DRAFT 4th Grade Pacing Guide by Standards and Trimesters

Strand	CST Test Emphasis	Standard	Harcourt Chapter Reference	Lesson Reference	Sample Release Questions
Number Sense	Number Sense Cluster 1 (*place value, fractions, decimals. and negative numbers*) 16/65 questions or 25%	1.1 Read and write whole numbers in the millions.	Ch 1		▪ Which of these is the number 5,005,014? (Word form) ▪ The estimated cost to build a new baseball stadium is ninety-four million dollars. What is this number in standard form?
Number Sense		1.2 Order and compare whole numbers and decimals to two decimal places	Ch 2		▪ Which of the following has the greatest value? (12.2, 0.97, 4.23, 5.08)
Number Sense		1.3 Round whole numbers through the millions to the nearest ten, hundred, thousand, ten thousand, or hundred thousand.	Ch 2		▪ What is 67,834,519 rounded to the nearest hundred thousand?
Number Sense		1.4 Decide when a rounded solution is called for and explain why such a solution may be appropriate	Ch 3		
Number Sense		2.1 Estimate and compute the sum or difference of a whole number and positive decimals to two places.	Ch 3		
Number Sense	Number Sense Cluster 2 (Operations and factoring) 15/65 or 23%	3.1 Demonstrate an understanding of, and the ability to use, standard algorithms for the addition and subtraction of multi-digit numbers	Ch 3		▪ 5894 - 2608 =
Number Sense		3.2 Demonstrate an understanding of, and the ability to use, standard algorithms for multiplying a multi-digit number by a two-digit number and for dividing a multi-digit number by a one-digit number, use relationships between the to simplify computations and to check results.	Ch 11, 12, 13, 14		▪ 267 ÷ 6 =
Number Sense		3.3 Solve problems involving multiplication of multi-digit numbers by two-digit numbers.	Ch 11, 12		▪ There are 58 cases of soda in a warehouse. If there are 24 cans of soda in each case, how many cans of soda are in the warehouse?

Number Sense		3.4 Solve problems involving division of multi-digit number by one digit numbers.	**Ch 13, 14**		▪ There are 9 rows of seats in a theater. Each row has the same number of seats, how many seats are in each row?
Algebra and Functions		1.1 Use letters, boxes, or other symbols to stand for any number in simple expressions or equations (e.g., demonstrate an understanding and the use of the concept of a variable).	**Ch 4, 9**		▪ Which number is represented by n? $8 \times n = 128$
Algebra and Functions	18/65 questions or 28%	1.2 Interpret and evaluate mathematical expressions that now use parentheses.	**Ch 4, 9**		▪ What is the value of the expression? $(13 + 4) - (7 \times 2)$ ▪ What is the value of the expression if $a = 3$? $15 - (a + 8)$
Algebra and Functions		1.3 Use parentheses to indicate which operation to perform first when writing expressions containing more than two terms and different operations.	**Ch 4, 9**		▪ $5 \times (8 - 2) =$
Algebra and Functions		1.5 Understand that an equation such as y = 3x + 5 is a prescription for determining a second number when a first number is given	**Ch 4, 9**		▪ Look at the problem below. If $\hat{O} = 7$ What is ¬ ? $¬ = \hat{O} + 4$
Algebra and Functions		2.1 Know and understand that equals added to equals are equal.	**Ch 4, 9**		▪ The letters S and T stand for numbers. If $S - 100 = T - 100$, which statement is true? (S=T)
Algebra and Functions		2.2 Know and understand that equals multiplied by equals are equal.	**Ch 4, 9**		▪ What number goes in the box to make this number sentence true? $(7 - 3) \times 5 = 4 \times ¬$
Performance Task 1st Trimester	*Should focus on application of number sense and algebraic thinking in a word problem situation involving mathematical reasoning and communication.*				

Strand	CST Test Emphasis	Objective	Harcourt Chapter Reference	Lesson Reference	Sample Test Items
Number Sense	Number Sense Cluster 1 (*place value*, fractions, decimals. and negative numbers) 16/65 questions or 25%	1.5 Explain different interpretations of fractions, for example, parts of a whole, parts of a set, and division of whole number by whole numbers; explain equivalents of fractions.	Ch 19		▪ Which fraction represents the largest part of a whole? (1/6, ¼, 1/3, ½)
Number Sense		1.6 Write tents and hundredth in decimal and fraction notations, and know the fraction and decimal equivalents for halves and fourths (e.g., ½ = .5 or .50; 7/4=1 ¾ = 1.75)	Ch 19		▪ Which fraction means the same as 0.17? (17/10, 17/100, 17/1000, 17/1)
Number Sense		1.7 Write the fraction represented by a drawing of parts of a figure; represent a given fraction by using drawings; and relate a fraction to a simple decimal on a number line.	Ch 17, 19		
Number Sense		1.8 Use concepts of negative numbers (e.g., on a number line, in counting, in temperature, in "owing").	Ch 23		▪ The numbers in the pattern decrease by the same amount each time. What are the next three numbers in this pattern? 10, 8, 6, 4, 2, __, __, __
Number Sense		1.9 Identify on a number line the relative position of positive fractions, positive mixed numbers, and positive decimals to two decimal places.	Ch 17, 18, 19		▪ What fraction is best represented by point *P* on this number line?
Algebra and Functions	18/65 questions or 28%	1.1 Use letters, boxes, or other symbols t stand for any number in simple expressions or equations (e.g., demonstrate an understanding and the use of the concept of a variable).	Ch 24		▪ Which number is represented by *n*? 8 x *n* = 128

