



**Texas Essential Knowledge and Skills
Vertical Alignment for STAAR Alternate 2
Mathematics
Prekindergarten through Algebra I**

Updated Fall 2024

Note: This document has been updated according to the 2022 *Texas Prekindergarten Guidelines and the Texas Essential Knowledge and Skills for Mathematics, Adopted 2022*.

- x order a set of rational numbers arising from mathematical and real-world contexts (6)
- x order a set of real numbers arising from mathematical and real-world contexts (8)

Identifying Points and Distances on Number Lines

- x begin to use language to describe position of objects (PK.3)
- x demonstrate use of position words (PK.C.3)
- x locate the position of a given whole number on an open number line (2)
- x name the whole number that corresponds to a specific point on a number line (2)
- x represent whole numbers as distances from any given location on a number line (2)
- x represent a number on a number line as being between two consecutive multiples of 10; 1,000; or 10,000 and use words to describe relative size of numbers in order to round whole numbers (3)
- x determine the corresponding fraction greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 given a specified point on a number line (3)
- x explain that two fractions are equivalent if and only if they are both represented by the same point on the number line or represent the same portion of a same size whole for an area model (3)
- x represent fractions of halves, fourths, and eighths as distances from zero on a number line (3)
- x determine the corresponding decimal to the tenths or hundredths place of a specified point on a number line (4)
- x represent fractions and decimals to the tenths or hundredths as distances from zero on a number line (4)
- x

- x explain that the more fractional parts used to make a whole, the smaller the part: the fewer the fractional parts, the larger the part (2)
- x use concrete models to count fractional parts beyond one whole using words and recognize how many parts it takes to equal one whole (2)
- x identify examples and non-examples of halves, fourths, and eighths (2)
- x

- objects, pictorial models, and number sentences (1)
- x recall basic facts to add and subtract within 20 with automaticity (2)
- x add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations (2)
- x solve onestep and multistep word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms (2)
- x solve with fluency onestep and twostep problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction (3)
- x round to the nearest 10 or 100 or use compatible numbers to estimate solutions to addition and subtraction problems (3)
- x represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and properties of operations (4)
- x evaluate the reasonableness of sums and differences of fractions using benchmark fractions, $\frac{1}{2}$, $\frac{3}{4}$, and 1, referring to the same whole (4)
- x add and subtract whole numbers and decimals to hundredths place using the standard algorithm (4)
- x represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects and pictorial models and properties of operations (5)
- x add and subtract positive rational numbers fluently (5)

Multiplying Whole Numbers, Fractions, and Decimals

- x model, create, and describe contextual multiplication situations in which equivalent sets of concrete objects are joined (2)
- x

- x determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one (6)

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mathematical process standards to develop concepts of expressions and equations (4.5; 5.4).

- sign represent the same value(s) (1)
- x determine the unknown whole number in an addition or subtraction equation when the unknown

- x identify terms of arithmetic and geometric sequences when the sequences are given in function form using recursive processes (Alg)
- x write a formula for the n^{th} term of arithmetic and geometric sequences, given the value of several of their terms (Alg)
- x solve mathematic and scientific formulas, and other literal equations, for a specified variable. (Alg)

Geometry

Geometry and spatial senseThe student explores, describes, and organizes objects according to their attributes and position/location (Pre-K.V.C).

Measurement.The student recognizes differences in the measurable aspects of objects (D)

Geometry and measurementThe student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. (K.6; 1.6; 2.8). The student applies mathematical process standards to select and use units to describe length and time (1.7). The student applies mathematical process standards to select and use units to describe length, area, and time (2.9). The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties (3.6). The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement (3.7).

The student applies mathematical process standards to analyze geometric attributes in order to develop generalizations about their properties (4.6). The student applies mathematical process standards to classify two-dimensional figures by attributes and properties (5.5). The student applies mathematical process standards to identify locations on a coordinate plane (5.8). The student applies mathematical process standards to use coordinate geometry to identify locations on a plane (6.11).

Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships (7.5). The student applies mathematical process standards to use proportional relationships to describe dilations (8.3).

Two-dimensional shapesThe student applies mathematical process standards to develop transformational geometry concepts (8.10).The student is expected to

Identifying and Using Attributes of Geometric Figures

- x name and describe common 2D shapes (PIC3.1)
- x attempt to create shapes using materials aTJ ET Q 92 re W*6.004 (IT /C. 01gTm <0078>Tj ET)Tj ET Q16(usi)8.

