

TIPS4Math Grades 1 to 3 Overview

Grade 1	Grade 2	Grade 3
<p>Sort and Classify Objects Using One Attribute (4+ days)</p> <p>1m17 Estimate the number of objects in a set, and check by counting 1m66 Create a set in which the number of objects is greater than, less than, or equal to the number of objects in a given set 1m72 Demonstrate an ability to organize objects into categories by sorting and classifying objects using one attribute, and by describing informal sorting experiences</p> <p>Number Sense and Numeration Overall: 1m8 Patterning and Algebra Overall: 1m59 Data Management Overall: 1m69</p>	<p>Sort and Classify Objects Using Two Attributes (4+ days)</p> <p>2m76 Demonstrate an ability to organize objects into categories, by sorting and classifying objects using two attributes simultaneously</p> <p>Data Management Overall: 2m73</p>	<p>Sort and Classify Objects Using Two or More Attributes (4+ days)</p> <p>3m78 Demonstrate an ability to organize objects into categories, by sorting and classifying objects using two or more attributes simultaneously</p> <p>Data Management Overall: 3m75</p>
<p>Count Forward to 50 and Backwards from 20 (8+ days)</p> <p>1m13 Demonstrate, using concrete materials, the concept of conservation of number 1m20 Demonstrate, using concrete materials, the concept of one-to-one correspondence between number and objects when counting 1m21 Count forward by 1s, 2s, 5s, and 10s to [50] 100, using a variety of tools and strategies 1m22 Count backwards by 1s from 20 and any number less than 20, with and without the use of concrete materials and number lines</p> <p>Number Sense and Numeration Overalls: 1m8, 1m9</p>	<p>Count Forward to 100 and Backwards from 50 (8+ days)</p> <p>2m19 Count forward by 1s, 2s, 5s, 10s, and 25s to [100] 200, using number lines and hundreds charts, starting from multiples of 1, 2, 5, and 10 2m20 Count backwards by 1s from 50 and any number less than 50, and count backwards by 10s from 100 and any number less than 100, using number lines and hundreds charts</p> <p>Number Sense and Numeration Overall: 2m9</p>	<p>Count Forward to 200 and Backwards from 50 and 500 (8+ days)</p> <p>3m21 Count forward by 1s, 2s, 5s, 10s to [200] 1000 from various starting points, and by 25s to [200] 1000 starting from multiples of 25, using a variety of tools and strategies 3m22 Count backwards by 2s, 5s, and 10s from [50] 100 using multiples of 2, 5, and 10 as starting points, and count backwards by 100s from [500] 1000 and any number less than [500] 1000, using a variety of tools and strategies</p> <p>Number Sense and Numeration Overall: 3m9</p>
<p>Linear Measurement Involving Numbers to 50 – Non-Standard Units (5+ days)</p> <p>1m20 Demonstrate, using concrete materials, the concept of one-to-one correspondence between number and objects when counting 1m30 Demonstrate an understanding of the use of non-standard units of the same size 1m31 Estimate, measure (i.e., by placing non-standard units repeatedly, without overlaps or gaps), and record lengths, heights, and distances 1m32 Construct, using a variety of strategies, tools for measuring lengths, heights, and distances in non-standard units 1m39 Compare two or three objects using measurable attributes [linear], and describe the objects using relative terms 1m40 Compare and order objects by their linear measurements, using the same non-standard unit 1m42 Describe, through investigation using concrete materials, the relationship between the size of a unit and the number of units needed to measure length</p> <p>Number Sense and Numeration Overall: 1m9 Measurement Overalls: 1m28, 1m29</p>	<p>Linear Measurement Involving Numbers to 100 – Non-Standard Units (3+ days)</p> <p>2m19 Count forward by 1's, 2's, 5's, 10's, and 25's to [100] 200, using number lines and hundreds charts, starting from multiples of 1, 2, 5, and 10 2m31 Estimate and measure length, height, and distance, using standard units (i.e., centimetre, metre) and non-standard units 2m32 Record and represent [non-standard unit] measurements of length, height, and distance in a variety of ways 2m33 Select and justify the choice of a standard unit (i.e., centimetre or metre) or a nonstandard unit to measure length</p> <p>Number Sense and Numeration Overall: 2m9 Measurement Overall: 2m28</p>	<p>Linear Measurement Involving Numbers to 200 – Standard Units (6+ days)</p> <p>3m16 Represent and explain, using concrete materials, the relationship among the numbers 1, 10, 100, and 1000 3m20 Solve problems that arise from real-life situations and that relate to the magnitude of whole numbers up to [200] 1000 3m23 Solve problems involving the addition and subtraction of two-digit numbers, using a variety of mental strategies 3m31 Estimate, measure, and record length, height, and distance, using standard units (i.e., centimetre, metre, kilometre) 3m32 Draw items using a ruler, given specific lengths in centimetres 3m41 Compare standard units of length (i.e., centimetre, metre, kilometre), and select and justify the most appropriate standard unit to measure length 3m42 Compare and order objects on the basis of linear measurements in centimetres and/or metres, in problem-solving contexts</p> <p>Number Sense and Numeration Overalls: 3m8, 3m10 Measurement Overalls: 3m29, 3m30</p>

