

SANITARY SCOPE & SEQUENCE CHART: INTENDED UNITS OF STUDY, 2021-2022
CONTENT AREA: Math - GRADE LEVEL: 7

NOTE: THERE WILL BE A PROJECT ASSOCIATED WITH EACH UNIT OF STUDY UNLESS TIME PROHIBITS

UNIT	APPROXIMATE TIME FRAME	TEXT(S)/RESOURCES	TARGETED UNDERSTANDING (PURPOSE)	CONTENT STANDARD(S) (CCSS for Mass.)
Adding & Subtracting Rational Numbers	TRIMESTER 1 3 weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Understand absolute values and ordering of rational numbers. • Find sums of integers. • Find sums of rational numbers. • Find differences of integers. • Find differences of rational numbers and find distances between numbers on a number line. 	7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.1d, 7.NS.A.3
Multiplying & Dividing Rational Numbers	TRIMESTER 1 3 weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Find products of integers. • Find quotients of integers. • Convert between different forms of rational numbers. • Find products of rational numbers. • Find quotients of rational numbers. 	7.NS.A.2a, 7.NS.A.2b, 7.NS.A.2c, 7.NS.A.2d, 7.NS.A.3
Expressions	TRIMESTER 2 2 ½ weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Simplify algebraic expressions. • Find sums and differences of linear expressions. • Apply the Distributive Property to generate equivalent expressions. • Factor algebraic expressions. 	7.EE.A.1, 7.EE.A.2

UNIT	APPROXIMATE TIME FRAME	TEXT(S)/RESOURCES	TARGETED UNDERSTANDING (PURPOSE)	CONTENT STANDARD(S) (CCSS for Mass.)
Equations & Inequalities	TRIMESTER 2 4 ½ weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Write and solve equations using addition or subtraction. • Write and solve equations using multiplication or division. • Write and solve two-step equations. • Write inequalities and represent solutions of inequalities on number lines. • Write and solve inequalities using addition or subtraction. • Write and solve inequalities using multiplication or division. • Write and solve two-step inequalities. 	7.EE.B.4a, 7.EE.B.4b
Ratios & Proportions	TRIMESTER 2 4 weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Understand ratios of rational numbers and use ratio tables to represent equivalent ratios. • Understand rates involving fractions and use unit rates to solve problems • Determine whether two quantities are in a proportional relationship • Use proportions to solve ratio problems. • Represent proportional relationships using graphs and equations. • Solve problems involving scale drawings. 	7.RP.A.1, 7.RP.A.2a, 7.RP.A.2b, 7.RP.A.2c, 7.RP.A.2d, 7.RP.A.3, 7.G.A.1
Percents	TRIMESTER 2 3 ½ weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Rewrite fractions, decimals, and percents using different representations. • Use the percent proportion to find missing quantities. • Use the percent equation to find missing quantities. • Find percents of change in quantities. • Solve percent problems involving discounts and markups. • Understand and apply the simple interest formula. 	7.RP.A.3, 7.EE.B.3

UNIT	APPROXIMATE TIME FRAME	TEXT(S)/RESOURCES	TARGETED UNDERSTANDING (PURPOSE)	CONTENT STANDARD(S) (CCSS for Mass.)
Probability	TRIMESTER 3 2 ½ weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Understand how the probability of an event indicates its likelihood. • Develop probability models using experimental and theoretical probability. • Find sample spaces and probabilities of compound events. • Design and use simulations to find probabilities of compound events. 	7.SP.C.5, 7.SP.C.6, 7.SP.C.7a, 7.SP.C.7b, 7.SP.C.8a, 7.SP.C.8b, 7.SP.C.8c
Statistics	TRIMESTER 3 2 ½ weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Understand how to use random samples to make conclusions about a population. • Understand variability in samples of a population. • Compare populations using measures of center and variation. • Use random samples to compare populations. 	7.SP.A.1, 7.SP.A.2, 7.SP.B.3, 7.SP.B.4
Geometric Shapes & Angles	TRIMESTER 3 3 weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Find the circumference of a circle. • Find the area of a circle. • Find perimeters and areas of composite figures. • Construct a polygon with given measures. • Use facts about angle relationships to find unknown angle measures. 	7.G.A.2, 7.G.B.4, 7.G.B.5, 7.G.B.6
Surface Area & Volume	TRIMESTER 3 3 weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Find the surface area of a prism. • Find the surface area of a cylinder. • Find the surface area of a pyramid. • Find the volume of a prism. • Find the volume of a pyramid. • Describe the cross sections of a solid. 	7.G.A.3, 7.G.B.4, 7.G.B.6

UNIT	APPROXIMATE TIME FRAME	TEXT(S)/RESOURCES	TARGETED UNDERSTANDING (PURPOSE)	CONTENT STANDARD(S) (CCSS for Mass.)
Integers, Number Lines & the Coordinate Plane	TRIMESTER 3 4 ½ weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Understand the concept of negative numbers and that they are used along with positive numbers to describe quantities. • Compare and order integers. • Compare and order rational numbers. • Understand the concept of absolute value. • Plot and reflect ordered pairs in all four quadrants of a coordinate plane. • Draw polygons in the coordinate plane and find distances between points in the coordinate plane. • Write inequalities and represent solutions of inequalities on number lines. • Write and solve inequalities. 	6.NS.C.5, 6.NS.C.6a, 6.NS.C.6b, 6.NS.C.6c, 6.NS.C.7a, 6.NS.C.7b, 6.NS.C.7c, 6.NS.C.7d, 6.NS.C.8, 6.EE.B.5, 6.EE.B.6, 6.EE.B.8, 6.G.A.3
Statistical Measures	TRIMESTER 3 2 ½ weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Identify statistical questions and use data to answer statistical questions. • Find and interpret the mean of a data set. • Find and interpret the median and mode of a data set. • Find and interpret the range and interquartile range of a data set. • Find and interpret the mean absolute deviation of a data set. 	6.SP.A.1, 6.SP.A.2, 6.SP.A.3, 6.SP.B.4, 6.SP.B.5a, 6.SP.B.5b, 6.SP.B.5c
Data Displays	TRIMESTER 3 2 ½ weeks: proposed	Big Ideas! Math	<ul style="list-style-type: none"> • Display and interpret data in stem-and-leaf plots. • Display and interpret data in histograms. • Describe and compare shapes of distributions. • Determine which measures of center and variation best describe a data set. • Display and interpret data in box-and-whisker plots. 	6.SP.A.2, 6.SP.B.4, 6.SP.B.5c, 6.SP.B.5d