Grade 7 | Kentucky Mathematics Course Standards Correlation to *Eureka Math²*®

When the original *Eureka Math*® curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds® teacher–writers have created *Eureka Math²*®, a groundbreaking new curriculum that helps teachers deliver exponentially better math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math²* carefully sequences mathematical content to maximize vertical alignment—a principle tested and proven to be essential in students' mastery of math—from kindergarten through high school.

While this innovative new curriculum includes all the trademark *Eureka Math* aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

Teachability

Eureka Math² employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built right into the teacher materials.

Accessibility

Eureka Math² incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the *Teach* book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the *Eureka Math²* teacher–writers have created one of the most readable mathematics curricula on the market. The curriculum's readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

Digital Engagement

The digital elements of *Eureka Math²* add to students' engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students' interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

Standards for Mathematical Practice	Aligned Components of *Eureka Math²*
MP.1 Make sense of problems and persevere in solving them.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.2 Reason abstractly and quantitatively.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.3 Construct viable arguments and critique the reasoning of others.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.4 Model with mathematics.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.5 Use appropriate tools strategically.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.6 Attend to precision.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.7 Look for and make use of structure.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.8 Look for and express regularity in repeated reasoning.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.

Ratios and Proportional Relationships

Analyze proportional relationships and use them to solve real-world and mathematical problems.

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.	7 M1 Lesson 1: An Experiment with Ratios and Rates 7 M1 Lesson 2: Exploring Tables of Proportional Relationships 7 M1 Lesson 3: Identifying Proportional Relationships in Tables
KY.7.RP.2 Recognize and represent proportional relationships between quantities.	*This standard is fully addressed by the lessons aligned to its subsections.*
KY.7.RP.2.a Decide whether two quantities represent a proportional relationship.	7 M1 Topic A: Understanding Proportional Relationships 7 M1 Lesson 14: Extreme Bicycles
KY.7.RP.2.b Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams and verbal descriptions of proportional relationships.	7 M1 Lesson 4: Exploring Graphs of Proportional Relationships 7 M1 Lesson 5: Analyzing Graphs of Proportional Relationships 7 M1 Lesson 6: Identifying Proportional Relationships in Written Descriptions 7 M1 Lesson 8: Relating Representations of Proportional Relationships 7 M1 Lesson 9: Comparing Proportional Relationships 7 M1 Lesson 11: Constant Rates 7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1 7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2 7 M1 Lesson 16: Using a Scale Factor 7 M1 Lesson 18: Relating Areas of Scale Drawings

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.RP.2.c Represent proportional relationships by equations.	7 M1 Lesson 2: Exploring Tables of Proportional Relationships 7 M1 Lesson 3: Identifying Proportional Relationships in Tables 7 M1 Lesson 8: Relating Representations of Proportional Relationships 7 M1 Lesson 10: Applying Proportional Reasoning 7 M1 Lesson 11: Constant Rates 7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1 7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2 7 M5 Lesson 1: Proportionality and Scale Factor 7 M5 Lesson 4: Proportion and Percent 7 M5 Lesson 5: Common Denominators or Common Numerators
KY.7.RP.2.d Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate.	7 M1 Lesson 4: Exploring Graphs of Proportional Relationships 7 M1 Lesson 5: Analyzing Graphs of Proportional Relationships 7 M1 Lesson 9: Comparing Proportional Relationships
KY.7.RP.3 Use percents to solve mathematical and real-world problems.	7 M1 Lesson 7: Handstand Sprint 7 M1 Lesson 10: Applying Proportional Reasoning 7 M1 Lesson 11: Constant Rates 7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1 7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2 7 M5 Lesson 2: Racing for Percents 7 M5 Lesson 3: Percent as a Rate per 100 7 M5 Lesson 4: Proportion and Percent