TIPS4Math Grades 1 to 3 Overview

Grade 1	Grade 2	Grade 3
<p>Equality Involving Numbers to 10 (7+ days)</p> <p>1m11 Represent, compare, and order whole numbers to [10] 50, using a variety of tools and contexts</p> <p>1m14 Relate numbers to the anchors of 5 and 10</p> <p>1m18 Compose and decompose numbers up to [10] 20 in a variety of ways, using concrete materials</p> <p>1m67 Demonstrate examples of equality, through investigation, using a “balance” model</p> <p>1m68 Determine, through investigation using a “balance” model and whole numbers to 10, the number of identical objects that must be added or subtracted to establish equality</p> <p>Number Sense and Numeration Overall: 1m8 Patterning and Algebra Overall: 1m59</p>	<p>Addition, Subtraction and Equality Involving Numbers to 20 (10+ days)</p> <p>2m11 Represent, compare, and order whole numbers to [20]100, including money amounts to 100¢, using a variety of tools</p> <p>2m13 Compose and decompose two-digit numbers [up to 18] in a variety of ways, using concrete materials</p> <p>2m23 Describe relationships between quantities by using whole –number addition and subtraction</p> <p>2m68 Demonstrate an understanding of the concept of equality by partitioning whole numbers to 18 in a variety of ways, using concrete materials</p> <p>2m69 Represent, through investigation with concrete materials and pictures, two number expressions that are equal, using the equal sign</p> <p>2m70 Determine the missing number in equations involving addition and subtraction to 18, using a variety of tools and strategies</p> <p>2m71 Identify, through investigation, and use the commutative property of addition</p> <p>2m72 Identify, through investigation, the properties of zero in addition and subtraction (i.e., when you add zero to a number, the number does not change; when you subtract zero from a number, the number does not change)</p> <p>Number Sense and Numeration Overall: 2m8, 2m10 Patterning and Algebra Overall: 2m60</p>	<p>Addition, Subtraction and Equality Involving Numbers to 100 (11+ days)</p> <p>3m11 Represent, compare, and order whole numbers to [100] 1000, using a variety of tools</p> <p>3m14 Compose and decompose three-digit numbers [up to 100] into hundreds, tens, and ones in a variety of ways, using concrete materials</p> <p>3m71 Determine, through investigation, the inverse relationship between addition and subtraction</p> <p>3m72 Determine, the missing number in equations involving addition and subtraction of one-and two-digit numbers, using a variety of tools and strategies</p> <p>3m74 Identify, through investigation, and use the associative property of addition to facilitate computation with whole numbers</p> <p>Number Sense and Numeration Overall: 3m8 Patterning and Algebra Overall: 3m64</p>
<p>Compose/Decompose and Represent Numbers to 20 (9+ days)</p> <p>1m11 Represent, compare, and order whole numbers to [20] 50, using a variety of tools and contexts</p> <p>1m14 Relate numbers to the anchors of 5 and 10</p> <p>1m18 Compose and decompose numbers up to 20 in a variety of ways, using concrete materials</p> <p>1m20 Demonstrate, using concrete materials, the concept of one-to-one correspondence between number and objects when counting</p> <p>1m21 Count forward by 1s, 2s, 5s, and 10s to [20] 100, using a variety of tools and strategies</p> <p>Number Sense and Numeration Overall: 1m8, 1m9</p>	<p>Compose/Decompose, Represent, Compare and Order Numbers to 50 (14+ days)</p> <p>2m11 Represent, compare, and order whole numbers to [50]100, including money amounts to 100¢, using a variety of tools</p> <p>2m13 Compose and decompose two-digit numbers [up to 50] in a variety of ways, using concrete materials</p> <p>2m14 Determine, using concrete materials, the ten that is nearest to a given two-digit number [up to 50], and justify the answer</p> <p>2m18 Estimate, count, and represent (using the ¢ symbol) the value of a collection of coins with a maximum value of [50¢] one dollar</p> <p>2m21 Locate whole numbers to [50]100 on a number line and on a partial number line</p> <p>Number Sense and Numeration Overall: 2m8, 2m9</p>	<p>Compose/Decompose, Represent, Compare and Order Numbers to 100 (13+ days)</p> <p>3m11 Represent, compare, and order whole numbers to [100] 1000, using a variety of tools</p> <p>3m13 Identify and represent the value of a digit in a number according to its position in the number</p> <p>3m14 Compose and decompose three-digit numbers [up to 100] into hundreds, tens, and ones in a variety of ways, using concrete materials</p> <p>3m15 Round two-digit numbers to the nearest ten, in problems arising from real-life situations</p> <p>Number Sense and Numeration Overall: 3m8</p>

Grade 1	Grade 2	Grade 3
<p>Addition and Subtraction Problems with Sums to 10 (7+ days)</p> <p>1m11 Represent, compare, and order whole numbers to [10] 50, using a variety of tools and contexts</p> <p>1m12 Read and print in words whole numbers to ten, using meaningful contexts</p> <p>1m18 Compose and decompose numbers up to [10] 20 in a variety of ways, using concrete materials</p> <p>1m25 Solve a variety of problems involving the addition and subtraction of whole numbers to [10] 20, using concrete materials and drawings</p> <p>1m26 Solving problems involving the addition and subtraction of single-digit whole numbers [sum up to 10] using a variety of mental strategies</p> <p>Number Sense and Numeration Overalls: 1m8, 1m10</p>	<p>Addition and Subtraction Problems with Sums to 20 (7+ days)</p> <p>2m11 Represent, compare, and order whole numbers to [20] 100, using a variety of tools</p> <p>2m12 Read and print in words whole numbers to twenty, using meaningful contexts</p> <p>2m13 Compose and decompose two-digit numbers [up to 20] in a variety of ways, using concrete materials</p> <p>2m14 Determine, using concrete materials, the ten that is nearest to a given two-digit number [up to 20], and justify the answer</p> <p>2m22 Solve problems involving the addition and subtraction of whole numbers to 18, using a variety of mental strategies</p> <p>2m26 Solve problems involving the addition and subtraction of two-digit numbers [up to 20] with and without regrouping, using concrete materials, student-generated algorithms, and standard algorithms</p> <p>Number Sense and Numeration Overalls: 2m8, 2m10</p>	<p>Addition and Subtraction Problems with Sums to 100 (7+ days)</p> <p>3m11 Represent, compare, and order whole numbers to [100] 1000, using a variety of tools</p> <p>3m12 Read and print in words whole numbers to one hundred, using meaningful contexts</p> <p>3m14 Compose and decompose [two-digit] three-digit numbers into hundreds, tens, and ones in a variety of ways, using concrete materials</p> <p>3m15 Round two-digit numbers to the nearest ten, in problems arising from real-life situations</p> <p>3m23 Solve problems involving the addition and subtraction of two-digit numbers, using a variety of mental strategies</p> <p>3m24 Add and subtract [two] three-digit numbers, using concrete materials, student-generated algorithms, and standard algorithms</p> <p>3m25 Use estimation when solving problems involving addition and subtraction, to help judge the reasonableness of a solution</p> <p>Number Sense and Numeration Overalls: 3m8, 3m10</p>
<p>Compare and Order Numbers to 20 (6+ days)</p> <p>1m11 Represent, compare, and order whole numbers to [20] 50, using a variety of tools and contexts</p> <p>1m14 Relate numbers to anchors of 5 and 10</p> <p>1m17 Estimate the number of objects in a set, and check by counting</p> <p>1m18 Compose and decompose numbers up to 20 in a variety of ways, using concrete materials</p> <p>1m20 Demonstrate, using concrete materials, the concept of one-to-one correspondence between number and objects when counting</p> <p>1m21 Count forward by 1s, 2s, 5s, and 10s to [20] 100, using a variety of tools and strategies</p> <p>Number Sense and Numeration Overalls: 1m8, 1m9</p>	<p>Multiplication and Division with Products to 20 (8+ days)</p> <p>2m24 Represent, and explain, through investigation using concrete materials and drawings, multiplication as the combining of equal groups</p> <p>2m25 Represent, and explain, through investigation using concrete materials and drawings, division as the sharing of a quantity equally</p> <p>Number Sense and Numeration Overall: 2m10</p>	<p>Multiplication up to 7 x 7 and Division to 49 ÷ 7 (14+ days)</p> <p>3m28 Multiply to 7 x 7 and divide to 49 ÷ 7, using a variety of mental strategies</p> <p>3m73 Identify, through investigation, the properties of zero and one in multiplication (i.e., any number multiplied by zero equals zero; any number multiplied by 1 equals the original number)</p> <p>Number Sense and Numeration Overall: 3m10 Patterning and Algebra Overall: 3m64</p>

