



Math 180[®]

Math Intervention for Summer School



Ready, Set, Summer

If you think that closing learning gaps is impossible in the summer, take a look at HMH's Intensive Intervention summer school offering for *Math 180*. We make assessment, instruction, and measuring growth possible—whether your classes are taught by math veterans or new team members.

In-person, online, from anywhere.

Say “goodbye” to lengthy prep-work! We’ve got you covered, featuring:

- Four- and six-week implementation plans
- Adaptive personalized student software
- Flexible implementation models
- Built-in *Growth Measure* assessment



HMH teacher resources

give you just-right, just-in-time tips and tricks to make the most out of summer learning.



Proven Student Growth

ESSA Evidence: Moderate

Math 180 Program Summary

This summer, close the learning gap with an intensive math intervention program that focuses on deep understanding and mastery of the essential skills and concepts necessary to unlock algebra readiness.

Assess, teach, and measure growth in just 10 hours per week.

Assess

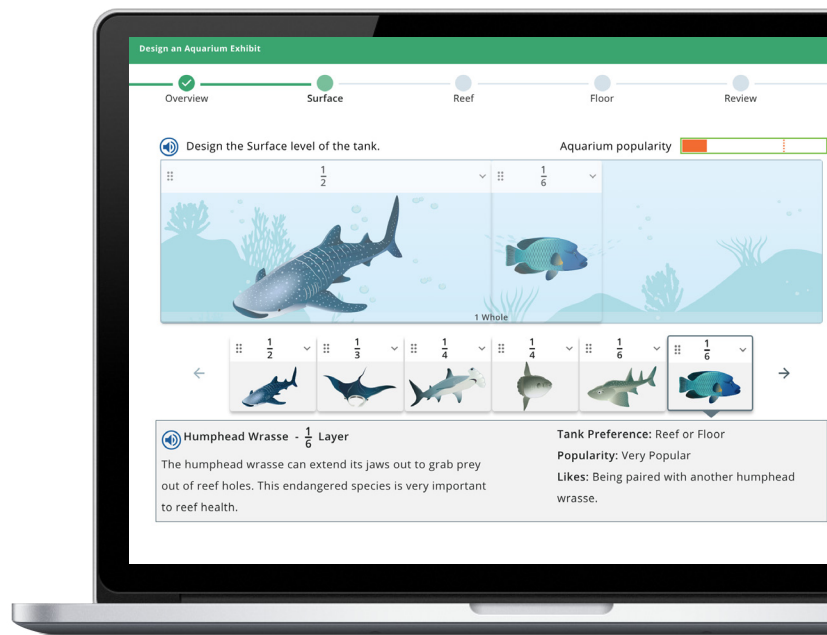
This summer, monitor student progress toward algebra readiness and inform instruction with the built-in assessments.

Teach

Math 180's flexible model maximizes instructional time with a clear organization for whole-class, group, and individualized learning—a true blended learning model.

Measure Growth

Teachers and leaders have access to data to enable data-driven decision making and empower prevention, intervention, and acceleration.

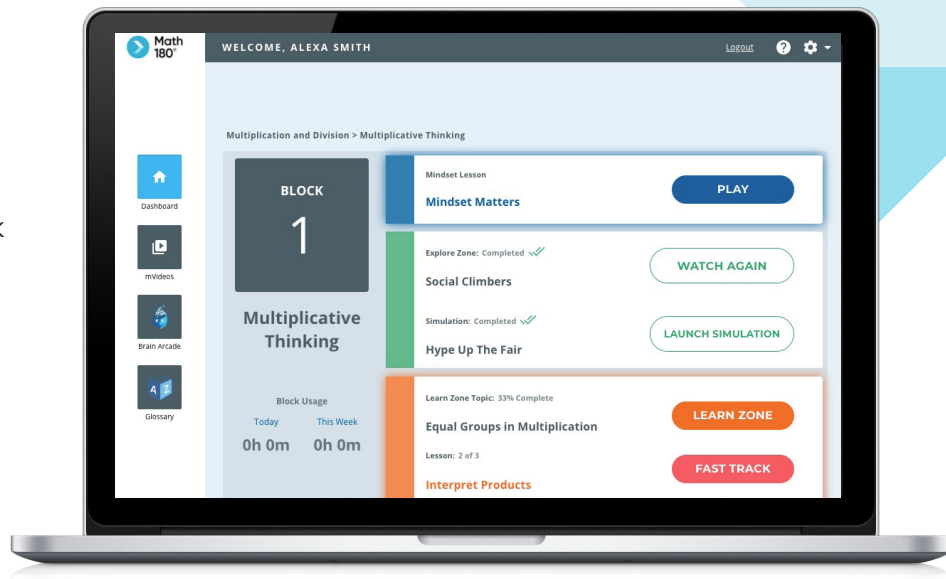


Subscription Includes

- Teacher and student digital access to all 6 block series
- Print available at an additional cost

Effortless Placement

Administrators and educators can bulk assign students into the Block Series that best meets the needs of the summer class. *HMH Growth Measure* can be used to place individual students into specific Block Series.



Suggested Block Series Focus

Option 1



Multiplication and Division

- Multiplicative Thinking
- The Distributive Property
- Division

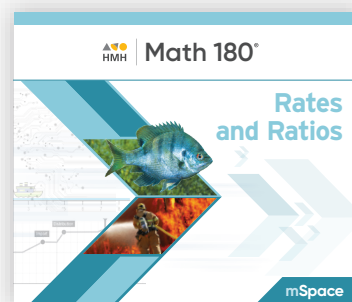
Option 2



Fractions

- Fraction Concepts
- Fraction Relationships
- Fraction Multiplication and Division

