Multiplication and Division . . . .

☐ Pretend you are planning a birthday party and putting together the party favor bags. Together with your child discuss how many people you will invite, what will be in each party favor bag, how many of each item will be in each bag, and so on. Write a shopping list with the total number of each item needed.

☐ Collect 10 dimes, 20 nickels, and 30 pennies. If you multiplied each total number by 10, how many of each coin would you have?

☐ Pretend you are selling items in a store. Collect the following items and label them accordingly: (1) book, $10; (2) shirt, $15; and (3) picture frame, $5. If a teacher wanted to buy 10 of the books, how much would it cost? If someone wanted to buy 3 shirts, how much would it cost? If someone wanted to buy 2 picture frames, how much would it cost?

☐ Place 30 cotton balls on a table or 30 dots on a piece of paper. Divide them into 3 equal groups. How many are in each group? Divide them into 2 equal groups. How many are in each group? Divide them into 5 equal groups. How many are in each group?

Expressions and Equations . . . . . .

☐ Write several different expressions on small slips of paper. Write the answers to the expressions on separate slips of paper. Pull one slip of paper from each pile at a time. Tell whether the slips form a correct number sentence. Repeat until all number sentences have been created.

Fraction Concepts . . . .

☐ Use construction paper to draw a large pizza with 8 individual slices. Cut out each individual slice and then place the pizza on a plate. If you take away 2 of the slices, what fraction, in simplest form, represents the number of slices taken away? Repeat the activity by changing the number of slices you take away.

www.aMathsDictionaryforKids.com

An animated, interactive dictionary for students which explains over 600 common mathematical terms in simple language.

Grade 3

CCSS Math Expectations Checklist

- Operation and Algebraic Thinking
- Number and Operations in Base 10
- Number and Operations Fractions
- Geometry, Measurement and Data
- Mathematical Praactices

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Looking for Patterns . . . .

☐ Assemble about 50 of any small items you have around the house (pennies, paper clips, buttons, etc.). In the first row, put 3 items. Add 2 items to each new row for several rows. Ask: How many items will go in the next row? Ask: How do you know? What is the pattern? Take turns arranging the items in new patterns.

Multiplication & Division Concepts

☐ Place two cups together on the table. Place another set of two cups next to the first two. Finally, place one last set of two cups next to those. On the table you should have three pairs of cups. Count the cups to see how many you have in three sets of two. Now rearrange the cups into two groups, with three cups in each group. Count the cups again to see how many you have in two sets of three. Ask: What was your answer each time? Ask: What property of multiplication does this demonstrate?

☐ Place 81 paper clips in a bowl. Take 9 paper clips and put them into a small plastic bag. How many small plastic bags will you need for all 81 paper clips? What if you put 18 paper clips in to each bag? How many bags would you need then?

☐ Place 12 pencils on a table. Divide the pencils into two equal groups. How many pencils are in each group? How many pencils would be in each group if you divided them into four equal groups?

☐ Cut 10 circles out of construction paper. Ask: How many circles are there total? How many groups of 2 can you make? How many groups of 5 can you make? If you take two away, how many groups of 2 can you make?

☐ Collect items around the house that you would like to sell at a yard sale. Put price tags on the items. Figure out how much it would cost a buyer if they wanted to buy one, two or three of each of your items.

My checklist of what I can do in 3ʳᵈ grade math . . . .

☐ I understand that it is important to apply the mathematical practices (identified on the inside cover) on a regular basis.

Operations & Algebraic Thinking . . . . . .

Represent and solve problems involving multiplication and division: (3.OA.1, 3.OA.2, 3.OA.3, 3.OA.4)

☐ I can explain the meaning of the product and quotient.
_____ product   _____ quotient

☐ I can solve multiplication word problems within 100 involving equal groups, arrays, and measurement quantities.

☐ I can solve division word problems within 100 involving equal groups, arrays, and measurement quantities.

☐ I can find the unknown whole number (variable) in a multiplication/division equation.
_____ multiplication   _____ division

Understand properties of multiplication and the relationship between multiplication and division: (3.OA.5, 3.OA.6)

☐ I can use the properties to multiply and divide. (Commutative, Associative, Distributive Property)

☐ I can use multiplication to find the answer to a division problem.

