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Unit 1 - Integers

Lessons	Topics	Standards	Objectives	Essential Questions	Vocabulary
5 lessons 1 Review	Integers and Absolute Value	7.NS.1a 7.NS.1b	To define the absolute value of a number.	How can you use integers to represent the velocity and the	Integers
1 Test	Adding Integers	7.NS.1c 7.NS.1d	To find the absolute values of numbers.	speed of an object?	Absolute Value
	Subtracting	7.NS.2a 7.NS.2b	To add integers.	Is the sum of two integers positive, negative or zero? How can you	Opposites
Assessments	Integers 7.NS. 7.NS	7.NS.2c 7.NS.3	To show that the sum of a number and its opposite is 0.	tell?	
*Unit Test *Daily Exit Ticket/Review *Daily IXL	Multiplying Integers		Subtract Integers.	How are adding and subtracting integers related?	
*Quiz *Homework	Dividing Integers		To multiply integers.	Is the product of two integers positive, negative or zero? How	
			To divide integers.	can you tell?	
			To solve real life problems.	Is the quotient of two integers positive, negative or zero? How can you tell?	

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Chapter 2 - Rational Numbers

Lesson	Topics	Standards	Objectives	Essential Questions	Vocabulary
4 Lessons 1 Review 1 Test	Rational Numbers	7.NS.1a 7.NS.1b 7 NS 1c	To understand that a rational number is an integer divided by an integer.	How can you use a number line to order rational numbers?	Rational Numbers
	Adding Rational Numbers	7.NS.1d 7.NS.2a 7 NS 2b	To convert rational numbers to decimals.	How can you use what you know about adding integers to add rational numbers?	Terminating Decimals
Assessments *Unit Test *Daily Exit Ticket/Review *Daily IXL *Quiz *Homework	Subtracting7.1Rational7.1Numbers7.1	7.NS.2c 7.NS.2d 7.NS.3	To subtract rational numbers.	How can you use what you know about subtracting integers to	Repeating Decimals
	Multiplying and Dividing Rational		To multiply Rational numbers. To divide rational numbers.	subtract rational numbers? Why is the product of two negative	Reciprocal
	Numbers		To solve real life problems.	rational numbers positive?	

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Unit 3 - Expressions and Equations

Lessons	Topics	Standards	Objectives	Essential Questions	Vocabulary
8 lessons 1 Review	Algebraic Expressions	7.EE.1 7.EE.2	To apply properties of operations to simplify algebraic expressions.	How can you simplify an algebraic expression?	Like terms
Tiest	Adding and	7.EE.4a 7.EE.5a	To apply properties of operations to add and	How can you use algebraic tiles to	Simplest Form
	Subtracting Linear		subtract linear expressions.	add or subtract algebraic expressions?	Linear Expressions
	Expressions		To write simple equations.		
Assessments *Unit Test *Daily Exit	Factoring		To solve equations using addition or	How can you use algebraic tiles to solve addition or subtraction	Factoring an Expression
*Daily IXL	Expressions		subtraction.	equations?	Equivalent
*Quiz *Homework	Solving Equations Using		To factor linear expressions.	How can you use multiplication or division to solve equations?	Equations
	Addition and		To solve equations using multiplication and		
	Subtraction		division.	How can you use algebraic tiles to solve two-step equations?	
	Solving Equations Using		To solve two-step equations.		
	Multiplication and Division		To solve real life problems.		
	Solving Two-step Equations				

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Chapter 4 - Inequalities

Lesson	Topics	Standards	Objectives	Essential Questions	Vocabulary
4 Lessons 1 Review 1 Test *Unit Test *Daily Exit Ticket/Review *Daily IXL *Quiz *Homework	Writing and Graphing Inequalities Solving Inequalities Using Addition and Subtraction Solving Inequalities Using Multiplication and Division	7.EE.4b	To write and graph inequalities. To use substitution to check whether a number is a solution of an inequality. To solve inequalities using addition or subtraction. To solve inequalities using multiplication and division. To solve multi-step inequalities. To solve real life problems.	 How can you use a number line to represent solutions of an inequality? How can you use addition or subtraction to solve an inequality? How can you use multiplication or division to solve an inequality? How can you use an inequality? How can you use an inequality to describe the dimensions of a figure? 	Inequality Solution of an Inequality Solution Set Graph of an Inequality
	Solving Two-Step Inequalities				

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Unit 5 - Angles

Lessons	Topics	Standards	Objectives	Essential Questions	Vocabulary
5 lessons 1 Review	Adjacent and	7.NS.1a 7 NS 1b	To identify adjacent and vertical angles.	What can you conclude about the angles formed by two intersecting	Adjacent Angles
1 Test	Complementary	7.NS.1c 7.NS 1d	To find angle measures using adjacent	lines?	Vertical Angles
	and	7.NS.2a	To aloopify pairs of angles as	How can you classify two angles as	Congruent
	Angles	7.NS.20 7.NS.2c	complementary, supplementary or	complementary or supplementary?	Angles
Assessments *Unit Test *Daily Exit	Triangles	7.NS.3	neither.	How can you construct triangles?	Complementary Angles
Ticket/Review *Daily IXL	Angle Measures		To find angle measures using complementary	How can you classify quadrilaterals?	Supplementary
*Homework	of Triangles		angles.	How can you enlarge or reduce a drawing proportionally?	Angles
	Quadrilaterals		To construct triangles with given angles.	S F F F F F F	Congruent Sides
	Scale Drawings		To construct triangles with given side lengths.		Kite
			To understand that the sum of the angles		Scale Drawing
			of any triangle is 180.		Scale Model
			To find the missing angle measures in triangles		Scale
			To understand that the sum of the angle		Scale factor
			measures of any quadrilateral is 360.		

