GRADES
1-2

Pearson mathology

Getting Started Guide

Pearson

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Contents

Welcome to Mathology Grades 1 and 2

We believe in teachers and their abilities to help their students develop happy, empowering, and positive math stories.

Mathology is a comprehensive math solution for grades K–9 built by and for the Canadian math community. Mathology helps educators facilitate math teaching and learning for all students, through:

- **differentiated learning options**, rooted in classroom reality
- **rich activities**, optimized through classroom trials
- **teacher assistance** every step of the way, offering practical supports for planning, teaching, and assessing
- an ongoing focus on **student thinking** and math conversation
- **flexible** use in different classroom settings
- a variety of **fun and engaging** experiences
- French Immersion adaptation and authentic Indigenous perspectives

Every child has the right to a strong math foundation, to feel confident in his or her mathematical abilities, and to have the necessary tools to take on everyday challenges.

Core Mathology Actions

Plan

Plan your math lessons and activities for the year using rich math stories, activities, and games.

Teach

Use supports and tools connected to your curriculum and Big Ideas in math to effectively deliver lessons and help with next steps.

Assess & Track

Track students along a continuum of learning and understand the next steps to move them further.

Professional Learning

Stay connected to the most current research in teaching and learning mathematics through the Mathology Activity Kits, Mathology Little Books, and professional learning resources and tools.

Introducing Mathology

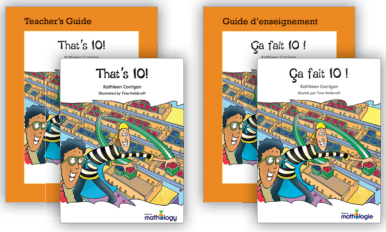
Built on Academic Research

Pearson Canada Learning Progression. Mathematics Success for All.

Centered on Engaging Classroom Resources

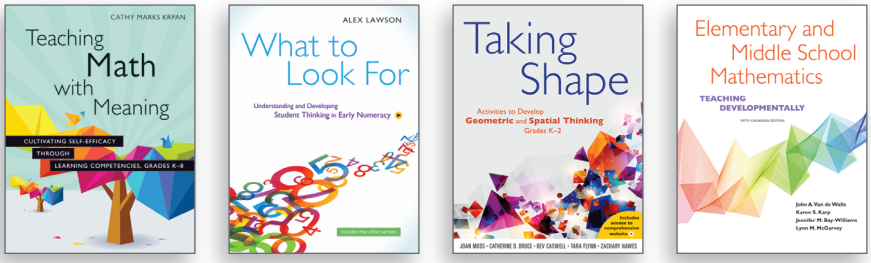
Grade 1 & 2 Activity Kits (French & English)

Mathology.ca



Math Little Books and Teacher's Guides

Anchored by Professional Learning Resources



Pearson Professional Learning

Watch an overview video on Mathology here:
www.pearsoncanada.ca/mathologytutorials

Built on Academic Research

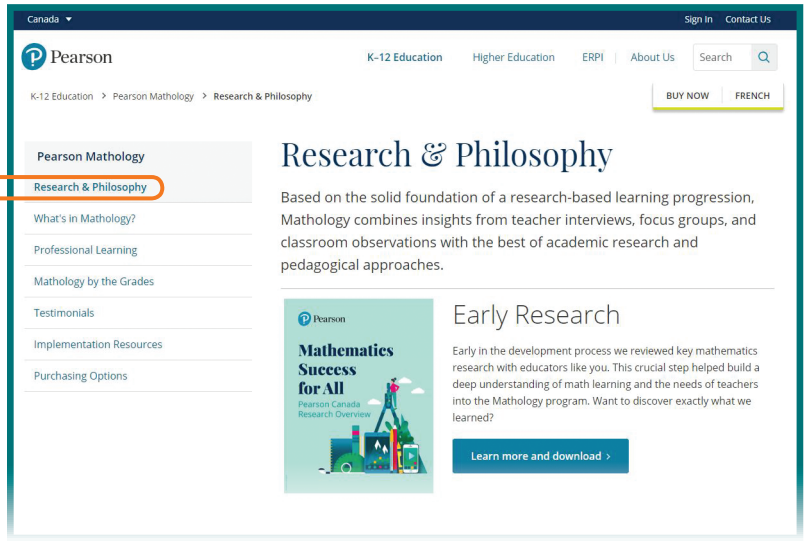
Developed through the participation of over 150 Canadian classrooms, involving over 3000 students

A Shared Focus

Based on the solid foundation of a research-based learning progression, Mathology combines insights from **teacher interviews, focus groups,** and **classroom observations** with the best of **academic research** and pedagogical approaches.

The components in the Mathology family work together to promote mathematics growth among educators and learners.

Very early in the development process for Mathology, Pearson Canada surveyed the educator community to identify key research areas in mathematics that are influencing mathematics instruction (K–9) today. Visit **pearsonmathology.ca** and view the Research & Philosophy section to see the topics that educators stated were crucial to high-quality mathematics instruction, the research articles and reference materials presented for each topic, and how it all connects and informs the development of Mathology.



Centered on Engaging Classroom Resources

Although the Mathology components can effectively be used on their own, when integrated, the collection offers a successful, comprehensive teacher and student family of resources, with rich professional learning underpinnings.

Mathology Little Books

- Comprise a collection of 72 enriching math-first short stories that link math and literacy, and connect to relatable, real-life contexts
- Address math content across K–3, progressively exploring each Big Idea in math
- Allow educators **flexibility** to match a title to students' level of math understanding
- Can be used for whole class, guided instruction, and individual work
- Consolidate and enrich math teaching and learning

Mathology Grades 1 and 2 Activity Kits

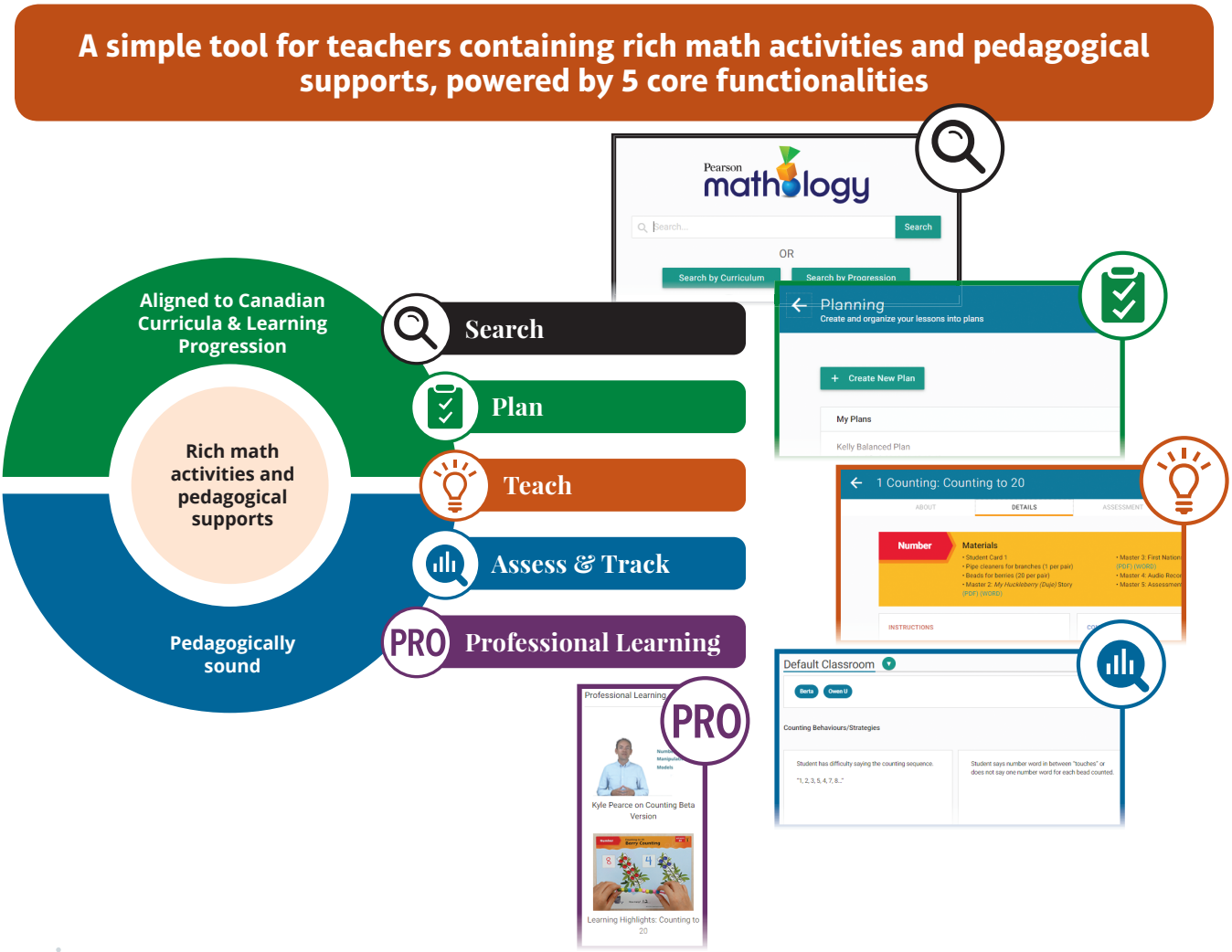
- Comprise a collection of **rich**, **engaging** math activities and games (teacher cards with accompanying student cards for the whole class and reproducible line masters)
- Fully address the curriculum for every province and territory in Canada
- Help teachers quickly recognize student strategies and behaviours and identify next steps
- Provide easily **differentiated math lessons** that can be used in combined-grade classrooms
- Include simple, point-of-use **teacher instructional and assessment support** (Probing Questions, What to Look For, Consolidation)

Mathology.ca

mathology.ca is a digital platform that integrates all the Mathology components to **simplify** and **enhance** your math teaching journey through meaningful use of technology:

- **plan** your math journey with flexibility
- **find** fun and pedagogically sound math activities and lessons that match your curriculum
- **access** practical math content and pedagogical strategies aligned with your needs
- **engage** your students in thinking and problem-solving that stimulate their curiosity and encourage a positive disposition toward math
- **observe**, **conference**, and **assess** with ease through recording and tracking
- identify next steps with practical classroom ideas

Go to pearsonmathology.ca, What's In Mathology? to read more about the features and support provided through this website.



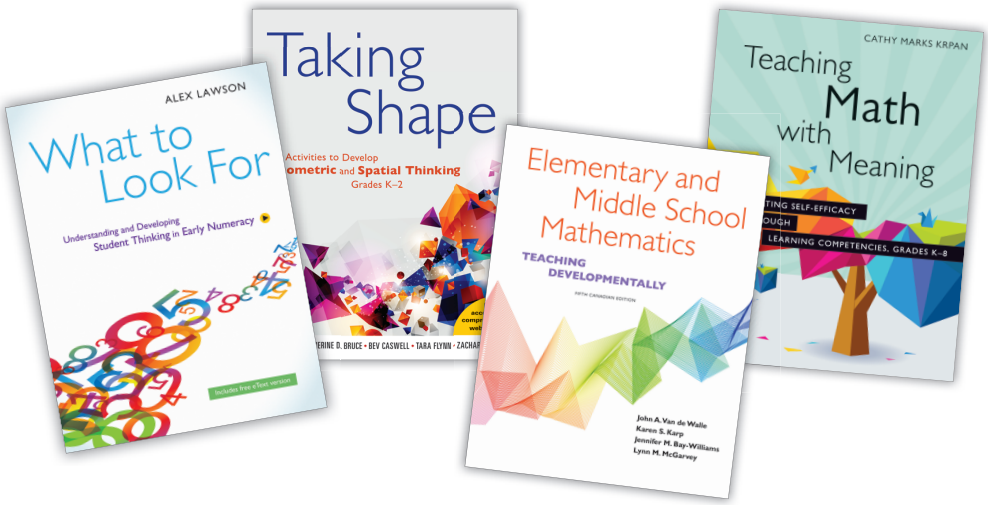
Each Mathology component plays an important role in building a comprehensive teaching and learning portfolio:

Little Books	Activity Kit	Mathology.ca
• Source of learning content • Provide just-in-time teacher supports • Based on the Learning Progression • Variety in math instruction with an anchor in math stories • Facilitates math conversations	• Source of learning content • Provides just-in-time teacher supports • Based on the Learning Progression • Addresses all curriculum expectations (100%) • Facilitates student observation and conversations	• Searchable repository of learning content (Activity Kit and Mathology Little Books) • Planning hub • Assessment enabler and tracker • Provides extended instructional content and teacher supports • Links learning content to the Learning Progression • Provides interactive instructional assets • Integrates planning and usage of Mathology classroom components • Source of professional learning

Anchored by Professional Learning Resources

Related Professional Learning components include

- Professional learning titles: *What to Look For* (Alex Lawson, Pearson, 2015), *Taking Shape* (Joan Moss, Catherine D. Bruce, Bev Caswell, Tara Flynn, Zachary Hawes, Pearson, 2016), *Elementary and Middle School Mathematics* (5th Edition) (John A. Van de Walle, Pearson, 2017), *Teaching Math with Meaning* (Cathy Marks Krpan, Pearson, 2017)
- Professional services: one- and two-day face-to-face professional learning sessions



Plan

Planning with Mathology Grades 1 and 2

The Mathology components support **flexible classroom groupings**, based on your students' needs:

- **Whole class:** Engage the whole class in an activity or story with a shared math focus.
- **Small group/individual:** Have the class engaged in a familiar activity or story while you pull a small group or individual aside to probe deeper.
- **Learning Centres:** Provide students with opportunities to practise and consolidate learning independently by setting up centres with choices of Mathology activities and stories.

All the Mathology components can be easily and flexibly adapted to fit in a three-part lesson framework.

Pedagogical Framework	Classroom Activity Kit	Mathology Little Books
Activating ***(Before)*** Before	• Do the suggestions for activating the thinking in the **Before section** of each Teacher Card	• Do a **shared reading** and engage students in **math conversations** • Do **large-group activities** from the Teacher's Guide
Constructing Knowledge ***(During)*** During	• **Do the activities, using the differentiation options** on the Teacher Card • Use all the teacher supports on the teacher card, including the observational assessment	• Address a **Big Idea** through potentially more than 1 title per grade or through titles at other grade levels • Do **guided instruction** and have conversations • Use **small group/individual options/learning centres options** from the Teacher's Guide
Consolidating ***(After)*** After **Purposeful practice ›**	• Use **Consolidation** suggestions for each activity on the Teacher Card • **Revisit the activity** as is or with accommodations and extensions	• Do **shared reading** with math conversations • Use **large-group options** from the Teacher's Guide • Do **guided instruction** • Use **small group/individual options/learning centres options** from the Teacher's Guide • Use **Home Connection** options from the Teacher's Guide

Planning Tools

Whether you start with your provincial curriculum or a scope-and-sequence document, Mathology provides the tools to help you plan math instruction for the year:

Curriculum Correlations

Alignments of specific outcomes or expectations in your curriculum to corresponding Mathology Little Books and Activity Kit cards

Long-Range Pathways

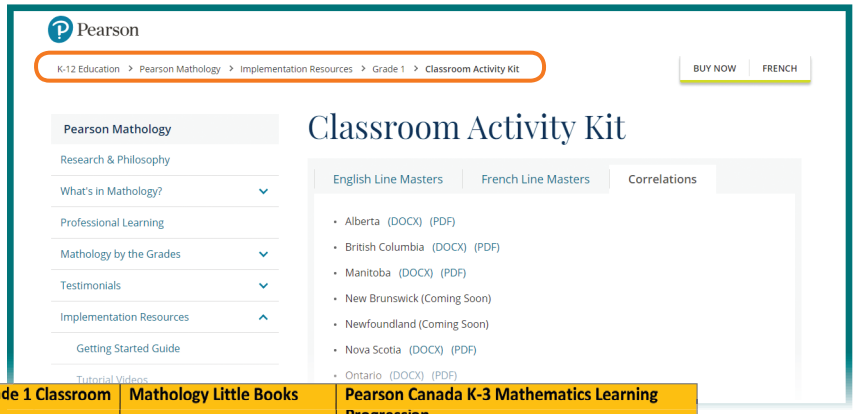
Sample generic overviews of the five strands to help you plan your math instruction for the year

Weekly Plans

Several sample weekly plans that allow you to combine different Mathology components with flexibility for a successful learning experience

Curriculum Correlations

Go to pearsonmathology.ca, then select Implementation Resources, Classroom Activity Kit, Correlations section to find the curriculum alignment for your province/territory. Choose the activity cards and Mathology Little Books that match your learning goals.



Specific Curriculum Outcomes (SCO)	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
N1 Say the number sequence, 0 to 100, by: • 1s forward and backward • between any two given numbers • 2s to 20, forward starting at 0 • 5s and 10s to 100, forward starting at 0.	**Number Cluster 1: Counting** • 1: Counting to 20 • 2: Counting to 50 **Number Cluster 4: Skip-Counting*** • 13: Skip-Counting Forward • 14: Skip-Counting with Leftovers • 16: Skip-Counting Consolidation **Number Cluster 8: Financial Literacy**** • 37: Counting Collections • 40: Financial Literacy Consolidation *Link to other strands:* ***Patterning and Algebra Cluster 1: Investigating Repeating***	• On Safari! • Paddling the River *(to 20)* **To Scaffold:** • A Warm, Cozy Nest • Let's Play Waltes! **To Extend:** • What Would You Rather? • Ways to Count	**Big Idea: Numbers tell us how many and how much.** Applying the principles of counting (number sequence) • Says the number name sequence starting with 1 and counting forward. • Coordinates number words with counting actions, saying one word for each objects (i.e., one-to-one correspondence/tagging). • Says the number name sequence backward from numbers to 10. • Knows that the last counting word tells "how many" objects in a set (i.e., cardinality). • Says the number name sequence forward through the teen numbers. • Says the number name sequences forward and backward from a given number. • Uses number patterns to bridge tens when counting forward and backward (e.g., 39, 40, 41). • Fluently skip-counts by factors of 10 (e.g., 2, 5,

Long-Range Pathways

Go to pearsonmathology.ca, then view the Implementation Resources, Sample Plans section to view **sample long-range pathways** that include all strands for each grade.

In the following examples, the suggested learning is balanced, starting with Patterning, but focused on Number most of the first months of math instruction.