Option 3



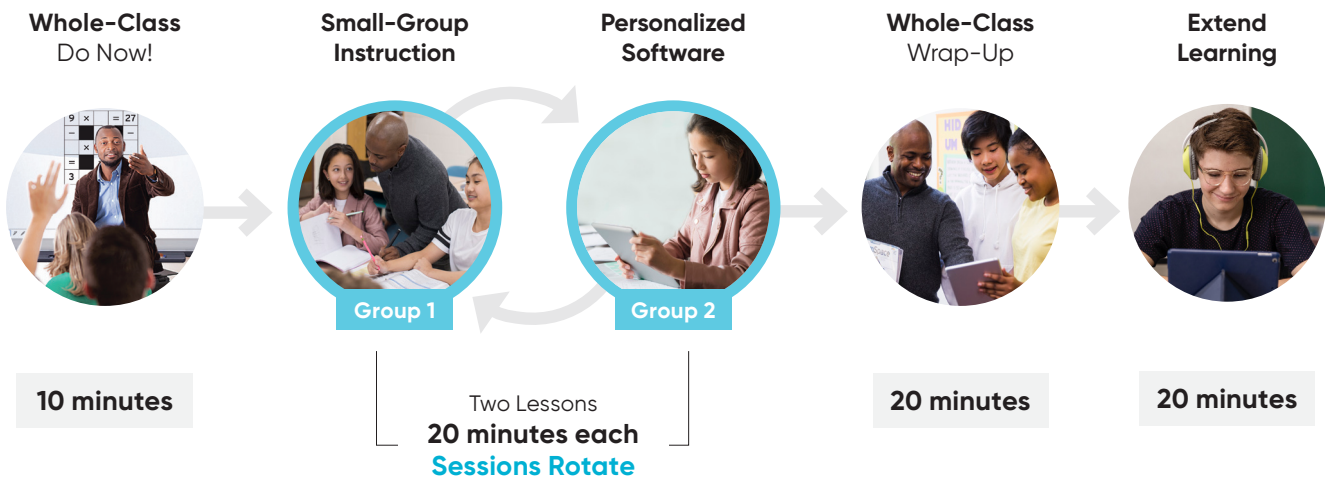
Rates and Ratios

- Decimals and Place Value
- Decimal Operations
- Both Sides of Zero

Flexible Implementation Is Key

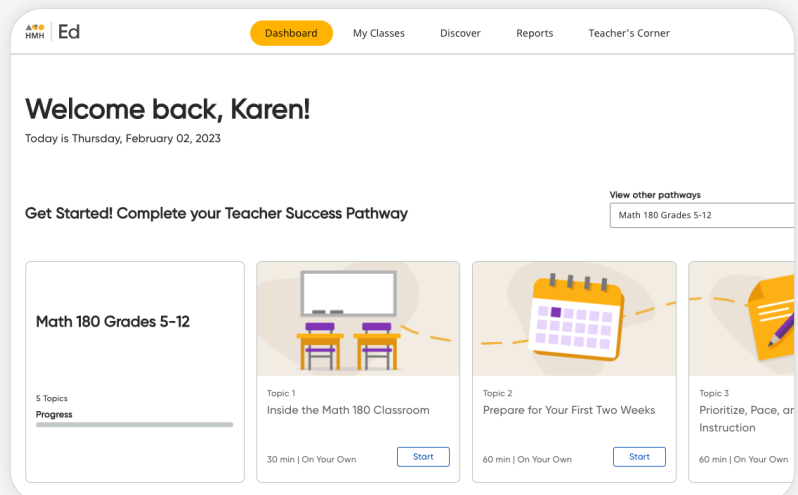
Math 180 can flex to meet the particular needs of Summer School classrooms with several supported implementation models. From a shortened 30-minute model to a double period or even an Independent Student Software-focused model with a light teacher touch, *Math 180* can flex to meet your specific summer school scheduling needs.

Intensive Intervention Classroom: 90 minutes



Guided Implementation Support

The Teacher Success Pathway provides a new learning experience for teachers. Once logged in to *Ed*, teachers are prompted to build a profile by selecting the grades, subjects, and the programs they teach. The Teacher Success Pathways provide ongoing support and personalizes their on-boarding experience.

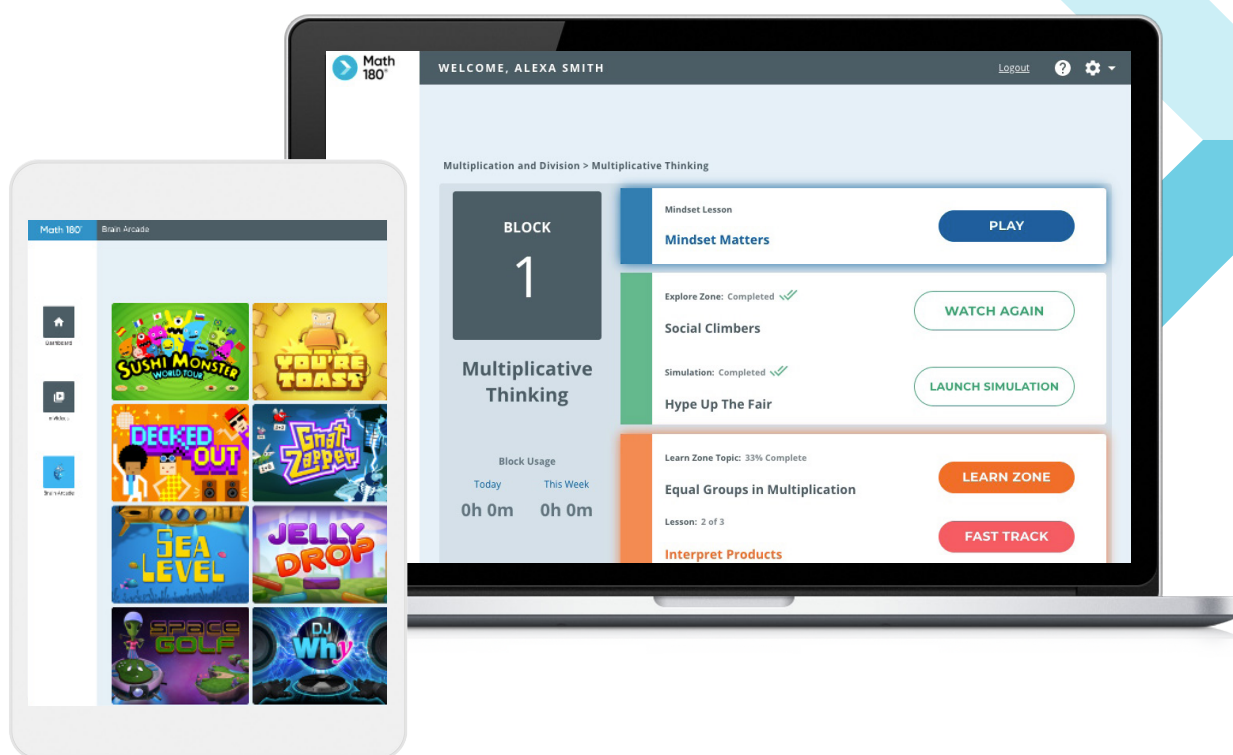


For more information, please visit us at hnhco.com/professionalservices



Math 180®

Fill Your Summer with Gains!