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	To find missing angle measures in quadrilaterals. To construct quadrilaterals. To use scale drawings to find actual distances.	
	To find scale factors. To use scale drawings to find actual perimeters and areas. To recreate scale drawings at a different scale.	

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Unit 6 - Ratios and Proportions

Lessons	Topics	Standards	Objectives	Essential Questions	Vocabulary
6 lessons 1 Review 1 Test Assessment <u>S</u> *Unit Test *Daily Exit Ticket/Review *Daily IXL *Quiz *Homework	Ratios and Rates Proportions Writing Proportions Graphing Proportional Relationships Solving Proportions Slope	7.RP.1 7.RP.2a 7.RP.2b 7.RP.2c 7.RP.2d 7.RP.3	 To find ratios, rates and unit rates. To find ratios and rates involving ratios of fractions. To use equivalent ratios to determine whether two ratios form a proportion. To use cross products property to determine whether two ratios form a proportion. To write proportions. To solve proportions using mental math. To solve proportions using multiplication or the cross product property. To use a point on the graph to write and solve proportions. To find the slope of a line. To interpret the slopes of lines as rates. 	 How do rates help you describe real-life problems? How can proportions help you describe when things are "fair"? How can you write a proportion that solves a problem in real life? How can you use ratio tables and cross products to solve proportions? How can you compare two rates graphically? 	Ratio Rate Unit Rate Complex Fraction Proportion Proportional Cross Products Slope Constant of Proportionality

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Chapter 7 - Percents

Lesson	Topics	Standards	Objectives	Essential Questions	Vocabulary
6 Lessons 1 Review 1 Test	Percents and 7.EE.3 Decimals 7.RP.3 The Percent Proportions The Percent	To write percents as decimals. To write decimals as percents. To use the percent proportion to find parts, wholes and percents.	How does the decimal point move when you rewrite a percent as a decimal and when you rewrite a decimal as a percent? How can you use models to estimate percent questions?	Percent of Change Percent of Increase Percent of	
Assessments *Unit Test *Daily Exit Ticket/Review	Equation Percents of Increase and		To find percents of increase.	How can you use an equivalent form of the percent proportion to solve a percent problem?	Decrease Percent Error
*Daily IXL *Quiz *Homework	Decrease	Decrease	To find the percents decrease.	What is a percent of decrease? What	Discount
	Discount and Markups		To use percent of discounts to find prices of items.	is a percent of increase?	Markup
	Simple Interest		To use percent of markups to find selling	How can you find discounts and selling prices?	Interest
			To use the simple interest formula to find interest earned or paid, annual interest rates and amounts paid on loans.	How can you find the amount of simple interest earned on a savings account? How can you find the amount of interest owed on a loan?	Simple Interest
			To solve real life problems.		

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Chapter 8 - Probability and Statistics

Lesson	Topics	Standards	Objectives	Essential Questions	Vocabulary
4 Lessons 1 Review	Outcomes and Events	7.SP.1 7.SP.2	To identify and count the outcomes of experiments.	In an experiment, how can you determine the number of possible	Experiment
1 Test		7.SP3		results?	Outcomes
	Probability	7.SP.4	To understand the concept of probability		
		7.SP.5	and the relationship between probability	How can you describe the likelihood of	Event
		7.SP.6	and likelihood.	an event?	
	Evente	7.SP.7a	To find probabilities of events	How can you use relative frequencies	Favorable
Assessments	Events	7.SP.8a	To find probabilities of events.	to find probabilities?	outcomes
*Unit Test *Daily Exit	Independent and	7.SP.8b	To find relative frequencies.		Probability
Ticket/Review	Dependent		·	How can you find the number of	
*Daily IXL *Quiz	Events		To use theoretical probabilities to find	possible outcomes of one or more	Relative
*Homework			quantities.	events?	Frequency
	Samples and			What is the difference between	Sample Space
	Populations		To use tree diagrams, tables or a formula	dependent and independent events?	
			to find the number of possible outcomes.		Fundamental
				How can you determine whether a	Counting
	Comparing Populations		To find probabilities of compound events.	sample accurately represents a population?	Principle
			To identify independent and dependent		Compound
			events.	How can you compare data sets that represent two populations?	events
			To use formulas to find probabilities of		Independent
			independent and dependent events.		events
			To use simulations to find experimental		Dependent
			probabilities.		events

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	To determine when samples are representative of populations.	Simulations
	To use data from random samples to	Population
	make predictions about populations.	Sample
	To use multiple samples to make predictions about populations.	Unbiased sample
	To use measures of central and variation to compare populations.	Biased sample
	To use random samples to compare populations.	

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Unit 9 - Surface Area and Volume

Lessons	Topics	Standards	Objectives	Essential Questions	Vocabulary
7 lessons 1 Review	Circumference	7.G.4 7.G.6	To use two-dimensional nets to represent three-dimensional solids.	How can I find the circumference of a circle?	Circumference
1 Test	Area of a Circle				Area
			To find surface areas of rectangular and	How can I find the area of a circle?	
	Surface Area of		triangular prisms.		Pi
	Prisms			How can you find the surface area of a	
			To find surface areas of regular pyramids.	prism?	Lateral
	Surface Area of				surface area
*Unit Test	Pyramids		To find surface areas of cylinders.	How can you find the surface area of a	
*Daily Exit	Curfees Area of			pyramid?	Regular
*Daily IXL	Surface Area of		To find volumes of prisms.	How can you find the surface area of a	Pyramid
*Quiz	Cymruers		To find volumes of ovramids	cylinder?	Slant Height
^Homework	Volumes of				Siant height
	Prisms		To solve real life problems.	How can you find the volume of a	
				prism?	
	Volume of				
	Pyramids			How can you find the volume of a	
				pyramid?	