Grade 1	Grade 2	Grade 3
<p>Geometric Properties and Composition of 2D Shapes (8+ days)</p> <p>1m46 Identify and describe common two-dimensional shapes and sort and classify them by their attributes, using concrete materials and pictorial representations</p> <p>1m50 Locate shapes in the environment that have symmetry, and describe the symmetry</p> <p>1m51 Compose patterns, pictures, and designs, using common two-dimensional shapes</p> <p>1m52 Identify and describe shapes within other shapes</p> <p>1m54 Cover outline puzzles with two-dimensional shapes</p> <p>Geometry and Spatial Sense Overalls: 1m43, 1m44</p>	<p>Geometric Properties and Composition of 2D Shapes (8+ days)</p> <p>2m48 Identify and describe various polygons (i.e., triangles, quadrilaterals, pentagons, hexagons, heptagons, octagons) and sort and classify them by their geometric properties (i.e., number of sides or number of vertices), using concrete materials and pictorial representations</p> <p>2m51 Locate the line of symmetry in a two-dimensional shape</p> <p>2m52 Compose and describe pictures, designs and patterns by combining two-dimensional shapes</p> <p>2m53 Compose and decompose two-dimensional shapes</p> <p>2m54 Cover an outline puzzle with two-dimensional shapes in more than one way</p> <p>Geometry and Spatial Sense Overalls: 2m44, 2m45</p>	<p>Angles, Geometric Properties and Composition of 2D Shapes (7+ days)</p> <p>3m50 Use a reference tool to identify right angles and to describe angles as greater than, equal to, or less than a right angle</p> <p>3m51 Identify and compare various polygons (i.e., triangles, quadrilaterals, pentagons, hexagons, heptagons, octagons) and sort them by their geometric properties (i.e., number of sides; side lengths; number of interior angles; number of right angles)</p> <p>3m52 Compare various angles, using concrete materials and pictorial representations, and describe angles as bigger than, smaller than, or about the same as other angles</p> <p>3m55 Solve problems requiring the greatest or least number of two-dimensional shapes needed to compose a larger shape in a variety of ways</p> <p>3m56 Explain the relationships between different types of quadrilaterals</p> <p>3m59 Identify congruent two-dimensional shapes by manipulating and matching concrete materials</p> <p>Geometry and Spatial Sense Overall: 3m47, 3m48</p>
<p>Area – Non-Standard Units (5+ days)</p> <p>1m33 Estimate, measure (i.e., by minimizing overlaps and gaps), and describe area, through investigation using non-standard units</p> <p>1m39 Compare two or three objects using measurable attributes [area], and describe the objects using relative terms</p> <p>Measurement Overalls: 1m28, 1m29</p>	<p>Area and Perimeter – Non-Standard Units (6+ days)</p> <p>2m34 Estimate, measure, and record the distance around objects, using non-standard units</p> <p>2m35 Estimate, measure, and record area, through investigation using a variety of non-standard units</p> <p>2m41 Describe, through investigation, the relationship between the size of a unit of area and the number of units needed to cover a surface</p> <p>Measurement Overalls: 2m28, 2m29</p>	<p>Area – Non-Standard and Square Units, Perimeter – Standard Units (9+ days)</p> <p>3m36 Estimate, measure, and record the perimeter of two-dimensional shapes, through investigation using standard units</p> <p>3m37 Estimate, measure (i.e., using centimetre grid paper, arrays), and record area</p> <p>3m43 Compare and order various shapes by area, using congruent shapes and grid paper for measuring</p> <p>3m44 Describe, through investigation using grid paper, the relationship between the size of a unit of area and the number of units needed to cover a surface</p> <p>Measurement Overalls: 3m29, 3m30</p>