Learn more about *Math 180* at
hmhco.com/math180

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Based on a 90-minute period, 5 days/week; 2 complete rotations

Multiplication and Division

Week 1	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Math Inventory or Growth Measure	Discussion regarding Growth Mindset and <i>Math 180</i> software from Getting Started	
Day 2	Block 1: Multiplicative Thinking Topic 1: Equal Groups in Multiplication <u>Meaning focus:</u> Understand the meaning of multiplication <u>Procedural focus:</u> Multiple 1-digit factors	Lesson 1: Identify Equal Groups Lesson 2: Interpret Products	Generate situations that can be represented by multiplication. Represent multiplication with models and expressions.
Day 3		Lesson 3: Apply the Commutative Property Lesson 4: Reinforce Multiplication Facts	Apply the Commutative Property to calculate products. Calculate products of 1-digit factors.
Day 4	Topic 2: Facts and Factors <u>Meaning focus:</u> Understand the relationship between factors and products <u>Procedural focus:</u> Recognize and use the factors of a number	Lesson 5: Explain Multiplication Patterns Lesson 1: Multiply 1-Digit Factors	Identify and extend multiplication patterns with whole numbers. Decompose factors to calculate products of 1-digit factors.
Day 5		Lesson 2: Find Factor Pairs Lesson 3: Find Missing Factors	Identify factors of whole numbers. Calculate products of 1-digit factors.

Week 2	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1		Lesson 4: Use Reasoning With Multiplication Lesson 5: Solve Equal Groups Problems	Represent and solve multiplicative equal-groups problems using models and equations. Interpret the meaning of factors or products in equal-groups problems
Day 2	Topic 3: 10 as a Factor <u>Meaning focus:</u> Recognize and use patterns of multiplication by 10 <u>Procedural focus:</u> Multiply by 10 and by multiples of 10	Lesson 1: Multiply by 10 Lesson 2: Reason with Greater Factors	Multiply factors by 10. Identify patterns in multiples of 10 and compare to place value.
Day 3		Lesson 3: Multiply by Multiples of 10 Lesson 4: Multiply Multiples of 10	Apply properties to multiply by multiples of 10. Apply properties to multiply multiples of 10 by multiples of 10.
Day 4		Lesson 5: Solve and Compare Problems Performance Task: Develop a Marketing Contest	Represent and solve multiplicative comparison problems using models and equations. Interpret the meaning of factors or products in multiplicative comparison problems.
Day 5		(OPTIONAL activities before the mSkills Assessment): • mSkills Review Lesson • Checkpoint Lessons • Mindset Scan: Scan Your Learning Strategies • Card Sort: Multiplicative Thinking • Sum It Up!: Multiplicative Thinking mSkills Assessment	

Week 3	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Block 2: The Distributive Property Topic 1: Place Value in Multiplication <u>Meaning focus:</u> Understand place value when multiplying 1-digit by 2-digit factors <u>Procedural focus:</u> Apply the Distributive Property to multiply 1-digit by 2-digit factors	Lesson 1: Multiply with a 2-Digit Factor Lesson 2: Develop Reasoning with Multiplication	Decompose factors to identify partial products when multiplying 1-digit by 2-digit factors to 19.
Day 2		Lesson 3: Apply the Distributive Property to Multiply Lesson 4: Multiply 1-Digit by 2-Digit Factors	Apply the Distributive Property to multiply 1-digit by 2-digit factors to 19. Apply the Distributive Property to multiply 1-digit by 2-digit factors.
Day 3	Topic 2: Strategies for Multiplication <u>Meaning focus:</u> Use place-value understanding to multiply 1-digit by 3-digit factors <u>Procedural focus:</u> Apply the Distributive Property to multiply 1-digit by 3-digit factors	Lesson 5: Solve Equal Group and Compare Problems Lesson 1: Multiply With a 3-Digit Factor	Analyze multiplicative problems and solve with appropriate models and equations. Describe solution strategies. Decompose factors to identify partial products when multiplying 1-digit by 3-digit factors.
Day 4		Lesson 2: Estimate and Compare Products Lesson 3: Develop Estimation Strategies	Apply place-value understanding to estimate and compare products. Apply the Distributive Property when multiplying 1-digit by 3-digit factors.
Day 5		Lesson 4: Identify a Rule Lesson 5: Solve Multi-Step Problems	Identify multiplication patterns with whole numbers and describe with a rule.

Week 4	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Topic 3: Digit Multiplication <u>Meaning focus:</u> Use place-value understanding to multiply any factors <u>Procedural focus:</u> Apply the Distributive Property to multiply any factors	Lesson 1: Multiply 2-Digit Factors Lesson 2: Multiply 2-Digit Factors Using the Distributive Property	Analyze multi-step additive and multiplicative problems and solve with appropriate models and equations.
Day 2		Lesson 3: Strengthen Estimation Strategies Lesson 4: Write Multiplication Problems	
Day 3		Lesson 5: Solve Complex Multiplication Problems Performance Task: Design a Mural Checkpoint Lesson	Describe and explain reasoning in solution strategies.
Day 4		(OPTIONAL activities before the mSkills Assessment): • mSkills Review Lesson • Mindset Scan: Scan Your Learning Attitudes • Card Sort: The Distributive Property • Sum It Up!: The Distributive Property mSkills Assessment	
Day 5		<i>Math Inventory or Growth Measure</i> <i>Wrap up with Growth Mindset</i>	

FRACTIONS

Week 1	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Math Inventory or Growth Measure	Discussion regarding Growth Mindset and Math 180 software from Getting Started	
Day 2	Block 1: Fraction Concepts Topic 1: Understanding Fractions <u>Meaning focus:</u> Understand fractions as parts of a whole <u>Procedural focus:</u> Compose and decompose fractions	Lesson 1: Model Fractions as Parts of a Whole Lesson 2: Use Fraction Models	Represent equal parts of a whole as fractions. Compose non-unit fractions and wholes from unit fractions.
Day 3		Lesson 3: Use Models to Compare Fractions Lesson 4: Develop Number Sense with Fractions	Compare fractions using visual models and represent with equations and inequalities. Communicate reasoning about the relative sizes of fractions.
Day 4	Topic 2: Equivalent Fraction Models <u>Meaning focus:</u> Develop understanding of fraction equivalence <u>Procedural focus:</u> Add with fraction models	Lesson 5: Solve Fraction Problems with Equivalence Lesson 1: Model Fraction Equivalence	Solve problems by writing and evaluating equations with fractions. Extend understanding of unit fractions.
Day 5		Lesson 2: Use Models to Add Fractions Lesson 3: Develop Reasoning About Equivalence	Add with fraction models.

