Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(a) Introduction.				
(1) The desire to achieve educational excellence is the driving force behind the Texas essential knowledge and skills for mathematics, guided by the college and career readiness standards. By embedding statistics, probability, and finance, while focusing on computational thinking, mathematical fluency, and solid understanding, Texas will lead the way in mathematics education and prepare all Texas students for the challenges they will face in the 21st century.				
(2) The process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. The process standards are integrated at every grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, algorithms, paper and pencil, and technology and techniques such as mental math, estimation, number sense, and generalization and abstraction to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, computer programs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.				
(3) For students to become fluent in mathematics, students must develop a robust sense of number. The National Research Council's report, "Adding It Up," defines procedural fluency as "skill in carrying out procedures flexibly, accurately, efficiently, and appropriately." As students develop procedural fluency, they must also realize that true problem solving may take time, effort, and perseverance. Students in Grade 3 are expected to perform their work without the use of calculators.				
(4) The primary focal areas in Grade 3 are place value, operations of whole numbers, and understanding fractional units. These focal areas are supported throughout the mathematical strands of number and operations, algebraic reasoning, geometry and measurement, and data analysis. In Grades 3-5, the number set is limited to positive rational numbers. In number and operations, students will focus on applying place value, comparing and ordering whole numbers, connecting multiplication and division, and understanding and representing fractions as numbers and equivalent fractions. In algebraic reasoning, students will use multiple representations of problem situations, determine missing values in number sentences, and represent real-world relationships using number pairs in a table and verbal descriptions. In geometry and measurement, students will identify and classify two-dimensional figures according to common attributes, decompose composite figures formed by rectangles to determine area, determine the perimeter of polygons, solve problems involving time, and measure liquid volume (capacity) or weight. In data analysis, students will represent and interpret data.				
(5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.				
(b) Knowledge and skills.				
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(A) apply mathematics to problems arising in everyday life, society, and the workplace	(i) apply mathematics to problems arising in everyday life		

Subject	**Chapter 111. Mathematics**			
Course Title	**§111.5. Math, Grade 3, Beginning with School Year 2014-2015**			
TEKS (Knowledge and Skills)	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:				

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate	(v) communicate mathematical reasoning using multiple representations, including symbols as appropriate		
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate	(vi) communicate mathematical reasoning using multiple representations, including diagrams as appropriate		
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate	(vii) communicate mathematical reasoning using multiple representations, including graphs as appropriate		
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate	(viii) communicate mathematical reasoning using multiple representations, including language as appropriate		
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate	(ix) communicate [mathematical ideas'] implications using multiple representations, including symbols as appropriate		

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(E) create and use representations to organize, record, and communicate mathematical ideas	(iv) use representations to record mathematical ideas		
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(E) create and use representations to organize, record, and communicate mathematical ideas	(v) create representations to communicate mathematical ideas		
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(E) create and use representations to organize, record, and communicate mathematical ideas	(vi) use representations to communicate mathematical ideas		
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(F) analyze mathematical relationships to connect and communicate mathematical ideas	(i) analyze mathematical relationships to connect mathematical ideas		
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(F) analyze mathematical relationships to connect and communicate mathematical ideas	(ii) analyze mathematical relationships to communicate mathematical ideas		

Subject	**Chapter 111. Mathematics**			
Course Title	**Knowledge and Skills)se Title**			

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	(G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication	(vi) justify mathematical arguments using precise mathematical language in written or oral communication		
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:	(A) compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate	(i) compose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects		
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:	(A) compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate	(ii) compose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using pictorial models		
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:	(A) compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate	(iii) compose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using numbers, including expanded notation as appropriate		

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Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:	(A) compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate	(iv) decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects		
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:	(A) compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate	(v) decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using pictorial models		
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:	(A) compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate	(vi) decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using numbers, including expanded notation as appropriate		
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:	(B) describe the mathematical relationships found in the base-10 place value system through the hundred thousands place			