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.RP.3 *continued*	7 M5 Lesson 5: Common Denominators or Common Numerators
	7 M5 Topic B: Part of 100
	7 M5 Lesson 10: Percent Increase
	7 M5 Lesson 11: Percent Decrease
	7 M5 Lesson 12: More Discounts
	7 M5 Lesson 13: What Is the Best Deal?
	7 M5 Topic D: Applications of Percent
	7 M5 Lesson 20: Making Money, Day 1
	7 M5 Lesson 21: Making Money, Day 2
	7 M5 Lesson 22: Making Mixtures
	7 M5 Lesson 23: Percents of Percents
KY.7.RP.3.a Find a percent of a quantity as a rate per 100; solve problems involving finding the whole, a part and a percent, given two of these.	*Supplemental material is necessary to address this standard.*
KY.7.RP.3.b Use proportional relationships to solve multistep ratio and percent problems.	7 M1 Lesson 7: Handstand Sprint
	7 M1 Lesson 10: Applying Proportional Reasoning
	7 M1 Lesson 11: Constant Rates
	7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1
	7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2
	7 M5 Lesson 2: Racing for Percents
	7 M5 Lesson 3: Percent as a Rate per 100

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.RP.3.b *continued*	7 M5 Lesson 4: Proportion and Percent
	7 M5 Lesson 5: Common Denominators or Common Numerators
	7 M5 Topic B: Part of 100
	7 M5 Lesson 10: Percent Increase
	7 M5 Lesson 11: Percent Decrease
	7 M5 Lesson 12: More Discounts
	7 M5 Lesson 13: What Is the Best Deal?
	7 M5 Topic D: Applications of Percent
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	7 M5 Lesson 21: Making Money, Day 2
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	7 M5 Lesson 23: Percents of Percents

The Number System

Apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers.

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	*This standard is fully addressed by the lessons aligned to its subsections.*

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.NS.1.a Describe situations in which opposite quantities combine to make 0.	7 M2 Lesson 1: Combining Opposites 7 M2 Lesson 12: The Integer Game
KY.7.NS.1.b Understand $p + q$ as the number located a distance $|q|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.	7 M2 Lesson 1: Combining Opposites 7 M2 Lesson 2: Adding Integers 7 M2 Lesson 3: Adding Integers Efficiently 7 M2 Lesson 5: Decomposing Rational Numbers to Make Addition More Efficient 7 M2 Lesson 6: Adding Rational Numbers 7 M2 Lesson 8: Subtracting Integers, Part 1
KY.7.NS.1.c Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference and apply this principle in real-world contexts.	7 M2 Lesson 7: What Subtraction Means 7 M2 Lesson 8: Subtracting Integers, Part 1 7 M2 Lesson 9: Subtracting Integers, Part 2 7 M2 Lesson 10: Subtracting Rational Numbers, Part 1 7 M2 Lesson 11: Subtracting Rational Numbers, Part 2

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.NS.1.d Apply properties of operations as strategies to add and subtract rational numbers.	7 M2 Lesson 4: KAKOOMA® 7 M2 Lesson 5: Decomposing Rational Numbers to Make Addition More Efficient 7 M2 Lesson 6: Adding Rational Numbers 7 M2 Lesson 9: Subtracting Integers, Part 2 7 M2 Lesson 10: Subtracting Rational Numbers, Part 1 7 M2 Lesson 11: Subtracting Rational Numbers, Part 2 7 M2 Lesson 12: The Integer Game
KY.7.NS.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	*This standard is fully addressed by the lessons aligned to its subsections.*
KY.7.NS.2.a Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.	7 M2 Topic C: Multiplying Rational Numbers

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.NS.2.b Understand that integers can be divided, provided that the divisor is not zero and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-\left(\frac{p}{q}\right) = \frac{-p}{q} = \frac{p}{-q}$. Interpret quotients of rational numbers by describing real-world contexts.	7 M2 Lesson 18: Understanding Negative Divisors 7 M2 Lesson 21: Comparing and Ordering Rational Numbers
KY.7.NS.2.c Apply properties of operations as strategies to multiply and divide rational numbers.	7 M2 Topic C: Multiplying Rational Numbers 7 M2 Lesson 17: Understanding Negative Dividends 7 M2 Lesson 18: Understanding Negative Divisors 7 M2 Lesson 22: Multiplication and Division Expressions 7 M2 Lesson 24: Order of Operations with Rational Numbers
KY.7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.	7 M2 Lesson 25: Writing and Evaluating Expressions with Rational Numbers, Part 1 7 M2 Lesson 26: Writing and Evaluating Expressions with Rational Numbers, Part 2

Expressions and Equations
Use properties of operations to generate equivalent expressions.

