Elementary Mathematics
Pre-Advanced Placement Grade 5th

3rd 6 Weeks – Adding and Subtracting Fractions with Like Denominators; Patterns Expressions and Equations; Shapes and Solids; Ordered Pairs and the Plane; Transformations and Congruence

TEKS	Essential Understanding	Vocabulary	Guiding Questions
5.3 The student adds, subtracts, multiplies, and divides to solve meaningful problems. The student is expected to: (C) use division to solve problems involving whole numbers (no more than two-digit divisors and three-digit dividends without technology), including interpreting the remainder within a given context **5.5 The student makes generalizations based on observed patterns and relationships. The student is expected to:** (A) describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams **5.6 The student describes relationships mathematically.** **The student is expected to select from and use diagrams and equations such as *y* = 5 + 3 to represent meaningful problem situations.**	There are multiple interpretations of addition, subtraction, multiplication, and division of rational numbers and each operation is related to other operations. Mathematical situations and structures can be translated and represented abstractly using variables, expressions, and equations. Two or three-dimensional objects with or without curved surfaces can be described, classified, and analyzed by their attributes. An object's location in space can be described quantitatively. Relationships can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways. Objects in space can be oriented in an infinite number of ways, and an object's location in space can be described quantitatively.	variable equation algebraic expression text line segment ray parallel lines intersecting lines perpendicular lines point line plane angle vertex sides protractor degrees polygon regular polygon parallelogram trapezoid rectangle rhombus square solid figure cube faces edge vertex	

On-Going Practices 5.14 A/B/C/D, 5.15 A/B, 5.16 A/B
5th graders must be able to solve problems of everyday situations; explain and record observations; make generalizations and justify answers.

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5.7 The student generates geometric definitions using critical attributes. **The student is expected to identify essential attributes including parallel, perpendicular, and congruent parts of two- and three-dimensional geometric figures.** **5.8 The student models transformations. The student is expected to:** (A) sketch the results of translations, rotations, and reflections on a Quadrant I coordinate grid; and (B) identify the transformation that generates one figure from the other when given two congruent figures on a Quadrant I coordinate grid. **5.9 The student recognizes the connection between ordered pairs of numbers and locations of points on a plane.** The student is expected to locate and name points on a coordinate grid using ordered pairs of whole numbers.	Objects in space can be transformed in an infinite number of ways, and those transformations can be described and analyzed mathematically. Doing mathematics involves a variety of processes including problem solving, reasoning, communicating, connecting, and representing.	net generalization Coordinate grid x-axis y-axis origin ordered pair x-coordinate y-coordinate trend data line graph linear equation translation reflection rotation congruent transformation pentomino	

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