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(A) represent fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 using concrete objects and pictorial models, including strip diagrams and number lines	(xv) represent fractions greater than zero and less than or equal to one with denominators of 8 using pictorial models, including number lines		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(B) 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	(i) determine the corresponding fraction greater than zero and less than or equal to one with [a] denominator of 2 given a specified point on a number line		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(B) 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	(ii) determine the corresponding fraction greater than zero and less than or equal to one with [a] denominator of 3 given a specified point on a number line		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(B) 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	(iii) determine the corresponding fraction greater than zero and less than or equal to one with [a] denominator of 4 given a specified point on a number line		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(B) 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	(iv) determine the corresponding fraction greater than zero and less than or equal to one with [a] denominator of 6 given a specified point on a number line		

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(E) solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 2, 3, 4, 6, and 8	(iii) solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 4		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(E) solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 2, 3, 4, 6, and 8	(iv) solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 6		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(E) solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 2, 3, 4, 6, and 8	(v) solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 8		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(i) represent equivalent fractions with denominators of 2 using a variety of objects		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(ii) represent equivalent fractions with denominators of 3 using a variety of objects		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(iii) represent equivalent fractions with denominators of 4 using a variety of objects		

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(iv) represent equivalent fractions with denominators of 6 using a variety of objects		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(v) represent equivalent fractions with denominators of 8 using a variety of objects		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(vi) represent equivalent fractions with denominators of 2 using pictorial models, including number lines		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(vii) represent equivalent fractions with denominators of 3 using pictorial models, including number lines		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(viii) represent equivalent fractions with denominators of 4 using pictorial models, including number lines		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(ix) represent equivalent fractions with denominators of 6 using pictorial models, including number lines		

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines	(x) represent equivalent fractions with denominators of 8 using pictorial models, including number lines		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(G) 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) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(H) compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models	(i) compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(H) compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models	(ii) compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using words		
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	(H) compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models	(iii) compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using objects		

Subject	**Chapter 111. Mathematics**			
Course Title	**§111.5. Math, Grade 3, Beginning with School Year 2014-2015**			

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(4) Number and operations. 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. The student is expected to:	(A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction	(iv) solve with fluency one-step problems involving subtraction within 1,000 using strategies based on place value		
(4) Number and operations. 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. The student is expected to:	(A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction	(v) solve with fluency one-step problems involving subtraction within 1,000 using strategies based on properties of operations		
(4) Number and operations. 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. The student is expected to:	(A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction	(vi) solve with fluency one-step problems involving subtraction within 1,000 using strategies based on the relationship between addition and subtraction		
(4) Number and operations. 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. The student is expected to:	(A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction	(vii) solve with fluency two-step problems involving addition within 1,000 using strategies based on place value		

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(4) Number and operations. 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. The student is expected to:	(A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction	(xii) solve with fluency two-step problems involving subtraction within 1,000 using strategies based on the relationship between addition and subtraction		
(4) Number and operations. 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. The student is expected to:	(A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction	(xiii) solve with fluency two-step problems involving addition and subtraction within 1,000 using strategies based on place value		
(4) Number and operations. 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. The student is expected to:	(A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction	(xiv) solve with fluency two-step problems involving addition and subtraction within 1,000 using strategies based on properties of operations		
(4) Number and operations. 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. The student is expected to:	(A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction	(xv) solve with fluency two-step problems involving addition and subtraction within 1,000 using strategies based on the relationship between addition and subtraction		

Subject	**Chapter 111. Mathematics**			
Course Title				

Subject	**Chapter 111. Mathematics**			
Course Title	**§111.5. Math, Grade 3, Beginning with School Year 2014-2015**			

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation			

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(A) represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations	(xiv) represent two-step problems involving addition and subtraction of whole numbers to 1,000 using number lines		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(A) represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations	(xv) represent two-step problems involving addition and subtraction of whole numbers to 1,000 using equations		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(i) represent one-step multiplication problems within 100 using arrays		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(ii) represent one-step multiplication problems within 100 using strip diagrams		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(iii) represent one-step multiplication problems within 100 using equations		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(iv) represent one-step division problems within 100 using arrays		