TIPS4Math Grades 1 to 3 Overview

Grade 1	Grade 2	Grade 3
<p>Collect, Organize and Read Categorical Data (5+ days)</p> <p>1m21 Count forward by 1s, 2s, 5s, and 10s to [20] 100, using a variety of tools and strategies</p> <p>1m72 Demonstrate an ability to organize objects into categories by sorting and classifying objects using one attribute, and by describing informal sorting experiences</p> <p>1m73 Collect and organize primary data that is categorical (i.e., that can be organized into categories based on qualities such as colour or hobby), and display the data using one-to-one correspondence, prepared templates of concrete graphs and pictographs (with titles and labels), and a variety of recording methods</p> <p>1m74 Read primary data presented in concrete graphs and pictographs, and describe the data using comparative language</p> <p>1m75 Pose and answer questions about collected data</p> <p>Number Sense and Numeration Overall: 1m9 Data Management Overalls: 1m69, 1m70</p>	<p>Collect, Organize and Read Categorical and Discrete Data (7+ days)</p> <p>2m77 Gather data to answer a question, using a simple survey with a limited number of responses</p> <p>2m78 Collect and organize primary data that is categorical or discrete (i.e., that can be counted, such as the number of students absent), and display the data using one-to-one correspondence in concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers, with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed</p> <p>2m79 Read primary data presented in concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers, and describe the data using mathematical language</p> <p>2m80 Pose and answer questions about class-generated data in concrete graphs, pictographs, line plots, simple bar graphs, and tally charts</p> <p>2m81 Distinguish between numbers that represent data values and numbers that represent frequency of an event</p> <p>2m82 Demonstrate an understanding of data displayed in a graph, by comparing different parts of the data and by making statements about the data as a whole</p> <p>Data Management Overalls: 2m73, 2m74</p>	<p>Collect, Organize and Interpret Categorical and Discrete Data (6+ days)</p> <p>3m79 Collect data by conducting a simple survey about themselves, their environment, issues in their school or community, or content from another subject</p> <p>3m80 Collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence</p> <p>3m81 Read primary data presented in charts, tables, and graphs (including vertical and horizontal bar graphs), then describe the data using comparative language, and describe the shape of the data</p> <p>3m82 Interpret and draw conclusions from data presented in charts, tables, and graphs</p> <p>3m83 Demonstrate an understanding of mode, and identify the mode in a set of data</p> <p>Data Management Overalls: 3m75, 3m76</p>
<p>Fractions – Equal Partitioning into Halves and Fourths (4+ days)</p> <p>1m19 Divide whole objects into parts and identify and describe, through investigation, equal-sized parts of the whole, using fractional names (e.g., halves, fourths or quarters)</p> <p>Number Sense and Numeration Overall: 1m8</p>	<p>Represent Fractions (4+ days)</p> <p>2m15 Determine, through investigation using concrete materials, the relationship between the number of fractional parts of a whole and the [name of each part] size of the fractional parts</p> <p>2m16 Regroup fractional parts into wholes, using concrete materials</p> <p>Number Sense and Numeration Overall: 2m8</p>	<p>Represent Fractions (4+ days)</p> <p>3m17 Divide whole objects and sets of objects into equal parts, and identify the parts using fractional names, without using numbers in standard fractional notation</p> <p>Number Sense and Numeration Overall: 3m8</p>

Grade 1	Grade 2	Grade 3
<p>Location and Symmetry (4+ days)</p> <p>1m55 Describe the relative locations of objects or people using positional language</p> <p>1m56 Describe the relative locations of objects on concrete maps created in the classroom</p> <p>1m57 Create symmetrical designs and pictures, using concrete materials, and describe the relative location of the parts</p> <p>Geometry and Spatial Sense Overall: 1m45</p>	<p>Location, Movement and Symmetry (4+ days)</p> <p>2m51 Locate the line of symmetry in a two-dimensional shape</p> <p>2m56 Describe the relative locations and the movements of objects on a map</p> <p>2m57 Draw simple maps of familiar settings, and describe the relative locations of objects on the maps</p> <p>2m58 Create and describe symmetrical designs using a variety of tools</p> <p>Geometry and Spatial Sense Overalls: 2m44, 2m46</p>	<p>Location, Movement and Symmetry (4+ days)</p> <p>3m59 Identify congruent two-dimensional shapes by manipulating and matching concrete materials</p> <p>3m60 Describe movement from one location to another using a grid map</p> <p>3m61 Identify flips, slides, and turns, through investigation using concrete materials and physical motion, and name flips, slides, and turns as reflections, translations, and rotations</p> <p>3m62 Complete and describe designs and pictures of images that have a vertical, horizontal, or diagonal line of symmetry</p> <p>Geometry and Spatial Sense Overalls: 3m48, 3m49</p>
<p>Patterns – Repeating (5+ days)</p> <p>1m60 Identify, describe, and extend, through investigation, geometric repeating patterns involving one attribute</p> <p>1m61 Identify and extend, through investigation, numeric repeating patterns</p> <p>1m63 Identify a rule for a repeating pattern</p> <p>1m64 Create a repeating pattern involving one attribute</p> <p>1m65 Represent a given repeating pattern in a variety of ways</p> <p>Patterning and Algebra Overall: 1m58</p>	<p>Patterns - Repeating, Growing and Shrinking (6+ days)</p> <p>2m61 Identify and describe, through investigation growing patterns and shrinking patterns generated by the repeated addition or subtraction of 1s, 2s, 5s, 10s, and 25s on a number line and on a hundreds chart</p> <p>2m62 Identify, describe, and create, through investigation, growing patterns and shrinking patterns involving addition and subtraction, with and without the use of calculators</p> <p>2m63 Identify repeating, growing, and shrinking patterns found in real-life contexts</p> <p>2m64 Represent a given growing or shrinking pattern in a variety of ways</p> <p>2m65 Create growing or shrinking patterns</p> <p>2m66 Create a repeating pattern by combining two attributes</p> <p>2m67 Demonstrate, through investigation, an understanding that a pattern results from repeating an operation or making a repeated change to an attribute</p> <p>Patterning and Algebra Overall: 2m59</p>	<p>Patterns – Geometric and Numeric (5+ days)</p> <p>3m65 Identify, extend, and create a repeating pattern involving two attributes, using a variety of tools</p> <p>3m66 Identify and describe, through investigation, number patterns involving addition, subtraction, and multiplication, represented on a number line, on a calendar, and on a hundreds chart</p> <p>3m67 Extend repeating, growing, and shrinking number patterns</p> <p>3m68 Create a number pattern involving addition or subtraction, given a pattern represented on a number line or a pattern rule expressed in words</p> <p>3m69 Represent simple geometric patterns using a number sequence, a number line, or a bar graph</p> <p>3m70 Demonstrate, through investigation, an understanding that a pattern results from repeating an action, repeating an operation, using a transformation, or making some other repeated change to an attribute</p> <p>Patterning and Algebra Overall: 3m63</p>
<p>Count Forward to 100 and Backwards from 20 (8+ days)</p> <p>1m13 Demonstrate, using concrete materials, the concept of conservation of number</p> <p>1m20 Demonstrate, using concrete materials, the concept of one-to-one correspondence between number and objects when counting</p> <p>1m21 Count forward by 1s, 2s, 5s, and 10s to 100, using a variety of tools and strategies</p> <p>1m23 Count backwards from 20 by 2s and 5s, using a variety of tools</p> <p>1m62 Describe numeric repeating patterns in a hundreds chart</p> <p>Number Sense and Numeration Overalls: 1m8, 1m9</p> <p>Patterning and Algebra Overall: 1m58</p>	<p>Count Forward to 200 and Backwards from 50 and 100 (7+ days)</p> <p>2m19 Count forward by 1s, 2s, 5s, 10s, and 25s to 200, using number lines and hundreds charts, starting from multiples of 1, 2, 5, and 10</p> <p>2m20 Count backwards by 1s from 50 and any number less than 50, and count backwards by 10s from 100 and any number less than 100, using number lines and hundreds charts</p> <p>Number Sense and Numeration Overall: 2m9</p>	<p>Count Forward to 1000 and Backwards from 100 and 1000 (7+ days)</p> <p>3m21 Count forward by 1s, 2s, 5s, 10s, and 100s to 1000 from various starting points, and by 25s to 1000 starting from multiples of 25, using a variety of tools and strategies</p> <p>3m22 Count backwards by 2s, 5s, and 10s from 100 using multiples of 2, 5 and 10 as starting points, and count backwards by 100s from 1000 and any number less than 1000, using a variety of tools and strategies</p> <p>Number Sense and Numeration Overall: 3m9</p>

