

**8th Grade Math Pacing Guide**

Measurement topics are listed in suggested order of instruction.

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| **Order** | **Measurement**  **Topic** | **3.0 Element** | **Accomplish Score** | **Where do I need to focus/Thoughts** |
| **First Quarter** | | | | |
| **Q1** | **Transformations, Similarity, and Congruence** | **TSC1**—Describe how transformations affect two-dimensional figures using coordinates  **TSC2**—Calculate the size ratio between similar shapes  **TSC3**—Explain how transformations can indicate congruence or similarity |  |  |
| **Angles of 2-Dimensional Figures** | **ATF1**—Demonstrate why the corresponding angles and alternate interior angles of parallel lines crossed by a transversal are congruent  **ATF2**—Demonstrate the angle properties of triangles |  |  |
| **Line and Angle Construction** | **LAC1**—Construct parallel lines **LAC2**—Construct perpendicular bisectors  **LAC3**—Construct angle bisectors |  |  |
| **Second Quarter** | | | | |
| **Q2** | **Equations** | Chapter 1 can be used as a review on equations but isn’t included in the 3.0 proficiency scale. |  |  |
| **Linear Equations** | **LE1**—Compare proportional relationships represented in different ways  **LE2**—Derive the equation of a non-vertical line that passes through the origin  **LE3**—Derive the equation of a non-vertical line |  |  |
| **Systems of Linear Equations** | **SLE1**—Estimate the solutions to systems of linear equations from a graph of the equations  **SLE2**—Identify systems of linear equations with one solution, no solution, or infinitely many solutions  **SLE3**—Solve systems of two linear equations in two variables |  |  |
| **Concepts of Functions** | **CF1**—Determine whether a given relationship between two quantities is a linear function, a nonlinear function, or not a function  **CF2**—Sketch the graph of a function when given a verbal description of its features |  |  |
| **Linear Functions** | **LF1**—Compare the properties of two linear functions represented in different ways  **LF2**—Construct a function to model a linear relationship between two quantities |  |  |
| **Third Quarter** | | | | |
| **Q3** | **Exponents** | **E1**—Explain how to evaluate a base (including fractional bases) raised to an integer exponent  **E2**—Explain how to evaluate exponential expressions involving the same base raised to integer exponents |  |  |
| **Scientific Notation** | **SN1**—Use scientific notation to express very large or very small quantities in context  **SN2**—Perform operations with numbers expressed in scientific notation  **SN3**—Estimate the difference between two numbers expressed in scientific notation |  |  |
| **Pythagorean Theorem** | **PT1**—Use the Pythagorean Theorem to determine the unknown side lengths of right triangles  **PT2**—Use the Pythagorean Theorem to find the distance between two points on the coordinate plane  **PT3**—Explain a proof of the Pythagorean Theorem and its converse |  |  |
| **Cube and Square Roots** | **CSR1**—Evaluate the cube and square roots of perfect cubes and squares |  |  |
| **Rational and Irrational Numbers** | **RIN1**—Estimate the value of expressions involving irrational numbers  **RIN2**—Convert rational decimal values to fraction form |  |  |
| **Fourth Quarter** | | | | |
| **Q4** | **Volume** | **V1**—Find the volume of cones  **V2**—Find the volume of cylinders  **V3**—Find the volume of spheres  **V4**—Find the volume of pyramids |  |  |
| **Bivariate Measurement Data** | **BMD1**—Describe patterns of association in a set of bivariate measurement data represented with a scatterplot  **BMD2**—Write the equation of a line of best fit to model a linear association in a set of bivariate measurement data represented with a scatterplot  **BMD3**—Use the equation of a linear model of bivariate measurement data to solve problems |  |  |
| **Bivariate Categorical Data** | **BCD1**—Create two-way tables to solve problems involving bivariate categorical data  **BCD2**—Determine relative frequencies for data displayed in a two-way table  **BCD3**—Determine possible associations between categories displayed in a two-way table |  |  |
| **Quadratic Equations** | **QE1**—Find the vertex of a quadratic equation with real roots  **QE2**—Use the quadratic formula to solve quadratic equations with real roots |  |  |