- x recognize and compare weights of objects (K4.V.D.3)
- x give an example of a measurable attribute of a given object, including length, capacity, and weight (K)
- x compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference (K)
- x use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement (1)
- x illustrate that the length of an object is the number of same units of length that, when laid end to end with no gaps or overlaps, reach from one end of the object to the other (1)
- x measure the same object/distance with units of two different lengths and describe how and why the measurements differ (1)
- x describe a length to the nearest whole unit using a number and a unit
- x find the length of objects using concrete models for standard units of length (2)
- x describe the inverse relationship between the size of the unit and the number of units needed to equal the length of an object (2)
- x determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes (2)
- x determine a solution to a problem involving length, including estimating lengths (2)
- x use concrete models of square units to find the area of a rectangle by covering it with no gaps or overlaps, counting to find the total number of square units, and describing the measurement using a number and the unit (2)
- x determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row (3)
- x decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area (3)
- x decompose two congruent two-dimensional figures into parts with equal areas and express the area of each part as a unit fraction of the whole and recognize that equal shares of identical wholes need not have the same shape (3)
- x

- x model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes (6)
- x write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers (6)
- x determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers (6)
- x convert between measurement systems, including the use of proportions and the use of unit rates (7)
- x model the relationship between the volume of a rectangular prism and a rectangular pyramid having both congruent bases and heights and connect that relationship to the formulas (7)
- x explain verbally and symbolically the relationship between the volume of a triangular prism and a triangular pyramid having both congruent bases and heights and connect that relationship to the formulas (7)
- x use models to determine the approximate formulas for the circumference and area of a circle and connect the models to the actual formulas (7)
- x solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids (7)
- x determine the circumference and area of circles (7)
- x determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles (7)
- x solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net (7)
- x describe the volume formula $V = Bh$ of a cylinder in terms of its base area and its height (8)
- x model the relationship between the volume of a cylinder and a cone having both congruent bases and heights and connect that relationship to the formulas (8)
- x use models and diagrams to explain the Pythagorean theorem (8)
- x solve problems involving the volume of cylinders, cones, and spheres (8)
- x use previous knowledge of surface area to make connections to the formulas for lateral and total surface area and determine solutions for problems involving rectangular prisms, triangular prisms, and cylinders (8)
- x use the Pythagorean Theorem and its converse to solve problems (8)
- x determine the distance between two points on a coordinate plane using the Pythagorean Theorem (8)

