

ELEMENTARY MATH PROJECT
Grade 3

Year at a Glance

The following overview of the year is a suggested plan for grade 3 mathematics taking into consideration introducing new concepts in the first half of the year so there is time for spacing learning experiences over the year as well as balancing each term with number concepts and computational fluency alongside other areas of math.

Term One Mathematics Learning Standards
Number concepts to 1000 (ways to make 1000, building understanding of place value with hundreds, tens and ones, counting by 10s, 50s and 100s from different starting points)
Addition and Subtraction Facts to 20 (review and practice of strategies including counting on, making and bridging 10, decomposing, doubles and related doubles, adding on to find the difference, through number talks, games and other practice tasks)
Addition and Subtraction to 1000 (review adding and subtracting two-digit numbers, begin strategies and practice to add and subtract two and one-digit numbers to and from three-digit numbers)
Introduction to multiplication and division concepts (meaning of symbols, groups, arrays, repeated addition, repeated subtraction, types of division contexts – partitive and quotitive, representing process of multiplication and division with concrete materials)
Communicating and Representing curricular competencies
Bar graphs and pictographs using one-to-one correspondence (collect data and represent in charts and tables, graphing data, interpreting data)
Likelihood of simulated events (using comparative language such as more, less or equally likely and develop an understanding of chance while flipping coins, rolling dice and using spinners)
Term Two Mathematics Learning Standards
Number concepts to 1000 (decomposition of quantities to 1000, counting fluently in different ways to 1000 and connecting skip counting to multiplication, writing and reading numbers to 1000)

Addition and Subtraction Facts to 20 (ongoing practice of strategies such as decomposing, using known facts, connection between addition & subtraction, regular fluency practice through number talks & games)

Addition and Subtraction to 1000 (operations using three-digit numbers with base ten blocks, open number line; decomposing and compensating strategies; number talks, problem-solving)

Multiplication and division concepts (practice representing questions with concrete, pictorial and symbolic notation, using groups and arrays, solving story/word problems)

Introduction to fraction concepts (what is a fraction, equal shares, parts and wholes, concrete, pictorial and symbolic representations, meaning of numerator and denominator)

Reasoning and Analyzing and Understanding and Solving curricular competencies

Change in quantity using symbolic representation (unknown in equations to visualize such as $8 + n = 12$)

Introduction to concepts of time (days in week, weeks in year, hours in a day, minutes in a hour, seasons, etc)

Construction of 3D shapes (use paper and stick or draw skeletons/frameworks to build cubes, prisms, pyramids, cylinders, focusing on quantity and shape of the attributes of faces, edges and vertices)

Increasing and decreasing patterns (represent patterns with concrete materials, pictures, words and symbols, identify pattern unit/rule, connect number patterns to operations)

Term Three Mathematics Learning Standards

Number concepts to 1000 (ways to make 1000, comparing and ordering numbers to 1000)

Addition and Subtraction Facts to 20 (continued fluency practice, monitoring and goal setting, most students will be fluent with addition facts to 20 by end of grade 3)

Addition and Subtraction to 1000 (operations using three-digit numbers with symbolic notation; decomposing and compensating strategies; number talks, problem-solving)

Multiplication and division concepts (increasing and decreasing number patterns connecting to multiplication, using groups and arrays, solving story/word problems)

Fraction concepts (represent fractions concretely, pictorially and symbolically using area/region, set and linear models)

Connecting and Reflecting curricular competencies

Measurement with standard metric units (linear, mass, capacity; use mm, cm and m tools to measure linear attributes, ml and l to measure capacity/volume and g and kg to measure mass/weight; record measurements using a quantity and a standard unit)

Financial literacy – counting coin and bill combinations to \$100 and earning and payment (counting mixed coin and bill collections; math stories and problems involving calculations about earning and payment)