

Grade 3 Mathematics- Term 3

Performance Indicator	Beginning- 1	Developing- 2	Secure- 3	Exceeding- 4	Assessed
Represents and solves problems involving multiplication and division. NY-3.OA.1 NY-3.OA.2 NY-3.OA.3 NY-3.OA.4	- With teacher support demonstrates limited understanding of the following: - Interpret products of whole numbers. - Interpret whole-number quotients of whole numbers, - Use multiplication and division within 100 to solve word problems in situations involving equal groups, *arrays, and measurement quantities. - Determine the unknown whole number in a multiplication or division equation relating three whole numbers. <i>*Uses addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. Writes an equation to express the total as a sum of equal addends.</i>	- Independently and consistently demonstrates SOME of the following, may require some teacher support: - Interpret products of whole numbers. - Interpret whole-number quotients of whole numbers, - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. - Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	- Independently and consistently demonstrates ALL of the following: - Interpret products of whole numbers. - Interpret whole-number quotients of whole numbers, - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. - Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	- Independently and consistently demonstrates ALL of the indicators listed for Secure AND: - Solve multistep multiplication and division word problems	T1, T2, T3
Reads and writes four-digit numbers using base ten, number names and expanded form NY-3.NBT.4a NY-3.NBT.4b	- With teacher support, demonstrates limited understanding of the following: - Understand that the digits of a four-digit number represents amounts of thousands, hundreds, tens and ones.	- Independently and consistently demonstrates SOME of the following, may require some teacher support to complete : - Understand that the digits of a four-digit number represents amounts of thousands, hundreds, tens and	- Independently and consistently demonstrates ALL of the following: - Understand that the digits of a four-digit number represents amounts of thousands, hundreds, tens and ones. - read and write four	- Independently and consistently demonstrates ALL of the indicators listed for Secure AND: - Works with numbers beyond four digits	T2, T3

	○ read and write four digit-numbers using base ten-numerals 4 thousands, 2 hundreds, 8 tens and 3 ones = 4,283,) number names (four thousand two hundred eighty three), and expanded form (4,000 + 200 + 80 + 3).	○ ones. ○ read and write four digit-numbers using base ten-numerals 4 thousands, 2 hundreds, 8 tens and 3 ones = 4,283,) number names (four thousand two hundred eighty three), and expanded form (4,000 + 200 + 80 + 3).	digit-numbers using base ten-numerals 4 thousands, 2 hundreds, 8 tens and 3 ones = 4,283,) number names (four thousand two hundred eighty three), and expanded form (4,000 + 200 + 80 + 3).		
Understands properties of multiplication and division and their relationship. NY-3.OA.5 NY-3.OA.6	● With teacher support, demonstrates limited understanding of the following: ○ applies properties of operations as strategies to multiply and divide. ○ Understands division as an unknown- factor problem. ○ Represent and explain the relationship between multiplication and division	● Independently and consistently demonstrates SOME of the following, may require some teacher support to complete: ○ applies properties of operations as strategies to multiply and divide. ○ Understands division as an unknown- factor problem. ○ Represent and explain the relationship between multiplication and division	● Independently and consistently demonstrates ALL of the following: ○ applies properties of operations as strategies to multiply and divide. ○ Understands division as an unknown- factor problem. ○ Represent and explain the relationship between multiplication and division	● Independently and consistently demonstrates ALL of the indicators listed for Secure AND: ● Multiplies a whole number of up to four digits by one digit whole number or 2 digit by 2 digit based on place value and properties of operations ● Find whole number quotients and remainders with up to four digit dividends using strategies based on place value and/or properties of operations	T1, T2, T3
Uses place value understanding and properties of operations to solve multi-digit problems. NY-3.NBT.1 NY-3.NBT.2 NY-3.NBT.3	● With teacher support, demonstrates limited understanding of the following: ○ Uses place value understanding to round a number to the nearest 10 or 100. ○ Fluently adds and subtracts within 1,000	● Independently and consistently demonstrates SOME of the following, may require some teacher support to complete: ○ Uses place value understanding to round a number to the nearest 10 or 100. ○ Fluently adds and subtracts within	● Independently and consistently demonstrates ALL of the following: ○ Uses place value understanding to round a number to the nearest 10 or 100. ○ Fluently adds and subtracts within 1,000 using strategies based on place value. ○ Multiplies one-digit whole numbers by multiples of 10 in the	● Independently and consistently demonstrates ALL of the indicators listed for Secure AND: ○ Uses place value understanding to round a number to the nearest 10 or 100 with numbers greater than 1000. ○ Fluently adds and subtracts beyond	T2-