The learning centre ideas are selected to review **prior learning** of the concepts being presented and to provide practice to consolidate **new learning**. In some cases where daily ongoing practice is desirable throughout the year or term, learning centres remain on the suggested list over time. The specific content of the centres can be chosen based on the needs of the students.

Grade 1 Sample Long-Range Pathway

	Strand	Big Ideas	Conceptual Threads	Activity Kit	Grade 1 Mathology Little Books	Practice and Learning Centres
Sept.	Patterning and Algebra	Regularity and repetition form patterns that can be generalized and predicted	Identifying, sorting, and classifying attributes and patterns mathematically Identifying, reproducing, extending, and creating patterns that repeat	Patterning and Algebra Cluster 1 Investigating Repeating Patterns Activities 1–5 Patterning and Algebra Cluster 2 Creating Patterns Activities 6–9	Midnight and Snowfall	Making repeating patterns
Sept.	Number	Numbers tell us how many and how much	Applying the principles of counting Recognizing and writing numerals	Number Cluster 1 Counting Activities 1–5	On Safari! A Family Cookout Paddling the River	Counting and subitizing practice from K
Oct.	Number	Numbers tell us how many and how much Numbers are related in many ways	Recognizing quantities by subitizing Estimating quantities and numbers	Number Cluster 2 Spatial Reasoning Activities 6–8	Paddling the River	Counting and subitizing practice, including skip-counting
Oct.	Number	Numbers are related in many ways	Comparing and ordering quantities (multitude or magnitude)	Number Cluster 3 Comparing and Ordering Activities 9–12	Cats and Kittens!	Counting and subitizing practice, including skip-counting Comparing and ordering numbers and quantities
Nov.	Number	Numbers tell us how many and how much	Applying the principles of counting Recognizing and writing numerals	Number Cluster 4 Skip-Counting Activities 13–16	How Many Is Too Many?	Counting and subitizing practice, including skip-counting
Nov.	Number	Numbers are related in many ways	Decomposing wholes into parts and composing wholes from parts	Number Cluster 5 Composing and Decomposing Activities 17–23	Paddling the River That's 10!	Counting and subitizing practice, including skip-counting Comparing and ordering numbers and quantities

	Strand	Big Ideas	Conceptual Threads	Activity Kit	Grade 1 Mathology Little Books	Practice and Learning Centres
Dec.	Geometry	2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes	Investigating geometric attributes and properties of 2-D shapes and 3-D Solids	Geometry Cluster 1 2-D Shapes Activities 1–6	The Tailor Shop What Was Here?	Sorting activities Creating repeating patterns
Dec.	Geometry	2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes	Investigating geometric attributes and properties of 2-D shapes and 3-D solids	Geometry Cluster 2 3-D Solids Activities 7–10	What Was Here?	Sorting and building with 2-D shapes and 3-D solids Creating and translating repeating patterns
Jan.	Measurement	Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared	Understanding attributes that can be measured Directly and indirectly comparing and ordering objects with the same measureable attribute	Measurement Cluster 1 Comparing Objects Activities 1–6	The Amazing Seed	Sorting and building with 2-D shapes and 3-D solids Creating, extending, and predicting elements in repeating patterns
Jan.	Measurement	Assigning a unit to a continuous attribute allows us to measure and make comparisons	Selecting and using non-standard units to estimate, measure and make comparisons	Measurement Cluster 2 Using Uniform Units Activities 7–15* Measurement Cluster 3 Time and Temperature Activities 16–21** * Ontario and BC only **Ontario only	Animal Measures	Sorting and building with 2-D shapes and 3-D solids Creating, extending, and predicting elements in repeating patterns Measurement through direct comparison and iteration (repeating) of uniform, non-standard units Exploring equality and inequality using balance pans
Feb.	Number	Quantities and numbers can be added and subtracted to tell how many and how much	Developing conceptual meaning of addition and subtraction	Number Cluster 7 Operational Fluency Activities 28–30 (change problems)	Hockey Time! Buy 1—Get 1 Canada's Oldest Sport Cats and Kittens!	Counting and subitizing practice, including skip-counting Comparing and ordering numbers and quantities Composing and decomposing

	Strand	Big Ideas	Conceptual Threads	Activity Kit	Grade 1 Mathology Little Books	Practice and Learning Centres
Feb.	Patterning and Algebra	Patterns and relations can be represented with symbols, equations, and expressions	Understanding equality and inequality, building on generalized properties of numbers and operations Using symbols, unknowns, and variables to represent mathematical relations	Patterning and Algebra Cluster 3 Equality and Inequality Activities 10–13	Nutty and Wolfy	Sorting and building with 2-D shapes and 3-D solids Creating, extending, and predicting elements in repeating patterns Measurement through direct comparison and iteration (repeating) of uniform, non-standard units Exploring equality and inequality using balance pans
Mar.	Number	Quantities and numbers can be added and subtracted to tell how many and how much	Developing conceptual meaning of addition and subtraction Developing fluency of addition and subtraction computation	Number Cluster 7 Operational Fluency Activities 31–35 (join/separate and part-part-whole problem types)	Hockey Time! Buy 1—Get 1 Canada's Oldest Sport Cats and Kittens!	Counting and subitizing practice, including skip-counting Comparing and ordering numbers and quantities Composing and decomposing Creating and solving pictorial story problems using addition and subtraction
Mar.	Number	Financial Literacy* *Ontario and BC only		Number Cluster 8 Financial Literacy Activity 36–40* *Ontario and BC only		
Apr.	Number	Quantities and numbers can be added and subtracted to tell how many and how much	Developing fluency of addition and subtraction computation Developing conceptual meaning of addition and subtraction (Consider a focus on subtraction)	Revisit Number Cluster 7 Operational Fluency Activities 28–35 Number Talks For mental math fluency and basic fact recall Problem solving with all problem types for addition and subtraction	That's 10! Hockey Time! Buy 1—Get 1 Canada's Oldest Sport Cats and Kittens!	Creating and solving pictorial story problems using addition and subtraction
May	Number	Quantities and numbers can be grouped by or partitioned into equalsized units	Unitizing quantities into ones, tens, hundreds (place-value concepts) Unitizing quantities and comparing units to the whole	Number Cluster 6 Early Place Value Activities 24–27	At the Corn Farm	Counting and subitizing practice, including skip-counting Composing and decomposing Comparing and ordering numbers and quantities Creating and solving pictorial story problems using addition and subtraction

	Strand	Big Ideas	Conceptual Threads	Activity Kit	Grade 1 Mathology Little Books	Practice and Learning Centres
May	Geometry	2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change* *Ontario and BC only	Investigating 2-D shapes, 3-D solids, and their attributes through composition and decomposition Exploring symmetry to analyze 2-D shapes and 3-D solids* *Ontario and BC only	Geometry Cluster 3 Geometric Relationships Activities 11–15 Geometry Cluster 4 Symmetry Activities 16–18* *Ontario and BC only	What Was Here? The Tailor Shop	Sorting and building with 2-D shapes and 3-D solids Creating, extending, and predicting elements in repeating patterns Measurement through direct comparison and iteration (repeating) of uniform, nonstandard units Exploring equality and inequality using balance pans
June	Geometry	Objects can be located in space and viewed from multiple perspectives* *Ontario only	Locating and mapping objects in space Viewing and representing objects from multiple perspectives* *Ontario only	Geometry Cluster 5 Location and Movement Activities 19–21* *Ontario only	Memory Book	
June	Data Management and Probability	Formulating questions, collecting data, and consolidating data in visual and graphical displays help us to understand, predict, and interpret situations that involve uncertainty, variability and randomness	Formulating questions to learn about groups, collections and events by collecting relevant data Collecting data and organizing it into categories Creating graphical displays of collected data Using the language of chance to describe and predict events* *Ontario and BC only	Data Management and Probability Data Management Cluster 1 Activities 1–4 Data Management and Probability Probability and Chance Cluster 2 Activities 5–6* *Ontario and BC only	Graph It!	2-D and 3-D sorting and building activities Creating and translating repeating patterns
June	Revisit difficult concepts			Revisit activities from each strand		

Grade 2 Sample Long-Range Pathway

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Sept.	Patterning and Algebra	Regularity and repetition form patterns that can be generalized and predicted mathematically	Identifying, sorting, and classifying attributes and patterns mathematically (e.g., number of sides, shape, size) Identifying, reproducing, extending, and creating patterns that repeat	Repeating Patterns Card 1: Show Another Way/ Repeating Patterns Around Us	Patterning and Algebra Cluster 1 Repeating Patterns Activities 1–5	Pattern Quest	Extending, creating, and predicting elements in repeating patterns and identifying the core Creating concrete increasing patterns Sorting 2-D shapes and determining sorting rules
Sept.	Number	Numbers tell us how many and how much	Applying the principles of counting Recognizing and writing numerals	Skip-Counting Card 1A: Skip-Counting on a Hundred Chart/ Skip-Counting from Any Number Card 1B: Skip-Counting with Actions/ What's Wrong? What's Missing?	Number Cluster 1 Counting Activities 1–5* *Teachers may choose a smaller number range to begin the year and extend these activities over time.	What Would You Rather? Ways To Count	Counting and subitizing practice, including skip-counting Ordering and comparing smaller numbers
Oct.	Patterning and Algebra	Regularity and repetition form patterns that can be generalized and predicted mathematically	Representing and generalizing increasing/decreasing patterns	Increasing/Decreasing Patterns Card 2A: How Many Can We Make?/Error Hunt Card 2B: Making Increasing Patterns/ Making Decreasing Patterns* *Decreasing patterns are for Ontario only	Patterning and Algebra Cluster 2 Increasing/ Decreasing* Patterns Activities 6–14 *Decreasing patterns are for Ontario only	Pattern Quest The Best Surprise	Extending, creating, and predicting elements in repeating patterns and identifying the core Creating concrete increasing/ decreasing patterns Sorting 2-D shapes and determining sorting rules
Oct.	Number	Numbers are related in many ways	Estimating quantities and numbers Decomposing wholes into parts and composing wholes from parts	Number Relationships 1 Card 2A: Show Me in Different Ways/Guess My Number Card 2B: Math Commander/ Building an Open Number Line	Number Cluster 2 Number Relationships 1 Activities 6–12	What Would You Rather? Back to Batoche The Great Dogsled Race	Counting and subitizing practice, including skip-counting Comparing and ordering numbers and quantities Number riddles using odd, even, and ordinal terms

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Oct.	Number	Quantities and numbers can be grouped by or partitioned into equal-sized units	Unitizing quantities into ones, tens, and hundreds (place-value concepts) Unitizing quantities and comparing units to the whole	Grouping and Place Value Card 3A: Adding Ten/ Taking Away Ten Card 3B: Thinking Tens/ Describe Me	Number Cluster 3 Grouping and Place Value Activities 13–16	A Class-full of Projects	Skip-counting practice Mental math activities Comparing and ordering numbers on a number line Composing and decomposing numbers including in tens and ones Creating and solving story problems
Nov.	Number	Quantities and numbers can be added and subtracted to tell how many and how much	Developing fluency of addition and subtraction computation Developing conceptual meaning of addition and subtraction	Operational Fluency Card 7A: Doubles and Near-Doubles/ I Have...I Need... Card 7B: Hungry Bird/ Make 10 Sequences	Number Cluster 7 Operational Fluency Activities 32–36	Array's Bakery Marbles, Alleys, Mibs, and Guli! The Great Dogsled Race	Comparing and ordering numbers Creating and solving story problems Mental math to 20: doubles, 1 or 2 more or less, making tens, adding and subtracting zero
Dec.	Measurement* *All provinces except for BC	Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared	Understanding attributes that can be measured Directly and indirectly comparing and ordering objects with the same measurable attribute Selecting and using non-standard units to estimate, measure, make comparisons	Using Non-Standard Units Card 1: Estimation Scavenger Hunt/Estimation Station	Measurement Cluster 1 Using Non-Standard Units Activities 1–7	Getting Ready for School	Mental math activities Creating, translating, and predicting elements of repeating and increasing patterns Creating and solving measurement story problems Measuring length, height, width, and distance around object with different non-standard units
Dec.	Measurement* *Ontario and BC only	Assigning a unit to a continuous attribute allows us to measure and make comparisons	Selecting and using standard units to estimate, measure, and make comparisons	Using Standard Units Card 2: What Am I?/ Which Unit?	Measurement Cluster 2 Using Standard Units Activities 8–12	Animal Measures (Grade 1) The Discovery	Creating and solving story problems using measurement Balance-scale activities to explore equality and inequality Replicating, filling and creating composite 2-D shapes and 3-D solids

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Jan.	Number	Numbers are related in many ways	Decomposing wholes into parts and composing wholes from parts	Number Relationships 2 Card 5A: Which Ten Is Nearer?/ Building Numbers Card 5B: How Many Ways?/ What's the Unknown Part?	Number Cluster 5 Number Relationships 2 Activities 22–25	Back to Batoche Family Fun Day A Class-full of Projects	Counting and subitizing practice, including skip-counting Comparing and ordering numbers and quantities Estimating quantity using referents Missing parts 20 = ? + 14
Jan.	Geometry	2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change	Investigating geometric attributes and properties of 2-D shapes and 3-D solids Exploring 2-D shapes and 3-D solids by applying and visualizing transformations	2-D Shapes Card 1: Visualizing Shapes/ Comparing Shapes	Geometry Cluster 1 2-D Shapes Activities 1–5	I Spy Awesome Buildings Sharing Our Stories	Sorting using one or two attributes and identifying the sorting rule Making pictures with 2-D shapes Shape riddles Creating, extending, translating, and predicting elements in repeating patterns
Feb.	Patterning and Algebra	Patterns and relations can be represented with symbols, equations, and expressions	Understanding equality and inequality, building on generalized properties of numbers and operations Using symbols, unknowns, and variables to represent mathematical relation	Equality and Inequality Card 3A: Equal or Not Equal?/ How Many Ways? Card 3B: Which One Doesn't Belong?/ What's Missing?	Patterning and Algebra Cluster 3 Equality and Inequality Activities 15–20	Nutty and Wolfy (Grade 1) Kokum's Bannock	Mental math activities Extending, creating, finding missing elements, and predicting elements in repeating, increasing, and decreasing patterns Measurement using multiple uniform units (linking cubes)
Feb.	Number	Quantities and numbers can be added and subtracted to tell how many and how much	Developing conceptual meaning of addition and subtraction	Conceptualizing Addition and Subtraction Card 6: What Math Do You See?/What Could the Story Be?	Number Cluster 6 Conceptualizing Addition and Subtraction Activities 26–31	Array's Bakery Marbles, Alleys, Mibs, and Guli! The Great Dogsled Race	Conceptual subitizing practice (decomposing quantities into visualized parts and finding sum) Mental math activities Comparing and ordering numbers on a number line Composing and decomposing numbers including as tens and ones Creating and solving story problems

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Mar.	Geometry	2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes	Investigating geometric attributes and properties of 2-D shapes and 3-D solids	3-D Solids Card 2A: Geometry in Poetry/ What Do You See? Card 2B: Solids Around Us/ Which Solid Does Not Belong?	Geometry Cluster 2 3-D Solids Activities 6–10	I Spy Awesome Buildings	Sorting 2-D shapes and 3-D solids using one and two attributes and identifying the sorting rule Extending and creating increasing and decreasing patterns and identifying the pattern rule
Mar.	Geometry	2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes	Investigating 2-D shapes, 3-D solids, and their attributes through composition and decomposition	Geometric Relationships Card 3A: Fill Me In!/ Make Me a Picture Card 3B: Name the Solid/ Draw the Shape	Geometry Cluster 3 Geometric Relationships Activities 11–17	I Spy Awesome Buildings Sharing Our Stories	Creating, finding missing elements, and predicting elements in concrete and numerical growing patterns Measurement using iteration of different uniform non-standard units Shape trains with 1 or 2 attributes changing
Mar.	Measurement* *All provinces except for BC	Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.	Understanding attributes that can be measured	Time and temperature Card 3A: Hula Hoop Clock*/ Calendar Questions Card 3B: Monthly Mix-Up/ Thermometer Drop or Pop* *Ontario only	Measurement Cluster 3 Time and Temperature Activities 13–14 Activities 15–18* *Ontario only		Creating, finding missing elements, and predicting elements in concrete and numerical increasing and decreasing patterns Mental math activities Shape trains with 1 or 2 attributes changing or sorting 2-D shapes and 3-D solids
Apr.	Number	Financial Literacy* *Ontario and BC only		Financial literacy Card 9: Collections of Coins/ Showing Money in Different Ways	Number Cluster 9 Financial Literacy Activities 43–47	The Money Jar	Using money to skip-count to a given number Creating and solving story problems using money Creating, finding missing elements, and predicting elements in concrete and numerical growing patterns
Apr.	Number* *Ontario only	Quantities and numbers can be grouped by, and partitioned into, units to determine how many and much	Developing conceptual meaning of multiplication and division	Early Multiplicative Thinking Card 8A: Counting Equal Groups to Find How Many/I Spy Card 8B: How Many Blocks?/ How Many Ways?	Number Cluster 8 Early Multiplicative Thinking Activities 37–42	Array's Bakery Marbles, Alleys, Mibs, and Guli!	Measuring and graphing length or width of objects to compare Explore equality and inequality with towers Mental math activities

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Apr.	Number	Quantities and numbers can be grouped by or partitioned into equal-sized units	Unitizing quantities into ones, tens, and hundreds (place-value concepts)	Grouping and Place Value Card 3A: Adding Ten/ Taking Away Ten Card 3B: Thinking Tens/ Describe Me	Revisit Number Cluster 3 Grouping and Place Value Building and naming numbers Decomposing and composing numbers using tens and ones	A Class-full of Projects	Ordering and placing numbers on a number line Using benchmarks Collecting data related to days of the week and months of the year and represent on a graph (birthdays, activities) Mental math activities
May	Data Management and Probability	Formulating questions, collecting data, and consolidating data in visual and graphical displays helps us to understand, predict, and interpret situations that involve uncertainty, variability and randomness	Formulating questions to learn about groups, collections, and events by collecting relevant data Collecting data and organizing it into categories Creating graphical displays of collected data Reading and interpreting data displays Drawing conclusions by making inferences and justifying decisions based on data collected Using the language of chance to describe and predict events* *Ontario and BC only	Data Management Card 1: Conducting Surveys/ Reading and Interpreting Graphs Probability and Chance Card 2*: What's in the Bag?/ Word of the Day *Ontario and BC only	Data Management and Probability Cluster 1 Data Management Activities 1–6* *Activities 2 and 5 are for Ontario only Data Management and Probability Cluster 2 Probability and Chance Activities 7–9* *Ontario and BC only	Graph It! (Grade 1) Big Buddy Days Marsh Watch	Extending and creating increasing and decreasing concrete and numerical patterns and finding the pattern rule Collecting data and making graphs Develop and solve story problems using graphs 2-D shape and 3-D solids riddles using geometric attributes
May	Number* *Ontario only	Quantities and numbers can be grouped by or partitioned into equal-sized units	Partitioning quantities to form fractions	Early Fractional Thinking Card 4A: Equal Parts from Home/Modelling Fraction Amounts Card 4B: Regrouping Equal Parts/Naming Equal Parts	Number Cluster 4 Early Fractional Thinking Activities 17–21	The Best Birthday	Mental math activities Conceptual subitizing practice Comparing and ordering numbers on a number line

