

Grade 7 Math Curriculum Map

Standards	Content	Skills/Practices	Materials/ Resources	Assessments (All) Daily/Weekly/ Benchmarks	Timeline (Months/Weeks/Days)
7.NS.1 MP.1 MP.2 MP.4 MP.6	Integer Operations with addition and subtraction	<p>-I can solve problems where two quantities add to make a sum of 0 (additive inverse).</p> <p>-I can define additive inverse as a rational number added to its negative which results in a sum of zero.</p> <p>-I can define the direction of the distance on a number line based on the sign of the addend.</p> <p>Negative is left/down and positive is right/up.</p>	Eureka Math Grade 7 Modules 2 - Rational Numbers	5 days quiz/test/review	7 days Weeks 1 & 2

		<p>-I can define the sum of two rational numbers as the distance one addend is away from the total by the absolute value of the other addend. Example: $-4 + -3 = -7$</p> <p>-I can calculate the distance between two rational numbers by finding the absolute value of their difference.</p> <p>-I can compare subtracting rational numbers to adding the additive inverse. Example: $-4 - (-3)$ $=$ $-4 + 3$</p> <p>-I can prove that the distance between two rational numbers is equal to the</p>	Modules 2 - Rational Numbers		
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		<p>absolute value of their difference. Example: the distance between -4 and -1 on a number line equals $-4 - (-1) = 3$</p> <p>-I can apply commutative, associative, additive inverse, and distributive properties to solve addition and subtraction of rational numbers. Example: $-3 + 9 = 9 + -3$</p>	Modules 2 - Rational Numbers		
7.NS.2 MP.1 MP.2 MP.4 MP.6	<ul style="list-style-type: none"> - Integer Operations with multiplication and division (with fractions) - Order of Operations 	-I can apply and extend the commutative, associative, and distributive property of multiplication from fractions to rational numbers. Focus on the distributive property.	Modules 2 - Rational Numbers		6 Days Weeks 2 & 3

		<ul style="list-style-type: none">-I can multiply positive and negative integers using properties of operations.-I can multiply positive and negative rational numbers using properties of operations.-I can prove the rules for multiplying signed numbers by applying the distributive property.-I can define the quotient of two integers (divisor not = 0) as a rational number.-I can divide integers, provided the divisor is not zero.-I can explain that a negative symbol can be written in the numerator, denominator, or	Modules 2 - Rational Numbers		
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		<p>next to the fraction without changing the value of the fraction.</p> <ul style="list-style-type: none">-I can interpret quotients of rational numbers in terms of a context (can-I can rewrite a negative fraction in multiple forms-I can divide rational numbers using properties of operations.-I can multiply rational numbers using properties of operations.-I can define a rational number as a decimal that terminates or eventually repeats.-I can divide the numerator of a fraction by its denominator	<p>Modules 2 - Rational Numbers</p>		
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		using long division.			
7.NS.3 MP.1 MP.2 MP.4 MP.6	<ul style="list-style-type: none"> - Integer Operations with multiplication and division (with fractions) - Order of Operations - Rational Number Operations <ul style="list-style-type: none"> - Review of fractions/decimals - Rational Number Word Problems 	<p>-I can identify the operation necessary to solve a word problem.</p> <p>-I can solve real world problems involving all four operations with rational numbers. (Keep in mind order of operations.)</p> <p>-I can identify the operation necessary to solve a word problem.</p> <p>-I can solve real world problems involving all four operations with rational numbers. (Keep in mind order of operations.)</p>	Modules 2 - Rational Numbers	CFA 1 week of 10/21-25 on Rational Numbers (#683621) click here for cfa 1 Calculator for entire assessment. Data due Nov. 12	8 Days Weeks 3-5