	using strategies based on place value: Multiplies one-digit whole numbers by multiples of 10 in the range of 10-90 using place value strategies and properties of operations.	1,000 using strategies based on place value: Multiplies one-digit whole numbers by multiples of 10 in the range of 10-90 using place value strategies and properties of operations.	range of 10-90 using place value strategies and properties of operations.	1,000 using strategies based on place value: Multiplies two-digit whole numbers by multiples of 10 using place value strategies and properties of operations.	
Solves problems involving the four operations. NY-3.OA.8	- With teacher support demonstrates limited understanding of the following: - Solves two-step word problems with whole numbers and having whole-number answers using the four operations - Represents these problems using equations or expressions with a letter standing for the unknown quantity. - Assesses the reasonableness of answers using mental computation and estimation strategies including rounding.	- Consistently and Independently demonstrates SOME of the following: - Solves two-step word problems with whole numbers and having whole-number answers using the four operations - Represents these problems using equations or expressions with a letter standing for the unknown quantity. - Assesses the reasonableness of answers using mental computation and estimation strategies including rounding.	- Consistently and Independently demonstrates ALL of the following: - Solves two-step word problems with whole numbers and having whole-number answers using the four operations - Represents these problems using equations or expressions with a letter standing for the unknown quantity. - Assesses the reasonableness of answers using mental computation and estimation strategies including rounding.	- Independently and consistently demonstrates ALL of the indicators listed for Secure AND: - Solves multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems where the remainder must be interpreted.	T2, T3
Fluently multiplies and divides within 100 NY-3.OA.7a NY-3.OA.7b <i>Note: Fluency means student are fast, accurate, flexible, and have understanding. They use strategies efficiently.</i>	- With teacher support, demonstrates limited understanding of the following: - Fluently solves single-digit division problems using strategies or properties of operations - Knows from	- Consistently and Independently demonstrates SOME of the following, may require some teacher support: - Fluently solves single-digit division problems using strategies or properties of	- Consistently and Independently demonstrates ALL of the following: - Fluently solves single-digit division problems using strategies or properties of operations - Knows from memory all products of two,	- Independently and consistently demonstrates ALL of the indicators listed for Secure AND: - Fluently multiplies and divides numbers greater than 100 using strategies or properties of operations.	T1, T2, T3