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.EE.1 Apply properties of operations as strategies to add, subtract, factor and expand linear expressions with rational coefficients.	7 M3 Topic A: Equivalent Expressions
KY.7.EE.2 Understand that rewriting an expression in different forms in a problem context can clarify the problem and how the quantities in it are related.	7 M3 Lesson 2: The Distributive Property and the Tabular Model 7 M3 Lesson 4: Adding and Subtracting Expressions 7 M3 Lesson 5: Factoring Expressions 7 M3 Lesson 6: Comparing Expressions 7 M3 Lesson 9: Solving Equations to Determine Unknown Angle Measures 7 M5 Lesson 10: Percent Increase 7 M5 Lesson 11: Percent Decrease 7 M5 Lesson 12: More Discounts 7 M5 Lesson 14: Scale Factor—Percent Increase and Decrease 7 M5 Lesson 15: Tips and Taxes 7 M5 Lesson 16: Markups and Discounts 7 M5 Lesson 23: Percents of Percents

Expressions and Equations
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.EE.3 Solve real-life and mathematical problems posed with positive and negative rational numbers in any form, using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.	7 M2 Lesson 25: Writing and Evaluating Expressions with Rational Numbers, Part 1 7 M2 Lesson 26: Writing and Evaluating Expressions with Rational Numbers, Part 2 7 M3 Lesson 9: Solving Equations to Determine Unknown Angle Measures 7 M3 Lesson 10: Problem Solving with Unknown Angle Measures 7 M3 Lesson 11: Dominoes and Dominoes 7 M3 Lesson 16: Using Equations to Solve Rate Problems 7 M3 Lesson 17: Using Equations to Solve Problems
KY.7.EE.4 Use variables to represent quantities in a real-world or mathematical problem and construct equations and inequalities to solve problems by reasoning about the quantities.	7 M3 Lesson 11: Dominoes and Dominoes 7 M3 Lesson 12: Solving Equations Algebraically and Arithmetically 7 M3 Lesson 13: Solving Equations—Puzzles 7 M3 Lesson 16: Using Equations to Solve Rate Problems 7 M3 Lesson 17: Using Equations to Solve Problems 7 M3 Lesson 18: Understanding Inequalities and Their Solutions 7 M3 Lesson 19: Using Equations to Solve Inequalities 7 M3 Lesson 21: Solving Two-Step Inequalities 7 M3 Lesson 22: Solving Problems Involving Inequalities 7 M3 Lesson 23: Inequalities vs. Equations

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.EE.4.a Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms. Graph the solution set of the equality and interpret it in context of the problem.	7 M3 Lesson 7: Angle Relationships and Unknown Angle Measures 7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures 7 M3 Lesson 12: Solving Equations Algebraically and Arithmetically 7 M3 Lesson 13: Solving Equations—Puzzles 7 M3 Lesson 14: Solving Equations—Scavenger Hunt 7 M3 Lesson 15: Solving Equations Fluently 7 M3 Lesson 16: Using Equations to Solve Rate Problems
KY.7.EE.4.b Solve word problems leading to inequalities of the form $px + q > r$, $px + q < r$, $px + q \geq r$, $px + q \leq r$; where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in context of the problem.	7 M3 Topic D: Inequalities

Geometry

Draw, construct and describe geometrical figures and describe the relationships between them.

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.G.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	7 M1 Lesson 15: Scale Drawings 7 M1 Lesson 16: Using a Scale Factor 7 M1 Lesson 17: Finding Actual Distances from a Scale Drawing 7 M1 Lesson 18: Relating Areas of Scale Drawings 7 M1 Lesson 19: Scale and Scale Factor

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.G.1 *continued*	7 M1 Lesson 20: Creating Multiple Scale Drawings
	7 M5 Lesson 1: Proportionality and Scale Factor
	7 M5 Lesson 14: Scale Factor—Percent Increase and Decrease
KY.7.G.2 Draw (freehand, with ruler and protractor and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	7 M4 Topic A: Constructing Geometric Figures 7 M4 Topic B: Constructing Triangles 7 M4 Lesson 9: Constructing a Circle
KY.7.G.3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.	7 M4 Lesson 22: Understanding Planes and Cross Sections 7 M4 Lesson 23: Cross Section Scavenger Hunt

Geometry
Solve real-life and mathematical problems involving angle measure, area, surface area and volume.