Week 2	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1		Lesson 4: Model Fractions Greater Than 1 Lesson 5: Solve Part-Part-Whole Problems	Represent numbers greater than 1 as fractions or mixed numbers. Represent and solve additive problems with fractions using models.
Day 2	Topic 3: Fractions as Division <u>Meaning focus:</u> Interpret fractions as division <u>Procedural focus:</u> Compute quotients of whole numbers and express them as fractions	Lesson 1: Model Fractions as Division Lesson 2: Reinforce Fractions as Division	Represent sharing situations with fractions. Use patterns to connect fractions to division.
Day 3		Lesson 3: Express Whole Numbers as Fractions Lesson 4: Represent Remainders as Fractions	Represent whole numbers as fractions with given denominators. Represent sharing situations with fractions and mixed numbers.
Day 4		Lesson 5: Solve Compare Problems With Fractions Performance Task: Take the Chef's Challenge	Analyze and solve problem situations with fractions using models and equations. Describe and explain solution strategies for problems with fractions.
Day 5		(OPTIONAL activities before the mSkills Assessment): • Checkpoint Lessons • mSkills Review Lesson • Mindset Scan: Reflect on Your Learning Attitudes • Card Sort: Fraction Concepts • Sum It Up!: Fraction Concepts mSkills Assessment	

Week 3	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Block 2: Fraction Relationships Topic 1: Strategies for Comparing Fractions <u>Meaning focus:</u> Use reasoning strategies to compare fractions <u>Procedural focus:</u> Identify common features and use benchmarks to compare fractions	Lesson 1: Compare Fractions with Common Features Lesson 2: Identify Fractions Equivalent to $\frac{1}{2}$	Use reasoning to compare fractions that have common features. Identify fractions equivalent to $\frac{1}{2}$. Analyze and explain patterns in numerators and denominators of fractions equivalent to $\frac{1}{2}$.
Day 2		Lesson 3: Use Benchmarks to Compare Fractions Lesson 4: Use Reasoning to Compare Fractions	Use $\frac{1}{2}$ and 1 as benchmarks to compare fractions.
Day 3	Topic 2: Equivalent Fractions on a Number Line <u>Meaning focus:</u> Recognize and compare equivalent fractions on a number line <u>Procedural focus:</u> Generate, order, and locate equivalent fractions on a number line	Lesson 5: Order Fractions to Solve Problems Lesson 1: Name Equivalent Fractions	Use equivalence and comparison to classify fractions and solve problems. Justify solutions to fraction problems. Generate equivalent fractions.
Day 4		Lesson 2: Use Equivalence to Compare Fractions Lesson 3: Locate Fractions on a Number Line	Compare fractions by generating equivalents. Locate fractions on a number line.
Day 5		Lesson 4: Fraction Grab - Use Strategies to Compare Fractions Lesson 5: Analyze Solutions	Describe relationships among fractions. Analyze and solve problems with one, more than one, or no solutions.

Week 4	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Topic 3: Adding and Subtracting Fractions <u>Meaning focus:</u> Apply understanding of addition and subtraction to fractions <u>Procedural focus:</u> Add and subtract fractions and mixed numbers	Lesson 1: Subtract Fractions with a Number Line Lesson 2: Use Equivalence to Add Fractions	Subtract fractions and mixed numbers with the same denominators.
Day 2		Lesson 3: Use an Open Number Line to Subtract Lesson 4: Use Strategies to Compare Sums	Add fractions and mixed numbers with different denominators. Estimate sums and differences relative to benchmark whole numbers.
Day 3		Lesson 5: Solve Problems with Fractions Performance Task: Match Organs for Transplants	Subtract fractions and mixed numbers with different denominators. Represent and solve additive problem situations with fractions using models and equations
Day 4		(OPTIONAL activities before the mSkills Assessment): • Checkpoint Lessons • mSkills Review Lesson • Mindset Scan: Scan Your Learning Strategies • Card Sort: Fraction Relationships • Sum It Up!: Fraction Relationships mSkills Assessment	
Day 5		<i>Math Inventory or Growth Measure</i> <i>Wrap up with Growth Mindset</i>	

RATES AND RATIOS

Week 1	Module Name and	Lesson(s)	Priority Standard(s)
Day 1	Math Inventory or Growth Measure	Discussion regarding Growth Mindset and Math 180 software from Getting Started	
Day 2	Block 1: Rates in Time Topic 1: Distance-Time Graphs <u>Meaning focus:</u> Develop strategies to represent the motion of an object in different ways <u>Procedural focus:</u> Interpret and connect multiple representations of motion	Lesson 1: Plan a Delivery Route Lesson 2: Describe Motion in a Graph	Describe motion in a graph using precise language. Describe segments in a story graph using precise language.
Day 3		Lesson 3: Describe Motion in a Story Graph Lesson 4: Interpret Motion in a Story Graph	Describe motion in a graph using precise language. Describe segments in a story graph using precise language. Determine the distance and time it takes to travel a route.
Day 4	TOPIC 2: Representing Rates <u>Meaning focus:</u> Represent the relationship between distance and time using a table <u>Procedural focus:</u> Use tables to find patterns and calculate speed	Lesson 5: Reason About Distance and Time Lesson 1: Compare Motion in Multiple Routes	Interpret motion in a distance-time graph and represent it in a table.
Day 5		Lesson 2: Represent Motion with a Table Lesson 3: Interpret Motion in a Graph	Interpret motion in a distance-time graph and represent it in a table.

