Math Syllabus

Year	2018-2019
Required Resources	Mc-Graw Hill (Online and Textbook) Khan Academy Desmos Edmentum Study Island BrainPop
Process Skills	- Apply math in everyday situations - Use problem-solving models - Create representations - Analyze information

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Syllabus 1st Semester	**1st Nine Weeks** Week 1-3 Order, Classifying and Operations with Integers and Rational Numbers (Classifying numbers using visual representation; Absolute Value; Locate, Compare, and Order Integers and Rational Numbers using a Number Line and Order Rational Numbers arising from real world context; Operations with and without models) Week 4-6 Operations with Rational Numbers (Generate equivalent forms of fractions, decimals and percentages; Multiply rational numbers and determine if the quantity increases or decreases; Divide rational numbers and recognize multiplying by the reciprocal are equivalent) Week 7-9 Fractions, Decimals, and Percents (Use equivalent fractions, decimals, and percentages to show equivalent parts; Represent rationals and percentages with concrete models, fractions, and decimals) **2nd Nine Weeks** Week 1-3 Fractions, Decimals, and Percents (Represent benchmark fractions and percentages; Generate equivalent forms of fractions, decimals, and percentages using real world problems including money) Week 3-6 Equivalent Expressions and Properties (Use the order of operations to simplify expressions; Distinguish between expressions and equations and determine if two expressions are equivalent; Generate equivalent expressions using properties of operations)

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	Week 6-9 Ratios and Rates (Give examples of multiplicative and division comparisons of two quantities; Represent mathematical and real-world problems involving ratios and percentages using scale factors, tables, graphs, and proportions; Apply quantitative and qualitative reasoning to solve prediction and comparison real world problems involving ratios and rates; Solve real world problems using percentages; Convert units within measurement system including the use of proportions and unit rates) **<u>Midterm</u>**

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Syllabus 2nd Semester	**3rd Nine Weeks** Equations and Inequalities, Algebraic Relationships Week 1-4 Equations and Inequalities (Combine like terms; Solve 1 step equations and represent solutions on number line; Determine if a given value makes the equation true; Write an equation that represents a given situation and write corresponding problems given an equation; Solve 1 step inequalities and represent solutions on number line; Determine if a given value makes the inequality true; Write an inequality that represents a given situation and write corresponding problems given an inequality) Week 5-9 Algebraic Relationships (Graph points on a coordinate plane; Differentiate between additive and multiplicative relationships; Different representations of y=kx and y=x+b; Identify independent and dependent quantities; Write equations to represent situations involving independent and dependent quantities) **4th Nine Weeks** Geometric Relationships, Data Analysis Week 1-4 Geometric Relationships (Solve equations to find complementary and supplementary angles; Properties of triangles; Area of polygons; Write equations that represent problems related to area of polygons; Write equations that represent problems related to volume of rectangular prisms)

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	Week 5-9 Data Analysis (Summarize numerical data and use the summary to describe the center, spread, and shape of the distributions; Interpret numerical data in dot plots, stem and leaf plots, histograms, and box plots; Summarize categorical, including mode, the percent of value, and the percent of bar graph, and use the summary to describe data distribution) **Final Exam**