

Math 2: Indicators of Proficiency (Curricular Content)



video
 teacher backgrounder
 learning activity
 printable
 strategies & routines
 device required

<https://nlpslearns.sd68.bc.ca/instruction-assessment/numeracy/numeracy-planning/#miop>

General Strategies, Routines and Activities

- [Which One Doesn't Belong](#)
- [Dot Card and Number Talks](#)
- [Number Talk Images](#)
- [Esti-Mysteries](#)
- [The Estimation Clipboard](#)
- [Cube Conversations](#)
- [Supporting Numeracy in Early Years](#)

Curricular Content	Indicators of Proficiency (The student can...)	Online Resources	Print Resources
Place value understanding to 100	Develop number sense Represent and decompose numbers to 100. Count in various ways (by 2s, 5s, 10s from different starting points, ascending and descending). Compare and order numbers to 100 (put numbers in sequence, be able to tell what is 2 more/less, 5 more/less, ten more/less than a number).	Number Concepts Grades 3 - 5 Composing & Decomposing #s to 100 Counting Collections - Meaningful Math Moments Counting Collections - Math 4 Love Maze Hundreds Chart 20 Days of Number Sense Subitizing Slides 2nd Grade Number Sense Routines Number concepts to 100 and 1 000 Games: • Pig • Fill The Stairs	<i>Messy Maths</i> (Robertson) Chapters 3 and 4 • Pocket Number Lines (pg.50) • The Number Sorting Factory (pg.65) <i>Place Value in Primary: Developing Number Sense in K through 2</i> (Fullerton) • Counting Collections to 100 (pg.129-131) • Representing Numbers to 100 (pg.136-140) • Comparing and Ordering Numbers to 100 (pg.144-148) <i>Sums & Differences: Teaching Addition and Subtraction in Grades 2 & 3</i> (Fullerton) • Modeling Bigger Numbers Using Place Value (pg.13-31) <i>Number Talks: Whole Number Computation</i> (Parrish) <i>Shuffling into Math</i> (Gr.1-2) • Quick Math Warm Ups (pg. 116) • Next in Line to 100 (pg.131-134) • Betweeners (pg.137-139) <i>How Many? A Different Kind of Counting Book</i> (Danielson)
Developing fluency with addition and subtraction facts to 20	Developing fluency (accuracy, efficiency and flexibility) through strategies for addition and subtraction facts to 20 - making and bridging 10, decomposing , using doubles	Building Fact Fluency - Lemonade (doubles)	<i>Shuffling Into Math</i> (Gr 1-2) • Subtraction Horse Race (pg.48-51) • Salute (pg.67-70)

	and near doubles, counting on, counting up to find the difference, thinking about adding to subtract).	Building Fact Fluency Making 10s Splat! Cuisenaire Rods for K/1/2 Flower Petal Puzzle 3 Act Tasks: Humpty Dumpty Bag-o-chips Games: Sum What Math Game Face Off How Many are Hiding Lucky 13 Lesson Ideas for Number Sense, Operations and Geometry	<i>Messy Maths</i> (Robertson) Chapters 3 and 4 - Subtraction (pg.75-76) - The Game of Nim (pg.76-77) - Add or Subtract (pg.74) <i>Super Source Tangrams - Grades K-2</i> - Rectangle Race (pg. 42- 45)
Addition and subtraction of two-digit numbers	Add and subtract two-digit numbers using decomposing, compensating, finding the difference and regrouping strategies and using tools such as ten frames, hundred charts and number lines.	3 Act Tasks: Bright Idea The Juggler	<i>Shuffling Into Math</i> - Addition Baseball (pg.91-95) - Subtraction Baseball (pg.96-102) - Regrouping Scramble (pg.103-104) <i>Sums and Differences: Teaching Addition & Subtraction in Grades 1 & 2</i> (Fullerton) - Teaching Addition with bigger numbers (pg. 1 - 81) - Teaching Subtraction (pg. 82 - 143) <i>Sums and Differences: Teaching Addition & Subtraction in Grades 1 & 2</i> (Fullerton) - Adding 10's and 1's to Bigger Numbers with No Bridging (pg.51-61) - Adding 10's and 1's to Bigger Numbers With Bridging (pg.62-80) - Subtracting 10's and 1's from Bigger Numbers with No Bridging (pg.109-119) - Subtracting 10's and 1's from Bigger Numbers with Bridging (pg.120-142)