Week 2	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1		Lesson 4: Interpret Speed in a Graph Lesson 5: Develop Reasoning About Rates	Interpret a distance-time graph to calculate the speed of an object. Use distance and speed to determine the total time a vehicle travels.
Day 2	Topic 3: Comparing Rates <u>Meaning focus:</u> Use understanding of graphs to make comparisons <u>Procedural focus:</u> Apply features of graphs to compare rates and totals	Lesson 1 : Compare Distances Using Tables Lesson 2: Compare Speed Using Models	Reason with tables to compare distances.
Day 3		Lesson 3: Compare Distances Using Graphs Lesson 4: Compare Quantities Using Graphs	Compare rates by analyzing graphs and tables. Reason with graphs to compare distances.
Day 4		Lesson 5: Determine Profits From a Graph Checkpoint Lessons mSkills Review Lesson	Analyze a graph to compare rates and solve multi- step problems.
Day 5		(OPTIONAL activities before the mSkills Assessment): Performance Task: Rates in Time: Develop a Customer Satisfaction Plan - Card Sort: Rates in Time - Sum It Up!: Rates in Time mSkills Assessment	

Week 3	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Block 2: Rate and Ratio Concepts Topic 1: Comparing Quantities <u>Meaning focus:</u> Understand the Meaning of constant rate in terms of constant, correlated change in two quantities <u>Procedural focus:</u> Use rate tables to understand additive and multiplicative relationships	Lesson 1: Apply Rates to Make Predictions Lesson 2: Determine Rates	Apply rate concepts to a representative sample of data and make predictions.
Day 2		Lesson 3: Identify Rates in Time Lesson 4: Use Reasoning with Rates	Determine rates using repeated reasoning to solve unit rate problems. Use the distance and time a vehicle takes to travel to determine the speed.
Day 3	Topic 2: Ratio Concepts <u>Meaning focus:</u> Understand ratio as a multiplicative relationship between two quantities <u>Procedural focus:</u> Use tables and bar models to represent ratios and solve ratio problems	Lesson 5: Identify Rates to Compare Costs Lesson 1: Solve Problems Using Rates	Identify and use rates to solve problems. Identify unit prices to compare costs and determine the lower and higher rate.
Day 4		Lesson 2: Connect Rates to Ratios Lesson 3: Understand Ratios	
Day 5		Lesson 4: Model Unit Ratios Lesson 5: Develop Reasoning With Ratios	

Week 4	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Topic 3: Equivalent Ratios <u>Meaning focus:</u> Understand equivalent ratios <u>Procedural focus:</u> Apply ratio reasoning and use bar models to solve problems with equivalent ratios	Lesson 1: Solve Ratio Problems Lesson 2: Model Ratios	
Day 2		Lesson 3: Generate Equivalent Ratios Lesson 4: Identify Equivalent Ratios	
Day 3		Lesson 5: Apply Ratio Concepts to Find Area Performance Task: Rates and Ratio Concepts: Create Volunteer Teams	
Day 4		(OPTIONAL activities before the mSkills Assessment): • Checkpoint Lessons • mSkills Review Lesson • Card Sort: Rates and Ratio Concepts • Sum It Up!: Rates and Ratio Concepts mSkills Assessment	
Day 5		<i>Math Inventory or Growth Measure</i> <i>Wrap up with Growth Mindset</i>	

Based on a 60-minute period, 5 days/week: 1 rotation- 30 minutes teaching 2 lessons in small group and 30 minutes on the software

Multiplication and Division

Week 1	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Math Inventory or Growth Measure	Discussion regarding Growth Mindset and Math 180 software from Getting Started	
Day 2	Block 1: Multiplicative Thinking Topic 1: Equal Groups in Multiplication <u>Meaning focus:</u> Understand the meaning of multiplication <u>Procedural focus:</u> Multiple 1-digit factors	Lesson 1: Identify Equal Groups Lesson 2: Interpret Products	Generate situations that can be represented by multiplication. Represent multiplication with models and expressions.
Day 3		Lesson 3: Apply the Commutative Property Lesson 4: Reinforce Multiplication Facts	Apply the Commutative Property to calculate products. Calculate products of 1-digit factors.
Day 4	Topic 2: Facts and Factors <u>Meaning focus:</u> Understand the relationship between factors and products <u>Procedural focus:</u> Recognize and use the factors of a number	Lesson 5: Explain Multiplication Patterns Lesson 1: Multiply 1-Digit Factors	Identify and extend multiplication patterns with whole numbers. Decompose factors to calculate products of 1-digit factors.
Day 5		Lesson 2: Find Factor Pairs Lesson 3: Find Missing Factors	Identify factors of whole numbers. Calculate products of 1-digit factors.

Week 2	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1		Lesson 4: Use Reasoning With Multiplication Lesson 5: Solve Equal Groups Problems	Represent and solve multiplicative equal-groups problems using models and equations. Interpret the meaning of factors or products in equal-groups problems.
Day 2	Topic 3: 10 as a Factor <u>Meaning focus:</u> Recognize and use patterns of multiplication by 10 <u>Procedural focus:</u> Multiply by 10 and by multiples of 10	Lesson 1: Multiply by 10 Lesson 2: Reason with Greater Factors	Multiply factors by 10. Identify patterns in multiples of 10 and compare to place value.
Day 3		Lesson 3: Multiply by Multiples of 10 Lesson 4: Multiply Multiples of 10	Apply properties to multiply by multiples of 10. Apply properties to multiply multiples of 10 by multiples of 10.
Day 4		Lesson 5: Solve Compare Problems Performance Task: Develop a Marketing Contest	Represent and solve multiplicative comparison problems using models and equations. Interpret the meaning of factors or products in multiplicative comparison problems.
Day 5		(OPTIONAL activities before the mSkills Assessment): • mSkills Review Lesson • Checkpoint Lessons • Mindset Scan: Scan Your Learning Strategies • Card Sort: Multiplicative Thinking • Sum It Up!: Multiplicative Thinking mSkills Assessment	

Week 3	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Block 2: The Distributive Property Topic 1: Place Value in Multiplication <u>Meaning focus:</u> Understand place value when multiplying 1-digit by 2-digit factors <u>Procedural focus:</u> Apply the Distributive Property to multiply 1-digit by 2-digit factors	Lesson 1: Multiply with a 2-Digit Factor Lesson 2: Develop Reasoning with Multiplication	Decompose factors to identify partial products when multiplying 1-digit by 2-digit factors to 19.
Day 2		Lesson 3: Apply the Distributive Property to Multiply Lesson 4: Multiply 1-Digit by 2-Digit Factors	Apply the Distributive Property to multiply 1-digit by 2-digit factors to 19. Apply the Distributive Property to multiply 1-digit by 2-digit factors.
Day 3	Topic 2: Strategies for Multiplication <u>Meaning focus:</u> Use place-value understanding to multiply 1-digit by 3-digit factors <u>Procedural focus:</u> Apply the Distributive Property to multiply 1-digit by 3-digit factors	Lesson 5: Solve Equal Group and Compare Problems Lesson 1: Multiply With a 3-Digit Factor	Analyze multiplicative problems and solve with appropriate models and equations. Describe solution strategies. Decompose factors to identify partial products when multiplying 1-digit by 3-digit factors.
Day 4		Lesson 2: Estimate and Compare Products Lesson 3: Develop Estimation Strategies	Apply place-value understanding to estimate and compare products. Apply the Distributive Property when multiplying 1-digit by 3-digit factors.
Day 5		Lesson 4: Identify a Rule Lesson 5: Solve Multi-Step Problems	Identify multiplication patterns with whole numbers and describe with a rule.

