



Teacher Learning Report Grade 3 Math

Representation and Comparison of Whole Numbers	Unit	CHECKPOINT		
		1	2	3
3.2 Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value.				

Process (Tools to Know)	Unit	CHECKPOINT		
		1	2	3
3.1(A) apply math in everyday situations ⑧				
3.1(B) use problem-solving models ⑧ <i>connected 3.1(C)</i>				

Content	Unit	CHECKPOINT		
		1	2	3
Representation of Whole Numbers				
3.2(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 ⑧				
3.2(B) describe the mathematical relationships found in the base-10 place value system through the hundred thousands place				

Comparison of Whole Numbers				
3.2(D) compare and order whole numbers up to 100,000 and represent comparisons using the symbols $>$, $<$, or $=$ ⑧				

Rounding of Whole Numbers				
3.2(C) represent a number on a number line as being between two consecutive multiples of 10; 100; 1,000; or 10,000 and use words to describe relative size of numbers in order to round whole numbers				

Process (Ways to Show)	Unit	CHECKPOINT		
		1	2	3
3.1(E) create representations				
3.1(F) analyze information ⑧ <i>connected 3.1(D), 3.1(G)</i>				



Teacher Learning Report Grade 3 Math

>> Fractions

3.3 Number and operations. The student applies mathematical process standards to represent and explain fractional units.

Connected Knowledge and Skills 3.6, 3.7

Unit	CHECKPOINT		
	1	2	3

Process (Tools to Know)

3.1(A) apply math in everyday situations [Ⓢ]
3.1(B) use problem-solving models [Ⓢ]

connected 3.1(C)

Unit	CHECKPOINT		
	1	2	3

Content

Representation of Fractions

3.3(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

3.3(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

3.3(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

3.7(A) represent fractions of halves, fourths, and eighths as distances from zero on a number line

Unit	CHECKPOINT		
	1	2	3

Unit Fractions

3.3(C) explain that the unit fraction $1/b$ represents the quantity formed by one part of a whole that has been partitioned into b equal parts where b is a non-zero whole number

3.3(D) compose and decompose a fraction a/b with a numerator greater than zero and less than or equal to b as a sum of parts $1/b$

3.6(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

Equivalency of Fractions

3.3(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines

3.3(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

Comparison of Fractions

3.3(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



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Process (Ways to Show)	Unit	CHECKPOINT		
		1	2	3
3.1(E) create representations				
3.1(F) analyze information ⓘ <i>connected 3.1(D), 3.1(G)</i>				

>> TEKS clusters typically requiring additional time and focus in the curriculum



Teacher Learning Report Grade 3 Math

Addition and Subtraction of Whole Numbers	Unit	CHECKPOINT		
		1	2	3
3.4 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.				
3.5 Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships.				

Process (Tools to Know)	Unit	CHECKPOINT		
		1	2	3
3.1(A) apply math in everyday situations ⑧				
3.1(B) use problem-solving models ⑧ <i>connected 3.1(C)</i>				

Content	Unit	CHECKPOINT		
		1	2	3
Estimation of Whole Numbers				
3.4(B) round to the nearest 10 or 100 or use compatible numbers to estimate solutions to addition and subtraction problems				

Addition/Subtraction of Whole Numbers	Unit	CHECKPOINT		
		1	2	3
3.4(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 ⑧				
3.5(A) represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations				

Money	Unit	CHECKPOINT		
		1	2	3
3.4(C) determine the value of a collection of coins and bills				

Numerical Patterns	Unit	CHECKPOINT		
		1	2	3
3.5(E) represent real-world relationships using number pairs in a table and verbal descriptions ⑧				
		Data included in "Multiplication and Division of Whole Numbers"		

Process (Ways to Show)	Unit	CHECKPOINT		
		1	2	3
3.1(E) create representations				
3.1(F) analyze information ⑧ <i>connected 3.1(D), 3.1(G)</i>				



Teacher Learning Report Grade 3 Math

>> Multiplication and Division of Whole Numbers

- 3.4 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.
- 3.5 Algebraic reasoning.** The student applies mathematical process standards to analyze and create patterns and relationships.

Connected Knowledge and Skills 3.6

Unit	CHECKPOINT		
	1	2	3

Process (Tools to Know)

- 3.1(A) apply math in everyday situations ⑧
- 3.1(B) use problem-solving models ⑧ *connected 3.1(C)*

Unit	CHECKPOINT		
	1	2	3

Content

Multiplication of Whole Numbers

- 3.6(C) 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
- 3.4(D) determine the total number of objects when equally sized groups of objects are combined or arranged in arrays up to 10 by 10
- 3.4(E) represent multiplication facts by using a variety of approaches such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting
- 3.4(F) recall facts to multiply up to 10 by 10 with automaticity and recall the corresponding division facts
- 3.4(G) use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties
- 3.5(C) describe a multiplication expression as a comparison such as 3×24 represents 3 times as much as 24
- 3.5(D) determine the unknown whole number in a multiplication or division equation relating three whole numbers when the unknown is either a missing factor or product

Unit	CHECKPOINT		
	1	2	3
	Data included in "Measurement"		

Division of Whole Numbers

- 3.4(H) determine the number of objects in each group when a set of objects is partitioned into equal shares or a set of objects is shared equally
- 3.4(I) determine if a number is even or odd using divisibility rules
- 3.4(J) determine a quotient using the relationship between multiplication and division

Numerical Patterns

- 3.5(E) represent real-world relationships using number pairs in a table and verbal descriptions ⑧

Multiplication and Division of Whole Numbers

- 3.4(K) solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts
- 3.5(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations ⑧



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Process (Ways to Show)	Unit	CHECKPOINT		
		1	2	3
3.1(E) create representations				
3.1(F) analyze information ⓘ <i>connected 3.1(D), 3.1(G)</i>				

>> TEKS clusters typically requiring additional time and focus in the curriculum



Teacher Learning Report Grade 3 Math

Geometry	Unit	CHECKPOINT		
		1	2	3
3.6 Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties.				

