MathAround™

Correlation to Common Core Standards

Grade 3

EPISODE	EXAMPLES	PREPARING FOR STANDARDS
1 **Estimating and Rounding to 1,000**	*in between* *closer to* *round* *nearest hundred* *nearest ten*	**3.NBT Numbers & Operations in Base Ten** **Use place value understanding and properties of operations to perform multi-digit arithmetic.** CCSS.MATH.CONTENT.3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100.
2 **Visualizing Tens and Hundreds**	*tens* *hundreds* *24 tens equals 240* *12 dimes are worth 120 cents*	**3.NBT Numbers & Operations in Base Ten** **Use place value understanding and properties of operations to perform multi-digit arithmetic.** CCSS.MATH.CONTENT.3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. CCSS.MATH.CONTENT.3.NBT.A.3 Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

3 **Multiplication**	*equal groups* *times* *product* *factor* *twice as tall* *3 times as long*	**3.OA Operations & Algebraic Thinking** **Represent and solve problems involving multiplication and division.** CCSS.MATH.CONTENT.3.OA.A.1 Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. CCSS.MATH.CONTENT.3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. CCSS.MATH.CONTENT.3.OA.A.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. **Understand properties of multiplication and the relationship between multiplication and division.** CCSS.MATH.CONTENT.3.OA.B.5 Apply properties of operations as strategies to multiply and divide. **Multiply and divide within 100.** CCSS.MATH.CONTENT.3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

4 **Division**	*divided into pieces* *divided by* *quotient* *how many in each group* *how many groups* *half as many*	**3.OA Operations & Algebraic Thinking** **Represent and solve problems involving multiplication and division.** CCSS.MATH.CONTENT.3.OA.A.2 Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. CCSS.MATH.CONTENT.3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. CCSS.MATH.CONTENT.3.OA.A.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. **Understand properties of multiplication and the relationship between multiplication and division.** CCSS.MATH.CONTENT.3.OA.B.5 Apply properties of operations as strategies to multiply and divide. CCSS.MATH.CONTENT.3.OA.B.6 Understand division as an unknown-factor problem. **Multiply and divide within 100.** CCSS.MATH.CONTENT.3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

5 **Multiplying Larger Numbers**	*2 groups of 3 tens* *7 stacks of 30 cans each* *times* *array* *models*	**3.NBT Numbers & Operations in Base Ten** **Use place value understanding and properties of operations to perform multi-digit arithmetic.** CCSS.MATH.CONTENT.3.NBT.A.3 Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.
6 **Unit Fractions in Words**	*equal parts* *1 half of* *1 third of* *1 fourth of* *1 sixth of* *halfway'* *cut in half* *1 third of the way*	**3.NF Numbers & Operations – Fractions** **Develop understanding of fractions as numbers.** CCSS.MATH.CONTENT.3.NF.A.1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; CCSS.MATH.CONTENT.3.NF.A.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram. CCSS.MATH.CONTENT.3.NF.A.2.A Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line. **3.G Geometry** **Reason with shapes and their attributes.** CCSS.MATH.CONTENT.3.G.A.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*