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.G.4 Use formulas for area and circumference of circles and their relationships.	7 M4 Lesson 10: The Outside of a Circle 7 M4 Lesson 11: The Inside of a Circle 7 M4 Lesson 12: Exploring the Area and Circumference of a Circle 7 M4 Lesson 13: Finding Areas of Circular Regions 7 M4 Lesson 14: Composite Figures with Circular Regions 7 M4 Lesson 15: Watering a Lawn
KY.7.G.4.a Apply the formulas for the area and circumference of a circle to solve real-world and mathematical problems.	7 M4 Lesson 10: The Outside of a Circle 7 M4 Lesson 11: The Inside of a Circle 7 M4 Lesson 12: Exploring the Area and Circumference of a Circle 7 M4 Lesson 13: Finding Areas of Circular Regions 7 M4 Lesson 14: Composite Figures with Circular Regions 7 M4 Lesson 15: Watering a Lawn
KY.7.G.4.b Explore and understand the relationship between the radius, diameter, circumference and area of a circle.	7 M4 Lesson 10: The Outside of a Circle 7 M4 Lesson 11: The Inside of a Circle 7 M4 Lesson 12: Exploring the Area and Circumference of a Circle 7 M4 Lesson 13: Finding Areas of Circular Regions 7 M4 Lesson 14: Composite Figures with Circular Regions 7 M4 Lesson 15: Watering a Lawn

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.G.5 Apply properties of supplementary, complementary, vertical and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	7 M3 Lesson 7: Angle Relationships and Unknown Angle Measures 7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures 7 M3 Lesson 10: Problem Solving with Unknown Angle Measures
KY.7.G.6 Solve problems involving area of two-dimensional objects and surface area and volume of three-dimensional objects.	7 M4 Lesson 14: Composite Figures with Circular Regions 7 M4 Lesson 16: Solving Area Problems by Composition and Decomposition 7 M4 Lesson 17: Surface Area of Right Rectangular and Right Triangular Prisms 7 M4 Lesson 18: Surface Area of Right Prisms 7 M4 Lesson 20: Surface Areas of Right Pyramids 7 M4 Lesson 21: Surface Area of Other Solids 7 M4 Lesson 24: Volume of Prisms 7 M4 Lesson 25: Volume of Composite Solids 7 M4 Lesson 26: Designing a Fish Tank
KY.7.G.6.a Solve real-world and mathematical problems involving area of two-dimensional objects composed of triangles, quadrilaterals and other polygons.	7 M4 Lesson 14: Composite Figures with Circular Regions 7 M4 Lesson 16: Solving Area Problems by Composition and Decomposition 7 M4 Lesson 17: Surface Area of Right Rectangular and Right Triangular Prisms 7 M4 Lesson 18: Surface Area of Right Prisms 7 M4 Lesson 20: Surface Areas of Right Pyramids 7 M4 Lesson 21: Surface Area of Other Solids 7 M4 Lesson 24: Volume of Prisms 7 M4 Lesson 25: Volume of Composite Solids 7 M4 Lesson 26: Designing a Fish Tank

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.G.6.b Solve real-world and mathematical problems involving volume and surface area, using nets as needed, of three-dimensional objects including cubes, pyramids and right prisms.	7 M4 Lesson 14: Composite Figures with Circular Regions 7 M4 Lesson 16: Solving Area Problems by Composition and Decomposition 7 M4 Lesson 17: Surface Area of Right Rectangular and Right Triangular Prisms 7 M4 Lesson 18: Surface Area of Right Prisms 7 M4 Lesson 20: Surface Areas of Right Pyramids 7 M4 Lesson 21: Surface Area of Other Solids 7 M4 Lesson 24: Volume of Prisms 7 M4 Lesson 25: Volume of Composite Solids 7 M4 Lesson 26: Designing a Fish Tank

Statistics and Probability
Use random sampling to draw inferences about a population.