Grade 1	Grade 2	Grade 3
<p>3D Figures (5+ days)</p> <p>1m47 Trace and identify the two-dimensional faces of three-dimensional figures, using concrete models</p> <p>1m48 Identify and describe common three-dimensional figures and sort and classify them by their attributes, using concrete materials and pictorial representations</p> <p>1m49 Describe similarities and differences between an everyday object and a three-dimensional figure</p> <p>1m53 Build three-dimensional structures using concrete materials, and describe the two-dimensional shapes the structure contain</p> <p>Geometry and Spatial Sense Overalls: 1m43, 1m44</p>	<p>3D Figures (6+ days)</p> <p>2m47 Distinguish between the attributes of an object that are geometric properties and the attributes that are not geometric properties, using a variety of tools</p> <p>2m49 Identify and describe various three-dimensional figures (i.e., cubes, prisms, pyramids) and sort and classify them by their geometric properties (i.e., number and shape of faces), using concrete materials</p> <p>2m50 Create models and skeletons of prisms and pyramids, using concrete materials, and describe their geometric properties (i.e., number and shape of faces, number of edges)</p> <p>2m55 Build a structure using three-dimensional figures, and describe the two-dimensional shapes and three-dimensional figures in the structure</p> <p>Geometry and Spatial Sense Overalls: 2m44, 2m45</p>	<p>3D Figures (5+ days)</p> <p>3m53 Compare and sort prisms and pyramids by geometric properties (i.e., number and shape of faces, number of edges, number of vertices), using concrete materials</p> <p>3m54 Construct rectangular prisms, and describe geometric properties (i.e., number and shape of faces, number of edges, number of vertices) of the prisms</p> <p>3m57 Identify and describe the two-dimensional shapes that can be found in a three-dimensional figure</p> <p>3m58 Describe and name prisms and pyramids by the shape of their base</p> <p>Geometry and Spatial Sense Overall: 3m47, 3m48</p>
<p>Mass – Non-Standard Units (7+ days)</p> <p>1m34 Estimate, measure, and describe the capacity and/or mass of an object, through investigation using non-standard units</p> <p>1m39 Compare two or three objects using measurable attributes [mass], and describe the objects using relative terms</p> <p>1m67 Demonstrate examples of equality, through investigation, using a “balance” model</p> <p>Measurement Overalls: 1m28, 1m29 Patterning and Algebra Overall: 1m59</p>	<p>Mass – Non-Standard Units (5+ days)</p> <p>2m36 Estimate, measure, and record the capacity and/or mass of an object, using a variety of non-standard units</p> <p>2m42 Compare and order a collection of objects by mass and/or capacity, using non-standard units</p> <p>2m68 Demonstrate an understanding of the concept of equality by partitioning whole numbers to 18 in a variety of ways, using concrete materials</p> <p>Measurement Overalls: 2m28, 2m29 Patterning and Algebra Overall: 2m60</p>	<p>Mass – Standard Units (4+ days)</p> <p>3m17 Divide whole objects and sets of objects into equal parts, and identify the parts using fractional names</p> <p>3m38 Choose benchmarks for a kilogram and a litre to help them perform measurement tasks</p> <p>3m39 Estimate, measure, and record the mass of objects, using the standard unit of the kilogram or parts of a kilogram</p> <p>3m45 Compare and order a collection of objects, using standard units of mass (i.e., kilogram) and/or capacity (i.e., litre)</p> <p>Number Sense and Numeration Overall: 3m8 Measurement Overalls: 3m29, 3m30</p>
<p>Capacity – Non-Standard Units (6+ days)</p> <p>1m34 Estimate, measure, and describe the capacity and/or mass of an object, through investigation using non-standard units</p> <p>1m39 Compare two or three objects using measurable attributes [capacity], and describe the objects using relative terms</p> <p>Measurement Overalls: 1m28, 1m29</p>	<p>Capacity – Non-Standard Units (5+ days)</p> <p>2m36 Estimate, measure, and record the capacity and/or mass of an object, using a variety of non-standard units</p> <p>2m42 Compare and order a collection of objects by mass and/or capacity, using non-standard units</p> <p>Measurement Overalls: 2m28, 2m29</p>	<p>Capacity – Standard Units (4+ days)</p> <p>3m17 Divide whole objects and sets of objects into equal parts, and identify the parts using fractional names</p> <p>3m38 Choose benchmarks for a kilogram and a litre to help them perform measurement tasks</p> <p>3m40 Estimate, measure, and record the capacity of containers, using the standard unit of the litre or parts of a litre</p> <p>3m45 Compare and order a collection of objects, using standard units of mass (i.e., kilogram) and/or capacity (i.e., litre)</p> <p>Number Sense and Numeration Overall: 3m8 Measurement Overalls: 3m29, 3m30</p>