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
May	Number	Quantities and numbers can be added and subtracted to tell how many and how much	Developing fluency of addition and subtraction computation* Developing the conceptual meaning of addition and subtraction* *Consider a focus on subtraction in revisiting these activities.	Conceptualizing Addition and Subtraction Card 6: What Math Do You See?/What Could the Story Be? Operational Fluency Card 7A: Doubles and Near-Doubles/ I Have...I Need... Card 7B: Hungry Bird/ Make 10 Sequences	Revisit Number Cluster 6 Conceptualizing Addition and Subtraction Activities 28–31 Revisit Number Cluster 7 Operational Fluency Activities 32–36 Number Talks for mental math fluency and basic fact recall Problem-solving with all problem types for addition and subtraction	The Money Jar Marbles, Alleys, Mibs, and Guli! The Great Dogsled Race	Decomposing quantities and numbers using 10s and 1s Creating, finding missing elements, and predicting elements in concrete and numerical increasing and decreasing patterns Describing equality and inequality symbolically (14 + 6 = 13 + 7) Replicating, creating, and filling composite 2-D shapes and 3-D solids
June	Geometry	Objects can be located in space and viewed from multiple perspectives	Locating and mapping objects in space* Viewing and representing objects from multiple perspectives *Ontario only	Location and Movement Card 4A*: Our Design/Treasure Map Card 4B*: Crazy Creatures/ Perspective Matching Game Coding Card 5: Code of the Day/ Wandering Animals *Ontario only	Geometry Cluster 4 Location and Movement Activities 18–21* Geometry Cluster 5 Coding Activities 22–25 *Ontario only	Robo	Composing & decomposing numbers including as tens and ones Estimating quantities using referents Mental math activities
June	Revisit difficult concepts				Activities from each strand		

Weekly Plans

Go to pearsonmathology.ca, then view the Implementation Resources, Sample Plans to view **sample weekly plans** that use the Mathology Little Books and Activity Kit cards to support teaching and learning various mathematical concepts for each grade. Create weekly plans that suit your students' needs.

Grade 1: Teaching Geometric Relationships: Week 1

3-PART LESSON	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1. Activating 1	**What Was Here?** Intro TG pp. 4–5	**Faces of Solids Activity Card 11:** "Before"	**Making Designs Activity Card 12:** "Before"	**Covering Outlines Activity Card 13:** "Before"	**Workstations/ Guided Math** Teacher works with one group at a time using **Shapes and Solids Problems What Was Here?** TG p. 29; LM 10 Other groups work on one of the four practice activities from earlier in the week or the online Tangram shapes activity for **What Was Here?** (see QR code on back of little book)
2. Constructing Knowledge 2	Read aloud: **What Was Here?** (Find and describe; explore and classify shapes and solids)	**Activity Card 11:** "What to Do" Using solids to build and describe towers	**Activity Card 12:** "What to Do" Making and describing designs with Pattern Blocks	**Activity Card 13:** "What to Do" Filling in Pattern Block designs	
3. Consolidating 3	Represent the story using the Math Mat TG p. 21	**Activity Card 11:** Consolidation and Highlights	**Activity Card 12:** Consolidation and Highlights	**Activity Card 13:** Consolidation and Highlights	
4. Purposeful Practice 4	**Match-ups** Use modelling clay to make 3-D objects from the story **What Was Here?** TG p. 27	Independent Inquiry: **Hidden Shapes** Outline faces that are familiar 2-D shapes on pictures of real-world objects **What Was Here?** TG p. 29	**Circle and Square Faces** Stamp faces of small objects into slab of modelling clay; draw around faces and label **What Was Here?** TG p. 23	**Shape Hunt Booklet** Go on a shape hunt. Draw and label the objects and their shapes; e.g., window **What Was Here?** TG p. 29	

Grade 1: Teaching Geometric Relationships: Week 2

3-PART LESSON	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1. Activating 1	**What Was Here?** Shared reading, emphasizing geometric vocabulary in describing shapes	**Identifying Shapes Activity Card 14:** "Before"	Select Pattern Blocks or solids from a bag and describe them by using geometric attributes.	Choose a 2-D shape and volunteer statements to describe it using geometric attributes. Repeat with a 3-D solid.	**Conferences & Workstations** Teacher circulates and confers with students individually. Cluster 3 Assessment Rubric Master 30 can be used to collect evidence of learning. Students can draw and list geometric attributes of common shapes and/or solids. Students may choose to trace the shapes. Fast finishers can do practice activities from earlier in the week or the online Tangram shapes activity for **What Was Here?** (see QR code on back of little book).
2. Constructing Knowledge 2	Select another **Shape and Solids** problem from LM 10. Work in pairs to solve problems and record using pictures or words.	**Activity Card 14:** "What to Do" Use markers to outline different shapes that can be found in a composite design—Student card 14A and 14B.	**Consolidation Activity Card 15:** "Before" Trace around two or more Pattern Blocks pushed together on at least one side. Predict what pieces will fit there.	**Activity Card 15:** "What to Do" Play this card game to determine which Pattern Blocks would fill a shape or which 2-D shapes would make up a particular solid.	
3. Consolidating 3	Three pairs of students share solutions and explain their thinking.	**Activity Card 14:** Consolidation and Highlights	Review and chart geometric vocabulary by drawing and labelling.	**Activity Card 15:** Consolidation and Highlights	
4. Purposeful Practice 4	**Story Mat** Using story mat, draw new shapes and create individual stories of what was missing. **What Was Here?** TG p. 26	**What Am I?** Pick a 2-D shape and identify a 3-D object it reminds you of. **What Was Here?** TG p. 28	**Making Designs** Make a picture using Pattern Blocks on a sheet of paper. Draw around the outline, title your picture, and pile the blocks used beside it. Trade with a partner and try to rebuild their picture.	**Math Journals** Draw a familiar 2-D shape, and draw and label some 3-D objects it reminds you of.	

Grade 2: Teaching Geometric Relationships: Week 1

3-PART LESSON	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Math Every Day Card		**3B: Draw the Shape**	**3A: Fill Me In!**	**3A: Make Me a Picture**	**3B: Name the Solid**
1. Activate 1	**What Was Here?** Intro TG pp. 4-5 Review circles, squares, rectangles, and hexagons.	**Activity Card 11: Making Shapes** "Before"	**Activity Card 14: Creating Pictures and Designs** "Before"	**Activity Card 15: Covering Outlines** "Before"	**Workstations/ Guided Math** Teacher works with one group at a time with Intervention Activity 5 for Geometric Relationships. Other groups work on one of the four practice activities from earlier in the week or from **Shape Hunt Booklet**. Go on a shape hunt and draw and label the objects and their shape e.g., window **What Was Here?** TG. p.29
2. Constructing Knowledge 2	Read aloud: **What Was Here?** (Find and describe; explore and classify shapes and solids)	**Activity Card 11:** "What to Do" Covering hexagons with smaller shapes	**Activity Card 14:** "What to Do" Trace shapes or use cutouts to make a picture or design	**Activity Card 15:** "What to do" Use Pattern Blocks to cover the picture of a boat	
3. Consolidating 3	Represent the story using the math mat TG p. 21	**Activity Card 11:** Consolidation and Highlights	**Activity Card 14:** Consolidation and Highlights	**Activity Card 15:** Consolidation and Highlights	
4. Purposeful Practice 4	**Story Mat** Trace the faces of small objects and tell a story. Include triangular shapes **What Was Here?** TG p. 26	**Shapes in Shapes** Place smaller shapes together to make a larger shape. Record by tracing. Describe what you did.	**What do you See?** Online activity **What Was Here?** TG. p. 29	**Shape Outlines** Create a picture with your shapes and draw the outline. Trade with your partner and fill in their shape outline.	

*Math Every Day cards are located in the Grade 2 Activity Kit.
They can be used anytime during the day and form a repertoire of quick activities for reviewing concepts and skills on an ongoing basis.

Grade 2: Teaching Geometric Relationships: Week 2

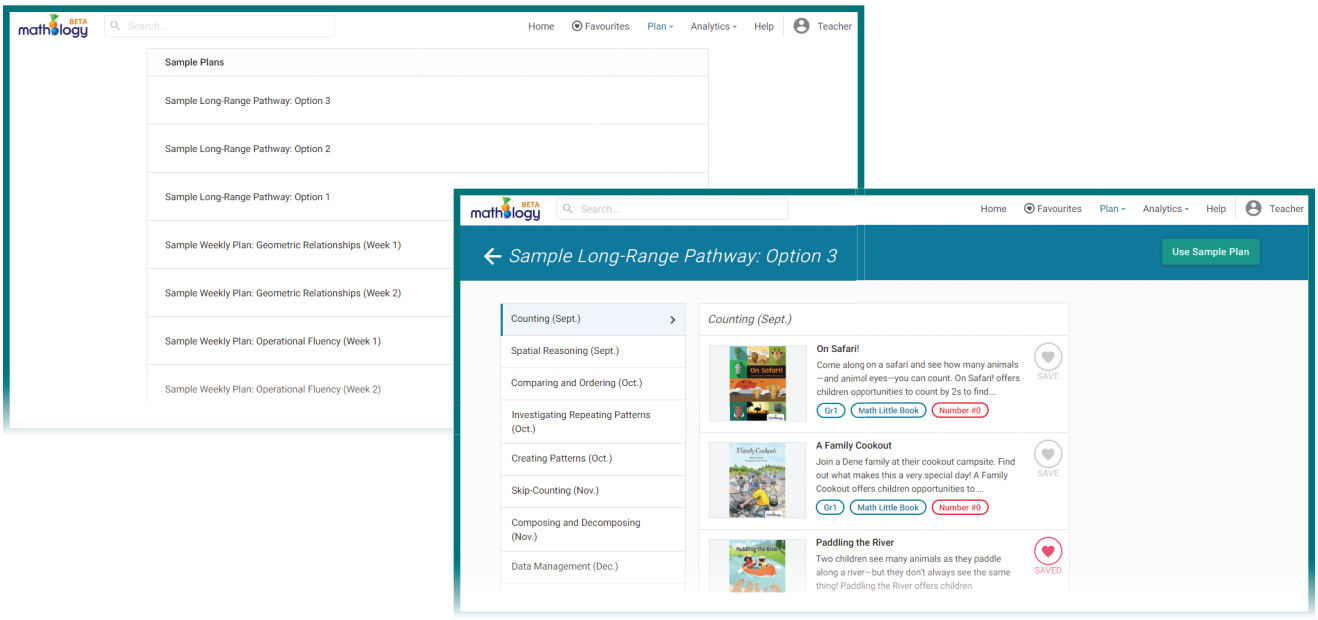
3-PART LESSON	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Math Every Day Card	**3A: Fill Me In!**	**3B: Name the Solid**	**3B: Draw the Shape**	**3A: Make Me a Picture**	**3A: Fill Me In!**
1. Activating 1	**I Spy Awesome Buildings** Intro TG p. 4 Review pyramids, prisms, cones, and spheres.	**Activity Card 12: Building with Solids** "Before"	**Activity Card 16: Creating Symmetrical Designs** "Before"	**Activity Card 17: Consolidation** "Before"	**Workstations/ Guided Math** Teacher works with one group at a time with Intervention Activity 5 for Geometric Relationships. Other groups work on one of the four practice activities from earlier in the week or trace/ stamp the faces of a 3-D shape to see the footprints of its sides. Print the name of the solid on the back of the poster. Have others guess which solid you have chosen and share or record real life examples. **3-D Solid Footprints** TG p. 35
2. Constructing Knowledge 2	Read aloud: **I Spy Awesome Buildings** (Find and classify 2-D shapes in 3-D objects)	**Activity Card 12:** "What to Do" Building structures	**Activity Card 16:** "What to Do" Use Pattern Blocks to create a symmetrical design	**Activity Card 17:** "What to do" Task cards and station activities	
3. Consolidate 3	**Math Mat** TG p. 29 Construct a pyramid and a prism. Link solids to real life objects.	**Activity Card 12:** Consolidation and Highlights	**Activity Card 16:** Consolidation and Highlights	**Activity Card 15:** Consolidation and Highlights	
4. Purposeful Practice 4	**I Spy Awesome Buildings** TG p. 36 Find a real life solid that matches the solid on the math mat	**Math Journals** Draw a familiar 2-D shape and draw and label some 3-D objects it reminds you of.	**Design and Copy** Partners play roles of designer on one side of a line of symmetry and copier on the other to create a symmetrical design with coloured tiles or Attribute Blocks	**Switch Task Cards** Teacher circulates and confers with students. Cluster Assessment Master 44 can be used to collect evidence of learning.	

*Math Every Day cards are located in the Grade 2 Activity Kit.
They can be used anytime during the day and form a repertoire of quick activities for reviewing concepts and skills on an ongoing basis.

Planning with mathology.ca

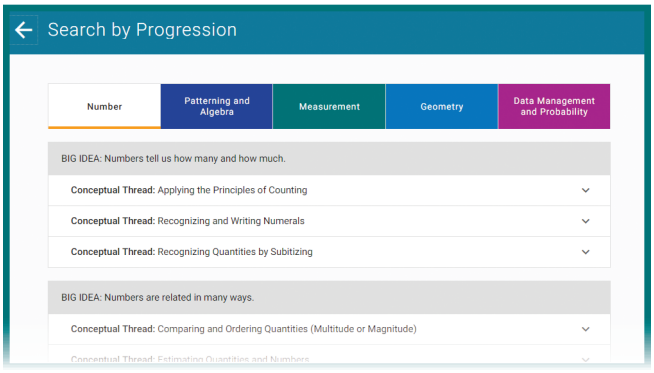
The **planning tool** in mathology.ca helps you organize lessons and resources into long or short-range plans, and unit or concept plans, that are readily accessible to you throughout the year.

On the home page, go to the Plan dropdown menu and select All Plans to see 3 sample yearly plans and weekly plans for selected concepts: operational fluency and geometric relationships.



The **search tool** in mathology.ca helps you find lessons using keyword searches, curriculum expectations, or learning progression. Choose the strand and the curriculum expectation, then click on the magnifying glass to find available resources for that expectation.

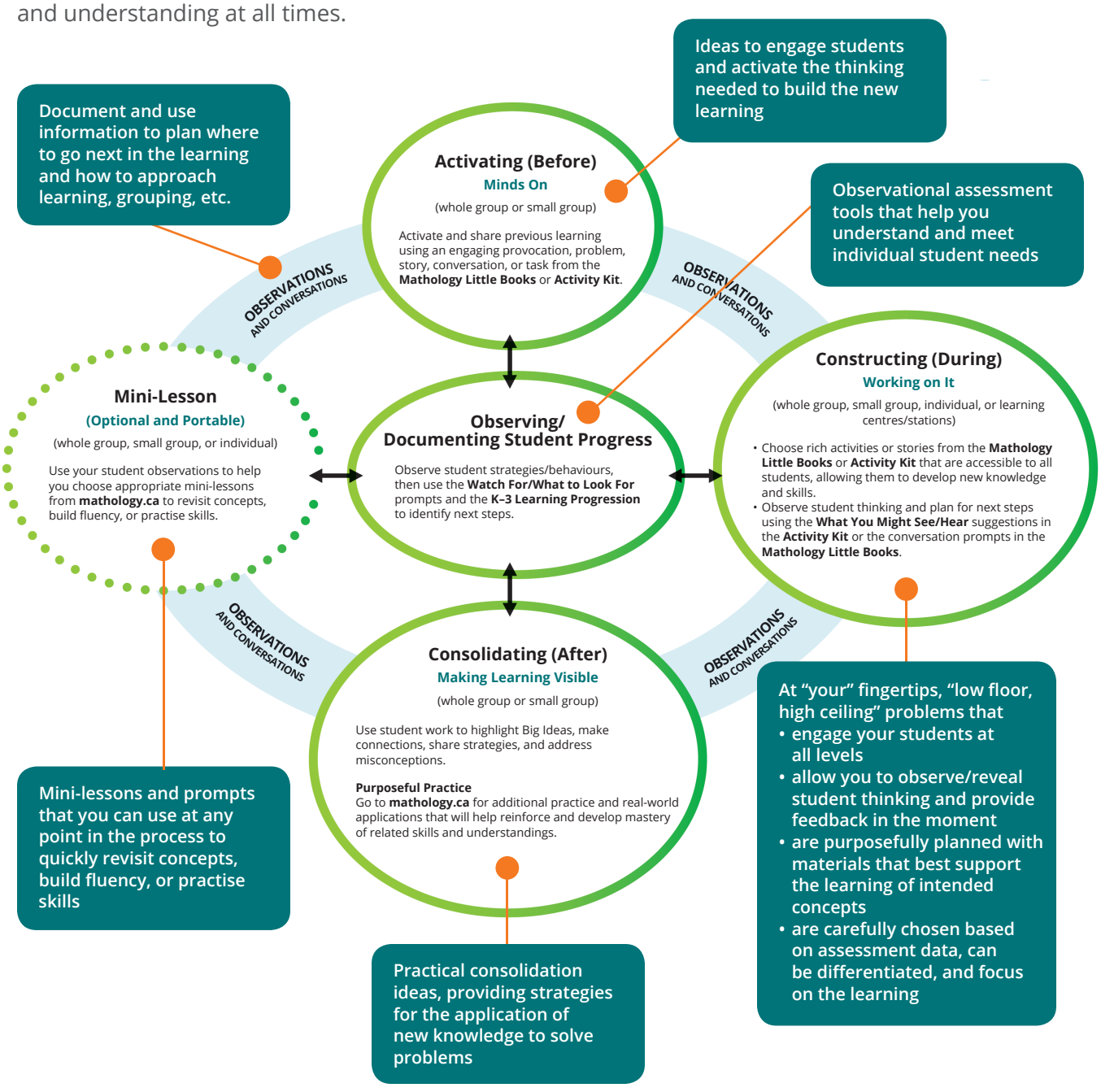
Search by Progression is another way to search for lessons. Choose a strand, the Big Idea, the conceptual thread, then click on the magnifying glass to see the search results.