<p>7.EE.2</p> <p>MP.2 MP.4 MP.6 MP.7 MP.8</p>	<ul style="list-style-type: none"> - Translating 	<p>-I can translate word situations to algebraic expressions.</p> <p>-I can explain how an equivalent expression relates to the original situation problem.</p> <p>-I can rewrite expressions to help analyze problems.</p> <p>-I can simplify expressions.</p> <p>-I can translate situation problems to algebraic expressions.</p> <p>-Use properties of operations to generate equivalent expressions.</p>	<p>Modules 3 - Expressions and Equations</p> <p>Modules 3 - Expressions and Equations</p>	<p>3 days quiz/test/review</p>	<p>16 Days Weeks 10-13</p>
<p>7.EE.4</p> <p>MP.2 MP.4 MP.6 MP.7 MP.8</p>	<ul style="list-style-type: none"> - 1 step equations - 2 step equations - Multi step equations 	<p>-I can apply properties of operations to solve multi-step real-world problems with all rational</p>	<p>Modules 3 - Expressions and Equations</p>	<p>5 days quiz/test/review</p>	<p>14 Days Weeks 14-16</p>

	<ul style="list-style-type: none">- Word Problems	<p>numbers.</p> <ul style="list-style-type: none">-I can convert fluently between forms for common decimals, fractions, and percents.-I can explain the significance between different forms of equivalent rational numbers.-I can justify the reasonableness of solutions using mental computation and estimation.-I can solve multi-step real-world problems involving all types of rational numbers.-I can compare algebraic solutions to arithmetic solutions.	<p>Modules 3 - Expressions and Equations</p>		
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		<ul style="list-style-type: none">-I can construct and solve two step linear equations from real-world problems.-I can explain the steps used in solving the equation.-I can identify the sequence of operations used to solve a problem.-I can solve two step linear equations fluently.-I can solve two step linear equations.-I can translate verbal situations to two step linear equations.-I can construct and solve two step linear inequalities from real-world problems.-I can explain how the solution set relates to the problem.	Modules 3 - Expressions and Equations		
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		<ul style="list-style-type: none">-I can explain when and why it is necessary to change an inequality symbol.-I can explain when/why an open or closed dot is used on a number line.-I can graph the solution set of two step linear inequalities from real-world problems.-I can interpret and describe the solution in the context of the problem.-I can write a linear inequality from a given graph.	Modules 3 - Expressions and Equations		
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<p>7.G.4 MP.2 MP.4 MP.6 MP.7 MP.8</p>	<p>- Circles</p>	<p>-I can derive the relationship between the circumference and area of a circle. ($A = Cr/2$) -I can solve problems utilizing the area of a circle formula. -I can solve problems utilizing the circumference of a circle formula. -I can write the formula for the area of a circle. -I can write the formula for the circumference of a circle.</p>	<p>Modules 3 - Expressions and Equations</p>	<p>CFA 3 week of 2/3 - 2/7 on Expressions, Equations and Inequalities. Calculator use for entire exam.</p>	<p>5 Days Weeks 16 & 17</p>

<p>7.RP.2</p> <p>MP.1 MP.2</p>	<p>- Constant of Proportionality (COP)</p>	<p>-I can calculate the COP/unit rate from a table or diagram. -I can calculate the COP/unit rate given a verbal description of a proportional relationship.</p>	<p>Modules 1 - Ratios and Proportional Relationships</p>		<p>7.RP.2 - 6.RP.3a,</p>
<p>7.G.1</p> <p>MP.1 MP.2</p>	<p>- Scale</p>	<p>-I can apply a scale from one drawing to create a second scale for that drawing. -I can compute the actual area of a figure from a scale drawing. -I can compute the actual length of a figure from a scale drawing. -I can solve problems involving scale drawings of geometric figures.</p>	<p>Modules 1 - Ratios and Proportional Relationships</p>	<p>CFA 2 week of 12/2-12/6 on Ratios & Proportions. Calculator use for entire exam</p>	<p>7.G.1 - new to grade level</p>