TIPS4Math Grades 1 to 3 Overview

Grade 1	Grade 2	Grade 3
<p>Represent Numbers to 50 (9+ days)</p> <p>1m11 Represent, compare, and order whole numbers to 50 using a variety of tools and contexts</p> <p>1m14 Relate numbers to anchors of 5 and 10</p> <p>1m15 Identify and describe various coins (i.e., penny, nickel, dime, quarter, \$1 coin, \$2 coin), using coin manipulatives or drawings, and state their value</p> <p>1m16 Represent money amounts to 20¢, through investigation using coin manipulatives</p> <p>1m18 Compose and decompose numbers up to 20 in a variety of ways, using concrete materials</p> <p>Number Sense and Numeration Overall: 1m8</p>	<p>Compose/Decompose, Represent, Compare and Order Numbers to 100 (14+ days)</p> <p>2m11 Represent, compare, and order whole numbers to 100, including money amounts to 100¢, using a variety of tools</p> <p>2m13 Compose and decompose two-digit numbers in a variety of ways, using concrete materials</p> <p>2m14 Determine, using concrete materials, the ten that is nearest to a given two-digit number, and justify the answer</p> <p>2m18 Estimate, count, and represent (using the ¢ symbol) the value of a collection of coins with a maximum value of one dollar</p> <p>2m21 Locate whole numbers to 100 on a number line and on a partial number line</p> <p>Number Sense and Numeration Overalls: 2m8, 2m9</p>	<p>Compose/Decompose, Represent, Compare and Order Numbers to 1000 (11+ days)</p> <p>3m11 Represent, compare, and order whole numbers to 1000, using a variety of tools</p> <p>3m13 Identify and represent the value of a digit in a number according to its position in the number</p> <p>3m14 Compose and decompose three-digit numbers into hundreds, tens, and ones in a variety of ways, using concrete materials</p> <p>3m16 Represent and explain, using concrete materials, the relationship among the numbers 1, 10, 100, and 1000,</p> <p>3m20 Solve problems that arise from real-life situations and that relate to the magnitude of whole numbers up to 1000</p> <p>Number Sense and Numeration Overall: 3m8</p>
<p>Addition and Subtraction Problems with Sums to 20 (7+ days)</p> <p>1m11 Represent, compare, and order whole numbers to [20] 50 using a variety of tools and contexts</p> <p>1m14 Relate numbers to anchors of 5 and 10</p> <p>1m18 Compose and decompose numbers to 20 in a variety of ways, using concrete materials</p> <p>1m25 Solve a variety of problems involving the addition and subtraction of whole numbers to 20, using concrete materials and drawings</p> <p>1m26 Solve problems involving the addition and subtraction of single-digit whole numbers, using a variety of mental strategies</p> <p>Number Sense and Numeration Overalls: 1m8, 1m10</p>	<p>Addition and Subtraction Problems with Sums to 100 (8+ days)</p> <p>2m11 Represent, compare, and order whole numbers to 100, including money amounts to 100¢, using a variety of tools</p> <p>2m13 Compose and decompose two-digit numbers in a variety of ways, using concrete materials</p> <p>2m14 Determine, using concrete materials, the ten that is nearest to a given two-digit number, and justify the answer</p> <p>2m22 Solve problems involving the addition and subtraction of whole numbers to 18, using a variety of mental strategies</p> <p>2m23 Describe relationships between quantities by using whole-number addition and subtraction</p> <p>2m26 Solve problems involving the addition and subtraction of two-digit numbers with and without regrouping, using concrete materials, student-generated algorithms, and standard algorithms</p> <p>2m69 Represent, through investigation with concrete materials and pictures, two number expressions that are equal, using the equal sign</p> <p>2m71 Identify, through investigation, and use the commutative property of addition</p> <p>Number Sense and Numeration Overalls: 2m8, 2m10</p> <p>Patterning and Algebra Overall: 2m60</p>	<p>Addition and Subtraction Problems with Sums to 1000 (8+ days)</p> <p>3m11 Represent, compare, and order whole numbers to 1000, using a variety of tools</p> <p>3m14 Compose and decompose three-digit numbers into hundreds, tens, and ones in a variety of ways, using concrete materials</p> <p>3m23 Solve problems involving the addition and subtraction of two-digit numbers, using a variety of mental strategies</p> <p>3m24 Add and subtract three-digit numbers, using concrete materials, student-generated algorithms, and standard algorithms</p> <p>3m25 Use estimation when solving problems involving addition and subtraction, to help judge the reasonableness of a solution</p> <p>3m74 Identify, through investigation, and use the associative property of addition to facilitate computation with whole numbers</p> <p>Number Sense and Numeration Overalls: 3m8, 3m10</p> <p>Patterning and Algebra Overall: 3m64</p>