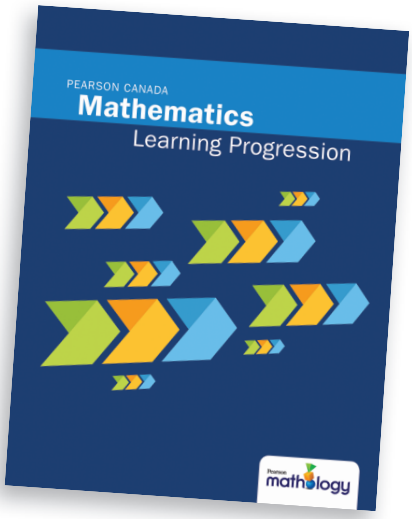
Mathology Lesson Model

All Mathology components are structured using a lesson model that was developed in collaboration with teachers, educators, and researchers across Canada, reflecting the most current research and best practices in teaching and learning mathematics.

Throughout the model, an active focus on observing and conferring with students enables teachers to gain insight into students' thinking and understanding at all times.



Pearson Canada K–3 Learning Progression



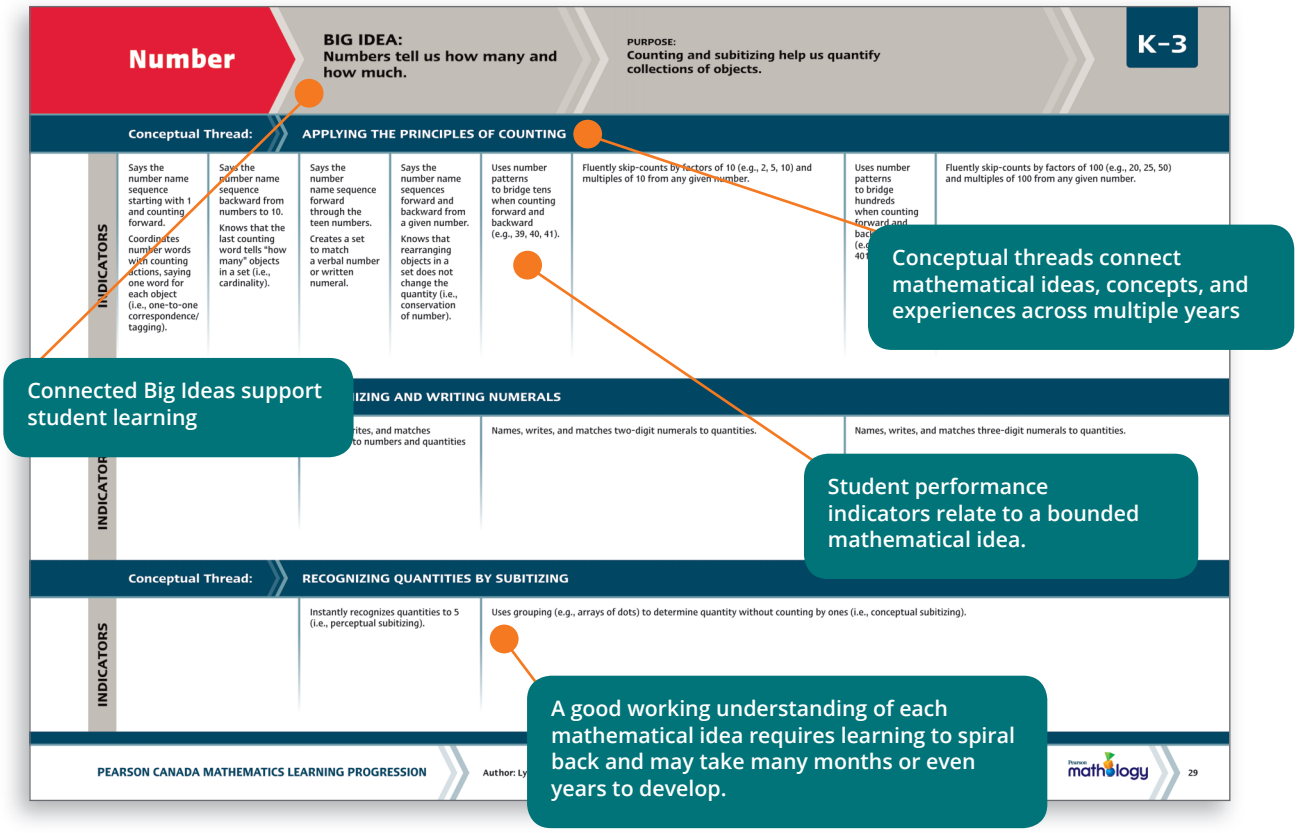
What is it?

- a research-based framework representing how mathematical ideas are connected and the typical progression of student learning of those ideas
- reflects current research in mathematical learning and relates to the Big Ideas in math curricula across Canada

How does it help your practice?

The Learning Progression provides you with a concise reference to mathematics content across multiple grades, allowing you to visualize the growth of mathematical ideas over several years. It helps you to plan for, anticipate, and assess student learning in today's diverse classrooms.

For each of the 5 mathematical strands, Big Ideas are unpacked gradually to reveal Conceptual Threads and Indicators of performance. As you move to the right across a thread, the indicators describe how learning and concepts unfold across the grades.



Teaching with Mathology Activity Kit

About the Activity Kit

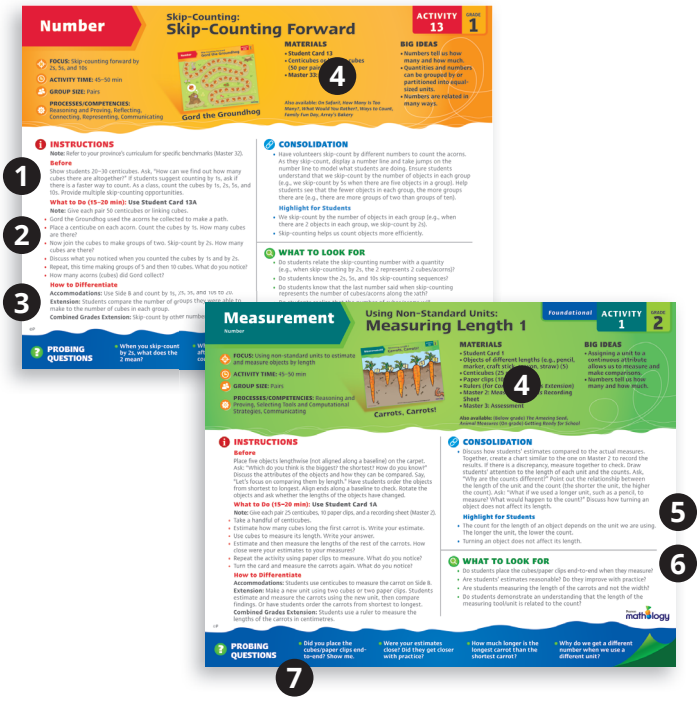
At grades 1 and 2, the Mathology Activity Kit includes activities organized by strands into two boxes:

- The first box contains activities illustrating the Number Strand as well as the Pearson Canada K–3 Learning Progression and Multi-Use Cards.
- The second box contains activities in the Patterning & Algebra, Measurement, Geometry, and Data Management & Probability strands.

Each box contains two types of cards: teacher cards and student cards.

- **Teacher cards** provide teaching instructions and observational guides.
  - Side A offers instructions for the activity, including How to Differentiate, Probing Questions, and What to Look For prompts, as well as ideas for activating prior learning and consolidation.

Side A

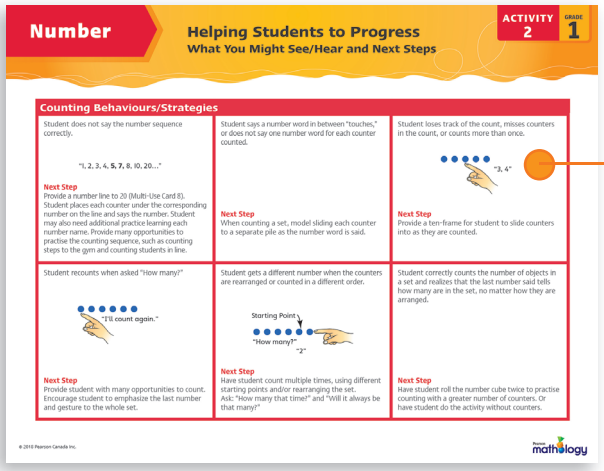


1. Activities, stories, and math talks that engage students and activate thinking
2. Instructions written in student-friendly language
3. Suggestions for differentiation to help pace the learning within the same class activity, depending on your observation of student needs

   Extensions allow you to meet the curriculum requirements for the next grade if you have a combined class
4. A list of Mathology Little Books that further support math instruction and differentiation
5. Highlights of intended learning, connections to prior learning, and misconceptions to help students reflect on their own learning and the strategies they use
6. Practical, in-the-moment assessment prompts that help you gather evidence of understanding and uncover partial concepts/ misconceptions
7. Sample questions to probe student understanding that can be added to your own repertoire of effective questioning

– Side B includes information on what you might observe or hear as students work on the activity, including potential student behaviours and strategies linked to the Big Ideas in the lesson. It also provides suggestions for next steps.

Side B



Move students forward to the next logical step along a mathematics learning progression

- **Student cards*** may be double-sided to allow for differentiation: one side is on grade; the other side supports accommodations or extensions. There are 10 copies of each card to allow for whole-class and small-group work.

Use Side B of the Student Card to accommodate or extend the learning

Side A

Side B

Designed for hands-on student work

Fun, colourful illustrations

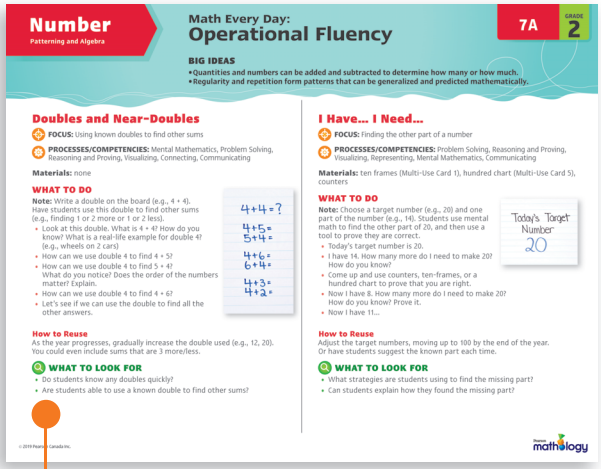
The math focus ties to specific curriculum outcomes

*For use with dry-erase markers and manipulatives.
For best results, use quality low-solvent dry-erase pens.

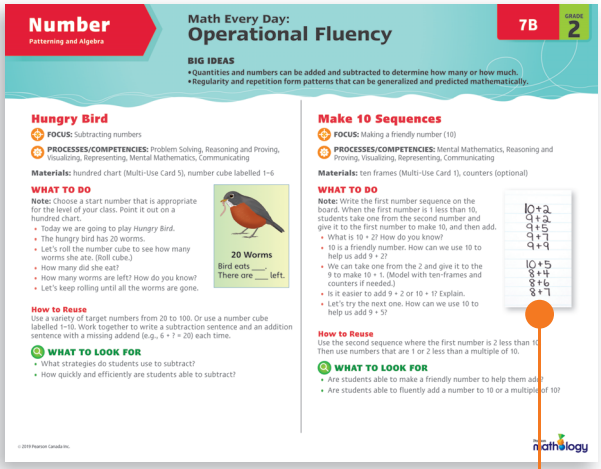
- At Grade 2, the activity kit provides 22 **Math Every Day cards**, one for each cluster. These activities are set up as whole-class routines. Use them to revisit concepts at various points throughout the year to help build student confidence and fluency.

  Each Math Every Day card provides 2 or 4 activities for each cluster.

Side A



Side B



Prompts on how to modify an activity to revisit it throughout the year

Examples of front-of-class stimuli that foster classroom conversations

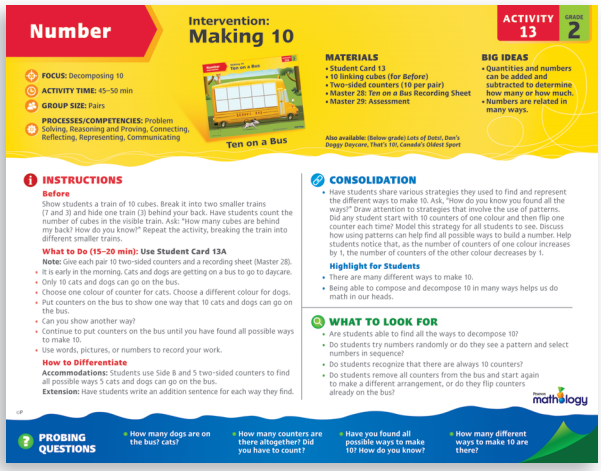
- The Grade 2 activity kit also includes **44 Intervention** activities (2 per cluster), designed for small group, pairs, or individual work.

  Use these activities as prompted on Side B of the teacher cards or as you see fit, based on your observations.

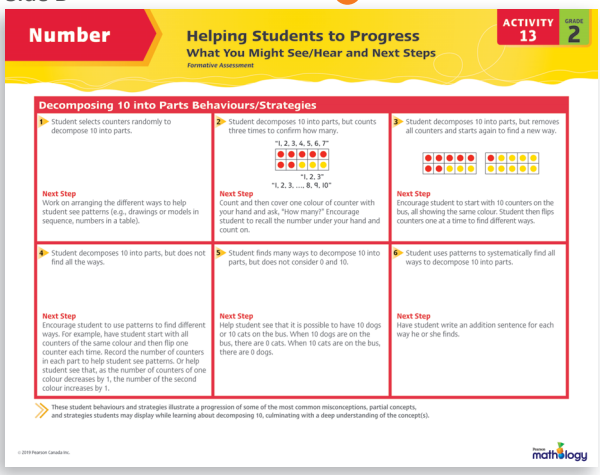
  Intervention activities focus on prior learning and earlier stages in the development of concepts, helping you support your students to progress at a pace that honours each student's learning journey.

Each Intervention activity is set up as a lesson, providing ideas for activation and consolidation of learning, as well as observational, in-the-moment assessment support.

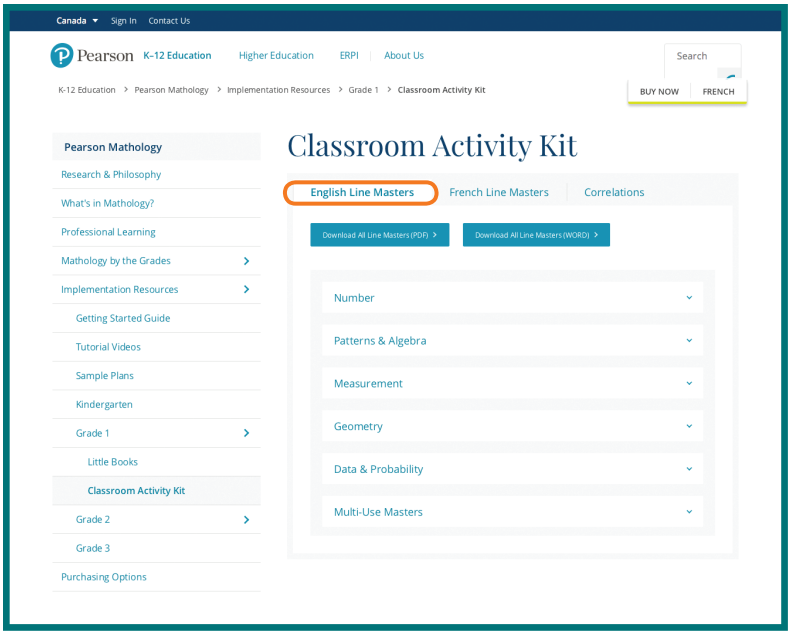
Side A



Side B



Line masters for each Activity Card are available, in Word and PDF format, at pearsonmathology.ca: Implementation Resources, Grade 1 Classroom Activity Kit, English Line Masters.



Organizing Your Grade 1 Kit

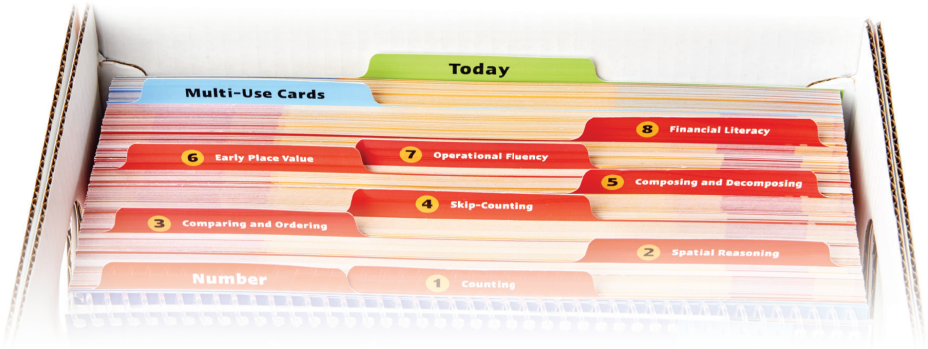
Box 1

1. Unwrap your packages and place them in three piles. Put aside your Number strand divider. It lists each cluster and its accompanying teacher and student cards.
2. Place the Learning Progression booklet at the front of the box, followed by the 4 overview cards.
3. Then place Cluster Divider 1, Counting, followed by teacher cards 1–5 and student cards 1–5.
4. Use the order shown on the Number strand divider to help you place the remaining cluster dividers, teacher cards, and student cards.

Box 1 contains:

- **Package 1**: 4 overview cards and 40 teacher cards
- **Package 2**: 10 divider cards with tabs (includes a Number strand divider, 8 cluster dividers, and a Today divider)
- **Package 3**: 27 student cards and 5 Multi-Use Cards
- The *Pearson Canada Mathematics Learning Progression* booklet

5. Then place the Multi-Use Cards divider and the accompanying Multi-Use cards at the back of the box, followed by the Today card.
6. Finally, place the Number Strand divider in front of Cluster Divider 1: Counting.