Change in quantity to 20 and within 100, concretely, verbally and using symbols	Use materials such as blocks, ten frames or hundred charts to solve addition and subtraction equations with a missing part, for example $30 + ? = 55$. Verbally explain what they need to do to change 9 to 17 or 19 to 4. Record these changes using numbers and symbols such as $9 + n = 17$ or $19 - __ = 4$.	Balancing Equations Addition Math f... Games: Addition Scale Missing Addend Missing Subtrahend	<i>Place Value in Primary: Developing Number Sense in K through 2</i> (Fullerton) Estimating Numbers to 10: Missing Parts and Open Sentences (pg.149-153)
Complex repeating patterns	Describe, label, extend and create complex repeating patterns such as positional patterns and radiating patterns.	Mrs. Kim Reads Patterns Everywhere (RE... Mentoring Nature Connections: Patterns Investigating Patterns - K-3 Exploration	<i>Messy Maths</i> (Robertson) Chapter 8 - Musical Patterns Outside (pg.135) - Ball Bouncing Patterns (pg.136) - Creating Beautiful Temporary Patterns (pg.142)
Introduction to increasing patterns	Can create, extend and describe increasing patterns with concrete materials or with pictures.	patterns in nature 3 Act Task: Stage 5 Series Game: Number Grid Tic Tac Toe	<i>Messy Maths</i> (Robertson) Chapter 8 - Spirals (pg.140-141) - Exploring Patterns Through Environmental Art (pg.141) - Mazes and Labyrinths (pg.142) - Line Pattern Explorations (pg.143)
Pictorial representation of a concrete graph	Create and describe a concrete graph and represent the graph in a chart using pictures with word and number labels.	Favourite Season - Youcubed Data Talk Popular Fruits - Youcubed Data Talk Smelly Eraser Task Snack Time (Notice and Wonder) The One Minute Challenge	<i>Messy Maths</i> (Robertson) Chapter 11 - Grouping Children for a Walk or Other Activities (pg.186) - Creating Human Graphs When Lining Up (pg.188) - Collecting Data About their Natural World (pg.190-191)
Likelihood of familiar life events	Use comparative language like “certain or uncertain” or “equally likely” to describe an event.	Youcubed Data Talk: Sums of Two Dice Probability - Math, Grade 2, Unit 11, Vid... Probability! What is the chance of me g...	<i>Messy Maths</i> (Robertson) Chapter 11 Probability, chance and certainty (pg.200)
Multiple attributes of 2D shapes	Constructing, describing and comparing 2D shapes such as squares, rectangles, triangles and circles with a focus on more than one attribute (ie. quantity of and type of sides)	Investigating Shapes - K-3 Exploration Geometric Subitizing Instructions and Cards	<i>Messy Maths</i> (Robertson) Chapter 9 - Hiding Objects to be Discovered (pg.153) - Stick Shape Frames (pg.154-155) - Shape Hunting (pg.155) - Creating Shapes (pg.165)

		2D Shapes Learning Activities Information on Spatial Reasoning	- Two Dimensional Stick Pictures (pg.165) <i>Which One Doesn't Belong? Playing with Shapes</i> (Danielson) <i>Super Source Tangrams - Grades K-2</i> - Secret Builder (pg 54- 57)
Multiple attributes of 3D objects	Constructing, describing and comparing 3D shapes such as cubes, cylinders and cones with a focus on more than one attribute (ie. quantity of and type of faces or number of edges and vertices). Describe and compare 3D objects by naming the 2D face shapes and describing them using positional language. "The box has square faces on the front and the back and rectangles on all the sides around it."	3D Objects Learning Activities	<i>Which One Doesn't Belong? Playing with Shapes</i> (Danielson) <i>Messy Maths</i> (Robertson) Chapter 9 - Matching a Real Object to a Photo (pg.163) - Shape Describing Games (pg.163) - Three Dimensional Snow Shapes (pg.167)
Direct linear measurement, introducing standard units (cm, m)	Measure how long or how tall an object is using standard units (cm and m) using measuring tools such as a ruler or measuring tape; record measurements including quantity and type of unit.	Blog Post with Tasks: Conservation BrainPop Jr Metric System 3 Act Tasks: Lil-Sister See Saw Let it Fly	<i>Messy Maths</i> (Robertson) Chapter 6 - Throwing Things (pg.115) - Developing the Concepts of One Meter (pg.117) <i>Place Value in Primary: Developing Number Sense in K through 2</i> (Fullerton) - Exploring Measurement (pg.159-164)
Coin combinations to 100 cents	Count a set of the same Canadian coin (i.e. can count by 5s to count a set of nickels). Count a combination of Canadian coins with a value up to 100 cents using various strategies such as combining amounts to make sets of 50 cents or counting on.	Michael Mitchell "Canada in my Pocket" Fullerton: Financial Literacy in Primary Creating a Classroom Economy	<i>Messy Maths</i> (Robertson) Chapter 5 - Visiting Local Shops and Services (pg.87) - Using Money During Free Play in Your Outdoor Space (pg.87) - Money Trees (pg.91)
Spending and saving	Share their thinking about making spending and saving choices.		