Grade 1	Grade 2	Grade 3
<p>Compare and Order Numbers to 50 (6+ days)</p> <p>1m11 Represent, compare, and order whole numbers to 50, using a variety of tools and contexts</p> <p>1m14 Relate numbers to anchors of 5 and 10</p> <p>Number Sense and Numeration Overall: 1m8</p>	<p>Multiplication and Division with Products to 50 (8+ days)</p> <p>2m24 Represent, and explain, through investigation using concrete materials and drawings, multiplication as the combining of equal groups</p> <p>2m25 Represent, and explain, through investigation using concrete materials and drawings, division as the sharing of a quantity equally</p> <p>Number Sense and Numeration Overall: 2m10</p>	<p>Multiplication and Division Problems (6+ days)</p> <p>3m27 Relate multiplication of one-digit numbers and division by one-digit divisors to real-life situations, using a variety of tools and strategies</p> <p>3m28 Multiply to 7×7 and divide to $49 \div 7$, using a variety of mental strategies</p> <p>Number Sense and Numeration Overall 3m10</p>
<p>Linear Measurement Involving Numbers to 100 – Non-Standard Units and Metre (6+ days)</p> <p>1m20 Demonstrate, using concrete materials, the concept of one-to-one correspondence between number and objects when counting</p> <p>1m30 Demonstrate an understanding of the use of non-standard units of the same size</p> <p>1m31 Estimate, measure (i.e., by placing non-standard units repeatedly, without overlaps or gaps), and record lengths, heights, and distances</p> <p>1m32 Construct, using a variety of strategies, tools for measuring lengths, heights, and distances in non-standard units</p> <p>1m39 Compare two or three objects using measurable attributes [linear], and describe the objects using relative terms</p> <p>1m40 Compare and order objects by their linear measurements, using the same non-standard unit</p> <p>1m41 Use the metre as a benchmark for measuring length, and compare the metre with non-standard units</p> <p>1m42 Describe, through investigation using concrete materials, the relationship between the size of a unit and the number of units needed to measure length</p> <p>Number Sense and Numeration Overall: 1m9 Measurement Overalls: 1m28, 1m29</p>	<p>Linear Measurement Involving Numbers to 200 – Standard Units (4+ days)</p> <p>2m30 Choose benchmarks – in this case, personal referents – for a centimetre and a metre to help them perform measurement</p> <p>2m31 Estimate and measure length, height, and distance, using standard units (i.e., centimetre, metre) and non-standard units</p> <p>2m32 Record and represent measurements of length, height, and distance in a variety of ways</p> <p>2m33 Select and justify the choice of a standard unit (i.e., centimetre or metre) or a nonstandard unit to measure length</p> <p>Measurement Overall: 2m28</p>	<p>Linear Measurement Involving Numbers to 1000 – Standard Units (6+ days)</p> <p>3m11 Represent, compare, and order whole numbers to 1000, using a variety of tools</p> <p>3m16 Represent and explain, using concrete materials, the relationship among the numbers 1, 10, 100, and 1000</p> <p>3m20 Solve problems that arise from real-life situations and that relate to the magnitude of whole numbers up to 1000</p> <p>3m31 Estimate, measure, and record length, height, and distance, using standard units (i.e., centimetre, metre, kilometre)</p> <p>3m41 Compare standard units of length (i.e., centimetre, metre, kilometre), and select and justify the most appropriate standard unit to measure length</p> <p>Number Sense and Numeration Overall: 3m8 Measurement Overalls: 3m29, 3m30</p>
<p>Fractions – Equal Partitioning Including Thirds (4+ days)</p> <p>1m19 Divide whole objects into parts and identify and describe, through investigation, equal-sized parts of the whole, using fractional names [halves, thirds, fourths]</p> <p>Number Sense and Numeration Overall: 1m8</p>	<p>Represent and Compare Fractions (4+ days)</p> <p>2m15 Determine, through investigation using concrete materials, the relationship between the number of fractional parts of a whole and the size of the fractional parts (e.g., a paper plate divided into fourths has larger parts than a paper plate divided into eighths)</p> <p>2m16 Regroup fractional parts into wholes, using concrete materials</p> <p>2m17 Compare fractions using concrete materials, without using standard fractional notation</p> <p>Number Sense and Numeration Overall: 2m8</p>	<p>Represent Fractions Relative to Other Fractions (4+ days)</p> <p>3m17 Divide whole objects and sets of objects into equal parts, and identify the parts using fractional names, without using numbers in standard fractional notation</p> <p>Number Sense and Numeration Overall: 3m8</p>

TIPS4Math Grades 1 to 3 Overview

Grade 1	Grade 2	Grade 3
<p>Probability (2+ days)</p> <p>1m76 Describe the likelihood that everyday events will occur, using mathematical language (i.e., impossible, unlikely, less likely, more likely, certain)</p> <p>Data Management and Probability Overall: 1m71</p>	<p>Probability (3+ days)</p> <p>2m78 Collect and organize primary data that is categorical or discrete, and display the data using one-to-one correspondence in concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers</p> <p>2m79 Read primary data presented in concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers</p> <p>2m81 Distinguish between numbers that represent data value and numbers that represent the frequency of an even</p> <p>2m83 Describe probability as a measure of the likelihood that an event will occur, using mathematical language (i.e., impossible, unlikely, less likely, equally likely, more likely, certain)</p> <p>2m84 Describe the probability that an event will occur, through investigation with simple games and probability experiments and using mathematical language</p> <p>Data Management and Probability Overalls: 2m73, 2m74, 2m75</p>	<p>Probability (3+ days)</p> <p>3m80 Collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence</p> <p>3m81 Read primary data presented in charts, tables, and graphs (including vertical and horizontal bar graphs), then describe the data using comparative language, and describe the shape of the data</p> <p>3m82 Interpret and draw conclusions from data presented in charts, tables, and graphs</p> <p>3m84 Predict the frequency of an outcome in a simple probability experiment or game, then perform the experiment, and compare the results with the predictions, using mathematical language</p> <p>3m85 Demonstrate, through investigation, an understanding of fairness in a game and relate this to the occurrence of equally like outcomes</p> <p>Data Management and Probability Overalls: 3m75, 3m76, 3m77</p>
<p>Time (6+ days)</p> <p>1m24 Use ordinal numbers to thirty-first in meaningful contexts</p> <p>1m35 Estimate, measure, and describe the passage of time, through investigation using nonstandard units</p> <p>1m36 Read demonstration digital and analogue clocks, and use them to identify benchmark times and to tell and write time to the hour and half-hour in everyday settings</p> <p>1m37 Name the months of the year in order, and read the date on a calendar</p> <p>Number Sense and Numeration Overall: 1m9</p> <p>Measurement Overall: 1m28</p>	<p>Time (5+ days)</p> <p>2m11 Represent, compare, and order whole numbers to 100, including money amounts to 100¢, using a variety of tools</p> <p>2m26 Solve problems involving the addition and subtraction of two-digit numbers with and without regrouping, using concrete</p> <p>2m37 Tell and write time to the quarter-hour, using demonstration digital and analogue clocks</p> <p>2m38 Construct tools for measuring time intervals in non-standard units</p> <p>2m43 Determine, through investigation, the relationship between days and weeks and between months and years</p> <p>Number Sense and Numeration Overalls: 2m8, 2m10</p> <p>Measurement Overalls: 2m28, 2m29</p>	<p>Time (5+ days)</p> <p>3m11 Represent, compare, and order whole numbers to 1000, using a variety of tools</p> <p>3m20 Solve problems that arise from real-life situations and that relate to the magnitude of whole numbers up to 1000</p> <p>3m23 Solve problems involving the addition and subtraction of two-digit numbers, using a variety of mental strategies</p> <p>3m27 Relate multiplication of one-digit numbers and division by one-digit divisors to real-life situations, using a variety of tools and strategies</p> <p>3m33 Read time using analogue clocks, to the nearest five minutes, and using digital clocks, and represent time in 12-hour notation</p> <p>3m46 Solve problems involving the relationships between minutes and hours, hours and days, days and weeks, and weeks and years, using a variety of tools</p> <p>Number Sense and Numeration Overalls: 3m8, 3m10</p> <p>Measurement Overalls: 3m29, 3m30</p>