Box 2

1. Unwrap your packages and place them in three piles. Put aside your Patterning and Algebra strand divider. It lists each cluster and its accompanying teacher and student cards.
2. Place Cluster Divider 1: Investigating Repeating Patterns at the front of the box, followed by teacher cards 1–5 and student cards 1, 3–5.
3. Use the order shown on the Patterning and Algebra strand divider to help you place the remaining cluster dividers, teacher cards, and student cards for this strand. Then place the Patterning and Algebra strand divider at the front of this section.
4. Put aside the Measurement strand divider. Follow the order listed to organize the cards for this strand.
5. Follow the same process for the two remaining strands.

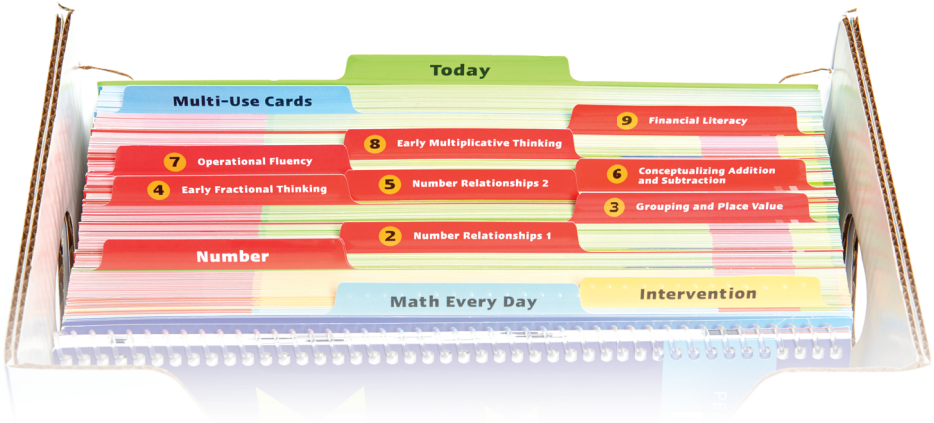
Box 2 contains:

- **Package 1**: 1 overview card and 61 teacher cards
- **Package 2**: 17 divider cards with tabs (includes 4 strand dividers and 13 cluster dividers)
- **Package 3**: 35 student cards

Organizing Your Grade 2 Kit

Box 1

1. Unwrap packages 1–3 and place them in three piles. Put aside your Number strand divider. It lists each cluster and its accompanying teacher and student cards.
2. Place the Learning Progression booklet at the front of the box, followed by the 5 Overview cards.
3. Place the Math Every Day divider, followed by the Math Every Day teacher cards 1–9.
4. Place the Intervention divider, followed by Intervention teacher cards 1–18 and Intervention student cards 12, 13, 17, and 18.
5. Then place the Number Cluster 1: Counting divider, followed by teacher cards 1–5 and student cards 1 and 4.
6. Use the order shown on the Number strand divider to help you place the remaining cluster dividers, teacher cards, and student cards.
7. Then place the Multi-Use cards divider and the accompanying Multi-Use cards at the back of the box, followed by the Today divider.
8. Finally, place the Number strand divider in front of the Number Cluster 1: Counting divider.



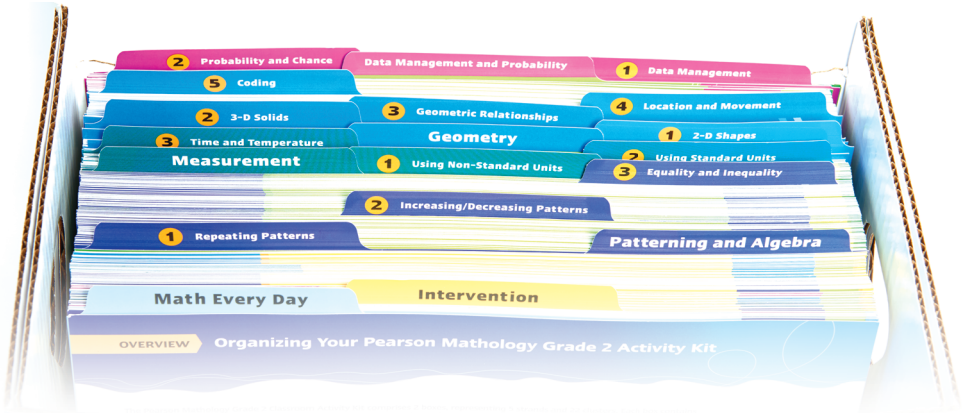
Box 1 contains:

- **Package 1**: 5 Overview cards and 74 teacher cards (includes 47 instructional cards, 9 Math Every Day cards, and 18 Intervention cards)
- **Package 2**: 14 divider cards with tabs (includes a Number strand divider, a Math Every Day divider, an Intervention divider, and 9 cluster dividers, a Multi-Use cards divider, and a Today divider)
- **Package 3**: 24 student cards and 5 Multi-Use cards
- *The Pearson Canada Mathematics Learning Progression* booklet

Box 2

1. Unwrap your packages and place them in three piles. Put aside your Patterning and Algebra strand divider. It lists each cluster and its accompanying teacher and student cards.
2. Place the Math Every Day divider, followed by the Math Every Day cards:
   - **Patterning and Algebra** cards 1–3
   - **Measurement** cards 1–3
   - **Geometry** cards 1–5
   - **Data Management and Probability** cards 1 and 2
3. Place the Intervention divider, followed by the Intervention **teacher cards**:
   - **Patterning and Algebra** cards 1-6
   - **Measurement** cards 1-6
   - **Geometry** cards 1–10
   - **Data Management and Probability** cards 1–4 and then the Intervention **student cards**:
   - **Patterning and Algebra** cards 1 and 4
   - **Measurement** card 3
   - **Geometry** cards 2 and 10
4. Then place the Patterning and Algebra Cluster 1: Repeating Patterns divider, followed by teacher cards 1–5 and student cards 1, 3A, 3C, and 3E.
5. Use the order shown on the Patterning and Algebra strand divider to help you place the remaining cluster dividers, teacher cards, and student cards for this strand. Then place the Patterning and Algebra strand divider at the front of this section.
6. Put aside the Measurement strand divider. Follow the order shown on the divider to organize the cards for this strand.
7. Follow the same process for the two remaining strands.
8. Place the Overview card at the front of your Activity Kit.

Box 2 contains:
- **Package 1**: 1 Overview card and 111 teacher cards (includes 72 instructional cards, 13 Math Every Day cards, and 26 Intervention cards)
- **Package 2:** 19 divider cards with tabs (includes 4 strand dividers, a Math Every Day divider, and Intervention divider, and 13 cluster dividers)
- **Package 3:** 25 student cards



Activity Cards Index

Grade 1 Activity Kit

Number

Big Idea 1: Numbers tell us how many and how much.

Big Idea 2: Numbers are related in many ways.

Big Idea 3: Quantities and numbers can be grouped by or partitioned into equal-sized units.

Big Idea 4: Quantities and numbers can be added and subtracted to determine how many or how much.

Cluster 1: Counting		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Counting to 20 1	**Big Idea 1** **Focus:** Counting to 20 to determine how many	• Student Card 1 (**Activity 1A: Berry Counting; Activity 1B: More Berries!**) • Pipe cleaners for branches (1 per pair) • Beads for berries (20 per pair) • Master 2: *My Huckleberry (Duje)* Story • Master 3: First Nations Languages and Dialects • Master 4: Audio Recordings • Master 5: Assessment
2: Counting to 50 2	**Big Idea 1** **Focus:** Counting to determine "how many"	• Student Card 2 (**Activity 2: Keeping Fit**) • Number cubes labelled 1–6 (1 per pair) • Counters (about 50 per pair) • Multi-Use Card 1: Ten-Frames • Master 6: Action Cards • Master 7: Assessment
3: Counting On and Back 3	**Big Idea 1** **Focus:** Counting on and back from a given number	• Student Card 3 (**Activity 3A: Hopping On; Activity 3B: Hopping Back**) • Game pieces (1 per student) • Number cubes labelled 1–6 (1 per pair) • Master 8: *Hopping On* Game Boards • Master 9: *Hopping Back* Game Boards • Master 10: Assessment
4: Ordinal Numbers 4	**Big Ideas 1 and 2** **Focus:** Using ordinal numbers to tenth	• Student Card 4 (**Activity 4: Line Them Up!**) • Master 11: Barn Animal Cards • Master 12: Ordinal Number Cards • Master 13: Assessment
5: Consolidation 5	**Big Ideas 1 and 2** **Focus:** Consolidating counting	• Student Card 5 (**Activity 5: Catching Fish**) • Bags of about 30 counters (1 per pair) • Two-sided counters (1 per pair) • Number cubes labelled 1–6 (1 per pair) • Master 14: Number Cards • Master 15: Assessment

Cluster 2: Spatial Reasoning		
Teacher Card	**Big Idea/Focus**	**Materials**
6: Subitizing to 10	**Big Idea 1** **Focus:** Recognizing quantities to 10 without counting	• Student Card 6 (**Activity 6A/6B: Dot Flash to 10!**) • Counters (15 per pair) • Master 17: Dot Cards • Master 18: How Many Dots? • Master 19: Assessment
7: Estimating Quantities	**Big Idea 2** **Focus:** Using referents to estimate quantities to 20	• Student Card 7 (**Activity 7: Grab 20!**) • Bags of about 40 counters (1 per pair) • Multi-Use Card 1: Ten-Frames • Master 20: *Grab 20!* Recording Sheet • Master 21: Assessment
8: Consolidation	**Big Idea 2** **Focus:** Consolidating spatial reasoning	• Student Card 8 (**Activity 8A/8B: How Many?**) • Master 22: *How Many?* Recording Sheet • Master 23: Assessment

Cluster 3: Comparing and Ordering		
Teacher Card	**Big Idea/Focus**	**Materials**
9: Comparing Sets Concretely	**Big Ideas 1 and 2** **Focus:** Comparing two sets to 20 concretely	• Bags of 20 counters (1 per student) • Multi-Use Card 1: Ten-Frames • Master 25: More/Fewer Cards • Master 26: Assessment *No student card is needed for this activity.
10: Comparing Sets Pictorially	**Big Ideas 1 and 2** **Focus:** Comparing two sets to 20 pictorially	• Student Card 10 (**Activity 10: Breakfast of Bananas**) • Master 14: Number Cards • Master 27: Banana Cards • Master 28: Assessment
11: Comparing Numbers to 50	**Big Ideas 1 and 2** **Focus:** Comparing and ordering numbers to 50	• Student Card 11 (**Activity 11A/11B: Making Popsicles!**) • 100 craft sticks (numbered 1–50 twice) • Counters, linking cubes, number lines, hundred charts • Master 29: Assessment
12: Consolidation	**Big Ideas 1 and 2** **Focus:** Consolidating comparing and ordering	• Student Card 12 (**Activity 12A/12B: Feeding the Fish**) • Craft sticks (numbered 2–49) • Counters, number lines, hundred charts (optional) • Master 30: Fish Outlines • Master 31: Assessment

Cluster 4: Skip-Counting		
Teacher Card	**Big Idea/Focus**	**Materials**
13: Skip-Counting Forward 13	**Big Ideas 1, 2, and 3** **Focus:** Skip-counting forward by 2s, 5s, and 10s	• Student Card 13 (**Activity 13A/13B: Gord the Groundhog**) • Centicubes or linking cubes (50 per pair) • Master 33: Assessment
14: Skip-Counting with Leftovers 14	**Big Ideas 1, 2, and 3** **Focus:** Counting quantities that are not multiples of the skip-counting number	• Student Card 14 (**Activity 14A/14B: The Fun Fair**) • Bags of 48 counters (1 per pair) • Master 34: The School Fun Fair • Master 35: Activity Cards • Master 36: *The Fun Fair* Recording Sheet • Master 37: Assessment
15: Skip-Counting Backward 15	**Big Ideas 1, 2, and 3** **Focus:** Skip-counting backward by 2s and 5s	• Student Card 15 (**Activity 15A: Delivering Mail**; **Activity 15B: Mail on Planet Math**) • Number cubes labelled 1–6 and 1–10 (one of each per pair) • Game pieces (1 per student) • Master 38: *Delivering Mail* Game Board • Master 39: *Mail on Planet Math* Game Board • Master 40: Assessment
16: Consolidation 16	**Big Ideas 1, 2, and 3** **Focus:** Consolidating skip-counting	• Student Card 16 (**Activity 16A/16B: Under Construction!**) • Bags of 50 linking cubes or counters (1 per pair) • Master 41: *Under Construction!* Recording Sheet • Master 42: Assessment

Cluster 5: Composing and Decomposing		
Teacher Card	**Big Idea/Focus**	**Materials**
17: Decomposing 10 17	**Big Ideas 1 and 2** **Focus:** Composing and decomposing 10	• Student Card 17 (**Activity 17A: Ten in the Pools**; **Activity 17B: Ten in Three Pools**) • Counters (10 per pair) • Multi-Use Card 1: Ten-Frames • Master 44: *Ten in the Pools* Recording Sheet • Master 45: Assessment
18: Numbers to 10 18	**Big Ideas 1 and 2** **Focus:** Decomposing numbers to 10	• Two colours of linking cubes (10 of each per pair) • Master 14: Number Cards • Master 46: Tower Recording Sheet • Master 47: Assessment *No student card is needed for this activity.

Cluster 5: Composing and Decomposing (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
19: Numbers to 20 19	**Big Ideas 1, 2, and 3** **Focus:** Decomposing numbers to 20	• Counters (20 per pair) • Multi-Use Card 1: Ten-Frames • Multi-Use Card 3: Five-Frames • Master 14: Number Cards • Master 48: Ten-Frame Recording Sheet • Master 49: Assessment *No student card is needed for this activity.
20: Money Amounts 20	**Big Ideas 1, 2, and 4** **Focus:** Representing money amounts to 20 cents in different ways	• Student Card 20 (**Activity 20A: Pocket Full of Change**; **Activity 20B: My Coin**) • Canadian play coins • Master 50: Coin Cards • Master 51: Assessment
21: Equal Groups 21	**Big Ideas 1, 2, and 3** **Focus:** Decomposing numbers into equal groups, with and without singles	• Linking cubes (20 per pair) • Master 52: Equal Groups Recording Sheet • Master 53: Assessment *No student card is needed for this activity.
22: Equal Parts 22	**Big Ideas 2 and 3** **Focus:** Partitioning a whole into equal parts	• Large paper squares • A collection of paper strips, rectangles, pieces of ribbon, string, and balls of modelling clay • Modelling clay tools, scissors • Master 54: Assessment *No student card is needed for this activity.
23: Consolidation 23	**Big Ideas 1, 2, and 3** **Focus:** Consolidating composing and decomposing numbers	• Counters, 2 colours of linking cubes, Canadian play coins • Multi-Use Card 1: Ten-Frames • Master 14: Number Cards • Masters 46, 48, 52: Recording Sheets • Master 55: Assessment *No student card is needed for this activity.

Cluster 6: Early Place Value		
Teacher Card	**Big Idea/Focus**	**Materials**
24: Tens and Ones 24	**Big Ideas 1, 2, and 3** **Focus:** Building and comparing two-digit numbers using tens and ones	• Student Card 24 (**Activity 24: Place-Value Mat**) • Pairs of Styrofoam®/paper cups (one numbered 1–4 twice; the other 0–9) (1 set per pair) • Linking cubes (100 per pair) • Multi-Use Card 2: Place-Value Mat • Master 57: Tens and Ones Recording Sheet • Master 58: Assessment

Cluster 6: Early Place Value (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
25: Building and Naming Numbers 25	**Big Ideas 1, 2, and 3** **Focus:** Building, naming, and comparing numbers using tens and ones	• Student Card 24 (**Activity 24: Place-Value Mat**) • Bags of about 80 linking cubes (1 per pair) • Number cubes labelled 1–6 (1 per pair) • Multi-Use Card 2: Place-Value Mat • Master 59: Assessment
26: Different Representations 26	**Big Ideas 1, 2, and 3** **Focus:** Recognizing numbers shown in different ways using tens and ones	• Linking cubes • Master 60: Matching Cards • Master 61: Assessment *No student card is needed for this activity.
27: Consolidation 27	**Big Ideas 1, 2, and 3** **Focus:** Consolidating early place value	• Chart paper • Linking cubes • Master 62: Tens and Ones Cut-outs • Master 63: Sample Number Poster • Master 64: Assessment *No student card is needed for this activity.

Cluster 7: Operational Fluency		
Teacher Card	**Big Idea/Focus**	**Materials**
28: More or Less 28	**Big Ideas 1, 2, and 4** **Focus:** Determining one or two more or less than a given number	• Bingo chips/small counters • Multi-Use Card 8: Number Lines • Master 66: Bingo Cards (1 per pair) • Master 67: Caller's Sheet • Master 68: Assessment *No student card is needed for this activity.
29: Adding to 20 29	**Big Ideas 1, 2, and 4** **Focus:** Adding numbers to 20	• Student Card 29 (**Activity 29: Let's Go Fishing!**) • Counters/linking cubes • Master 69: *Traditional Fish Weirs* Story • Master 70: Salmon Cards (2 sets per pair) • Master 71: Answer Cards (1 set per pair) • Master 72: Assessment
30: Subtracting to 20 30	**Big Ideas 1, 2, and 4** **Focus:** Subtracting numbers to 20	• 9 bear counters • Linking cubes (20 per student) • Number cubes labelled 1–6 (1 per pair) • Master 73: Subtracting to 20 Recording Sheet • Master 74: Assessment *No student card is needed for this activity.