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(v) represent one-step division problems within 100 using strip diagrams		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(vi) represent one-step division problems within 100 using equations		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(vii) represent two-step multiplication problems within 100 using arrays		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(viii) represent two-step multiplication problems within 100 using strip diagrams		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(ix) represent two-step multiplication problems within 100 using equations		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(x) represent two-step division problems within 100 using arrays		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xi) represent two-step division problems within 100 using strip diagrams		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xii) represent two-step division problems within 100 using equations		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xiii) solve one-step multiplication problems within 100 using arrays		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xiv) solve one-step multiplication problems within 100 using strip diagrams		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xv) solve one-step multiplication problems within 100 using equations		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xvi) solve one-step division problems within 100 using arrays		

Subject	Chapter 111. Mathematics			
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(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xvii) solve one-step division problems within 100 using strip diagrams		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xviii) solve one-step division problems within 100 using equations		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xix) solve two-step multiplication problems within 100 using arrays		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xx) solve two-step multiplication problems within 100 using strip diagrams		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xxi) solve two-step multiplication problems within 100 using equations		
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations	(xxii) solve two-step division problems within 100 using arrays		

Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(A) classify and sort two- and three-dimensional I L J X U H V, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language	(i) classify two-dimensional I L J X U H V based on attributes using formal geometric language		
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(A) classify and sort two- and three-dimensional I L J X U H V, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language	L L JûÜÀ • À € P L € `		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(A) classify and sort two- and three-dimensional I L J X U H V, ifl1unf two-d.D			

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(A) classify and sort two- and three-dimensional I L J X U H V, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language	(ix) sort three-dimensional I L J X U H V, including cones, based on attributes using formal geometric language		
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(A) classify and sort two- and three-dimensional I L J X U H V, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language	(x) sort three-dimensional I L J X U H V, including cylinders, based on attributes using formal geometric language		
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(A) classify and sort two- and three-dimensional I L J X U H V, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language	(xi) sort three-dimensional I L J X U H V, including spheres, based on attributes using formal geometric language		
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(A) classify and sort two- and three-dimensional I L J X U H V, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language	(xii) sort three-dimensional I L J X U H V including triangular prisms, based on attributes using formal geometric language		

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Course Title	**§111.5. Math, Grade 3, Beginning with School Year 2014-2015**			
TEKS (Knowledge and Skills)	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(A) classify and sort two- and three-dimensional I L J X U H V, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language	(xiii) sort three-dimensional I L J X U H V, including rectangular prisms, based on attributes using formal geometric language		
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(A) classify and sort two- and three-dimensional I L J X U H V, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language	(xiv) sort three-dimensional I L J X U H V, including cubes, based on attributes using formal geometric language		
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(B) use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any			

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(B) use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories	(iii) use attributes to recognize trapezoids as examples of quadrilaterals		
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(B) use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories	(iv) use attributes to recognize rectangles as examples of quadrilaterals		
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(B) use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories	(v) use attributes to recognize squares as examples of quadrilaterals		
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(B) use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories	(vi) draw examples of quadrilaterals that do not belong to any of these subcategories		