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.SP.0 Create displays, including circle graphs (pie charts), scaled pictographs and bar graphs, to compare and analyze distributions of categorical data from both matching and different-sized samples.	*Supplemental material is necessary to address this standard.*

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.SP.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	7 M6 Lesson 11: Populations and Samples 7 M6 Lesson 12: Selecting a Sample 7 M6 Lesson 13: Variability Between Samples 7 M6 Lesson 14: Sampling Variability When Estimating a Population Mean
KY.7.SP.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest.	*This standard is fully addressed by the lessons aligned to its subsections.*
KY.7.SP.2.a Generate multiple samples of categorical data of the same size to gauge the variation in estimates or predictions.	7 M6 Lesson 13: Variability Between Samples 7 M6 Lesson 16: Sampling Variability When Estimating a Population Proportion
KY.7.SP.2.b Generate multiple samples (or simulated samples) of numerical data to gauge the variation in estimates or predictions.	7 M6 Lesson 13: Variability Between Samples 7 M6 Lesson 14: Sampling Variability When Estimating a Population Mean 7 M6 Lesson 15: Sampling Variability and the Effect of Sample Size

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.SP.2.c Gauge how far off an estimate or prediction might be related to a population character of interest.	7 M6 Lesson 13: Variability Between Samples 7 M6 Lesson 14: Sampling Variability When Estimating a Population Mean 7 M6 Lesson 15: Sampling Variability and the Effect of Sample Size 7 M6 Lesson 16: Sampling Variability When Estimating a Population Proportion

Statistics and Probability
Draw informal comparative inferences about two populations.

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.SP.3 Describe the degree of visual overlap (and separation) from the graphical representations of two numerical data distributions (box plots, dot plots) with similar variabilities with similar contexts (same variable), measuring the difference between the centers (medians or means) by expressing this difference as a multiple of a measure of variability (interquartile range when comparing medians or the mean absolute deviation when comparing means).	6 M6 Lesson 16: Interpreting Box Plots 7 M6 Topic D: Comparing Populations *Supplemental material is needed to address measuring the difference between medians by expressing this difference as a multiple of the interquartile range.*

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.SP.4 Calculate and use measures of center (mean and median) and measures of variability (interquartile range when comparing medians and mean absolute deviation when comparing means) for numerical data from random samples to draw informal comparative inferences about two populations.	7 M6 Topic D: Comparing Populations *Supplemental material is needed to address drawing informal comparative inferences about two populations by using the median and interquartile range.*

Statistics and Probability

Investigate chance processes and develop, use, and evaluate probability models.

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.SP.5 Describe the probability of a chance event is a number between 0 and 1, which tells how likely the event is, from impossible (0) to certain (1). A probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely and a probability near 1 indicates a likely event.	7 M6 Lesson 1: What is Probability?

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.SP.6 Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency and predict the approximate relative frequency given the probability.	7 M6 Lesson 2: Empirical Probability 7 M6 Lesson 3: Outcomes of Chance Experiments 7 M6 Lesson 6: Outcomes That Are Not Equally Likely 7 M6 Lesson 8: Picking Blue
KY.7.SP.7 Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.	7 M6 Lesson 7: The Law of Large Numbers
KY.7.SP.7.a Develop a uniform probability model by assigning equal probability to all outcomes and use the model to determine probabilities of events.	7 M6 Lesson 4: Theoretical Probability 7 M6 Lesson 7: The Law of Large Numbers
KY.7.SP.7.b Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.	7 M6 Lesson 7: The Law of Large Numbers 7 M6 Lesson 8: Picking Blue

Kentucky Mathematics Course Standards	Aligned Components of *Eureka Math²*
KY.7.SP.8 Find probabilities of compound events using organized lists, tables, tree diagrams and simulation.	*This standard is fully addressed by the lessons aligned to its subsections.*
KY.7.SP.8.a Explain just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.	7 M6 Lesson 5: Multistage Experiments
KY.7.SP.8.b Represent sample spaces for compound events described in everyday language using methods such as organized lists, tables and tree diagrams.	7 M6 Lesson 5: Multistage Experiments
KY.7.SP.8.c Design and use a simulation to generate frequencies for compound events.	7 M6 Lesson 9: Probability Simulations 7 M6 Lesson 10: Simulations with Random Number Tables