Week 4	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Topic 3: Digit Multiplication <u>Meaning focus:</u> Use place-value understanding to multiply any factors <u>Procedural focus:</u> Apply the Distributive Property to multiply any factors	Lesson 1: Multiply 2-Digit Factors Lesson 2: Multiply 2-Digit Factors Using the Distributive Property	Analyze multi-step additive and multiplicative problems and solve with appropriate models and equations.
Day 2		Lesson 3: Strengthen Estimation Strategies Lesson 4: Write Multiplication Problems	
Day 3		Lesson 5: Solve Complex Multiplication Problems Performance Task: Design a Mural Checkpoint Lesson	Describe and explain reasoning in solution strategies.
Day 4		(OPTIONAL activities before the mSkills Assessment): • mSkills Review Lesson • Mindset Scan: Scan Your Learning Attitudes • Card Sort: The Distributive Property • Sum It Up!: The Distributive Property mSkills Assessment	
Day 5		<i>Math Inventory or Growth Measure</i> <i>Wrap up with Growth Mindset</i>	

Week 5	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Block 3: Division Topic 1: Equal Groups in Division <u>Meaning focus:</u> Understand the meaning of division <u>Procedural focus:</u> Divide with 1-digit divisors within 100	Lesson 1: Divide by Taking Out Equal Groups Lesson 2: Use Multiplication to Divide	Represent division as taking out equal groups. Interpret the meaning of divisors, dividends, quotients, or remainders in context.
Day 2		Lesson 3: Interpret Remainders Lesson 4: Develop Reasoning with Division	Solve division problems with multiplication. Divide with remainders.
Day 3	Topic 2: Strategies for Division <u>Meaning focus:</u> Recognize and use place value and repeated subtraction to divide <u>Procedural focus:</u> Divide by taking out 10 and multiples of 10 and 100	Lesson 5: Solve Division Problems Lesson 1: Divide by Taking Out 10s	Represent and solve division equal-groups problems using models and equations. Take out 10 groups to divide. Divide by 10 and multiples of 10.
Day 4		Lesson 2: Divide by Taking Out Multiples of 10 Lesson 3: Divide by Taking Out Multiples of 100	Take out multiples of 10 groups to divide. Take out multiples of 10 and 100 groups to divide.
Day 5		Lesson 4: Develop Reasoning About Remainders Lesson 5: Use Divisibility to Solve Problems	Communicate reasoning about properties of numbers.

Week 6	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Topic 3: Partial-Quotient Strategy <u>Meaning focus:</u> Develop meaning for multi-digit division <u>Procedural focus:</u> Divide with 2-digit divisors	Lesson 1: Divide by 10 and Multiples of 10 Lesson 2: Divide by 2-Digit Divisors	Divide 2-digit dividends by 2-digit divisors. Divide 3- or 4-digit dividends by 2-digit divisors.
Day 2		Lesson 3: Estimate and Divide Greater Numbers Lesson 4: Develop Divisibility Strategies	Estimate quotients relative to multiples of 10.
Day 3		Lesson 5: Solve Multi-Step Division Problems Performance Task: Division: Organize a Book Drive	Analyze and solve multi-step problem situations using all four operations. Describe and compare solution strategies.
Day 4		(OPTIONAL activities before the mSkills Assessment): • Mindset Scan Division: Reflect on Your Learning Strategies • Card Sort: Division • Sum It Up!: Division mSkills Assessment	
Day 5		<i>Math Inventory or Growth Measure</i> <i>Wrap up with Growth Mindset</i>	

Fractions

Week 1	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Math Inventory or Growth Measure	Discussion regarding Growth Mindset and Math 180 software from Getting Started	
Day 2	Block 1: Fraction Concepts Topic 1: Understanding Fractions <u>Meaning focus:</u> Understand fractions as parts of a whole <u>Procedural focus:</u> Compose and decompose fractions	Lesson 1: Model Fractions as Parts of a Whole Lesson 2: Use Fraction Models	Represent equal parts of a whole as fractions. Compose non-unit fractions and wholes from unit fractions.
Day 3		Lesson 3: Use Models to Compare Fractions Lesson 4: Develop Number Sense with Fractions	Compare fractions using visual models and represent with equations and inequalities. Communicate reasoning about the relative sizes of fractions.
Day 4	Topic 2: Equivalent Fraction Models <u>Meaning focus:</u> Develop understanding of fraction equivalence <u>Procedural focus:</u> Add with fraction models	Lesson 5: Solve Fraction Problems with Equivalence Lesson 1: Model Fraction Equivalence	Solve problems by writing and evaluating equations with fractions. Extend understanding of unit fractions.
Day 5		Lesson 2: Use Models to Add Fractions Lesson 3: Develop Reasoning About Equivalence	Add with fraction models.

Week 2	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1		Lesson 4: Model Fractions Greater Than 1 Lesson 5: Solve Part-Part-Whole Problems	Represent numbers greater than 1 as fractions or mixed numbers. Represent and solve additive problems with fractions using models.
Day 2	Topic 3: Fractions as Division <u>Meaning focus:</u> Interpret fractions as division <u>Procedural focus:</u> Compute quotients of whole numbers and express them as fractions	Lesson 1: Model Fractions as Division Lesson 2: Reinforce Fractions as Division	Represent sharing situations with fractions. Use patterns to connect fractions to division.
Day 3		Lesson 3: Express Whole Numbers as Fractions Lesson 4: Represent Remainders as Fractions	Represent whole numbers as fractions with given denominators. Represent sharing situations with fractions and mixed numbers.
Day 4		Lesson 5: Solve Compare Problems with Fractions Performance Task: Take the Chef's Challenge	Analyze and solve problem situations with fractions using models and equations. Describe and explain solution strategies for problems with fractions.
Day 5		(OPTIONAL activities before the mSkills Assessment): • CheckpointLessons • mSkills Review Lesson • Mindset Scan: Reflect on Your Learning Attitudes • Card Sort: Fraction Concepts • Sum It Up!: Fraction Concepts mSkills Assessment	