<p>7.RP.3</p> <p>MP.1</p> <p>MP.2</p> <p>MP.5</p> <p>MP.6</p> <p>MP.7</p>	<ul style="list-style-type: none">- Percent increase & decrease- Markups & Markdowns- Tax- Gratuity- Commission- Relative/Percent Error- Simple Interest- Word Problems	<p>-I can calculate commission.</p> <p>-I can calculate fees as a percent or as a flat amount.</p> <p>-I can calculate gratuity (tip).</p> <p>-I can calculate markup and markdown.</p> <p>-I can calculate percent error.</p> <p>-I can calculate percent increase and decrease.</p> <p>-I can calculate simple interest.</p> <p>-I can calculate tax.</p> <p>-I can calculate the part, whole, and the percent of a number.</p> <p>-I can compare and contrast what happens to the answer when calculating tax vs. discount.</p> <p>-I can solve multistep word</p>	<p>Modules 4 - Percents and Proportional Relationships</p> <p>Modules 4 - Percents and Proportional Relationships</p>	<p>5 days quiz/test/review</p>	<p>18 Days</p> <p>Weeks 17-21</p> <p>7.RP.3 -</p> <p>6.RP.3c</p>
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		<p>problems involving simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</p> <p>-I can apply properties of operations to solve multi-step real-world problems with all rational numbers.</p> <p>-I can convert fluently between forms for common decimals, fractions, and percents.</p> <p>-I can explain the significance between different forms of equivalent rational numbers.</p>	<p>Modules 4 - Percents and Proportional Relationships</p>		
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		<p>-I can justify the reasonableness of solutions using mental computation and estimation.</p> <p>-I can solve multi-step real-world problems involving all types of rational numbers.</p>	<p>Modules 4 - Percents and Proportional Relationships</p>		
<p>7.SP.1 7.SP.2 7.SP.3 7.SP.4 7.SP.5 7.SP.6 7.SP.7 7.SP.8</p> <p>MP.2 MP.3 MP.4 MP.5 MP.6</p>	<ul style="list-style-type: none"> - Simple Probability - Tree Diagrams - Experimental Probability - Theoretical Probability - Measures of Central Tendency - Random Sampling - Dot/Box/Whisker Plots - Histograms 	<p>-I can evaluate the validity of a statistical sample from a population.</p> <p>-I can explain how statistics is used to gain information about a population.</p> <p>-I can explain why random sampling produces a sample representative of a population.</p>	<p>Modules 5 - Statistics and Probability</p>	<p>5 days quiz/test/review</p>	<p>13 Days Weeks 21-24</p>