Cluster 7: Operational Fluency (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
31: The Number Line 31	**Big Ideas 1, 2, and 4** **Focus:** Adding and subtracting numbers to 20 on a number line	• Masking tape to make a number line running 0–20 on the floor • Multi-Use Card 8: Number Lines • Master 75: Math Problem Cards • Master 76: Assessment *No student card is needed for this activity.
32: Doubles 32	**Big Ideas 1, 2, and 4** **Focus:** Determining doubles of numbers from 1 to 10	• 2-sided counters • Multi-Use Card 1: Ten-Frames • Master 77: Even-Number Cards • Master 78: Doubles with Ten-Frames Cards • Master 79: Doubles Cards • Master 80: Odd-Number Cards • Master 81: Near-Doubles Cards • Master 82: Assessment *No student card is needed for this activity.
33: Part-Part-Whole 33	**Big Ideas 1, 2, and 4** **Focus:** Representing addition and subtraction situations with concrete materials, pictures, and symbols	• Student Card 33 (**Activity 33: My Mat**) • Bag of 10 counters • Counters (20 per pair) • Styrofoam® cups (1 per pair) • Master 83: Assessment
34: Solving Story Problems 34	**Big Ideas 1, 2, and 4** **Focus:** Creating and solving addition and subtraction story problems	• Student Card 34 (**Activity 34A/34B: Math in Pictures**) • Linking cubes, counters, ten-frames • Multi-Use Card 4: Part-Part-Whole Mat • Master 84: *Math in Pictures* Recording Sheet • Master 85: Math in Pictures • Master 86: Assessment
35: Consolidation 35	**Big Ideas 1, 2, and 4** **Focus:** Consolidating operational fluency	• Student Card 35 (**Activity 35A/35B: Picture Problems**) • Counters, ten-frames, linking cubes • Multi-Use Card 4: Part-Part-Whole Mat • Master 87: Number Talks • Master 88: Number Sentences • Master 89: Assessment

Cluster 8: Financial Literacy		
Teacher Card	**Big Idea/Focus**	**Materials**
36: Values of Coins 36	**Big Ideas 1 and 2** **Focus:** Identifying, naming, and sorting coins	• Student Card 36 (**Activity 36A/36B: Sort and Count**) • Canadian play coins (small collection per pair) • Master 91: Assessment
37: Counting Collections 37	**Big Ideas 1 and 2** **Focus:** Counting multiples of coins of the same denomination	• Student Card 37 (**Activity 37A/37B: How Much?**) • Canadian play coins (loonies, toonies, nickels, and dimes) • Multi-Use Card 1: Ten-Frames • Master 92: Assessment
38: Fair Trades 38	**Big Ideas 1 and 2** **Focus:** Trading objects assigned a value for other objects	• Student Card 38 (**Activity 38A/38B: Nature Trades**) • Objects from nature (e.g., leaf, acorn) • Master 93: Object Pictures • Master 94: Assessment
39: Wants and Needs 39	**Big Idea 2** **Focus:** Distinguishing between wants and needs	• Student Card 39 (**Activity 39A/39B: Our Stores**) • Master 95: Our Stores • Master 96: Assessment
40: Consolidation 40	**Big Ideas 1 and 2** **Focus:** Consolidating financial literacy	• Student Card 40 (**Activity 40: Things We Need**) • Canadian play coins (small collection per pair) • Master 97: Assessment

Patterning and Algebra

Big Idea 1: Regularity and repetition form patterns that can be generalized and predicted mathematically.

Big Idea 2: Patterns and relations can be represented with symbols, equations, and expressions.

Number Big Idea 2: Numbers are related in many ways.

Cluster 1: Investigating Repeating Patterns		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Repeating the Core 1	**Big Idea 1** **Focus:** Identifying, describing, and extending geometric repeating patterns with 2–4 elements in the core	• Student Card 1 (**Activity 1A/1B: Spinning for Cores**) • Attribute Blocks • Pencils and paper clips for pointers (1 of each per pair) • Master 2: Assessment
2: Representing Patterns 2	**Big Idea 1** **Focus:** Identifying, representing, and describing numeric repeating patterns	• Master 3: Pattern Cards (1 set per pair) • Master 4: Core Cards (1 set per pair) • Master 5: Assessment *No student card is needed for this activity.
3: Predicting Elements 3	**Big Idea 1** **Focus:** Predicting an element in repeating patterns	• Student Card 3 (**Activity 3A/3B: Make a Guess**) • Materials such as Attribute Blocks and Colour Tiles • Master 6: Assessment
4: Finding Patterns 4	**Big Idea 1** **Focus:** Finding repeating patterns on a hundred chart	• Student Card 4 (**Activity 4A: Hundred Chart**; **Activity 4B: Number Chart (1–30)**) • Master 7: Assessment
5: Consolidation 5	**Big Idea 1** **Focus:** Consolidating the investigation of repeating patterns	• Student Card 5 (**Activity 5A/5B: The Jewelled Crown**) • Strips of construction paper (about 5 cm wide and 50 cm long) (one per student) • Scissors and tape • Master 8: Crown Cut-Out • Master 9: Assessment

Cluster 2: Creating Patterns		
Teacher Card	**Big Idea/Focus**	**Materials**
6: Extending Patterns 6	**Big Idea 1** **Focus:** Extending repeating patterns	• Student Card 6 (**Activity 6A/6B/6C/6D/6E/6F/6G/6H: Continue the Patterns**) • Linking cubes/Colour Tiles, Attribute Blocks, Pattern Blocks • Master 11: Assessment
7: Translating Patterns 7	**Big Idea 1** **Focus:** Translating a repeating pattern in a variety of ways	• Student Card 7 (**Activity 7A/7B: Pattern Circle Cores**) • Materials such as Attribute Blocks, Pattern Blocks, counters • Game pieces (1 per pair) • Master 12: *The Number Four (Newo)* Story • Master 13: Assessment
8: Errors and Missing Elements 8	**Big Idea 1** **Focus:** Finding errors and missing elements in repeating patterns	• Student Card 8 (**Activity 8A/8C: Find the Errors**; **Activity 8B/8D: What's Missing?**) • Colour Tiles • Master 14: *Fancy Dance* Story • Master 15: Assessment
9: Consolidation 9	**Big Idea 1** **Focus:** Consolidating the creation of repeating patterns	• Student Card 9 (**Activity 9A/9B: More Pattern Circles**) • Materials such as Attribute Blocks, Pattern Blocks, counters • Pencils and paper clips for pointer (1 set per pair) • Game pieces (1 per pair) • Master 16: Assessment

Cluster 3: Equality and Inequality		
Teacher Card	**Big Idea/Focus**	**Materials**
10: Exploring Sets 10	**Big Idea 2** **Focus:** Creating equal and unequal sets	• Containers of about 25 linking cubes (1 per pair) • Pan balances (1 per pair) • Master 18: Am I Balanced? Recording Sheet • Master 19: Assessment *No student card is needed for this activity.
11: Making Equal Sets 11	**Big Idea 2** **Number Big Idea 2** **Focus:** Adding or subtracting to make unequal sets equal	• Linking cubes (25 per pair) • Pan balances (1 per pair) • Number cubes labelled 1–6 (1 per pair) • Master 20: Assessment *No student card is needed for this activity.

Cluster 3: Equality and Inequality (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
12: Using Symbols 12	**Big Idea 2** **Focus:** Recording equalities and inequalities symbolically	• Student Card 12 (**Activity 12: Do I Balance?**) • Number cubes labelled 1–10 (1 per pair) • Linking cubes (about 40 per pair) • Pan balances (1 per pair) • Master 21: Assessment
13: Consolidation 13	**Big Idea 2** **Focus:** Consolidating equality and inequality	• Linking cubes (30 per pair) • Pan balances (1 per pair) • Master 22: Number Cards • Master 23: Pan Card Recording Sheet • Master 24: Assessment *No student card is needed for this activity.

Measurement

Big Idea 1: Many things in our world have attributes that can be measured and compared.

Big Idea 2: Assigning a unit to a continuous attribute allows us to measure and make comparisons.

Number Big Idea 2: Numbers are related in many ways.

Cluster 1: Comparing Objects		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Comparing Length 1	**Big Idea 1** **Focus:** Comparing and ordering two or more objects by length	• Large tray of items (e.g., pencil, pen, marker, craft stick, crayon, straw) • Pencil crayons (4 per pair) • Master 2: Assessment *No student card is needed for this activity.
2: Comparing Mass 2	**Big Idea 1** **Focus:** Comparing and ordering two or more objects by mass	• Book, eraser, stapler • Pan balances (1 per pair) • Variety of objects (e.g., rocks, pencils, cubes, balls, ...) (3 per pair) • Master 3: Assessment *No student card is needed for this activity.
3: Comparing Capacity 3	**Big Idea 1** **Focus:** Comparing and ordering two or more objects by capacity	• Two different-sized glasses • Containers of different sizes and shapes (e.g., yogourt tubs, jam jars) (3 per pair) • Sand or water • Cups (1 per pair) • Master 4: Assessment *No student card is needed for this activity.

Cluster 1: Comparing Objects (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
4: Making Comparisons 4	**Big Idea 1** **Focus:** Comparing and ordering two or more objects by length, mass, and capacity	• Objects for comparing length, mass, and capacity (from previous activities) • Pan balances (1 per group) • Cups (1 per group) • Sand or water • Master 5: Comparison Cards • Master 6: Making Comparisons Recording Sheet • Master 7: Assessment *No student card is needed for this activity.
5: Comparing Area 5	**Big Idea 1** **Focus:** Comparing and ordering two or more objects by area	• Student Card 5 (**Activity 5: Cover Me!**) • Two different-sized green paper rectangles • Colour Tiles (about 25 per pair) • Books (1 per pair) • Master 8: Assessment
6: Consolidation 6	**Big Idea 1** **Focus:** Consolidating comparing objects	• Variety of objects to compare (from previous activities) • Pan balances, Colour Tiles, sand/water, cups • Master 9: Word Cards • Master 10: Assessment *No student card is needed for this activity.

Cluster 2: Using Uniform Units		
Teacher Card	**Big Idea/Focus**	**Materials**
7: Matching Lengths 7	**Big Ideas 1 and 2** **Focus:** Using an object to measure and compare lengths of other objects	• Straws (1 per student) • Master 12: Sorting Mat • Master 13: Assessment *No student card is needed for this activity.
8. Exploring the Metre 8	**Big Ideas 1 and 2** **Focus:** Connecting non-standard units to the metre stick	• Metre stick • Paper strips (1 m long and 10–15 cm wide) (1 per student or pair) • Master 14: Hand Span Recording Sheet • Master 15: Assessment *No student card is needed for this activity.
9: Using Multiple Units 9	**Big Ideas 1 and 2** **Focus:** Using multiple uniform units to estimate and measure length	• Bags of 4–5 objects of varied lengths, all shorter than 10 cubes (e.g., pipe cleaner, pencil, popsicle stick) (1 per student or pair) • Linking cubes (10 per student or pair) • Master 16: How Many Cubes? Recording Sheet • Master 17: Assessment *No student card is needed for this activity.

Cluster 2: Using Uniform Units (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
10: A Benchmark of One Metre 10	**Big Ideas 1 and 2** **Focus:** Using the metre stick as a benchmark for measuring length	• Metre sticks or paper strips one metre in length (1 per student or pair) • Master 18: About One Metre Recording Sheet • Master 19: Assessment *No student card is needed for this activity.
11: Measuring Length 11	**Big Ideas 1 and 2** **Focus:** Estimating and measuring objects with different uniform, non-standard units	• Student Card 11 (**Activity 11A/11B: Silly Snake!**) • Items of different lengths (e.g., paper clips, short lengths of straws, different lengths of pipe cleaners, string, linking cubes) (1 set per group) • Master 20: Paper Snake • Master 21: *Silly Snake!* Recording Sheet • Master 22: Assessment
12: Iterating the Unit 12	**Big Ideas 1 and 2** **Focus:** Iterating (repeating) a single length unit to measure	• Student Card 12 (**Activity 12: The Curious Cat**) • Paper clips (1 per student or pair) • Master 23: The Toy Castle • Master 24: Assessment
13: Measuring Area 13	**Big Ideas 1 and 2** **Focus:** Estimating and measuring area using uniform, non-standard units	• Envelopes with 2 different sizes of paper squares (Masters 25, 26) (1 per pair) • Rectangular sheets of construction paper (9" by 12") (1 per pair) • Master 25: Paper Squares (3" by 3") • Master 26: Paper Squares (1.5" by 1.5") • Master 27: Assessment *No student card is needed for this activity.
14: Measuring Capacity 14	**Big Ideas 1 and 2** **Focus:** Estimating and measuring capacity using uniform, non-standard units	• Bags of cubes (1 per pair) • Containers of different sizes (e.g., baby food jars, milk cartons) (1 per pair) • Master 28: Assessment *No student card is needed for this activity.
15: Consolidation 15	**Big Ideas 1 and 2** **Focus:** Consolidating using uniform units	• Containers (e.g., cereal boxes, milk cartons) (2 per group) • Measuring tools (e.g., linking cubes, centicubes, paper clips, string, Colour Tiles, paper squares, marbles) • Master 29: Recording Sheet • Master 30: Assessment *No student card is needed for this activity.

Cluster 3: Time and Temperature		
Teacher Card	**Big Idea/Focus**	**Materials**
16: Ordering Events 16	**Big Idea 1** **Focus:** Ordering the events of a day	• Master 32: Building a Snow Figure • Master 33: Activity Pictures • Master 34: Activity Pictures (Extension) • Master 35: Assessment *No student card is needed for this activity.
17: Passage of Time 17	**Big Idea 1** **Focus:** Measuring the passage of time using non-standard units	• Sand timers (1 per pair) • Linking cubes (25 per pair) • Master 36: Passage of Time Activity Cards • Master 37: Passage of Time Recording Sheet • Master 38: Assessment *No student card is needed for this activity.
18: Telling Time 18	**Big Idea 1** **Focus:** Telling and writing time to the hour and half-hour	• Student Card 18 (**Activity 18: What's the Time?**) • Demonstration analogue clock • Modelling clay • Master 33: Activity Pictures • Master 39: Clock Cards • Master 40: Clock Cards (Extension) • Master 41: Assessment
19: Relating to Seasons 19	**Big Idea 1** **Focus:** Relating temperature to experiences of the season	• Large paper plates (1 per student) • Master 42: Which Season? Cards • Master 43: Tree Cards • Master 44: Assessment *No student card is needed for this activity.
20: The Calendar 20	**Big Idea 1** **Number Big Idea 2** **Focus:** Naming the months of the year and reading the calendar	• Master 45: Month Cards • Master 46: Ordinal Number Cards • Master 47: Assessment *No student card is needed for this activity.
21: Consolidation 21	**Big Idea 1** **Number Big Idea 2** **Focus:** Consolidating time and temperature	• Student Card 21 (**Activity 21A/21B/21C/21D: Zoey at the Zoo**) • Demonstration analogue clock • Master 48: Assessment

Geometry

Big Idea 1: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.

Big Idea 2: 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change.

Big Idea 3: Objects can be located in space and viewed from multiple perspectives.

Patterning and Algebra Big Idea 1: Regularity and repetition form patterns that can be generalized and predicted mathematically.

Cluster 1: 2-D Shapes		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Sorting Shapes 1	**Big Idea 1** **P & A Big Idea 1** **Focus:** Sorting 2-D shapes by their attributes	• Student Card 1 (**Activity 1: Spin and Sort**) • Attribute Blocks • Pencils and paper clips for pointer (1 of each per pair) • Multi-Use Card 6: Sorting Mat • Master 2: Attribute Shapes • Master 3: Assessment
2: Identifying Triangles 2	**Big Idea 1** **P & A Big Idea 1** **Focus:** Using attributes of triangles to sort shapes	• Multi-Use Card 6: Sorting Mat • Master 4: *Shape Song* • Master 5: Am I a Triangle? Cards • Master 6: Assessment *No student card is needed for this activity.
3: Identifying Rectangles 3	**Big Idea 1** **P & A Big Idea 1** **Focus:** Using attributes of rectangles to sort shapes	• Index card • Multi-Use Card 6: Sorting Mat • Master 4: *Shape Song* • Master 7: Am I a Rectangle? Cards • Master 8: Assessment *No student card is needed for this activity.
4: Visualizing Shapes 4	**Big Idea 1** **P & A Big Idea 1** **Focus:** Building mental images of shapes	• Non-transparent bags of Attribute Blocks (all of 1 colour with hexagons removed, 1 bag per group) • Master 9: Assessment *No student card is needed for this activity.
5: Sorting Rules 5	**Big Idea 1** **P & A Big Idea 1** **Focus:** Sorting 2-D shapes using a sorting rule	• Attribute Blocks • Multi-Use Card 6: Sorting Mat • Master 10: Shape Cards • Master 11: Assessment *No student card is needed for this activity.
6: Consolidation 6	**Big Idea 1** **P & A Big Idea 1** **Focus:** Consolidating 2-D shapes	• Attribute Blocks • Multi-Use Card 6: Sorting Mat • Master 10: Shape Cards • Master 12: Assessment *No student card is needed for this activity.

Cluster 2: 3-D Solids		
Teacher Card	**Big Idea/Focus**	**Materials**
7: Exploring 3-D Solids 7	**Big Idea 1** **Focus:** Exploring and describing the attributes of 3-D solids	• A set of 6 reference solids: sphere, cylinder, cube, rectangular prism, triangular prism, cone • Sets of 6 solids in a non-transparent bag (1 set per pair) • Master 14: Assessment *No student card is needed for this activity.
8: Sorting 3-D Solids 8	**Big Idea 1** **P & A Big Idea 1** **Focus:** Sorting 3-D solids using a single attribute	• Student Card 8 (**Activity 8A/8B: Rules to Sort By**) • Sets of 10–12 solids (1 set per pair) • Master 15: Assessment
9: Identifying the Sorting Rule 9	**Big Idea 1** **P & A Big Idea 1** **Focus:** Identifying a sorting rule	• Student Card 8 (**Activity 8A/8B: Rules to Sort By**) • Sets of 10–12 solids (1 set per pair) • Master 16: Assessment
10: Consolidation 10	**Big Idea 1** **P & A Big Idea 1** **Focus:** Consolidating 3-D solids	• Student Card 10 (**Activity 10A/10B: Spinning for Rules**) • Sets of 10–12 solids (1 set per pair) • Paper clips and pencils for pointer (1 of each per pair) • Master 17: The Unfinished Castle • Master 18: Assessment

Cluster 3: Geometric Relationships		
Teacher Card	**Big Idea/Focus**	**Materials**
11: Faces of Solids 11	**Big Idea 1** **Focus:** Describing the 2-D faces of 3-D solids	• Two identical cereal boxes • Containers/boxes with square and circular faces • Assortment of 3-D solids • File folders to act as barriers (1 per pair) • Master 20: Assessment *No student card is needed for this activity.
12: Making Designs 12	**Big Idea 1** **Focus:** Using 2-D shapes to make pictures and designs	• Pattern Blocks • Master 21: Pattern Block Design Templates • Master 22: Assessment *No student card is needed for this activity.