Measurement and Geometry	12/65 questions or 18%	2.1 Draw the points corresponding to linear relationships on graph paper (e.g., draw 10 points on the graph of the equation y = 3x and connect them by using a straight line).	**Ch 24**		▪ Chu plotted 3 points on a grid. The three points were all on the same straight line. If she plots another point on the line, what could be the coordinates?
Measurement and Geometry		2.2 Understand that the length of a horizontal line segment equals the difference of the x-coordinates.	**Ch 24**		▪ Look at the line segment shown. What is the length of the line segment? (xy axis with no grid and points plotted)
Measurement and Geometry		2.3 Understand that the length of a vertical line segment equals the difference of the y-coordinates.	**Ch 24**		▪ Look at the graph, Point *S* is at (5, 8). Point *F* is at (5, 1). How can you find the number of units from point *S* to point *F*?
Statistics, Data Analysis, Probability (SDAP)	4/65 questions or 6%	1.1 Formulate survey questions; systematically collect and represent data on a number line; coordinate graphs, and table and charts.	**Ch 5, 6**		
Statistics, Data Analysis, Probability (SDAP)		1.2 Identify the mode(s) for sets of categorical data and the mode(s), median and any apparent outliers for numerical data sets.	**Ch 4 (14)**		▪ What is the mode of this set of numbers? (2, 2, 2, 3, 4, 4, 6)
Statistics, Data Analysis, Probability (SDAP)		1.3 Interpret one- and two-variable data graphs to answer questions about a situation.	**Ch 5, 6**		
Performance Task 2nd trimester	*Should focus on application of Fractions and decimals demonstrating mathematical reasoning and communication.*				

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Strand	CST Test Emphasis	Objective	Harcourt Chapter Reference	Lesson Reference	Notes
Algebra and Functions		1.4 Use and interpret formulas (e.g., area = length x width or $A = lw$) to answer questions about quantities and their relationships.	**Ch 25**		▪ Which equation below represents the area *(A)* of the rectangle in square centimeters?
Measurement and Geometry		1.1 Measure the area of rectangular shapes by using appropriate units such as square centimeter (cm^2) , square meter m^2), square kilometer (km^2), square inch (in^2), square yard (yd^2), or square mile (mi^2).	**Ch 26**		
Measurement and Geometry		1.2 Recognize that rectangles that have the same area can have different perimeters.	**Ch 26**		▪ Which statement about the figures is true? They both have the same area, they both have the same width, they both have the same length, they both have the same perimeter. (15 x 4) (20 x 3)
Measurement and Geometry		1.3 Understand that rectangles that have the same perimeter can have different areas.	**Ch 26**		
Measurement and Geometry		1.4 Understand and use formulas to solve problems involving perimeters and areas of rectangles and squares. Use those formulas to find the areas of more complex figures by dividing the figures into basic shapes.	**Ch 26**		▪

Measurement and Geometry		3.1 Identify lines that are parallel and perpendicular.	**Ch 25**		▪ Which figures (below) shoe pairs of lines that appear to be parallel?
Measurement and Geometry		3.2 Identify the radius and diameter of a circle.	**Ch 25**		▪ Look at the circle with cent *O*. The line segment *AB* appears to be _____. (a diameter)
Measurement and Geometry		3.3 Identify congruent figures	**Ch 25**		▪
Measurement and Geometry		3.4 Identify figures that have bilateral and rotational symmetry.	**Ch 25**		▪
Measurement and Geometry		3.5 Know the definitions of a right angle, an acute angle, and an obtuse angle. Understand that 90º, 180º, 270º, and 360º are associated , respectively with ¼, ½, ¾ and full turns.	**Ch 25, 28**		▪
Measurement and Geometry		3.6 Visualize, describe, and make models of geometric solids (e.g., prisms, pyramids) in terms of the number and shape of faces, edges, vertices; interpret two-dimensional representations of three-dimensional objects; and draw patterns (of faces) for a solid that, when cut and folded, will make a model of the solid.	**Ch 27**		

Measurement and Geometry		3.7 Know the definitions of different triangles, (e.g., equilateral, isosceles, scalene) and their attributes.	**Ch 28**		
Measurement and Geometry		3.8 Know the definitions of different quadrilaterals (e.g., rhombus, square, rectangle, parallelogram, trapezoid).	**Ch 28**		
Statistics, Data Analysis, Probability		2.1 Represent all possible outcomes for a simple probability situation in an organized way (e.g., tables, grids, tree diagrams).			
Statistics, Data Analysis, Probability		2.2 Express outcomes of experimental probability situations verbally and numerically (e.g., 3 out of 4, ¾).			▪ Royce has a bag with 8 red marbles, 4 blue marbles, 5 green marbles, and 9 yellow marbles all the same size. If he pulls out 1 marble without looking, which color is he most likely to choose?

STAR Testing
Introduce and/or review concepts from chapters 7, 15, 21, 22, as well as concepts introduced earlier during the year. Solidify place value, multiplication and division with multi-digit numbers, fractions, and decimals.

Performance Task 3rd Trimester	*Should focus on application of geometry involving mathematical reasoning and communication. – illustrating the concept.*

*Throughout the year **concept development** should be stressed with emphasis on*
mathematical reasoning** and **mathematical communication.