	memory all products of two, one-digit numbers.	operations Knows from memory all products of two, one-digit numbers.	one-digit numbers.	Find all factor pairs for a whole number in the range 1-100.	
Develops an understanding of fractions as numbers. NY-3.NF.1 NY-3.NF.2 NY-3.NF.3 <i>Note: Limit to fractions with denominators of 2, 3, 4, 6</i> This is a very complex topic with multiple standards and understandings.	With teacher support demonstrates limited understanding of the following: - Represent a unit fraction (eg. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{8}$); Represent other fractions (eg. $\frac{2}{4}$, $\frac{5}{6}$, $\frac{3}{8}$) - Represent fractions on a number line by: - Partitioning an interval into equal parts and labelling the unit fractions - Partitioning an interval into equal parts and labelling other fractions - Recognize and generate equivalent fractions based on their size and if they are the same point on a number line - Explain equivalent fractions based on their size and if they are the same point on a number line	Consistently and independently demonstrates SOME of the following, may require some teacher support: - Represent a unit fraction (eg. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{8}$); Represent other fractions (eg. $\frac{2}{4}$, $\frac{5}{6}$, $\frac{3}{8}$) - Represent fractions on a number line by: - Partitioning an interval into equal parts and labelling the unit fractions - Partitioning an interval into equal parts and labelling other fractions - Recognize and generate equivalent fractions based on their size and if they are the same point on a number line - Explain equivalent fractions based on their size and if they are the same point on a number line	Independently and consistently demonstrates ALL of the following: - Represent a unit fraction (eg. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{8}$); Represent other fractions (eg. $\frac{2}{4}$, $\frac{5}{6}$, $\frac{3}{8}$) - Represent fractions on a number line by: - Partitioning an interval into equal parts and labelling the unit fractions - Partitioning an interval into equal parts and labelling other fractions - Recognize and generate equivalent fractions based on their size and if they are the same point on a number line - Explain equivalent fractions based on their size and if they are the same point on a number line	- Independently and consistently demonstrates ALL of the indicators listed for Secure AND: - Explain why fractions are equivalent using visual fraction models - Compares two fractions with different numerators and different denominators	T2 -
Solves problems involving measurement and estimation of intervals of time, volume and mass. NY-3.MD.1 NY-3.MD.2a NY-3.MD.2b	With teacher support still demonstrates limited understanding of the following: - Tell and write time to the nearest minute - Measure time intervals - Solves one-step word problems involving addition and	Independently and consistently demonstrates SOME of the following: - Tell and write time to the nearest minute - Measure time intervals - Solves one-step word problems involving addition and subtraction of time intervals in minutes.	Independently and consistently demonstrates ALL of the following: - Tell and write time to the nearest minute - Measure time intervals - Solves one-step word problems involving addition and subtraction of time intervals in minutes. - Measure and estimate	- Independently and consistently demonstrates ALL of the indicators listed for Secure AND: - Solves multi-step word problems involving addition and subtraction of time intervals in minutes. - Add, subtract, multiply	T2, T3

	subtraction of time intervals in minutes. • Measure and estimate liquid volumes and masses of objects using grams (g), kilograms (kg), and liters (l). • Add, subtract, multiply and divide to solve one-step word problems involving masses or liquid volumes that are given in the same units (e.g., using drawings to represent the problem).	• Measure and estimate liquid volumes and masses of objects using grams (g), kilograms (kg), and liters (l). • Add, subtract, multiply and divide to solve one-step word problems involving masses or liquid volumes that are given in the same units (e.g., using drawings to represent the problem).	liquid volumes and masses of objects using grams (g), kilograms (kg), and liters (l). • Add, subtract, multiply and divide to solve one-step word problems involving masses or liquid volumes that are given in the same units (e.g., using drawings to represent the problem).	and divide to solve multi-step word problems involving masses or volumes that are given in the same units (e.g., using drawings to represent the problem).	
Represents and interprets data. NY-3.MD.3 NY-3.MD.4	• ~~With teacher support, demonstrates limited understanding of the following:~~ ◦ ~~draws a scaled picture graph and a scaled bar graph to represent a data set with several categories.~~ ◦ ~~Solve one- and two-step "how many more" and "how many less" problems using information presented in a scaled picture or bar graph.~~ ◦ ~~Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch.~~ ◦ ~~Create a line plot with appropriate units (whole numbers, halves,~~	• ~~Independently and consistently demonstrates SOME of the following, may require some teacher support:~~ ◦ ~~draws a scaled picture graph and a scaled bar graph to represent a data set with several categories.~~ ◦ ~~Solve one- and two-step "how many more" and "how many less" problems using information presented in a scaled picture or bar graph.~~ ◦ ~~Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch.~~ ◦ ~~Create a line plot with appropriate units (whole numbers, halves,~~	• ~~Independently and consistently demonstrates ALL of the following:~~ ◦ ~~draws a scaled picture graph and a scaled bar graph to represent a data set with several categories.~~ ◦ ~~Solve one- and two-step "how many more" and "how many less" problems using information presented in a scaled picture or bar graph.~~ ◦ ~~Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch.~~ ◦ ~~Create a line plot with appropriate units (whole numbers, halves, or quarters) to show the data.~~	• ~~Independently and consistently demonstrates ALL of the indicators listed for Secure AND:~~ • ~~Makes a line plot to display a data set of measurements in fractions of a unit.~~ • ~~Solves problems involving addition and subtraction of fractions using information from the line plot.~~	T1-