Multiply and Divide within 100: (3.OA.7)

☐ I can fluently multiply and divide within 100 using strategies and properties.

☐ I can fluently recall my multiplication facts 0-9.

Solve problems involving the four operations, and identify and explain patterns in arithmetic: (3.OA.8, 3.OA.9)

☐ I can use any of the four operations to solve two-step word problems.

☐ I can represent the problem using an equation with a letter for the unknown.

☐ I can use mental math, estimation, and rounding to decide if my answer makes sense.

☐ I can find arithmetic (number) patterns in the addition and multiplication tables.

☐ I can explain these patterns.

Number & Operations in Base 10 . . . . . .

Use place value understanding and properties of operations to perform multi-digit arithmetic: (3.NBT.1, 3.NBT.2, 3.NBT.3)

☐ I can round whole numbers to the nearest 10 or 100.

☐ I can add within 1000.

☐ I can subtract within 1000.

☐ I can multiply one-digit whole numbers by multiples of 10 in the range of 10-90.

Number & Operations – Fractions. . . . . . .

(Limited to fractions with denominators 2, 3, 4, 6, & 8)

Develop understanding of fractions as numbers: (3.NF.1, 3.NF.2, 3.NF.3)

☐ I can explain and show that a fraction is a part of a whole.

☐ I can explain and show the meaning of the numerator and denominator.

☐ I can explain how a fraction is a number on a number line.

☐ I can represent fractions on a number line.

☐ I can divide a number line into equal intervals (parts) to represent fractions.

☐ I can place fractions on a number line that is divided into intervals.

☐ I can show two fractions as equivalent (equal) if they are the same size.

☐ I can show two fractions as equivalent (equal) if they are on the same point on a number line.

☐ I can recognize and show simple equivalent fractions.

☐ I can write whole numbers as fractions and recognize that they are equivalent (equal).

☐ I can compare two fractions with the same numerator or the same denominator using <, >, or =.

Measurement and Data . . . .

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects: (3.MD.1, 3.MD.2)

☐ I can tell time to the nearest minute.

☐ I can solve word problems using addition and subtraction of time in minutes.

☐ I can estimate and measure liquid volumes using liters.

☐ I can solve one-step word problems involving volume.

☐ I can estimate and measure masses of objects using grams and kilograms.

☐ I can solve one-step word problems involving mass.

Represent and interpret data: (3.MD.3, 3MD.4)

☐ I can draw a scaled picture graph.

☐ I can solve one and two-step problems using the picture graph.

☐ I can draw a scaled bar graph.

☐ I can solve one and two-step problems using the bar graph.

☐ I can measure and record lengths to the nearest half and fourth of an inch.

☐ I can use measurement data to make a horizontal line plot marked off in appropriate units – whole numbers, halves, or quarters.

Measurement and Data (continued) . . . .

Geometric measurement: understand concepts of area and relate area to multiplication and to addition: (3.MD.5, 3.MD.6, 5.MD.7)

☐ I can find the area of a plane figure.

☐ I can use square units to measure area.

☐ I can label area with square units.

☐ I can measure area by counting square units.

☐ I can find the area of a rectangle with tiles and show the area can be found by multiplying the side lengths.

☐ I can solve real-world math problems that involve area.

☐ I can use tiles to make the area of a rectangle.

☐ I can represent the distributive property using tiles to make the area of a rectangle.

☐ I can add the area of rectangles to find the total area of a figure.

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures: (3.MD.8)

☐ I can solve real-world problems involving perimeter and area.

Geometry . . . .

Reason with shapes and their attributes: (3.G.1, 3.G.2)

☐ I can classify shapes by their attributes.

☐ I can draw a shape that does not belong to a group according to the attributes.

☐ I can divide shapes into equal areas.

☐ I can write the area of each part as a fraction.

How to use checklist:

• Show the date of when you were able to do the math expectation.

• Show an example of what you did in a journal.