		<p>-I can determine the validity of a sample based on how the data was gathered.</p> <p>-I can draw inferences about a population with a certain characteristic from data gathered from a random sample.</p> <p>-I can gather data from multiple random samples of the same size in reference to a certain characteristic.</p> <p>-I can compute the interquartile range.</p> <p>-I can compute the mean absolute deviation.</p> <p>-I can compute the range.</p> <p>-I can describe how many times larger/smaller the variability of one</p>	<p>Modules 5 - Statistics and Probability</p>		
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		<p>data set is to another.</p> <ul style="list-style-type: none">-I can describe the variability of two numerical data sets.-I can read and interpret data from statistical representations (box-and-whisker plot, line/dot plot).-I can compare/contrast measures of central tendency to draw conclusions about two random samples.-I can compare/contrast variability of two data sets to draw conclusions about two random samples.-I can read and interpret data from statistical representations	<p>Modules 5 - Statistics and Probability</p>		
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		<p>(box-and-whisker plot, line/dot plot). Investigate chance processes and develop, use, and evaluate probability models. -I can define probability as number between 0 and 1. -I can describe a situation in which the event is likely. -I can describe a situation in which the event is neither likely nor unlikely. -I can describe a situation in which the event is unlikely. -I can identify the probability of a likely event as a number near 1. -I can identify the probability of an</p>	<p>Modules 5 - Statistics and Probability</p>		
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		<p>unlikely event as a number near 0.</p> <ul style="list-style-type: none">-I can compare the theoretical probability of an event occurring and the experimental probability.-I can compute the experimental probability of an event occurring through repeated trials.-I can predict future probabilities based on data collected.-I can predict the number of times an event occurs by multiplying the theoretical probability by the number of trials.-I can calculate simple probabilities of events.	<p>Modules 5 - Statistics and Probability</p>		
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		<p>-I can create a uniform probability model (a situation in which all outcomes are equally likely).</p> <p>-I can compare the results of a series of trials and draw conclusions.</p> <p>-I can compare/contrast uniform vs. non uniform probability models.</p> <p>-I can design an experiment to investigate the likelihood of an outcome (does not need to be uniform).</p> <p>-I can calculate compound probabilities.</p> <p>-I can define compound probabilities as fractions of the</p>	<p>Modules 5 - Statistics and Probability</p>		
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		<p>sample space taken from.</p> <ul style="list-style-type: none">-I can determine the total number of possible outcomes (sample space or Counting Principle).-I can calculate the probability of a compound event based on a table, list, or tree diagram.-I can construct a tree diagram, list, or table to illustrate all possible outcomes of a compound event.-I can calculate the probability of a compound event from data generated in a simulation.-I can design a simulation to generate data for	<p>Modules 5 - Statistics and Probability</p>		
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		<p>compound events.</p> <p>-Use random sampling to draw inferences about a population.</p>			
NYS Test Review					<p>5 Days</p> <p>Weeks 24-25</p>
<p>7.G.2</p> <p>7.G.3</p> <p>7.G.5</p> <p>7.G.6</p> <p>MP.1</p> <p>MP.3</p> <p>MP.5</p> <p>MP.7</p>	<ul style="list-style-type: none"> - Angles - Parallel Lines - Triangle Inequality - Surface Area - Volume - Nets 	<p>-I can construct a geometric shape given side lengths /angle measures.</p> <p>-I can construct a triangle (freehand, with ruler and protractor, and technology) given three angle measures.</p> <p>-I can construct a triangle (freehand, with ruler and protractor, and technology) given three side measures.</p>	<p>Modules 6 - Geometry</p>		<p>34 Days</p> <p>Weeks 26-33</p>

		<p>-I can describe when angle measures determine a triangle (given angles equal 180)</p> <p>-I can describe when side measures determine a unique triangle ($a+b > c$) or no triangle ($a+b ? c$)</p> <p>-I can define two-dimensional figures that result from slicing a cube.</p> <p>-I can define two-dimensional figures that result from slicing a cylinder.</p> <p>-I can define two-dimensional figures that result from slicing a right rectangular prism.</p> <p>-I can define two-dimensional figures that result</p>	<p>Modules 6 - Geometry</p>		
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		<p>from slicing a right rectangular pyramid.</p> <p>-I can define two-dimensional figures that result from slicing a triangular pyramid.</p> <p>-I can define two-dimensional figures that results from slicing a cone.</p> <p>-I can solve real-life and mathematical problems involving angle measure, area, surface area, and volume.</p> <p>-I can define and identify adjacent angles.</p> <p>-I can define and identify complementary angles.</p> <p>-I can define and identify</p>	<p>Modules 6 - Geometry</p>		
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		<p>supplementary angles.</p> <p>-I can define and identify vertical angles.</p> <p>-I can solve multi-step word problems using facts about angle pairs.</p> <p>-I can solve simple equations for an unknown angle in a figure.</p> <p>-I can write simple equations for an unknown angle in a figure.</p> <p>-I can define area formulas of two-dimensional figures.</p> <p>-I can define surface area formulas of three-dimensional figures.</p> <p>-I can define volume formulas of three-dimensional figures.</p>	<p>Modules 6 - Geometry</p>		
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		-I can solve word problems involving area of two-dimensional figures. -I can solve word problems involving surface area of three-dimensional figures. -I can solve word problems involving volume of three-dimensional figures.	Modules 6 - Geometry		
Final Exam Review					