Cubes and Coins
6.6	Designing Simulations	7.8.9	Pick a Card
		7.8.10	Breeding Mice
		7.8.10	Designing Simulations

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		7.8.10	The Best Power-Up
6.7	Deviation from the Mean	7.8.11	Shooting Hoops (Part 1)
		7.8.11	Shooting Hoops (Part 2)
		7.8.11	Shooting Hoops (Part 3)
		7.8.11	Game of 22 (Optional)
		7.8.11	Text Messages, Again
6.8	Using Mean and MAD to Make Comparisons	7.8.12	Number Talk: Decimal Division
		7.8.12	Which Player Would You Choose?
		7.8.12	Swimmers Over the Years
		7.8.12	Travel Times Across the World
6.9	The Interquartile Range and Box Plots	7.8.13	The Five-Number Summary
		7.8.13	Range and Interquartile Range
		7.8.14	Paper Planes
		7.8.14	Humpback Whales
6.10	Comparing Groups	7.8.15	Notice and Wonder: Comparing Heights
		7.8.15	More Team Heights
		7.8.15	Track Length
		7.8.16	John Jacobjingleheimerschmidt
6.11	Larger Populations & What Makes A Good Sample?	7.8.16	Siblings and Pets
		7.8.16	Sampling the Population
		7.8.17	Selling Paintings
		7.8.17	Sampling the Fish Market
6.12	Sampling in A Fair Way	7.8.18	Comparing Methods for Selecting Samples
		7.8.18	That’s the First Straw
		7.8.18	That's the Last Straw
		7.8.18	Sampling Spinach
6.13	Estimating Populations Measures of Center	7.8.19	Describing the Center

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		7.8.19	Three Different TV Shows
		7.8.19	Who's Watching What?
		7.8.19	Movie Reviews
		7.8.19	More Accurate Estimate
6.14	Estimating Population Proportions	7.8.20	Getting to School
		7.8.20	Reaction Times
		7.8.20	A New Comic Book Hero
		7.8.20	More than 48 Grams
6.15	Comparing Populations Using Samples	7.8.22	Same Mean? Same MAD?
		7.8.22	With a Heavy Load
		7.8.22	Do They Carry More?
		7.8.22	Steel From Different Regions
6.16	Comparing Populations and Working with Measures of Center and Variability	7.8.23	Info Gap: Comparing Populations
		7.8.25	Sample Probabilities
		7.8.25	Estimating a Measure of Center for the Population
		7.8.25	Comparing Populations
6.17	Using Data to Solve Problems	7.8.24	Wild Bears
		7.8.24	Math Homework (Part 1)
		7.8.24	Math Homework (Part 2)
		7.8.24	Will the Yellow Perch Survive?
		7.8.24	Time Spent on Chores

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Unit 7: Rigid Transformations and Congruence

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
7.1	Moving in the Plane	8.1.1	Triangle Square Dance
		8.1.2	A Pair of Quadrilaterals
		8.1.2	How Did You Make That Move?
		8.1.2	Move Card Sort
		8.1.2	Is It a Reflection?
7.2	Making Grid Moves	8.1.3	Notice and Wonder: Isometric Grid
		8.1.3	Transformation Information
		8.1.4	Reflection Quick Image
		8.1.4	Make That Move
		8.1.3	Some are Translations and Some Aren't
7.3	Making Coordinate Moves	8.1.4	A to B to C
		8.1.5	Translating Coordinates
		8.1.5	Reflecting Points on the Coordinate Plane
		8.1.5	Transformations of a Segment
		8.1.5	Rotation or Reflection
7.4	No Bending or Stretching	8.1.6	Info Gap: Transformation Information
		8.1.7	Sides and Angles
		8.1.7	Translated Trapezoid
7.5	Rotation Patterns and Moves in Parallel	8.1.8	Rotating a Segment
		8.1.8	A Pattern Of Four Triangles
		8.1.9	Line Moves
		8.1.9	Parallel Lines