Measuring Angles and Using Angle Relationships

- x ~~8.5C-1.1.1~~ ~~8.5C-1.1.2~~ ~~8.5C-1.1.3~~ ~~8.5C-1.1.4~~ ~~8.5C-1.1.5~~ ~~8.5C-1.1.6~~ ~~8.5C-1.1.7~~ ~~8.5C-1.1.8~~ ~~8.5C-1.1.9~~ ~~8.5C-1.1.10~~ ~~8.5C-1.1.11~~ ~~8.5C-1.1.12~~ ~~8.5C-1.1.13~~ ~~8.5C-1.1.14~~ ~~8.5C-1.1.15~~ ~~8.5C-1.1.16~~ ~~8.5C-1.1.17~~ ~~8.5C-1.1.18~~ ~~8.5C-1.1.19~~ ~~8.5C-1.1.20~~ ~~8.5C-1.1.21~~ ~~8.5C-1.1.22~~ ~~8.5C-1.1.23~~ ~~8.5C-1.1.24~~ ~~8.5C-1.1.25~~ ~~8.5C-1.1.26~~ ~~8.5C-1.1.27~~ ~~8.5C-1.1.28~~ ~~8.5C-1.1.29~~ ~~8.5C-1.1.30~~ ~~8.5C-1.1.31~~ ~~8.5C-1.1.32~~ ~~8.5C-1.1.33~~ ~~8.5C-1.1.34~~ ~~8.5C-1.1.35~~ ~~8.5C-1.1.36~~ ~~8.5C-1.1.37~~ ~~8.5C-1.1.38~~ ~~8.5C-1.1.39~~ ~~8.5C-1.1.40~~ ~~8.5C-1.1.41~~ ~~8.5C-1.1.42~~ ~~8.5C-1.1.43~~ ~~8.5C-1.1.44~~ ~~8.5C-1.1.45~~ ~~8.5C-1.1.46~~ ~~8.5C-1.1.47~~ ~~8.5C-1.1.48~~ ~~8.5C-1.1.49~~ ~~8.5C-1.1.50~~ ~~8.5C-1.1.51~~ ~~8.5C-1.1.52~~ ~~8.5C-1.1.53~~ ~~8.5C-1.1.54~~ ~~8.5C-1.1.55~~ ~~8.5C-1.1.56~~ ~~8.5C-1.1.57~~ ~~8.5C-1.1.58~~ ~~8.5C-1.1.59~~ ~~8.5C-1.1.60~~ ~~8.5C-1.1.61~~ ~~8.5C-1.1.62~~ ~~8.5C-1.1.63~~ ~~8.5C-1.1.64~~ ~~8.5C-1.1.65~~ ~~8.5C-1.1.66~~ ~~8.5C-1.1.67~~ ~~8.5C-1.1.68~~ ~~8.5C-1.1.69~~ ~~8.5C-1.1.70~~ ~~8.5C-1.1.71~~ ~~8.5C-1.1.72~~ ~~8.5C-1.1.73~~ ~~8.5C-1.1.74~~ ~~8.5C-1.1.75~~ ~~8.5C-1.1.76~~ ~~8.5C-1.1.77~~ ~~8.5C-1.1.78~~ ~~8.5C-1.1.79~~ ~~8.5C-1.1.80~~ ~~8.5C-1.1.81~~ ~~8.5C-1.1.82~~ ~~8.5C-1.1.83~~ ~~8.5C-1.1.84~~ ~~8.5C-1.1.85~~ ~~8.5C-1.1.86~~ ~~8.5C-1.1.87~~ ~~8.5C-1.1.88~~ ~~8.5C-1.1.89~~ ~~8.5C-1.1.90~~ ~~8.5C-1.1.91~~ ~~8.5C-1.1.92~~ ~~8.5C-1.1.93~~ ~~8.5C-1.1.94~~ ~~8.5C-1.1.95~~ ~~8.5C-1.1.96~~ ~~8.5C-1.1.97~~ ~~8.5C-1.1.98~~ ~~8.5C-1.1.99~~ ~~8.5C-1.1.100~~ ~~8.5C-1.1.101~~ ~~8.5C-1.1.102~~ ~~8.5C-1.1.103~~ ~~8.5C-1.1.104~~ ~~8.5C-1.1.105~~ ~~8.5C-1.1.106~~ ~~8.5C-1.1.107~~ ~~8.5C-1.1.108~~ ~~8.5C-1.1.109~~ ~~8.5C-1.1.110~~ ~~8.5C-1.1.111~~ ~~8.5C-1.1.112~~ ~~8.5C-1.1.113~~ ~~8.5C-1.1.114~~ ~~8.5C-1.1.115~~ ~~8.5C-1.1.116~~ ~~8.5C-1.1.117~~ ~~8.5C-1.1.118~~ ~~8.5C-1.1.119~~ ~~8.5C-1.1.120~~ ~~8.5C-1.1.121~~ ~~8.5C-1.1.122~~ ~~8.5C-1.1.123~~ ~~8.5C-1.1.124~~ ~~8.5C-1.1.125~~ ~~8.5C-1.1.126~~ ~~8.5C-1.1.127~~ ~~8.5C-1.1.128~~ ~~8.5C-1.1.129~~ ~~8.5C-1.1.130~~ ~~8.5C-1.1.131~~ ~~8.5C-1.1.132~~ ~~8.5C-1.1.133~~ ~~8.5C-1.1.134~~ ~~8.5C-1.1.135~~ ~~8.5C-1.1.136~~ ~~8.5C-1.1.137~~ ~~8.5C-1.1.138~~ ~~8.5C-1.1.139~~ ~~8.5C-1.1.140~~ ~~8.5C-1.1.141~~ ~~8.5C-1.1.142~~ ~~8.5C-1.1.143~~ ~~8.5C-1.1.144~~ ~~8.5C-1.1.145~~ ~~8.5C-1.1.146~~ ~~8.5C-1.1.147~~ ~~8.5C-1.1.148~~ ~~8.5C-1.1.149~~ ~~8.5C-1.1.150~~ ~~8.5C-1.1.151~~ ~~8.5C-1.1.152~~ ~~8.5C-1.1.153~~ ~~8.5C-1.1.154~~ ~~8.5C-1.1.155~~ ~~8.5C-1.1.156~~ ~~8.5C-1.1.157~~ ~~8.5C-1.1.158~~ ~~8.5C-1.1.159~~ ~~8.5C-1.1.160~~ ~~8.5C-1.1.161~~ ~~8.5C-1.1.162~~ ~~8.5C-1.1.163~~ ~~8.5C-1.1.164~~ ~~8.5C-1.1.165~~ ~~8.5C-1.1.166~~ ~~8.5C-1.1.167~~ ~~8.5C-1.1.168~~ ~~8.5C-1.1.169~~ ~~8.5C-1.1.170~~ ~~8.5C-1.1.171~~ ~~8.5C-1.1.172~~ ~~8.5C-1.1.173~~ ~~8.5C-1.1.174~~ ~~8.5C-1.1.175~~ ~~8.5C-1.1.176~~ ~~8.5C-1.1.177~~ ~~8.5C-1.1.178~~ ~~8.5C-1.1.179~~ ~~8.5C-1.1.180~~ ~~8.5C-1.1.181~~ ~~8.5C-1.1.182~~ ~~8.5C-1.1.183~~ ~~8.5C-1.1.184~~ ~~8.5C-1.1.185~~ ~~8.5C-1.1.186~~ ~~8.5C-1.1.187~~ ~~8.5C-1.1.188~~ ~~8.5C-1.1.189~~ ~~8.5C-1.1.190~~ ~~8.5C-1.1.191~~ ~~8.5C-1.1.192~~ ~~8.5C-1.1.193~~ ~~8.5C-1.1.194~~ ~~8.5C-1.1.195~~ ~~8.5C-1.1.196~~ ~~8.5C-1.1.197~~ ~~8.5C-1.1.198~~ ~~8.5C-1.1.199~~ ~~8.5C-1.1.200~~ ~~8.5C-1.1.201~~ ~~8.5C-1.1.202~~ ~~8.5C-1.1.203~~ ~~8.5C-1.1.204~~ ~~8.5C-1.1.205~~ ~~8.5C-1.1.206~~ ~~8.5C-1.1.207~~ ~~8.5C-1.1.208~~ ~~8.5C-1.1.209~~ ~~8.5C-1.1.210~~ ~~8.5C-1.1.211~~ ~~8.5C-1.1.212~~ ~~8.5C-1.1.213~~ ~~8.5C-1.1.214~~ ~~8.5C-1.1.215~~ ~~8.5C-1.1.216~~ ~~8.5C-1.1.217~~ ~~8.5C-1.1.218~~ ~~8.5C-1.1.219~~ ~~8.5C-1.1.220~~ ~~8.5C-1.1.221~~ ~~8.5C-1.1.222~~ ~~8.5C-1.1.223~~ ~~8.5C-1.1.224~~ ~~8.5C-1.1.225~~ ~~8.5C-1.1.226~~ ~~8.5C-1.1.227~~ ~~8.5C-1.1.228~~ ~~8.5C-1.1.229~~ ~~8.5C-1.1.230~~ ~~8.5C-1.1.231~~ ~~8.5C-1.1.232~~ ~~8.5C-1.1.233~~ ~~8.5C-1.1.234~~ ~~8.5C-1.1.235~~ ~~8.5C-1.1.236~~ ~~8.5C-1.1.237~~ ~~8.5C-1.1.238~~ ~~8.5C-1.1.239~~ ~~8.5C-1.1.240~~ ~~8.5C-1.1.241~~ ~~8.5C-1.1.242~~ ~~8.5C-1.1.243~~ ~~8.5C-1.1.244~~ ~~8.5C-1.1.245~~ ~~8.5C-1.1.246~~ ~~8.5C-1.1.247~~ ~~8.5C-1.1.248~~ ~~8.5C-1.1.249~~ ~~8.5C-1.1.250~~ ~~8.5C-1.1.251~~ ~~8.5C-1.1.252~~ ~~8.5C-1.1.253~~ ~~8.5C-1.1.254~~ ~~8.5C-1.1.255~~ ~~8.5C-1.1.256~~ ~~8.5C-1.1.257~~ ~~8.5C-1.1.258~~ ~~8.5C-1.1.259~~ ~~8.5C-1.1.260~~ ~~8.5C-1.1.261~~ ~~8.5C-1.1.262~~ ~~8.5C-1.1.263~~ ~~8.5C-1.1.264~~ ~~8.5C-1.1.265~~ ~~8.5C-1.1.266~~ ~~8.5C-1.1.267~~ ~~8.5C-1.1.268~~ ~~8.5C-1.1.269~~ ~~8.5C-1.1.270~~ ~~8.5C-1.1.271~~ ~~8.5C-1.1.272~~ ~~8.5C-1.1.273~~ ~~8.5C-1.1.274~~ ~~8.5C-1.1.275~~ ~~8.5C-1.1.276~~ ~~8.5C-1.1.277~~ ~~8.5C-1.1.278~~ ~~8.5C-1.1.279~~ ~~8.5C-1.1.280~~ ~~8.5C-1.1.281~~ ~~8.5C-1.1.282~~ ~~8.5C-1.1.283~~ ~~8.5C-1.1.284~~ ~~8.5C-1.1.285~~ ~~8.5C-1.1.286~~ ~~8.5C-1.1.287~~ ~~8.5C-1.1.288~~ ~~8.5C-1.1.289~~ ~~8.5C-1.1.290~~ ~~8.5C-1.1.291~~ ~~8.5C-1.1.292~~ ~~8.5C-1.1.293~~ ~~8.5C-1.1.294~~ ~~8.5C-1.1.295~~ ~~8.5C-1.1.296~~ ~~8.5C-1.1.297~~ ~~8.5C-1.1.298~~ ~~8.5C-1.1.299~~ ~~8.5C-1.1.300~~ ~~8.5C-1.1.301~~ ~~8.5C-1.1.302~~ ~~8.5C-1.1.303~~ ~~8.5C-1.1.304~~ ~~8.5C-1.1.305~~ ~~8.5C-1.1.306~~ ~~8.5C-1.1.307~~ ~~8.5C-1.1.308~~ ~~8.5C-1.1.309~~ ~~8.5C-1.1.310~~ ~~8.5C-1.1.311~~ ~~8.5C-1.1.312~~ ~~8.5C-1.1.313~~ ~~8.5C-1.1.314~~ ~~8.5C-1.1.315~~ ~~8.5C-1.1.316~~ ~~8.5C-1.1.317~~ ~~8.5C-1.1.318~~ ~~8.5C-1.1.319~~ ~~8.5C-1.1.320~~ ~~8.5C-1.1.321~~ ~~8.5C-1.1.322~~ ~~8.5C-1.1.323~~ ~~8.5C-1.1.324~~ ~~8.5C-1.1.325~~ ~~8.5C-1.1.326~~ ~~8.5C-1.1.327~~ ~~8.5C-1.1.328~~ ~~8.5C-1.1.329~~ ~~8.5C-1.1.330~~ ~~8.5C-1.1.331~~ ~~8.5C-1.1.332~~ ~~8.5C-1.1.333~~ ~~8.5C-1.1.334~~ ~~8.5C-1.1.335~~ ~~8.5C-1.1.336~~ ~~8.5C-1.1.337~~ ~~8.5C-1.1.338~~ ~~8.5C-1.1.339~~ ~~8.5C-1.1.340~~ ~~8.5C-1.1.341~~ ~~8.5C-1.1.342~~ ~~8.5C-1.1.343~~ ~~8.5C-1.1.344~~ ~~8.5C-1.1.345~~ ~~8.5C-1.1.346~~ ~~8.5C-1.1.347~~ ~~8.5C-1.1.348~~ ~~8.5C-1.1.349~~ ~~8.5C-1.1.350~~ ~~8.5C-1.1.351~~ ~~8.5C-1.1.352~~ ~~8.5C-1.1.353~~ ~~8.5C-1.1.354~~ ~~8.5C-1.1.355~~ ~~8.5C-1.1.356~~ ~~8.5C-1.1.357~~ ~~8.5C-1.1.358~~ ~~8.5C-1.1.359~~ ~~8.5C-1.1.360~~ ~~8.5C-1.1.361~~ ~~8.5C-1.1.362~~ ~~8.5C-1.1.363~~ ~~8.5C-1.1.364~~ ~~8.5C-1.1.365~~ ~~8.5C-1.1.366~~ ~~8.5C-1.1.367~~ ~~8.5C-1.1.368~~ ~~8.5C-1.1.369~~ ~~8.5C-1.1.370~~ ~~8.5C-1.1.371~~ ~~8.5C-1.1.372~~ ~~8.5C-1.1.373~~ ~~8.5C-1.1.374~~ ~~8.5C-1.1.375~~ ~~8.5C-1.1.376~~ ~~8.5C-1.1.377~~ ~~8.5C-1.1.378~~ ~~8.5C-1.1.379~~ ~~8.5C-1.1.380~~ ~~8.5C-1.1.381~~ ~~8.5C-1.1.382~~ ~~8.5C-1.1.383~~ ~~8.5C-1.1.384~~ ~~8.5C-1.1.385~~ ~~8.5C-1.1.386~~ ~~8.5C-1.1.387~~ ~~8.5C-1.1.388~~ ~~8.5C-1.1.389~~ ~~8.5C-1.1.390~~ ~~8.5C-1.1.391~~ ~~8.5C-1.1.392~~ ~~8.5C-1.1.393~~ ~~8.5C-1.1.394~~ ~~8.5C-1.1.395~~ ~~8.5C-1.1.396~~ ~~8.5C-1.1.397~~ ~~8.5C-1.1.398~~ ~~8.5C-1.1.399~~ ~~8.5C-1.1.400~~ ~~8.5C-1.1.401~~ ~~8.5C-1.1.402~~ ~~8.5C-1.1.403~~ ~~8.5C-1.1.404~~ ~~8.5C-1.1.405~~ ~~8.5C-1.1.406~~ ~~8.5C-1.1.407~~ ~~8.5C-1.1.408~~ ~~8.5C-1.1.409~~ ~~8.5C-1.1.410~~ ~~8.5C-1.1.411~~ ~~8.5C-1.1.412~~ ~~8.5C-1.1.413~~ ~~8.5C-1.1.414~~ ~~8.5C-1.1.415~~ ~~8.5C-1.1.416~~ ~~8.5C-1.1.417~~ ~~8.5C-1.1.418~~ ~~8.5C-1.1.419~~ ~~8.5C-1.1.420~~ ~~8.5C-1.1.421~~ ~~8.5C-1.1.422~~ ~~8.5C-1.1.423~~ ~~8.5C-1.1.424~~ ~~8.5C-1.1.425~~ ~~8.5C-1.1.426~~ ~~8.5C-1.1.427~~ ~~8.5C-1.1.428~~ ~~8.5C-1.1.429~~ ~~8.5C-1.1.430~~ ~~8.5C-1.1.431~~ ~~8.5C-1.1.432~~ ~~8.5C-1.1.433~~ ~~8.5C-1.1.434~~ ~~8.5C-1.1.435~~ ~~8.5C-1.1.436~~ ~~8.5C-1.1.437~~ ~~8.5C-1.1.438~~ ~~8.5C-1.1.439~~ ~~8.5C-1.1.440~~ ~~8.5C-1.1.441~~ ~~8.5C-1.1.442~~ ~~8.5C-1.1.443~~ ~~8.5C-1.1.444~~ ~~8.5C-1.1.445~~ ~~8.5C-1.1.446~~ ~~8.5C-1.1.447~~ ~~8.5C-1.1.448~~ ~~8.5C-1.1.449~~ ~~8.5C-1.1.450~~ ~~8.5C-1.1.451~~ ~~8.5C-1.1.452~~ ~~8.5C-1.1.453~~ ~~8.5C-1.1.454~~ ~~8.5C-1.1.455~~ ~~8.5C-1.1.456~~ ~~8.5C-1.1.457~~ ~~8.5C-1.1.458~~ ~~8.5C-1.1.459~~ ~~8.5C-1.1.460~~ ~~8.5C-1.1.461~~ ~~8.5C-1.1.462~~ ~~8.5C-1.1.463~~ ~~8.5C-1.1.464~~ ~~8.5C-1.1.465~~ ~~8.5C-1.1.466~~ ~~8.5C-1.1.467~~ ~~8.5C-1.1.468~~ ~~8.5C-1.1.469~~ ~~8.5C-1.1.470~~ ~~8.5C-1.1.471~~ ~~8.5C-1.1.472~~ ~~8.5C-1.1.473~~ ~~8.5C-1.1.474~~ ~~8.5C-1.1.475~~ ~~8.5C-1.1.476~~ ~~8.5C-1.1.477~~ ~~8.5C-1.1.478~~ ~~8.5C-1.1.479~~ ~~8.5C-1.1.480~~ ~~8.5C-1.1.481~~ ~~8.5C-1.1.482~~ ~~8.5C-1.1.483~~ ~~8.5C-1.1.484~~ ~~8.5C-1.1.485~~ ~~8.5C-1.1.486~~ ~~8.5C-1.1.487~~ ~~8.5C-1.1.488~~ ~~8.5C-1.1.489~~ ~~8.5C-1.1.490~~ ~~8.5C-1.1.491~~ ~~8.5C-1.1.492~~ ~~8.5C-1.1.493~~ ~~8.5C-1.1.494~~ ~~8.5C-1.1.495~~ ~~8.5C-1.1.496~~ ~~8.5C-1.1.497~~ ~~8.5C-1.1.498~~ ~~8.5C-1.1.499~~ ~~8.5C-1.1.500~~ ~~8.5C-1.1.501~~ ~~8.5C-1.1.502~~ ~~8.5C-1.1.503~~ ~~8.5C-1.1.504~~ ~~8.5C-1.1.505~~ ~~8.5C-1.1.506~~ ~~8.5C-1.1.507~~ ~~8.5C-1.1.508~~ ~~8.5C-1.1.509~~ ~~8.5C-1.1.510~~ ~~8.5C-1.1.511~~ ~~8.5C-1.1.512~~ ~~8.5C-1.1.513~~ ~~8.5C-1.1.514~~ ~~8.5C-1.1.515~~ ~~8.5C-1.1.516~~ ~~8.5C-1.1.517~~ ~~8.5C-1.1.518~~ ~~8.5C-1.1.519~~ ~~8.5C-1.1.520~~ ~~8.5C-1.1.521~~ ~~8.5C-1.1.522~~ ~~8.5C-1.1.523~~ ~~8.5C-1.1.524~~ ~~8.5C-1.1.525~~ ~~8.5C-1.1.526~~ ~~8.5C-1.1.527~~ ~~8.5C-1.1.528~~ ~~8.5C-1.1.529~~ ~~8.5C-1.1.530~~ ~~8.5C-1.1.531~~ ~~8.5C-1.1.532~~ ~~8.5C-1.1.533~~ ~~8.5C-1.1.534~~ ~~8.5C-1.1.535~~ ~~8.5C-1.1.536~~ ~~8.5C-1.1.537~~ ~~8.5C-1.1.538~~ ~~8.5C-1.1.539~~ ~~8.5C-1.1.540~~ ~~8.5C-1.1.541~~ ~~8.5C-1.1.542~~ ~~8.5C-1.1.543~~ ~~8.5C-1.1.544~~ ~~8.5C-1.1.545~~ ~~8.5C-1.1.546~~ ~~8.5C-1.1.547~~ ~~8.5C-1.1.548~~ ~~8.5C-1.1.549~~ ~~8.5C-1.1.550~~ ~~8.5C-1.1.551~~ ~~8.5C-1.1.552~~ ~~8.5C-1.1.553~~ ~~8.5C-1.1.554~~ ~~8.5C-1.1.555~~ ~~8.5C-1.1.556~~ ~~8.5C-1.1.557~~ ~~8.5C-1.1.558~~ ~~8.5C-1.1.559~~ ~~8.5C-1.1.560~~ ~~8.5C-1.1.561~~ ~~8.5C-1.1.562~~ ~~8.5C-1.1.563~~ ~~8.5C-1.1.564~~ ~~8.5C-1.1.565~~ ~~8.5C-1.1.566~~ ~~8.5C-1.1.567~~ ~~8.5C-1.1.568~~ ~~8.5C-1.1.569~~ ~~8.5C-1.1.570~~ ~~8.5C-1.1.571~~ ~~8.5C-1.1.572~~ ~~8.5C-1.1.573~~ ~~8.5C-1.1.574~~ ~~8.5C-1.1.575~~ ~~8.5C-1.1.576~~ ~~8.5C-1.1.577~~ ~~8.5C-1.1.578~~ ~~8.5C-1.1.579~~ ~~8.5C-1.1.580~~ ~~8.5C-1.1.581~~ ~~8.5C-1.1.582~~ ~~8.5C-1.1.583~~ ~~8.5C-1.1.584~~ ~~8.5C-1.1.585~~ ~~8.5C-1.1.586~~ ~~8.5C-1.1.587~~ ~~8.5C-1.1.588~~ ~~8.5C-1.1.589~~ ~~8.5C-1.1.590~~ ~~8.5C-1.1.591~~ ~~8.5C-1.1.592~~ ~~8.5C-1.1.593~~ ~~8.5C-1.1.594~~ ~~8.5C-1.1.595~~ ~~8.5C-1.1.596~~ ~~8.5C-1.1.597~~ ~~8.5C-1.1.598~~ ~~8.5C-1.1.599~~ ~~8.5C-1.1.600~~ ~~8.5C-1.1.601~~ ~~8.5C-1.1.602~~ ~~8.5C-1.1.603~~ ~~8.5C-1.1.604~~ ~~8.5C-1.1.605~~ ~~8.5C-1.1.606~~ ~~8.5C-1.1.607~~ ~~8.5C-1.1.608~~ ~~8.5C-1.1.609~~ ~~8.5C-1.1.610~~ ~~8.5C-1.1.611~~ ~~8.5C-1.1.612~~ ~~8.5C-1.1.613~~ ~~8.5C-1.1.614~~ ~~8.5C-1.1.615~~ ~~8.5C-1.1.616~~ ~~8.5C-1.1.617~~ ~~8.5C-1.1.618~~ ~~8.5C-1.1.619~~ ~~8.5C-1.1.620~~ ~~8.5C-1.1.621~~ ~~8.5C-1.1.622~~ ~~8.5C-1.1.623~~ ~~8.5C-1.1.624~~ ~~8.5C-1.1.625~~ ~~8.5C-1.1.626~~ ~~8.5C-1.1.627~~ ~~8.5C-1.1.628~~ ~~8.5C-1.1.629~~ ~~8.5C-1.1.630~~ ~~8.5C-1.1.631~~ ~~8.5C-1.1.632~~ ~~8.5C-1.1.633~~ ~~8.5C-1.1.634~~ ~~8.5C-1.1.635~~ ~~8.5C-1.1.636~~ ~~8.5C-1.1.637~~ ~~8.5C-1.1.638~~ ~~8.5C-1.1.639~~ ~~8.5C-1.1.640~~ ~~8.5C-1.1.641~~ ~~8.5C-1.1.642~~ ~~8.5C-1.1.643~~ ~~8.5C-1.1.644~~ ~~8.5C-1.1.645~~ ~~8.5C-1.1.646~~ ~~8.5C-1.1.647~~ ~~8.5C-1.1.648~~ ~~8.5C-1.1.649~~ ~~8.5C-1.1.650~~ ~~8.5C-1.1.651~~ ~~8.5C-1.1.652~~ ~~8.5C-1.1.653~~ ~~8.5C-1.1.654~~ ~~8.5C-1.1.~~

