

| What is it that we expect all students to learn? | | | | | | |
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| Grade: 7 | Subject: Math | 2017-2018 | Team Members: Stephanie Castillo, Ashley Merritt, BJ Tomanek | | | |
| Description of Standard | Example of Rigor | Prerequisite Skills | When Taught? | Common Summative Assessment | Extension Standards | Non-Negotiable Instruction Strategies |
| What is the essential standard to be learned? Describe it in student friendly vocabulary. | What does proficient student work look like? Provide an example and/or description. | What prior knowledge, skills, and/or vocabulary are needed for a student to master this standard? | When will this standard be taught? | What assessment(s) will be used to measure student mastery? | What will we do when students have already learned this standard? | What instructional strategies/tools will every teacher agree to use in order to promote consistency between classrooms and across grade levels? |
| 7.RP.1 I can solve rate problems that deal with ratios of length, area, and other measurements with like or different units. | If a car travels at 280 miles in 4 hours, at what rate is the car traveling? | unit rate, equivalent ratios | 1st Marking Period - Chapter 1 | Lesson Quizzes Chapter Test | Peer Tutoring Khan Academy Sumdog | Real World Scenarios |
| 7.RP.2 I can recognize and show proportions in equations, on function tables and on a graph. I can identify the constant of proportionality in a table, graph, equation, diagram, or description. | Look for equivalent ratios and a constant unit rate in a table. Graph on a coordinate plane and observe whether the graph is a straight line through the origin. | constant unit rate, equivalent ratios, graphing on a coordinate plane | 1st Marking Period - Chapter 1 | Lesson Quizzes Chapter Test | Peer Tutoring Khan Academy Sumdog | T-Charts Coordinate Planes Real World Scenarios Make a connection between the t-chart, graph and equation |
| 7.RP.3 I can use proportions to solve multistep ratio and percent problems. | Find simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error. | operations with decimals and percentages | 2nd Marking Period - Chapter 2 | Lesson Quizzes Chapter Test | Peer Tutoring Khan Academy Sumdog | Real World Scenarios |

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| <p>7.NS.1 I can describe real world situations using opposite quantities to make zero. I understand that a number's distance from zero is called its absolute value. I understand the sum of a number and its additive inverse is 0. I can apply and extend my prior knowledge of addition and subtraction to add and subtract rational numbers and to represent them on a number line.</p> | <p>$-3 + 3 = 0$ For Example: You lost three yards on the first down and gained three yards on the second down. How many yards have you gained? $-3 = 3$</p> | <p>placing an integer on a number line, comparing and ordering integers, additive inverse</p> | <p>End of 1st - Beginning of 2nd Marking Period Chapter 3</p> | <p>Lesson Quizzes Chapter Test</p> | <p>Peer Tutoring Khan Academy Sumdog</p> | <p>Number Line</p> |
| <p>7.NS.2 I can apply and extend previous knowledge of multiplication and division of fractions to multiply and divide rational numbers. I can interpret products of rational numbers by giving real world examples.</p> | <p>Is $-5/11$ equivalent to $-5/-11$? Why or why not?</p> | <p>Multiply and divide fractions</p> | <p>2nd Marking Period Chapter 4</p> | <p>Lesson Quizzes Chapter Test</p> | <p>Peer Tutoring Khan Academy Sumdog</p> | <p>Real World Scenarios involving the four operations with rational numbers</p> |
| <p>7.NS.3 I can solve real world mathematical problems involving the four operations with rational numbers.</p> | <p>Jackson is scuba diving on a hunt for sunken treasure. He dives down 450 meters, then gets nervous and ascends back up 323.4 meters. After taking a minute to regain his confidence, he then dives down another 101.1 meters. How far is he from the surface now?</p> | <p>Understanding of decimals and fractions</p> | <p>2nd Marking Period Chapter 4</p> | <p>Lesson Quizzes Chapter Test</p> | <p>Peer Tutoring Khan Academy Sumdog</p> | <p>Real World Scenarios involving the four operations with rational numbers</p> |

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| 7.EE.1 I can apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. | $3(x + 1) = 3x + 3$ $5x + 2x = 7x$ | like terms, distributive property | 3rd Marking Period Chapter 5 | Lesson Quizzes Chapter Test | Peer Tutoring Khan Academy Sumdog | Manipulatives Activities |
| 7.EE.4 I can use variables to represent quantities in a real world or mathematical problem. I can construct simple equations and inequalities to solve problems by reasoning about the quantities. | For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width? For example, as a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions. | Symbols for greater than and less than. Reading an inequality sentence. The left side of an equation must always remain equal to the right side of the equation. | 3rd Marking Period Chapter 6 | Lesson Quizzes Chapter Test | Peer Tutoring Khan Academy Sumdog | Real World Scenarios |
| 7.G.6 I can solve real world and math problems involving area, volume, and surface area of 2D and 3D objects made up of triangles, quadrilaterals, polygons, cubes and right prisms. | Arthur's storage bin is 18 ft by 14 ft by 9 ft. He has an enormous collection of shoes, each pair still wrapped in its original box, and he wants to store as many of them as he can. If each shoebox is 2 ft by 0.5 ft by 1.5 ft, how many can he fit in his storage bin? | The correct use of a formula. Length, width, height and altitude | End of 3rd Marking Period - Beginning of 4th Marking Period Chapter 8 | Lesson Quizzes Chapter Test | Peer Tutoring Khan Academy Sumdog | Visual models, manipulatives, real world scenarios |

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| <p>7.SP.1 I understand that random samples produce representative samples and support valid inferences. I understand that generalizations about a population from a sample are only valid if the sample is representative of that population. I understand that statistics is used to gain information about a population by examining a sample of that population.</p> | <p>Kerry collected shells from a sea shore in a box. He takes out a handful of shells from the box. Is this a random sample of shells in the box?</p> | <p>how to read and interpret data</p> | <p>4th Marking Period Chapter 9</p> | <p>Lesson Quizzes Chapter Test</p> | <p>Peer Tutoring Khan Academy Sumdog</p> | <p>Real World Scenarios Create a survey to test its validity Make inferences about a population from the data</p> |
| <p>7.SP.4 I can use the median, mean, range, and interquartile range from a random sample of data to draw comparative inferences about two population.</p> | <p>For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.</p> | <p>Calculate mean, median, mode, and range</p> | <p>4th Marking Period Chapter 9</p> | <p>Lesson Quizzes Chapter Test</p> | <p>Peer Tutoring Khan Academy Sumdog</p> | <p>Real World Scenarios Find the measures of central tendency. Make inferences about a population from those measures.</p> |
| <p>7.SP.5 I understand the probability of a chance event is a number between 0 and 1. I understand that a probability near 0 means an unlikely event, a probability near 1/2 means the event is neither likely nor unlikely, and that a probability near 1 means the event is very likely to occur.</p> | <p>The probability of rolling a 1 and a 2 on a number cube is 0. The probability of rolling an even number on a number cube is 1/2. The probability of rolling a 6 or a number less than 6 is 1.</p> | <p>fraction, part of a whole</p> | <p>4th Marking Period Chapter 9</p> | <p>Lesson Quizzes Chapter Test</p> | <p>Peer Tutoring Khan Academy Sumdog</p> | <p>Manipulatives</p> |

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| 7.SP.6 I can approximate the probability of a chance event by collecting data and observing its long run relative frequency, and predict the approximate relative frequency given the probability. | When rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times. | fractions, decimal, parts of a whole | 4th Marking Period Chapter 9 | Lesson Quizzes Chapter Test | Peer Tutoring Khan Academy Sumdog | Manipulatives, Student created data |
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