Grade 1	Grade 2	Grade 3
<p>Money (5+ days)</p> <p>1m15 Identify and describe various coins (i.e., penny, nickel, dime, quarter, \$1 coin, \$2 coin), using coin manipulatives or drawings, and state their value</p> <p>1m16 Represent money amounts to 20¢, through investigation using coin manipulatives</p> <p>1m18 Compose and decompose numbers to 20 in a variety of ways, using concrete materials</p> <p>1m25 Solve a variety of problems involving the addition and subtraction of whole numbers to [10]20, using concrete materials and drawings</p> <p>1m27 Add and subtract money amounts to 10¢, using coin manipulatives and drawings</p> <p>Number Sense and Numeration Overalls: 1m8, 1m10</p>	<p>Money (5+ days)</p> <p>2m11 Represent, compare, and order whole numbers to 100, including money amounts to 100¢, using a variety of tools</p> <p>2m13 Compose and decompose two-digit numbers in a variety of ways, using concrete materials</p> <p>2m18 Estimate, count, and represent (using the ¢ symbol) the value of a collection of coins with a maximum value of one dollar</p> <p>2m26 Solve problems involving the addition and subtraction of two-digit numbers [maximum sum of 100] with and without regrouping, using concrete materials, student-generated algorithms, and standard algorithms</p> <p>2m27 Add and subtract money amounts to 100¢, using a variety of tools and strategies</p> <p>Number Sense and Numeration Overalls: 2m8, 2m10</p>	<p>Money (5+ days)</p> <p>3m14 Compose and decompose three-digit numbers into hundreds, tens, and ones in a variety of ways, using concrete materials</p> <p>3m18 Represent and describe the relationships between coins and bills up to \$10</p> <p>3m19 Estimate, count, and represent (using the \$ symbol) the value of a collection of coins and bills with a maximum value of \$10</p> <p>3m26 Add and subtract money amounts, using a variety of tools, to make simulated purchases and change for amounts up to \$10</p> <p>Number Sense and Numeration Overalls: 3m8, 3m10</p>
<p>Temperature (4+ days)</p> <p>1m38 Relate temperature to experiences of the seasons</p> <p>1m39 Compare two or three objects using measurable attributes, and describe the objects using relative terms</p> <p>1m73 Collect and organize primary data that is categorical (i.e., that can be organized into categories based on qualities such as colour or hobby), and display the data using one-to-one correspondence, prepared templates of concrete graphs and pictographs (with titles and labels), and a variety of recording methods</p> <p>1m75 Pose and answer questions about collected data</p> <p>Measurement Overalls: 1m28, 1m29</p> <p>Data Management and Probability Overalls: 1m69, 1m70</p>	<p>Temperature (3+ days)</p> <p>2m39 Describe how changes in temperature affect everyday experiences</p> <p>2m40 Use a standard thermometer to determine whether temperature is rising or falling</p> <p>2m78 Collect and organize primary data that is categorical or discrete (i.e., that can be counted, such as the number of students absent), and display the data using one-to-one correspondence in concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers, with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed</p> <p>2m79 Read primary data presented in concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers, and describe the data using mathematical language</p> <p>2m80 Pose and answer questions about class-generated data in concrete graphs, pictographs, line plots, simple bar graphs, and tally charts</p> <p>Measurement Overall: 2m28</p> <p>Data Management and Probability Overalls: 2m73, 2m74</p>	<p>Temperature (4+ days)</p> <p>3m34 Estimate, read (i.e., using a thermometer), and record positive temperatures to the nearest degree Celsius (i.e., using a number line, using appropriate notation)</p> <p>3m35 Identify benchmarks for freezing, cold, cool, warm, hot, and boiling temperatures as they relate to water and for cold, cool, warm, and hot temperatures as they relate to air</p> <p>3m80 Collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence</p> <p>3m81 Read primary data presented in charts, tables, and graphs (including vertical and horizontal bar graphs), then describe the data using comparative language, and describe the shape of the data</p> <p>3m82 Interpret and draw conclusions from data presented in charts, tables, and graphs</p> <p>3m83 Demonstrate an understanding of mode, and identify the mode in a set of data</p> <p>Measurement Overall: 3m29</p> <p>Data Management and Probability Overalls: 3m75, 3m76</p>