- x use informal arguments to establish facts about the angle sum and exterior angle of triangles, the angles created when parallel lines are cut by a transversal, and the angle criterion for similarity of triangles (8)

Measuring Time

- x show awareness of the passage of time within a day (PK3).

interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms, and box plots (6)

distinguish between situations that yield data with and without variability (6)

solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents (7)

compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads (7)

use data from a random sample to make inferences about a population (7)

compare two populations based on data in random samples from these populations, including informal comparative inferences about differences between the two populations (7)

use a trend line that approximates the linear relationship between bivariate sets of data to make predictions (8)

write, with and without technology, linear functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems (Alg)

write, using technology, quadratic functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems (Alg)

write, using technology, exponential functions that provide a reasonable fit to data and make predictions for real-world problems (Alg)

Personal Financial Literacy

Personal financial literacy. The student applies mathematical process standards to identify coins in order to recognize the need for monetary transactions (K.4). The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security (K.9; 1.9; 2.11; 3.9; 4.10; 5.10). The student applies mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions (1.4). The student applies mathematical process standards to determine the value of coins in order to solve monetary transactions (2.5). The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy (3.4). The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor (6.14, 7.13, 8.12). The student is expected to

Understanding the Connections Among Income, Expenses, and Careers

identify ways to earn income (K)

differentiate between money received as income and money received as gifts (K)

list simple skills required for jobs (K)

distinguish between wants and needs and identify income as a source to meet one's wants and needs (K)

define money earned as income (1)

identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs (1)

explain the connection between human capital/labor and income (3)

distinguish between fixed and variable expenses (4)

define income tax, payroll tax, sales tax, and property tax (5)

explain the difference between gross income and net income (5)

explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study (6)

compare the annual salary of several occupations requiring various levels of post-secondary education or vocational training and calculate the effects of the different annual salaries on lifetime income (6)