Process (Tools to Know)	Unit	CHECKPOINT		
		1	2	3
3.1(A) apply math in everyday situations ⑧				
3.1(B) use problem-solving models ⑧ <i>connected 3.1(C)</i>				

Content	Unit	CHECKPOINT		
		1	2	3
Two-Dimensional/Three-Dimensional				
3.6(A) classify and sort two- and three-dimensional figures, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language ⑧				
3.6(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 ⑧				

Process (Ways to Show)	Unit	CHECKPOINT		
		1	2	3
3.1(E) create representations				
3.1(F) analyze information ⑧ <i>connected 3.1(D), 3.1(G)</i>				



Teacher Learning Report Grade 3 Math

>> Measurement

3.7 Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement.

Connected Knowledge and Skills 3.6

Unit	CHECKPOINT		
	1	2	3

Process (Tools to Know)

3.1(A) apply math in everyday situations ⑧
3.1(B) use problem-solving models ⑧

connected 3.1(C)

Unit	CHECKPOINT		
	1	2	3

Content

Area

3.6(C) 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 ⑧

3.6(D) decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area

Unit	CHECKPOINT		
	1	2	3

Perimeter

3.7(B) determine the perimeter of a polygon or a missing length when given perimeter and remaining side lengths in problems ⑧

Time

3.7(C) determine the solutions to problems involving addition and subtraction of time intervals in minutes using pictorial models or tools such as a 15-minute event plus a 30-minute event equals 45 minutes

Liquid Capacity/Weight

3.7(D) determine when it is appropriate to use measurements of liquid volume (capacity) or weight

3.7(E) determine liquid volume (capacity) or weight using appropriate units and tools

Process (Ways to Show)

3.1(E) create representations
3.1(F) analyze information ⑧

connected 3.1(D), 3.1(G)

Unit	CHECKPOINT		
	1	2	3


>> TEKS clusters typically requiring additional time and focus in the curriculum



Teacher Learning Report Grade 3 Math

Data Analysis	Unit	CHECKPOINT		
		1	2	3
3.8 Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data.				

Process (Tools to Know)	Unit	CHECKPOINT		
		1	2	3
3.1(A) apply math in everyday situations ⑧				
3.1(B) use problem-solving models ⑧ <i>connected 3.1(C)</i>				

Content	Unit	CHECKPOINT		
		1	2	3
Representation of Data				
3.8(A) summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals				
Interpretation of Data				
3.8(B) solve one- and two-step problems using categorical data represented with a frequency table, dot plot, pictograph, or bar graph with scaled intervals ⑧				
 Social Studies Integration 3.14(B) interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, distinguishing between fact and opinion, identifying cause and effect, comparing, and contrasting 3.14(C) interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps				


Process (Ways to Show)	Unit	CHECKPOINT		
		1	2	3
3.1(E) create representations				
3.1(F) analyze information ⑧ <i>connected 3.1(D), 3.1(G)</i>				




Teacher Learning Report Grade 3 Math

Personal Financial Literacy	Unit	CHECKPOINT		
		1	2	3
3.9 Personal financial literacy. The student applies mathematical process standards to manage one’s financial resources effectively for lifetime financial security.				

Process (Tools to Know)	Unit	CHECKPOINT		
		1	2	3
3.1(A) apply math in everyday situations ⓘ				
3.1(B) use problem-solving models ⓘ <i>connected 3.1(C)</i>				

Content	Unit	CHECKPOINT		
		1	2	3
Earning, Spending, and Saving				
3.9(E) list reasons to save and explain the benefit of a savings plan, including for college				
3.9(C) identify the costs and benefits of planned and unplanned spending decisions				
3.9(F) identify decisions involving income, spending, saving credit and charitable giving				
 Social Studies Integration 3.5(A) identify ways of earning, spending, saving, and donating money 3.5(B) create a simple budget that allocates money for spending and saving				

Borrowing				
3.9(D) explain that credit is used when wants or needs exceed the ability to pay and that it is the borrower’s responsibility to pay it back to the lender, usually with interest				

Economics				
3.9(A) explain the connection between human capital/labor and income				
3.9(B) describe the relationship between the availability or scarcity of resources and how that impacts cost				
 Social Studies Integration 3.6(A) explain how supply and demand affect the price of a good or service 3.6(B) define and identify examples of scarcity 3.6(C) explain how the cost of production and selling price affect profits				

Process (Ways to Show)	Unit	CHECKPOINT		
		1	2	3
3.1(E) create representations				
3.1(F) analyze information ⓘ <i>connected 3.1(D), 3.1(G)</i>				



Teacher Learning Report Grade 3 Math

PROCESS STANDARDS: MATHEMATICAL PROCESS STANDARDS		Unit	CHECKPOINT		
			1	2	3
3.1	The student uses mathematical processes to acquire and demonstrate mathematical understanding.				
	Tools to Know				

TOOLS TO KNOW		Unit	CHECKPOINT		
			1	2	3
3.1(A)	apply mathematics to problems arising in everyday life, society, and the workplace ⑧				
3.1(B)	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 ⑧				
3.1(C)	select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems				

WAYS TO SHOW		Unit	CHECKPOINT		
			1	2	3
3.1(D)	communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate				
3.1(E)	create and use representations to organize, record, and communicate mathematical ideas				
3.1(F)	analyze mathematical relationships to connect and communicate mathematical ideas ⑧				
3.1(G)	display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication				



CATHOLIC SCHOOLS
— ARCHDIOCESE OF SAN ANTONIO —

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