

RtI Math Tier 1 Non-computer Classroom Activities 3rd – 6th

1. Number Sense

- a. Place value (base ten blocks, place value chart, bundles of sticks, [dice and card games](#), [whole number card relay](#), [decimal number card relay](#))
- b. Comparison (base ten blocks, place value chart, add zeros to back of decimal numbers, compare each # in same place value locations starting at highest value)
- c. Estimation (give an estimation chart with basic directions and examples, place value chart)
- d. Rounding (use number lines, role play the person being the number to be rounded on the number line, place value chart, base ten blocks, [Rounding Rap](#))
- e. Fractions (fraction bars and/or circles, color on graph paper, fold and color paper to make fractions, [fraction plastic plates](#) which are 2 different colored plates with a radius cut on each and joined together at the radii – in 5th grade math book)
- f. Decimals (graph paper squares of 10 by 10, base ten blocks, [decimal number card relay](#))
- g. Divisibility Rules (give a divisibility chart with the rules written on them, flash cards to help memorize the rules)

2. Computation

- a. Addition and subtraction
 - i. Basic facts (flash cards, relate similar facts, skip counting, memory games)
 - ii. Whole numbers (grade level specific, i.e. regrouping, etc.) (base ten blocks, place value chart, use graph paper or sideways notebook paper to line up numbers, use bundles of sticks to show regrouping and carrying)
 - iii. Decimals (base ten blocks, use graph paper or sideways notebook paper to line up numbers, use money to explain the place value in the problem)
 - iv. Fractions (fraction bars, fold and color paper to show fractions to be added or subtracted, [dice and card games](#))
- b. Multiplication and division
 - i. Basic facts (flash cards, relate similar facts, draw and color arrays to show what multiplication looks like, skip counting, memory games, card games)
 - ii. Whole numbers (grade level specific, i.e. regrouping, etc.) (base ten blocks, use graph paper or sideways notebook paper to line up numbers, role play what multiplying and dividing looks like, mnemonic devices)
 - iii. Decimals (base ten blocks, use graph paper or sideways notebook paper to line up numbers, role play what multiplying and dividing looks like)
 - iv. Fractions (color on 10 by 10 grids on graph paper to show what multiplying looks like, divide on rulers or number lines to show what dividing by fractions looks like)

3. Measurement (for Area, Perimeter, and Volume, see Geometry)

- a. Customary (have hands- on/samples of each measurement, ruler practice, give a conversion chart, role play big to small using arm movements to show multiplication, role play small to big using arm movements to show division)
- b. Metric (have hands- on/samples of each measurement, ruler practice, give a conversion chart, role play big to small using arm movements to show multiplication, role play small to big using arm movements to show division)
- c. Conversion (have hands- on/samples of each measurement, give a conversion chart, role play big to small using arm movements to show multiplication, role play small to big using arm movements to show division)
- d. Time (use clock manipulatives, clocks on paper)
- e. Money (use money manipulatives, paper money)

4. Geometry

- a. One and two-dimensional
 - i. Lines, segments, rays (draw them, role play using string and/or arms to show what each looks like, flash cards for vocabulary and for symbols)
 - ii. Angles (draw them, show them on geo boards, role play using string and/or arms to show what each looks like, use two different colored plastic plates cut with a radius in each and joined to show angle sizes, flash cards for vocabulary and for symbols, use protractors)
 - iii. Circles (draw them, show the circle parts on geo boards, role play using string to show what each part of a circle looks like, flash cards for vocabulary and symbols)
 - iv. Polygons (draw them, show them on geo boards, role play using string to show what each looks like, flash cards for vocabulary)
- b. Three-dimensional (draw them, use 3-D manipulatives, flash cards for vocabulary, make shapes with rolled up paper or colored straws or marshmallows and toothpicks for edges, fold nets)
- c. Coordinate graphing (place gridlines on board or SmartBoard and plot and label points, make a picture when plotting points, when plotting points the coordinates go in alphabetical order with x being first and y being last, “y to the sky”, “crawl before you walk”)
- d. Area, perimeter, volume (use shapes on graph paper, use tiles on floor to calculate perimeter and area, use cubes for volume, the word “rim” is inside the word “perimeter”)
- e. Symmetry (fold shape on paper to show symmetry, draw half of a figure on folded paper for partner to draw other half – can use graph paper, make shapes on geo boards and show the line of symmetry with the rubber band, place Mira on line of symmetry)

5. Algebra

- a. Patterns (skip counting, pattern blocks, tiles)
- b. Missing numbers/equations (role play and act out having the class decide what the missing number should be, use Hands On Algebra system, use balance scales to show how equations work, fact families)
- c. Algebraic expressions (role play and act out having the class see that each time the variable has a different value the outcome changes, use an in/out chart)

6. Data Analysis & Probability

- a. Mean, median, mode, range (give a chart with each term's basic directions and examples, use calculator)
- b. Graphs (create graphs on graph paper, read and interpret graphs)
- c. Probability (act out the process using dice, coins, colored cubes, numbered cards, spinners, and so on)

7. Problem Solving (have a chart listing problem-solving strategies, role play and act out the story problem, draw a diagram of the problem, show more than one way to solve the problem if you can)