	or quarters) to show the data:	or quarters) to show the data:			
Understands concepts of area and relates area to multiplication and addition. NY-3.MD.5 NY-3.MD.6 NY-3.MD.7 <i>Note: Correlates with NY-3.OA</i>	With teacher support, demonstrates limited understanding of the following: - Recognizes area as an attribute of plane figures and understand concepts of area measurement. - Measures area by counting unit squares. - Tiles a rectangle to find the area and relates it to the multiplication of the side lengths. - Solves real world mathematical problems by multiplying side lengths to find the area of a rectangle. - Uses area model to represent the distributive property. - Recognize area as additive, of non-overlapping rectangles (L shaped figures) and apply to solve real world problems	Consistently demonstrates SOME of the following, may require some teacher support: - Recognizes area as an attribute of plane figures and understand concepts of area measurement. - Measures area by counting unit squares. - Tiles a rectangle to find the area and relates it to the multiplication of the side lengths. - Solves real world mathematical problems by multiplying side lengths to find the area of a rectangle. - Uses area model to represent the distributive property. - Recognize area as additive, of non-overlapping rectangles (L shaped figures) and apply to solve real world problems	Consistently demonstrates ALL of the following: - Recognizes area as an attribute of plane figures and understand concepts of area measurement. - Measures area by counting unit squares. - Tiles a rectangle to find the area and relates it to the multiplication of the side lengths. - Solves real world mathematical problems by multiplying side lengths to find the area of a rectangle. - Uses area model to represent the distributive property. - Recognize area as additive, of non-overlapping rectangles (L shaped figures) and apply to solve real world problems	- Independently and consistently demonstrates ALL of the indicators listed for Secure AND: - Solves multi-step real world mathematical problems by multiplying side lengths to find the area of a rectangle.	T3
Understands perimeter and distinguishes between perimeter and area. NY-3.MD.8a NY-3.MD.8b	With teacher support, demonstrates limited understanding of the following: - Solves real world and mathematical problems involving perimeters of polygons given the measure of all sides or with a missing side. - Identify rectangles with the same perimeter and different areas or with the same area and different perimeters.	Consistently and independently demonstrates SOME of the following, and may require some teacher support: - Solves real world and mathematical problems involving perimeters of polygons given the measure of all sides or with a missing side. - Identify rectangles with the same perimeter and different areas or with the same area and different perimeters.	Consistently and independently demonstrates ALL of the following: - Solves real world and mathematical problems involving perimeters of polygons given the measure of all sides or with a missing side. - Identify rectangles with the same perimeter and different areas or with the same area and different perimeters.	- Independently and consistently demonstrates ALL of the indicators listed for Secure AND: - Apply the area and perimeter formulas for rectangles.	T3

Uses shapes and their attributes to solve problems. NY-3.G.1 NY-3.G.2 <i>Note: Relates to NY-3.NF</i>	Even with teacher support, demonstrates limited understanding of the following: ○ recognize and classify polygons based on the number of sides and vertices (triangles, quadrilaterals, pentagons, and hexagons). ○ Partition shapes into parts with equal areas and Express the area of each part as a unit fraction of the whole ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, and $\frac{1}{8}$)	Independently and consistently demonstrates SOME of the following: ○ recognize and classify polygons based on the number of sides and vertices (triangles, quadrilaterals, pentagons, and hexagons). ○ Partition shapes into parts with equal areas and Express the area of each part as a unit fraction of the whole ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, and $\frac{1}{8}$)	Independently and consistently demonstrates ALL of the following: ○ recognize and classify polygons based on the number of sides and vertices (triangles, quadrilaterals, pentagons, and hexagons). ○ Partition shapes into parts with equal areas and Express the area of each part as a unit fraction of the whole ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, and $\frac{1}{8}$)	N/A	T2, T3
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