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7.6	Moves in Parallel and Composing Figures	8.1.9	Let's Do Some 180's
		8.1.9	Finding Missing Measurements
		8.1.10	Angles of An Isosceles Triangle
		8.1.10	Triangle Plus One
7.7	What is the Same?	8.1.10	Triangle Plus Two
		8.1.10	Identifying Side Lengths and Angle Measures
		8.1.11	Are They the Same?
		8.1.11	Area, Perimeter, and Congruence
		8.1.11	Mirror Images
7.8	Congruent Polygons	8.1.12	Translated Images
		8.1.12	Congruent Pairs (Part 1)
		8.1.12	Congruent Pairs (Part 2)
		8.1.12	Building Quadrilaterals
		8.1.12	Moving to Congruence
7.9	Congruence	8.1.13	Not Just the Vertices
		8.1.13	Congruent Ovals
		8.1.13	Corresponding Points in Congruent Figures
		8.1.13	Explaining Congruence
7.10	Alternate Interior Angles	8.1.14	Angle Pairs
		8.1.14	Cutting Parallel Lines With a Transversal
		8.1.14	Alternate Interior Angles are Congruent
		8.1.14	All The Rest
7.11	Adding the Angles in a Triangle	8.1.15	Can You Draw It?
		8.1.15	Find All Three
		8.1.15	Tear It Up

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		8.1.15	Missing Angle Measures
		8.1.16	Angle Plus Two
7.12	Parallel Lines and the Angles in a Triangle	8.1.16	Every Triangle In The World
		8.1.16	Four Triangles Revisited
		8.1.17	Deducing Angle Measures
		8.1.17	Tesselate This
		8.1.17	Rotate That

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Unit 8: Dilations, Similarity, and Introducing Slope

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
8.1	Projecting, Scaling, and Circular Grid	8.2.1	Sorting Rectangles
		8.2.1	Scaled Rectangles
		8.2.2	Notice and Wonder: Concentric Circles
		8.2.2	A Droplet on the Surface
		8.2.2	Quadrilateral on a Circular Grid
8.2	Dilations	8.2.3	Dilation Obstacle Course
		8.2.3	Getting Perspective
		8.2.4	Dilations on a Grid w/o coordinates
		8.2.4	Card Sort: Matching Dilations on a Coordinate Grid
		8.2.4	A Dilated Image
8.3	Dilations and Similarity	8.2.5	Many Dilations of a Triangle
		8.2.5	Info Gap: Dilations
		8.2.5	Identifying a Dilation
		8.2.6	Similarity Transformations Part One
8.4	Similar Polygons	8.2.6	Similarity Transformations Part Two
		8.2.6	Methods For Translations and Dilations
		8.2.7	All, Some, None: Congruence and Similarity
8.5	Similar Polygons and Triangles	8.2.7	Find Someone Similar Note: examine the Anticipated Misconceptions from the activity “Are They Similar?” to assist with this activity
		8.2.7	How do You Know?
		8.2.8	Making Pasta Angles and Triangles

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		8.2.8	Applying Angle-Angle Similarity
8.6	Side Length Quotients in Similar Triangles	8.2.9	Two-three-four and Four-five-six
		8.2.9	Quotients of Sides Within Similar Triangles
		8.2.9	Using Side Quotients to Determine Side Lengths of Similar Triangles
		8.2.9	Similar Sides
8.7	Meet Slope	8.2.10	Equal Quotients
		8.2.10	Similar Triangles on the Same Line
		8.2.10	Multiple Lines with the Same Slope
		8.2.10	Different Slopes of Different Lines
		8.2.10	Finding Slope and Graphing Lines
8.8	Writing Equations for Lines	8.2.11	Coordinates and Lengths in the Coordinate Plane
		8.2.11	What We Mean by an Equation of a Line
		8.2.11	Writing Relationships from Slope Triangles
		8.2.11	Matching Relationships to Graphs
8.9	Using Equations for Lines	8.2.12	Missing center
		8.2.12	Writing Relationships from Two Points
		8.2.12	Dilations and Slope Triangles
		8.2.12	Is the Point on the Line?
8.10	The Shadow Knows	8.2.13	Notice and Wonder: Long Shadows and Short Shadows
		8.2.13	Objects and Shadows
		8.2.13	Justifying the Relationship

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Unit 9: Linear Relationships