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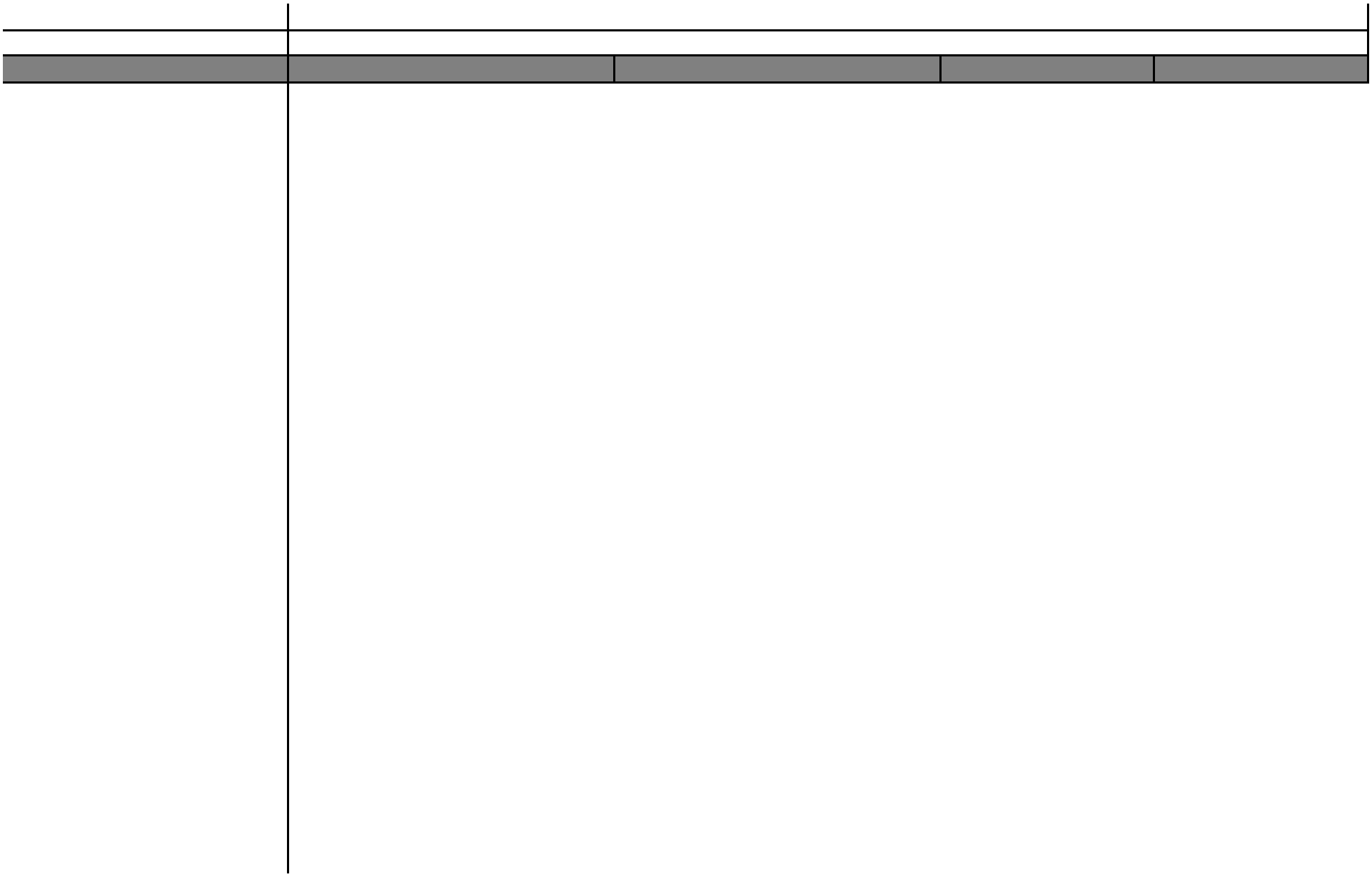
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	(E) decompose 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	(iii) recognize that equal shares of identical wholes need not have the same shape		
(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:	(A) represent fractions of halves, fourths, and eighths as distances from zero on a number line	(i) represent fractions of halves as distances from zero on a number line		
(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:	(A) represent fractions of halves, fourths, and eighths as distances from zero on a number line	(ii) represent fractions of fourths as distances from zero on a number line		
(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:	(A) represent fractions of halves, fourths, and eighths as distances from zero on a number line	(iii) represent fractions of eighths as distances from zero on a number line		

Subject	**Chapter 111. Mathematics**			



Subject	Chapter 111. Mathematics			
Course Title	§111.5. Math, Grade 3, Beginning with School Year 2014-2015			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(C) identify the costs and benefits of planned and unplanned spending decisions	(i) identify the costs of planned spending decisions		
(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(C) identify the costs and benefits of planned and unplanned spending decisions	(ii) identify the costs of unplanned spending decisions		
(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(C) identify the costs and benefits of planned and unplanned spending decisions	(iii) identify the benefits of planned spending decisions		
(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(C) identify the costs and benefits of planned and unplanned spending decisions	(iv) identify the benefits of unplanned spending decisions		

Subject	**Chapter 111. Mathematics**			
Course Title				

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Course Title	**§111.5. Math, Grade 3, Beginning with School Year 2014-2015**			
TEKS (Knowledge and Skills)	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(F) identify decisions involving income, spending, saving, credit, and charitable giving	(v) identify decisions involving charitable giving		