Cluster 3: Geometric Relationships (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
13: Covering Outlines 13	**Big Idea 1** **Focus:** Covering puzzle outlines with 2-D shapes	• Student Card 13 (**Activity 13A/13B: Pattern Block Design**) • Non-transparent bags of Pattern Blocks (an assortment of about 25 blocks; no orange squares or tan parallelograms) (1 bag per pair) • Master 23: Assessment
14: Identifying Shapes 14	**Big Idea 1** **Focus:** Identifying 2-D shapes within geometric designs	• Student Card 14 (**Activity 14A/14B: Find the Shapes**) • Markers (3 different colours per pair) • Master 24: Quilt Design • Master 25: *Find the Shapes* Designs • Master 26: *Find the Shapes* Recording Sheet • Master 27: Assessment
15: Consolidation 15	**Big Idea 1** **Focus:** Consolidating geometric relationships	• Pattern Blocks • Assortment of 3-D solids • Master 28: Shape Outline Cards • Master 29: Made with Solids Cards • Master 30: Assessment *No student card is needed for this activity.

Cluster 4: Symmetry		
Teacher Card	**Big Idea/Focus**	**Materials**
16: Finding Lines of Symmetry 16	**Big Idea 2** **Focus:** Identifying lines of symmetry in pictures	• Student Card 16 (**Activity 16A/16B/16C/16D/16E/16F/16G/16H: Finding Symmetry**) • Miras (1 per pair) • Master 32: Exploring Lines of Symmetry • Master 33: Symmetrical Images • Master 34: Assessment
17: Creating Symmetrical Designs 17	**Big Idea 2** **Focus:** Creating symmetrical designs using concrete materials	• Student Card 17 (**Activity 17A/17B/17C/17D: Finish Me!**) • Pattern Blocks • Miras (1 per pair) • Master 35: Assessment
18: Consolidation 18	**Big Idea 2** **Focus:** Consolidating symmetry	• String, pipe cleaners, or heavy thread • At least 3–5 colours and different sizes of beads or buttons • Master 36: Necklace/Bracelet Templates • Master 37: Assessment *No student card is needed for this activity.

Cluster 5: Location and Movement		
Teacher Card	**Big Idea/Focus**	**Materials**
19: Perspective Taking 19	**Big Idea 3** **Focus:** Visualizing objects from different perspectives	• Bear counters/toy characters (1 per pair) • Bags of 3–4 small objects (e.g., rocks, cubes, craft sticks, paper cups) (1 per pair) • Master 39: Objects on a Table • Master 40: Position Cards • Master 41: Assessment *No student card is needed for this activity.
20: Mapping 20	**Big Idea 3** **Focus:** Creating and mapping familiar spaces	• Building materials (e.g., cubes, wooden blocks, building blocks, popsicle sticks, rocks, objects from nature) • Construction paper mats (1 per group) • Master 42: Maps (1 map per group) • Master 43: Assessment *No student card is needed for this activity.
21: Consolidation 21	**Big Idea 3** **Focus:** Consolidating location and movement	• Student Card 21 (**Activity 21A/21B: Where Am I?**) • Linking cubes (1 per pair) • Files folders to act as barriers (1 per pair) • Master 44: Map of a Classroom • Master 45: Student Card Map A • Master 46: Student Card Map B • Master 47: Assessment

Data Management and Probability

Big Idea 1: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.

Patterning and Algebra Big Idea 1: Regularity and repetition form patterns that can be generalized and predicted mathematically.

Cluster 1: Data Management		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Interpreting Graphs 1	**Big Idea 1** **P & A Big Idea 1** **Focus:** Reading and interpreting concrete graphs and pictographs	• Student Card 1 (**Activity 1A/1B: Our Schoolyard**) • Master 2: Assessment
2: Making Concrete Graphs 2	**Big Idea 1** **P & A Big Idea 1** **Focus:** Using concrete graphs to display and interpret data	• Student Card 2 (**Activity 2A/2B: Our Cubes**) • Bags of about 20 linking cubes (mix of red, green, blue, yellow) (1 bag per pair) • Master 3: Assessment
3: Making Pictographs 3	**Big Idea 1** **P & A Big Idea 1** **Focus:** Using pictographs to display and interpret data	• Student Card 3 (**Activity 3A/3B: Our Walk**) • Sticky notes • Multi-Use Card 7: Graphing Mat • Master 4: Tally Chart • Master 5: Pictograph Pictures • Master 6: Assessment
4: Consolidation 4	**Big Idea 1** **P & A Big Idea 1** **Focus:** Consolidating data management	• Student Card 4 (**Activity 4A/4B: I Spy!**) • Chart paper/Multi-Use Card 7: Graphing Mat • Pattern Blocks, number cubes, bear counters, 2-D shapes, 3-D solids, linking cubes, counters • Master 7: Assessment

Cluster 2: Probability and Chance		
Teacher Card	**Big Idea/Focus**	**Materials**
5: Likelihood of Events 5	**Big Idea 1** **Focus:** Describing the likelihood of an event	• Master 9: Could It Happen? Events • Master 10: More Likely or Less Likely • Master 11: Assessment *No student card is needed for this activity.
6: Consolidation 6	**Big Idea 1** **Focus:** Consolidating probability and chance	• Paper and coloured pencils/crayons • Master 12: Chance Words • Master 13: Assessment *No student card is needed for this activity.

Grade 2 Activity Kit

Number

Big Idea 1: Numbers tell us how many and how much.

Big Idea 2: Numbers are related in many ways.

Big Idea 3: Quantities and numbers can be grouped by or partitioned into equal-sized units.

Big Idea 4: Quantities and numbers can be added and subtracted to determine how many or how much.

Big Idea 5: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much.

Patterning and Algebra Big Idea 1: Regularity and repetition form patterns that can be generalized and predicted mathematically.

Patterning and Algebra Big Idea 2: Patterns and relations can be represented with symbols, equations, and expressions.

Data Management and Probability Big Idea 1: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.

Cluster 1: Counting		
Math Every Day	**Big Idea/Focus**	**Materials**
1A: Skip-Counting on a Hundred Chart	**Big Ideas 1, 2, and 3** **Focus:** Skip-counting forward and backward by 2s, 5s, and 10s	• Multi-Use Card 5: Hundred Chart
1A: Skip-Counting from Any Number	**Big Ideas 1, 2, and 3** **Focus:** Skip-counting forward by 2s and 10s from a one-digit number	• Multi-Use Card 5: Hundred Chart
1B: Skip-Counting with Actions	**Big Ideas 1, 2, and 3** **Focus:** Using physical actions to skip-count	• Multi-Use Card 5: Hundred Chart
1B: What's Wrong? What's Missing?	**Big Ideas 1, 2, and 3** **Focus:** Identifying errors or missing numbers in skip-counting sequences	• Multi-Use Card 5: Hundred Chart

Cluster 1: Counting		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Bridging Tens 1	**Big Ideas 1 and 2** **Focus:** Counting on and counting back by 1s from a given number	• Student Card 1 (Activity 1A/1B: **Leaping on Lilypads**) • Linking cubes (40) • Multi-Use Card 5: Hundred Chart • Master 2: Hundred Chart 101–200 • Master 3: Hundred Charts 101–500 • Master 4: Assessment
2: Skip-Counting Forward 2	**Big Ideas 1, 2, and 3** **Focus:** Skip-counting forward by 2s, 5s, and 10s	• Linking cubes (40) • Card stock and hole punch • Lengths of yarn with a knot at one end • Multi-Use Card 5: Hundred Chart • Master 5: Skip-Counting by 2s Spider Webs • Master 6: Skip-Counting by 5s Spider Webs • Master 7: Skip-Counting by 10s Spider Webs • Master 8: Skip-Counting Spider Web Template • Master 9: Assessment *No student card is needed for this activity.
3: Skip-Counting Flexibly 3	**Big Ideas 1, 2, and 3** **Focus:** Skip-counting forward by 2s and 10s from any given number	• Canadian play coins (4 dimes and 1 penny for *Before*) or coin cutouts from Master 115 • Number cubes labelled 1–6 (1 per pair) • Multi-Use Card 5: Hundred Chart • Master 10: Number Cards (4 to 9) • Master 11: Assessment *No student card is needed for this activity.
4: Skip-Counting Backward 4	**Big Ideas 1, 2, and 3** **Focus:** Skip-counting backward by 2s, 5s, and 10s	• Student Card 4 (**Activity 5: Skip to the Finish**) • Number cubes labelled 1–6 (1 per pair) • Game pieces (1 per student) • Multi-Use Card 5: Hundred Chart • Master 12: Skip-Counting Backward Game Cards • Master 13: Assessment
5: Consolidation 5	**Big Ideas 1, 2, and 3** **Focus:** Consolidating counting	• Game pieces (1 per student) • Multi-Use Card 5: Hundred Chart • Master 3: Hundred Charts (101–500) • Master 14: Counting On and Back Game Cards • Master 15: Skip-Counting (by 2s, 5s, and 10s) Game Cards • Master 16: Assessment *No student card is needed for this activity.

Cluster 1: Counting		
Intervention	**Big Idea/Focus**	**Materials**
1: Skip-Counting with Objects	**Big Ideas 1, 2, and 3** **Focus:** Skip-counting forward by 2s, 5s, and 10s	• Linking cubes or counters (50 per pair) • Multi-Use Card 5: Hundred Chart • Master 1: *Memories of Mooshoom and Noohkoom* • Master 2: Assessment *No student card is needed for this activity.
2: Skip-Counting Backward	**Big Ideas 1, 2, and 3** **Focus:** Skip-counting backward by 2s and 5s	• Counters (30 per pair) • Multi-Use Card 5: Hundred Chart • Master 3: Three Rows of Hundred Chart • Master 4: Five Rows of Hundred Chart • Master 5: Assessment *No student card is needed for this activity.

Cluster 2: Number Relationships 1		
Math Every Day	**Big Idea/Focus**	**Materials**
2A: Show Me in Different Ways	**Big Ideas 1 and 2** **Focus:** Representing numbers in different ways	• Chart paper or whiteboard and markers • A variety of tools (e.g., counters, ten-frames, linking cubes, number lines) (optional)
2A: Guess My Number	**Big Ideas 1 and 2** **Focus:** Describing a number	• Paper or cardstock, folded in half (1 per student) • Chart paper or whiteboard and markers • Multi-Use Card 5: Hundred Chart (optional)
2B: Math Commander	**Big Ideas 1 and 2** **Focus:** Using math language to give simple directions	• None
2B: Building an Open Number Line	**Big Ideas 1 and 2** **Focus:** Showing different representations of a number on an open line	• String • Clothespins • Index Cards

Cluster 2: Number Relationships 1		
Teacher Card	**Big Idea/Focus**	**Materials**
6: Comparing Quantities 6	**Big Ideas 1 and 2** **Focus:** Comparing two quantities to determine how many more/less	• 2 small sets of countable objects (e.g., counters, paper clips, marbles) • Bins of up to 100 linking cubes (1 per pair) • Multi-Use Card 5: Hundred Chart • Multi-Use Card 8: Number Lines • Master 18: *Comparing Quantities* Recording Sheet • Master 19: Assessment *No student card is needed for this activity.

Cluster 2: Number Relationships 1 (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
7: Ordering Quantities 7	**Big Ideas 1 and 2** **Focus:** Comparing and ordering quantities to 100	• Student Card 7 (**Activity 7: Order Me!**) • String, clothespins, and index cards • Number cubes labelled 1–6 (2 per pair) • Linking cubes, counters • Multi-Use Card 1: Ten-Frames • Multi-Use Card 5: Hundred Chart • Master 20: Assessment
8: Odd and Even Numbers 8	**Big Ideas 1 and 3** **P & A Big Idea 1** **Focus:** Using concrete materials to identify even and odd numbers	• Student Card 8 (**Activity 8: Layla the Ladybug**) • Counters (20 per pair) • Master 21: Number Cards (1–20) • Master 22: Assessment
9: Ordinal Numbers 9	**Big Ideas 1 and 2** **Focus:** Using ordinal numbers to describe relative position	• Student Card 9 (**Activity 9A/9B: Riding the Elevator**) • Counters (10 per pair) • Master 21: Number Cards (to 20) • Master 23: Ordinal Number Cards (to 20th) • Master 24: Ordinal Word Cards (to twentieth) • Master 25: Assessment
10: Estimating with Benchmarks 10	**Big Ideas 1 and 2** **Focus:** Using benchmarks to estimate quantities to 100	• Linking cubes (50 for *Before*) • Empty jars with lids (2 per pair) • Collections of small, countable objects of the same size (e.g., paper clips, dimes, marbles, counters, buttons) • Master 26: *How Many in the Jar?* Recording Sheet • Master 27: Assessment *No student card is needed for this activity.
11: Decomposing to 20 11	**Big Ideas 1 and 2** **Focus:** Decomposing quantities to 20 into two parts	• Linking cubes (20 per pair) • Master 28: *Making Trains* Recording Sheet • Master 29: Assessment *No student card is needed for this activity.
12: Consolidation 12	**Big Ideas 1, 2, and 3** **Focus:** Consolidating number relationships 1	• Student Card 12 (**Activity 12A/12B: Race to the Finish**) • Number cubes labelled 1–6 (1 per pair) • Game pieces (1 per student) • Linking cubes, counters • Multi-Use Card 1: Ten-Frames • Multi-Use Card 5: Hundred Chart • Master 30: Task Cards • Master 31: Assessment

Cluster 2: Number Relationships		
Intervention	**Big Idea/Focus**	**Materials**
3: My 10 Bracelet	**Big Ideas 1 and 2** **Focus:** Decomposing 10 into two parts	• Pipe cleaners (1 per student) • Small beads (10 per student) • Two-sided counters (5) • Multi-Use Card 3: Five-Frames • Master 6: *My 10 Bracelet* Recording Sheet • Master 7: Assessment *No student card is needed for this activity.
4: Who Has More?	**Big Ideas 1 and 2** **Focus:** Comparing quantities to 10	• Sets of double-nine dominoes or Master 8: Domino Cards (1 set per pair) • Master 9: Assessment *No student card is needed for this activity.

Cluster 3: Grouping and Place Value		
Math Every Day	**Big Idea/Focus**	**Materials**
3A: Adding Ten	**Big Ideas 2 and 3** **P & A Big Idea 1** **Focus:** Determining 10 more than a number	• Multi-Use Card 5: Hundred Chart • Markers
3A: Taking Away Ten	**Big Ideas 2 and 3** **P & A Big Idea 1** **Focus:** Determining 10 less than a number	• Multi-Use Card 5: Hundred Chart • Markers
3B: Thinking Tens	**Big Ideas 2 and 3** **P & A Big Idea 1** **Focus:** Determining 10 or multiples of 10 more/less than a number	• Two number cubes labelled 1-6 • Chart paper or whiteboard and markers • Multi-Use Card 5: Hundred Chart (optional)
3B: Describe Me	**Big Ideas 2 and 3** **P & A Big Idea 1** **Focus:** Decomposing two-digit numbers as units of ten and leftover tens	• Chart paper or whiteboard and markers • Linking cubes (optional)

Cluster 3: Grouping and Place Value		
Teacher Card	**Big Idea/Focus**	**Materials**
13: Building Numbers 13	**Big Ideas 1, 2, and 3** **Focus:** Composing and decomposing two-digit numbers as units of tens and leftover ones	• Linking cubes (100 per pair) • Multi-Use Card 2: Place-Value Mat • Master 33: Building Numbers Cards • Master 34: Ten Trains and Ones • Master 35: Assessment *No student card is needed for this activity.

Cluster 3: Grouping and Place Value (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
14: Making a Number Line 14	**Big Idea 3** **P & A Big Idea 1** **Focus:** Determining 10 more or less than a number without counting	• Linking cubes • Scissors and tape • Crayons or coloured pencils (10 different colours) • Master 36: Hundred Chart (1 per pair) • Master 37: Assessment *No student card is needed for this activity.
15: Grouping to Count 15	**Big Ideas 2 and 3** **P & A Big Idea 1** **Focus:** Partitioning into equal-sized units in different ways and exploring relationships among the units	• Student Card 15 (**Activity 10A/10B/10C/10D: How Many?**) • Bins of up to 200 small countable objects (e.g., beads, buttons, marbles, shells, paper clips) (1 per pair) • Multi-Use Card 1: Ten-Frames (optional) • Master 38: *How Many?* Recording Sheet • Master 39: Assessment
16: Consolidation 16	**Big Ideas 2 and 3** **P & A Big Idea 1** **Focus:** Consolidating grouping and place value	• Linking cubes or small countable objects (about 100 per pair) • Number cubes labelled 0–9 (1 per pair) • Multi-Use Card 1: Ten-Frames • Multi-Use Card 2: Place-Value Mat • Multi-Use Card 5: Hundred Chart • Master 40: Consolidation Task Cards • Master 41: Assessment *No student card is needed for this activity.

Cluster 3: Grouping and Place Value		
Intervention	**Big Idea/Focus**	**Materials**
5: Adding Tens	**Big Ideas 2 and 3** **P & A Big Idea 1** **Focus:** Determining 10 or multiples of 10 more than a given number	• Number cubes labelled 1–6 (1 per pair) • Number cubes labelled 0–9 (1 per pair, for *Extension*) • String necklace with 12 beads and 20 more beads • Counters and linking cubes • Multi-Use Card 5: Hundred Chart • Master 10: *Adding Tens* Recording Sheet *No student card is needed for this activity.
6: Taking Away Tens	**Big Ideas 1, 2, 3** **Focus:** Determining 10 or multiples of 10 less than a given number	• Number cubes labelled 1–6 (1 per pair) • Number cubes labelled 0–9 (1 per pair, for *Extension*) • String bracelet with 32 beads • Counters and linking cubes • Multi-Use Card 5: Hundred Chart • Master 12: *Taking Away Tens* Recording Sheet • Master 13: Assessment *No student card is needed for this activity.