Week 3	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Block 2: Fraction Relationships Topic 1: Strategies for Comparing Fractions <u>Meaning focus:</u> Use reasoning strategies to compare fractions <u>Procedural focus:</u> Identify common features and use benchmarks to compare fractions	Lesson 1: Compare Fractions with Common Features Lesson 2: Identify Fractions Equivalent to $\frac{1}{2}$	Use reasoning to compare fractions that have common features. Identify fractions equivalent to $\frac{1}{2}$. Analyze and explain patterns in numerators and denominators of fractions equivalent to $\frac{1}{2}$.
Day 2		Lesson 3: Use Benchmarks to Compare Fractions Lesson 4: Use Reasoning to Compare Fractions	Use $\frac{1}{2}$ and 1 as benchmarks to compare fractions.
Day 3	Topic 2: Equivalent Fractions on a Number Line <u>Meaning focus:</u> Recognize and compare equivalent fractions on a number line <u>Procedural focus:</u> Generate, order, and locate equivalent fractions on a number line	Lesson 5: Order Fractions to Solve Problems Lesson 1: Name Equivalent Fractions	Use equivalence and comparison to classify fractions and solve problems. Justify solutions to fraction problems. Generate equivalent fractions.
Day 4		Lesson 2: Use Equivalence to Compare Fractions Lesson 3: Locate Fractions on a Number Line	Compare fractions by generating equivalents. Locate fractions on a number line.
Day 5		Lesson 4: Fraction Grab - Use Strategies to Compare Fractions Lesson 5: Analyze Solutions	Describe relationships among fractions. Analyze and solve problems with one, more than one, or no solutions.

Week 4	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Topic 3: Adding and Subtracting Fractions <u>Meaning focus:</u> Apply understanding of addition and subtraction to fractions <u>Procedural focus:</u> Add and subtract fractions and mixed numbers	Lesson 1: Subtract Fractions with a Number Line Lesson 2: Use Equivalence to Add Fractions	Subtract fractions and mixed numbers with the same denominators.
Day 2		Lesson 3: Use an Open Number Line to Subtract Lesson 4: Use Strategies to Compare Sums	Add fractions and mixed numbers with different denominators. Estimate sums and differences relative to benchmark whole numbers.
Day 3		Lesson 5: Solve Problems with Fractions Performance Task: Match Organs for Transplants	Subtract fractions and mixed numbers with different denominators. Represent and solve additive problem situations with fractions using models and equations
Day 4		(OPTIONAL activities before the mSkills Assessment): • Checkpoint Lessons • mSkills Review Lesson • Mindset Scan: Scan Your Learning Strategies • Card Sort: Fraction Relationships • Sum It Up!: Fraction Relationships mSkills Assessment	
Day 5		<i>Math Inventory or Growth Measure</i> <i>Wrap up with Growth Mindset</i>	

Week 5	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Block 3: Fraction Multiplication & Division Topic 1: Unit Fraction Multiplication <u>Meaning focus:</u> Apply understanding of multiplication to fractions. <u>Procedural focus:</u> Multiply with unit fractions	Lesson 1: Model Parts of a Set as Fractions Lesson 2: Relate Parts of a Set to Multiplication	Represent parts of sets as fractions.
Day 2		Lesson 3: Multiply Unit Fractions Lesson 4: Use Reasoning to Compare Products	Multiply unit fractions by unit fractions. Explain the relationship between multiplying by unit fractions and dividing by whole numbers
Day 3	Topic 2: Strategies for Multiplication <u>Meaning focus:</u> Develop strategies to multiply fractions <u>Procedural focus:</u> Multiply non-unit fractions by whole numbers or non-unit fractions	Lesson 5: Develop Reasoning With Ratios Lesson 1: Multiply Fractions and Whole Numbers	Multiply whole numbers and unit fractions. Multiply whole numbers by non-unit fractions.
Day 4		Lesson 2: Use Properties to Multiply Fractions Lesson 3: Reason with Fraction Multiplication	Apply the Distributive Property to multiply mixed numbers. Represent and solve multiplicative comparison problems with fractions using models and equations.
Day 5		Lesson 4: Multiply Fractions Greater Than 1 Lesson 5: Solve Multi-Step Problems with Fractions	Multiply non-unit fractions. Analyze and solve multi-step problems with fractions using models and equations. Explain and compare solution strategies for problems with fractions.

Week 6	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Topic 3: Strategies for Dividing Fractions <u>Meaning focus:</u> Develop reasoning strategies to divide fractions <u>Procedural focus:</u> Divide fractions	Lesson 1: Use Models to Divide Lesson 2: Divide by Unit Fractions	Model division with fractions as taking out equal groups. Divide by unit fractions using a common-denominator method.
Day 2		Lesson 3: Divide Any Fractions Lesson 4: Use Strategies to Divide Fractions	Divide any fractions using a common-denominator method.
Day 3		Lesson 5: Identify Patterns With Fractions Performance Task: Fraction Multiplication and Division: Organize Space Experiments	Identify patterns with whole numbers and fractions and describe with more than one rule.
Day 4		(OPTIONAL activities before the mSkills Assessment): • Mindset Scan: Scan Your Learning Attitude Fractions • Card Sort: Multiplication and Division of Fractions • Sum It Up!: Multiplication and Division of Fractions mSkills Assessment	
Day 5		<i>Math Inventory or Growth Measure</i> <i>Wrap up with Growth Mindset</i>	

Rates and Fractions

Week 1	Module Name and	Lesson(s)	Priority Standard(s)
Day 1	Math Inventory or Growth Measure	Discussion regarding Growth Mindset and Math 180 software from Getting Started	
Day 2	Block 1: Rates in Time Topic 1: Distance-Time Graphs <u>Meaning focus:</u> Develop strategies to represent the motion of an object in different ways <u>Procedural focus:</u> Interpret and connect multiple representations of motion	Lesson 1: Plan a Delivery Route Lesson 2: Describe Motion in a Graph	Describe motion in a graph using precise language. Describe segments in a story graph using precise language.
Day 3		Lesson 3: Describe Motion in a Story Graph Lesson 4: Interpret Motion in a Story Graph	Describe motion in a graph using precise language. Describe segments in a story graph using precise language. Determine the distance and time it takes to travel a route.
Day 4	TOPIC 2: Representing Rates <u>Meaning focus:</u> Represent the relationship between distance and time using a table <u>Procedural focus:</u> Use tables to find patterns and calculate speed.	Lesson 5: Reason About Distance and Time Lesson 1: Compare Motion in Multiple Routes	Interpret motion in a distance-time graph and represent it in a table.
Day 5		Lesson 2: Represent Motion with a Table Lesson 3: Interpret Motion in a Graph	Interpret motion in a distance-time graph and represent it in a table.