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
9.1	Introduction to Linear Relationships	8.3.1	Number Talk: Fraction Division
		8.3.1	Stacking Cups
		8.3.1	Connecting Slope to Rate of Change
		8.3.1	Stacking More Cups
9.2	More Linear Relationships	8.3.2	Slopes, Vertical Intercepts, and Graphs
		8.3.2	Summer Reading
		8.3.2	Savings
		8.3.3	Estimation: Which Holds More?
9.3	Translating to y = mx + b	8.3.3	Rising Water Levels
		8.3.3	Calculate the Slope
		8.3.4	Increased Savings
		8.3.4	Translating a Line
9.4	Slopes Don't Have to be Positive	8.3.5	Which One Doesn’t Belong: Odd Line Out
		8.3.5	Stand Clear of the Closing Doors, Please
		8.3.5	Travel Habits in July
		8.3.5	Payback Plan
9.5	Equations of All Kinds of Lines	8.3.6	Toward a More General Slope Formula
		8.3.7	All the Same
		8.3.7	Same Perimeter
		8.3.7	Line Design
9.6	Solutions to Linear Equations	8.3.8	Apples and Oranges
		8.3.8	Solutions and Everything Else
		8.3.9	Coordinate Pairs
		8.3.9	True or False: Solutions in the Coordinate Plane

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9.7	Using Linear Relations to Solve Problems	8.3.9	I'll Take an X, Please
		8.3.9	Intercepted
		8.3.10	Five Savings Accounts
		8.3.10	Fabulous Fish

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Unit 10: Linear Equations and Linear Systems

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
10.1	Balanced Equations	8.4.2	Notice and Wonder: Hanging Socks
		8.4.2	Hanging Blocks
		8.4.2	More Hanging Blocks
		8.4.3	Matching Equation Moves
		8.4.3	Keeping Equality
10.2	More Balanced Moves	8.4.4	Different Equations?
		8.4.4	Step by Step by Step by Step
		8.4.4	Make Your Own Steps
		8.4.5	Equation Talk
10.3	Solving Linear Equations	8.4.5	Trading Moves
		8.4.5	A Puzzling Puzzle
		8.4.6	Predicting Solutions
		8.4.6	Which Would You Rather Solve?
		8.4.5	Check It
10.4	What's the Number of Solutions?	8.4.7	Thinking About Solutions
		8.4.7	What's the Equation?
		8.4.8	Thinking About Solutions Some More
		8.4.9	Water Tanks
10.5	On the Line, Off the Line, or on Both Lines	8.4.10	Pocket Full of Change
		8.4.10	Another Pocket Full of Change
		8.4.11	Bugs Passing in the Night, Continued
		8.4.11	A Close Race
		8.4.11	Saving Cash
10.6	Solving Systems of Equations	8.4.12	Passing on the Trail

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		8.4.12	Milkshakes, Revisited
		8.4.13	Matching Graphs to Systems
		8.4.13	Different Types of Systems
10.7	Solving and Writing Systems of Equations	8.4.14	Algebra Talk: Solving Systems Mentally
		8.4.14	Challenge Yourself
		8.4.14	Five Does Not Equal Seven
		8.4.15	How Many Solutions? Matching
		8.4.15	Situations and Systems
10.8	Solving Problems with Systems	8.4.15	Solve This
		8.4.16	Cycling, Fundraising, Working, and ___?

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Unit 10: Functions and Volume

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
11.1	Inputs, Outputs and Functions	8.5.1	Guess My Rule
		8.5.1	Making Tables
		8.5.2	You Know This, Do You Know That?
		8.5.2	Using Function Language
		8.5.2	Same Function, Different Rule?
11.2	Tables, Equations and Graphs of Functions	8.5.3	Diagrams, Equations, and Descriptions
		8.5.3	Dimes and Quarters
		8.5.4	Equations and Graphs of Functions
		8.5.4	Running around a Track
11.3	More Graphs of Functions	8.5.5	Time and Temperature
		8.5.5	Garbage
		8.5.6	Dog Run
		8.5.6	Which Graph is It?
11.4	Connecting Representations of Functions	8.5.6	Sketching a Story about a Boy and a Bike
		8.5.6	Walking Home From School
		8.5.7	Comparing Temperatures
		8.5.7	Comparing Volumes
11.5	Linear Functions	8.5.8	Bigger and Smaller
		8.5.8	Proportional Relationships Define Linear Functions
		8.5.8	Which is Growing Faster?
		8.5.9	Candlelight
11.6	Linear Models and Piecewise Linear Functions	8.5.9	Shadows
		8.5.9	Recycling