Week 2	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1		Lesson 4: Interpret Speed in a Graph Lesson 5: Develop Reasoning About Rates	Interpret a distance-time graph to calculate the speed of an object. Use distance and speed to determine the total time a vehicle travels.
Day 2	Topic 3: Comparing Rates <u>Meaning focus:</u> Use understanding of graphs to make comparisons. <u>Procedural focus:</u> Apply features of graphs to compare rates and totals	Lesson 1 : Compare Distances Using Tables Lesson 2: Compare Speed Using Models	Reason with tables to compare distances.
Day 3		Lesson 3: Compare Distances Using Graphs Lesson 4: Compare Quantities Using Graphs	Compare rates by analyzing graphs and tables. Reason with graphs to compare distances.
Day 4		Lesson 5: Determine Profits from a Graph Checkpoint Lessons mSkills Review Lesson	Analyze a graph to compare rates and solve multi- step problems.
Day 5		(OPTIONAL activities before the mSkills Assessment): • Performance Task: Rates in Time: Develop a Customer Satisfaction Plan • Card Sort: Rates in Time • Sum It Up!: Rates in Time mSkills Assessment	

Week 3	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Block 2: Rate and Ratio Concepts Topic 1: Comparing Quantities <u>Meaning focus:</u> Understand the meaning of constant rate in terms of constant, correlated change in two quantities <u>Procedural focus:</u> Use rate tables to understand additive and multiplicative relationships	Lesson 1: Apply Rates to Make Predictions Lesson 2: Determine Rates	Apply rate concepts to a representative sample of data and make predictions.
Day 2		Lesson 3: Identify Rates in Time Lesson 4: Use Reasoning with Rates	Determine rates using repeated reasoning to solve unit rate problems. Use the distance and time a vehicle takes to travel to determine the speed.
Day 3	Topic 2: Ratio Concepts <u>Meaning focus:</u> Understand ratio as a multiplicative relationship between two quantities <u>Procedural focus:</u> Use tables and bar models to represent ratios and solve ratio problems	Lesson 5: Identify Rates to Compare Costs Lesson 1: Solve Problems Using Rates	Identify and use rates to solve problems. Identify unit prices to compare costs and determine the lower and higher rate.
Day 4		Lesson 2: Connect Rates to Ratios Lesson 3: Understand Ratios	Apply rate concepts to understand ratios.
Day 5		Lesson 4: Model Unit Ratios Lesson 5: Develop Reasoning With Ratios	Reason abstractly about ratio concepts. Identify and evaluate ratios using multiple visual representations.

Week 4	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Topic 3: Equivalent Ratios <u>Meaning focus:</u> Understand equivalent ratios <u>Procedural focus:</u> Apply ratio reasoning and use bar models to solve problems with equivalent ratios	Lesson 1: Solve Ratio Problems Lesson 2: Model Ratios	Represent and solve comparison problems with ratios using models. Represent and solve ratio problems.
Day 2		Lesson 3: Generate Equivalent Ratios Lesson 4: Identify Equivalent Ratios	Generate equivalent ratios using models. Use models to determine if two ratios are equivalent.
Day 3		Lesson 5: Apply Ratio Concepts to Find Area Performance Task: Rates and Ratio Concepts: Create Volunteer Teams	Use ratio and rate reasoning to solve problems involving measurement and area.
Day 4		(OPTIONAL activities before the mSkills Assessment): • Checkpoint Lessons • mSkills Review Lesson • Card Sort: Rates and Ratio Concepts • Sum It Up!: Rates and Ratio Concepts mSkills Assessment	
Day 5		<i>Spend time on Growth Mindset.</i> <i>Conference with Students.</i>	

Week 5	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Block 3: Ratio Relationships Topic 1: Representing Ratios <u>Meaning focus:</u> Understand different representations of equivalent ratios <u>Procedural focus:</u> Use graphs and tables to show and understand the relationship among equivalent ratios	Lesson 1: Use Ratios to Make Projections Lesson 2: Construct a Table of Equivalent Ratios	Apply rate and ratio concepts to solve a multi-step problem. Construct a table of equivalent ratios. Represent and graph ratios in the coordinate plane.
Day 2		Lesson 3: Interpret Coordinates of Points Lesson 4: Plot Points on a Graph	Graph points in the first quadrant of the coordinate plane. Interpret ordered pairs as ratios.
Day 3	Topic 2: Applications of Ratio Understanding <u>Meaning focus:</u> Use ratio understanding to solve problems and make comparisons <u>Procedural focus:</u> Apply models to visualize part-part and part-whole ratio comparisons	Lesson 5: Develop Reasoning with Ratios Lesson 1: Solve Problems Using Rates and Ratios	Analyze and solve problems with multiple rates using models. Apply the values of ratios to generate equivalent ratios.
Day 4		Lesson 2: Use Ratios to Compare Parts Lesson 3: Use Ratios to Compare Parts to the Whole	Determine the value of a ratio a to b as a/b . Determine the value of a ratio as $a/(a + b)$.
Day 5		Lesson 4: Evaluate Equivalent Ratios Lesson 5: Reason with Equivalent Ratios	Apply the values of ratios to determine if the ratios are equivalent.

Week 6	Module Name and Description	Lesson(s)	Priority Standard(s)
Day 1	Topic 3: Percent as a Number <u>Meaning focus:</u> Understand percent as a number <u>Procedural focus:</u> Use a decimal grid and the double number line to connect fractions, decimals, and percents	Lesson 1: Determine Profits With Equivalent Ratios Lesson 2: Express Parts per Hundred	Determine the difference in profit given a ratio and a part.
Day 2		Lesson 3: Express a Fraction as a Percent Lesson 4: Rename a Fraction as a Percent	Express a part per 100 as a fraction, decimal, and percent. Express common fractions in percent form.
Day 3		Lesson 5: Express Ratios in Different Forms Performance Task: Ratio Relationship	Express fractions in percent form, and relate fraction, decimal, and percent forms. Understand the differences between different forms of ratios.
Day 4		(OPTIONAL activities before the mSkills Assessment): • Checkpoint Lessons • mSkills Review Lesson • Generate Profits With Ratios • Card Sort: Ratio Relationship • Sum It Up!: Ratio Relationship mSkills Assessment	
Day 5		<i>Math Inventory or Growth Measure</i> <i>Wrap up with Growth Mindset</i>	