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		8.5.10	Modeling Recycling
		8.5.10	Dog Bath
11.7	Filling Containers	8.5.11	Which One Doesn't Belong: Solids
		8.5.11	Height and Volume
		8.5.11	What Is the Shape?
		8.5.12	What's Your Estimate?
11.8	Finding Cylinder Dimensions and Volume	8.5.13	Circular Volumes
		8.5.14	A Cylinder's Volume
		8.5.14	Cylinders with Unknown Dimensions
11.9	Volume and Cone Dimensions	8.5.15	From Cylinders to Cones
		8.5.16	Cones with Unknown Dimensions
		8.5.16	Popcorn Deals
		8.5.16	A Square Radius
11.10	Scaling One and Two Dimensions	8.5.17	Driving the Distance
		8.5.17	Halve the Height
		8.5.17	A Missing Radius
		8.5.18	A Square Base
		8.5.18	Playing with Cones
11.11	The Volume of a Sphere	8.5.19	Hemispheres in Boxes
		8.5.19	Estimating Hemispheres
		8.5.20	A Sphere in a Cylinder
		8.5.20	Spheres in Cylinders
11.12	Cylinders, Cones, and Spheres	8.5.21	Sphere's Radius
		8.5.21	Info Gap: Unknown Dimensions
		8.5.21	The Right Fit
		8.5.22	A Cylinder, a Cone, and a Sphere

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Unit 11: Exponents and Scientific Notation

Accelerated Unit.Lesson	Accelerated Lesson Name	Regular Grade. Unit. Lesson	Activity Name
12.1	Exponent Review and Multiplying by Powers of Ten	8.7.1	Return of the Genie
		8.7.1	Broken Coin
		8.7.2	Picture a Power of 10
		8.7.2	Multiplying Powers of Ten
12.2	Powers of Powers and Dividing by Powers of 10	8.7.3	Taking Powers of powers of 10
		8.7.3	How Do the Rules Work?
		8.7.4	A Surprising One
		8.7.4	Dividing Powers of Ten
		8.7.4	Zero Exponents
12.3	Negative Exponents with Powers of Ten and Other Bases	8.7.5	Number Talk: What is an Exponent?
		8.7.5	Negative Exponent Table
		8.7.5	Follow the Exponent Rules
		8.7.6	Exponent Rules with Bases Other than 10
		8.7.6	Spot the Mistake
12.4	Rational Bases and Combining Bases	8.7.7	Inconsistent Bases
		8.7.8	Exponent Product Rule
		8.7.8	How Many Ways Can You Make 3600?
		8.7.8	Help an Absent Student
12.5	Representing Large Numbers on the Number Line	8.7.9	Base-10 Representations Matching
		8.7.10	Labeling Tick Marks on a Number Line
		8.7.10	Comparing Large Numbers with a Number Line
		8.7.10	The Speeds of Light

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		8.7.10	Describe the Point
12.6	Representing Small Numbers on the Number Line	8.7.11	Small Numbers on a Number Line
		8.7.11	Comparing Small Numbers on a Number Line
		8.7.11	Atomic Scale
		8.7.11	Describing Very Small Numbers
12.7	Applications of Powers of 10 and Defining Scientific Notation	8.7.12	Meters and Moons or That's a Tall Stack of Cash (teacher choice)
		8.7.13	The "Science" of Scientific Notation
		8.7.13	Scientific Notation Matching
12.8	Multiplying, Dividing, and Estimating with Scientific Notation	8.7.14	True or False: Equations
		8.7.14	Biomass
		8.7.14	Distances in the Solar System
		8.7.14	Estimating with Scientific Notation
12.9	Adding and Subtracting with Scientific Notation and Putting it all Together	8.7.15	Number Talk: Non-zero Digits
		8.7.15	Old McDonald's Massive Farm
		8.7.16	A Bit More on Bytes