Cluster 4: Early Fractional Thinking		
Math Every Day	**Big Idea/Focus**	**Materials**
4A: Equal Parts from Home	**Big Idea 3** **Focus:** Connecting equal parts to everyday life	• None
4A: Modelling Fraction Amounts	**Big Idea 3** **Focus:** Modelling fraction amounts in different ways	• Pattern Blocks • Cuisenaire Rods (or rods cut from Master 1) • Master 2: Paper Shapes
4B: Regrouping Equal Parts	**Big Idea 3** **Focus:** Regrouping fractional parts into wholes	• Pattern Blocks or Cuisenaire Rods (or rods cut from Master 1)
4B: Naming Equal Parts	**Big Idea 3** **Focus:** Identifying whether a whole shows equal parts	• Examples and non-examples of wholes divided into equal parts (e.g., using pictures, shapes, Pattern Blocks, or Cuisenaire Rods)

Cluster 4: Early Fractional Thinking		
Teacher Card	**Big Idea/Focus**	**Materials**
17: Equal Parts 17	**Big Idea 3** **Focus:** Partitioning a whole into equal parts and naming the unit fraction	• Paper plates (5 per pair) • Scissors • Master 43: Rectangles (for *Before*) • Master 44: Paper Square • Master 45: Paper Strip • Master 46: Assessment *No student card is needed for this activity.
18: Comparing Fractions 1 18	**Big Idea 3** **Focus:** Relating the size and number of equal parts in a whole	• Scissors • Master 47: Bannock Story • Master 48: Circular Bannock • Master 49: Congruent Paper Squares (3 copies per pair, each of a different colour) • Master 50: Paper Shapes • Master 51: Assessment *No student card is needed for this activity.
19: Comparing Fractions 2 19	**Big Idea 3** **Focus:** Comparing the sizes of different unit fractions of the same whole	• Pattern Blocks (for *Before*) • Cuisenaire Rods or rods cut from Master 52 (1 set per pair) • Master 53: Brown Rod Questions • Master 54: Assessment

Cluster 4: Early Fractional Thinking (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
20: Regrouping Fractional Parts 20	**Big Idea 3** **Focus:** Regrouping fractional parts into wholes	• Pattern Blocks (yellow, red, blue, green) • Master 55: Hexagons • Master 56: *Regrouping* Recording Sheet • Master 57: Assessment *No student card is needed for this activity.
21: Consolidation 21	**Big Idea 3** **Focus:** Consolidating early fractional thinking	• Pattern Blocks • Cuisenaire Rods or rods cut from Master 52 • Master 44: Paper Square • Master 45: Paper Strip • Master 50: Paper Shapes • Master 58: Consolidation Cards • Master 59: Assessment *No student card is needed for this activity.

Cluster 4: Early Fractional Thinking		
Intervention	**Big Idea/Focus**	**Materials**
7: Exploring Equal Parts	**Big Idea 3** **Focus:** Partitioning wholes into equal-sized parts	• Scissors (1 per pair) • Master 14: Paper Square (3 copies for *Before*) • A collection of paper strips, paper squares, paper plates, rectangles, pieces of ribbon, string, index cards (Masters 14, 15, and 16) • Master 17: Assessment *No student card is needed for this activity.
8: Naming Fractional Amounts	**Big Idea 3** **Focus:** Naming fractional amounts	• Master 18: Paper Square Showing Fourths • Master 19: Paper Rectangle Showing Thirds • Master 20: Matching Cards • Master 21: Assessment *No student card is needed for this activity.

Cluster 5: Number Relationships 2		
Math Every Day	**Big Idea/Focus**	**Materials**
5A: Which Ten is Nearer?	**Big Idea 2** **Focus:** Using benchmarks to compare	• Chart paper or whiteboard and markers
5A: Building Numbers	**Big Idea 2** **Focus:** Composing two-digit numbers from parts	• Chart paper or whiteboard and markers • Multi-Use Card 4: Part-Part-Whole Mat (optional)

Cluster 5: Number Relationships 2 (continued)		
Math Every Day	**Big Idea/Focus**	**Materials**
5B: How Many Ways?	**Big Idea 2** **Focus:** Decomposing two-digit numbers into parts	• Chart paper or whiteboard and markers
5B: What's the Unknown Part?	**Big Idea 2** **Focus:** Finding the unknown part given the whole and a part	• Chart paper or whiteboard and markers • Multi-Use Card 4: Part-Part-Whole Mat (optional)

Cluster 5: Number Relationships 2		
Teacher Card	**Big Idea/Focus**	**Materials**
22: Benchmarks on a Number Line 22	**Big Ideas 1 and 2** **Focus:** Comparing numbers using benchmarks on a number line	• Class number line • Strips of construction paper (about 50 cm long) (1 per pair) • Multi-Use Card 8: Number Lines • Master 61: Closer To Cards • Master 62: Assessment *No student card is needed for this activity.
23: Decomposing 50 23	**Big Idea 2** **Focus:** Decomposing 50 to find the unknown part	• Student Card 23 (**Activity 23A: Parts of 50**; **Activity 23B: Parts of 20**) • Two-sided counters (50 per pair) • Multi-Use Card 1: Ten-Frames (optional) • Multi-Use Card 4: Part-Part-Whole Mat (for *Before*) • Multi-Use Card 5: Hundred Chart (optional) • Master 63: Assessment
24: Jumping on the Number Line 24	**Big Ideas 1, 2, and 3** **Focus:** Decomposing numbers on a number line	• Dried bean with face drawn on it • Linking cubes • Multi-Use Card 9: Open Number Line • Master 64: Target Number Cards • Master 65: Jumping Bean Number Lines • Master 66: Assessment *No student card is needed for this activity.
25: Consolidation 25	**Big Ideas 1, 2, and 3** **Focus:** Consolidating number relationships 2	• Two-sided counters (optional) • Linking cubes (optional) • Multi-Use Card 4: Part-Part-Whole Mat (optional) • Multi-Use Card 9: Open Number Line • Master 67: *Who Am I?* Cards • Master 68: Assessment *No student card is needed for this activity.

Cluster 5: Number Relationships 2		
Intervention	**Big Idea/Focus**	**Materials**
9: Making 20	**Big Ideas 1 and 2** **Focus:** Composing and decomposing numbers to 20	• Sets of double-nine dominoes or Master 8: Domino Cards (1 set per pair) • Two-sided counters (optional) • Master 22: Assessment *No student card is needed for this activity.
10: The Other Part of 10	**Big Ideas 1 and 2** **Focus:** Finding the unknown part of ten given the whole and a part	• Two colours of linking cubes (10 of each colour per pair) • Multi-Use Card 1: Ten-Frames • Master 23: *How Many More?* Recording Sheet • Master 24: Assessment *No student card is needed for this activity.

Cluster 6: Conceptualizing Addition and Subtraction		
Math Every Day	**Big Idea/Focus**	**Materials**
6: What Math Do You See?	**Big Ideas 1, 2, and 4** **Focus:** Creating addition and subtraction story problems	• Chart paper or whiteboard and markers • Pictures or books that show math (e.g., Master 3: At the Beach)
6: What Could the Story Be?	**Big Ideas 1, 2, and 4** **Focus:** Creating addition and subtraction story problems for a given number sentence	• Chart paper or whiteboard and markers

Cluster 6: Conceptualizing Addition and Subtraction		
Teacher Card	**Big Idea/Focus**	**Materials**
26: Exploring Properties 26	**Big Ideas 1, 2, and 4** **P & A Big Idea 2** **Focus:** Exploring the commutative property of addition and the property of zero in addition and subtraction	• Sets of double-nine dominoes or Master 70: Domino Cards (1 set per pair) • Master 71: Assessment *No student card is needed for this activity.
27: Solving Problems 1 27	**Big Ideas 1, 2, and 4** **P & A Big Idea 2** **Focus:** Modelling and solving addition and subtraction problem types (Part unknown: taking away)	• Student Card 27 (**Activity 7A/7B: Story Problems**) • Set of 12 small objects and paper bag • Linking cubes, counters, rekenreks • Multi-Use Card 1: Ten-Frames • Multi-Use Card 4: Part-Part-Whole Mat • Master 72: Assessment

Cluster 6: Conceptualizing Addition and Subtraction (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
28: Solving Problems 2 28	**Big Ideas 1, 2, and 4** **P & A Big Idea 2** **Focus:** Modelling and solving addition problem types (Whole unknown)	• Student Card 28 (**Activity 28: Think Board**) • Variety of manipulatives: linking cubes, counters, rekenreks • Multi-Use Card 1: Ten-Frames • Multi-Use Card 4: Part-Part-Whole Mat • Master 73: Think Board A • Master 74: Story Problems 2 • Master 75: Assessment *No student card is needed for this activity.
29: Solving Problems 3 29	**Big Ideas 1, 2, and 4** **P & A Big Idea 2** **Focus:** Modelling and solving addition and subtraction problem types (Part unknown: joining)	• Collection of 12 small rocks • Variety of manipulatives: linking cubes, counters, rekenreks • Multi-Use Card 1: Ten-Frames • Multi-Use Card 4: Part-Part-Whole Mat • Master 76: Story Problems 3 • Master 77: Assessment *No student card is needed for this activity.
30: Solving Problems 4 30	**Big Ideas 1, 2, and 4** **P & A Big Idea 2** **Focus:** Modelling and solving addition and subtraction problem types	• Box with a small collection of objects • Bins with 30–40 small objects (e.g., rocks, blocks, small toys) (1 per pair) • Large index cards (2 per pair) • Multi-Use Card 1: Ten-Frames • Multi-Use Card 4: Part-Part-Whole Mat • Master 78: Story Problem Starters • Master 79: Assessment *No student card is needed for this activity.
31: Consolidation 31	**Big Ideas 1, 2, and 4** **P & A Big Idea 2** **Focus:** Consolidating the conceptualization of addition and subtraction	• Student Card 28 (**Activity 28: Think Board**) • Tape • Linking cubes, counters, rekenreks • Multi-Use Card 1: Ten-Frames • Multi-Use Card 4: Part-Part-Whole Mat • Master 80: Think Board B • Master 81: Problem Cards • Master 82: Assessment

Cluster 6: Conceptualizing Addition and Subtraction		
Intervention	**Big Idea/Focus**	**Materials**
11: Adding and Subtracting to 20	**Big Ideas 1 and 4** **P & A Big Idea 2** **Focus:** Adding and subtracting quantities to 20 with counters and ten-frames	• Number cubes labelled 1–6 and 1–9 (1 of each per pair) • Counters • Multi-Use Card 1: Ten-Frames • Master 25: Assessment *No student card is needed for this activity.
12: Solving Story Problems	**Big Ideas 1 and 4** **P & A Big Idea 2** **Focus:** Creating and solving addition and subtraction problems to 20	• Student Card 12 (**Activity 12A/12B: My Animal Story**) • Collections of familiar small toy animals (e.g., frogs and bear counters) (20 of each per pair) • Multi-Use Card 1: Ten-Frames • Master 26: My Frog Story • Master 27: Assessment

Cluster 7: Operational Fluency		
Math Every Day	**Big Idea/Focus**	**Materials**
7A: Doubles and Near-Doubles	**Big Idea 4** **P & A Big Idea 1** **Focus:** Using known doubles to find other sums	• None
7A: I Have… I Need…	**Big Idea 4** **P & A Big Idea 1** **Focus:** Finding the other part of a number	• Multi-Use Card 1: Ten-Frames • Multi-Use Card 5: Hundred Chart • Counters
7B: Hungry Bird	**Big Idea 4** **P & A Big Idea 1** **Focus:** Subtracting numbers	• Multi-Use Card 5: Hundred Chart • Number cube labelled 1-6
7B: Make 10 Sequences	**Big Idea 4** **P & A Big Idea 1** **Focus:** Making a friendly number (10)	• Multi-Use Card 1: Ten-Frames • Counters (optional)

Cluster 7: Operational Fluency		
Teacher Card	**Big Idea/Focus**	**Materials**
32: Complements of 10 32	**Big Ideas 2 and 4** **P & A Big Idea 2** **Focus:** Recalling complements of 10	• Student Card 32 (**Activity 32: Our 10 Garden**) • Counters • Multi-Use Card 1: Ten-Frames • Master 84: Planting Seeds • Master 85: Seed Cards (0–10) • Master 86: Seed Cards (0–20) • Master 87: My 20 Garden • Master 88: Assessment
33: Using Doubles 33	**Big Ideas 2 and 4** **P & A Big Idea 2** **Focus:** Using known doubles to find other sums	• Number cube labelled 1–9 • Sets of double-nine dominoes or Master 70: Domino Cards (doubles plus/minus 1/2 only) (1 set per pair) • Master 89: Common Doubles • Master 90: Assessment *No student card is needed for this activity.
34: Fluency with 20 34	**Big Ideas 2 and 4** **P & A Big Idea 2** **Focus:** Adding and subtracting numbers to 20 fluently	• Student Card 34 (**Activity 34A: Four in a Line; Activity 34B: Three in a Line**) • Two colours of counters (10 of each per pair) • Multi-Use Card 1: Ten-Frames • Master 89: Common Doubles • Master 91: *Four in a Line* Cards • Master 92: *Three in a Line* Cards • Master 93: *Four in a Line* Game Board (for *Combined Grades Extension*) • Master 94: Assessment
35: Multi-Digit Fluency 35	**Big Ideas 2 and 4** **P & A Big Idea 2** **Focus:** Using mental strategies to estimate sums and differences and solve equations with multi-digit numbers	• Master 95: Question Cards • Master 96: *Multi-Digit Fluency* Recording Sheet • Master 97: Assessment *No student card is needed for this activity.
36: Consolidation 36	**Big Ideas 2 and 4** **P & A Big Idea 2** **Focus:** Consolidating operational fluency	• Counters • Sets of double-nine dominoes or Master 70: Domino Cards (1 set per pair) • Multi-Use Card 1: Ten-Frames • Master 89: Common Doubles • Master 98: Assessment *No student card is needed for this activity.

Cluster 7: Operational Fluency		
Intervention	**Big Idea/Focus**	**Materials**
13: Making 10	**Big Ideas 2 and 4** **Focus:** Decomposing 10	• Student Card 13 (**Activity 13A: Ten on a Bus; Activity 13B: Five on a Bus**) • 10 linking cubes (for *Before*) • Two-sided counters (10 per pair) • Master 28: *Ten on a Bus* Recording Sheet • Master 29: Assessment
14: Finding Doubles	**Big Idea 4** **Focus:** Determining doubles of numbers from 1 to 10	• Bingo dauber • Counters • Rekenreks • Multi-Use Card 1: Ten-Frames • Master 30: Number Cards (1–10) • Master 31: Assessment *No student card is needed for this activity.

Cluster 8: Early Multiplicative Thinking		
Math Every Day	**Big Idea/Focus**	**Materials**
8A: Counting Equal Groups to Find How Many	**Big Ideas 3 and 5** **Focus:** Skip-counting by equal-sized units to determine how many	• Master 4: Images of everyday Items
8A: I Spy	**Big Ideas 3 and 5** **Focus:** Skip-counting equal groups to determine how many	• Items in the classroom to count that show different numbers (e.g., legs on a desk show 4)
8B: How Many Blocks?	**Big Ideas 3 and 5** **Focus:** Developing early multiplicative thinking with Pattern Blocks	• Pattern Blocks
8B: How Many Ways?	**Big Ideas 3 and 5** **Focus:** Using early multiplicative relationships to show a number in different ways	• Chart paper or whiteboard and markers • Multi-Use Card 8: Number Line (optional)

Cluster 8: Early Multiplicative Thinking		
Teacher Card	**Big Idea/Focus**	**Materials**
37: Grouping in 2s, 5s, and 10s 37	**Big Ideas 1 and 5** **Focus:** Grouping items in 2s, 5s, and 10s	• Linking cubes (8) • Bags of 10, 15, and 18 items (e.g., paper clips, buttons) (1 of each per group) • Multi-Use Card 1: Ten-Frames • Master 100: *Grouping* Recording Sheet • Master 101: Assessment *No student card is needed for this activity.
38: Making Equal Shares 38	**Big Ideas 1 and 5** **Focus:** Modelling and solving equal-sharing problems	• Student Card 38 (**Activity 38A/38B/38C/38D: Sharing with Friends**) • Counters (6) • Concrete materials (e.g., counters, buttons, beads, stickers, pencils) • Master 102: Our Equal-Sharing Problem • Master 103: Assessment
39: Making Equal Groups 39	**Big Ideas 1 and 5** **Focus:** Modelling and solving equal-grouping problems	• Counters (6) • Concrete materials (e.g., counters, linking cubes, buttons) (24 per pair) • Master 104: *Making Equal Groups* Recording Sheet • Master 105: Assessment *No student card is needed for this activity.
40: Exploring Repeated Addition 40	**Big Ideas 1 and 5** **P & A Big Idea 1** **Focus:** Using repeated addition of groups to solve problems	• Student Card 40 (**Activity 40A/40B: How Many Are There?**) • Concrete materials (e.g., counters, linking cubes, buttons) • Master 106: *Our Repeated Addition Problems* Recording Sheet • Master 107: *How Many?* Objects • Master 108: Assessment
41: Repeated Addition and Multiplication 41	**Big Idea 5** **P & A Big Idea 2** **Focus:** Relating repeated addition on a number line to multiplication	• Student Card 41 (**Activity 41A/40B: Number Line Jumps**) • Linking cubes (30 per pair) (optional) • Master 109: Repeated Addition Problems • Master 110: Assessment
42: Consolidation 42	**Big Ideas 2 and 5** **P & A Big Idea 2** **Focus:** Consolidating early multiplicative thinking	• Counters (30 per pair) • Master 111: Item Cards • Master 112: People Cards • Master 113: Assessment *No student card is needed for this activity.

Cluster 8: Early Multiplicative Thinking		
Intervention	**Big Idea/Focus**	**Materials**
15: How Many Do You See?	**Big Idea 5** **Focus:** Grouping objects on ten-frames to find how many	• Counters (about 20 per pair) • Multi-Use Card 1: Ten-Frames • Master 32: Ten-Frame Cards • Master 33: Assessment *No student card is needed for this activity.
16: Messy and Organize It	**Big Idea 5** **Data Management and Probability Big Idea 1** **Focus:** Grouping objects to determine how many	• Bins or bags of small countable items (up to 100) (1 per pair) • Chart paper • Sticky notes (optional) • Multi-Use Card 1: Ten-Frames • Master 34: Assessment *No student card is needed for this activity.

Cluster 9: Financial Literacy		
Math Every Day	**Big Idea/Focus**	**Materials**
9: Collections of Coins	**Big Ideas 1, 2, and 3** **Focus:** Counting the value of a collection of coins	• Chart paper or whiteboard and markers • Canadian play coins or coin cutouts from Master 5 • Multi-Use Card 5: Hundred Chart *No student card is needed for this activity.
9: Showing Money in Different Ways	**Big Ideas 1, 2, and 3** **Focus:** Representing money amounts in different ways	• Canadian play coins or coin cutouts from Master 5 *No student card is needed for this activity.

Cluster 9: Financial Literacy		
Teacher Card	**Big Idea/Focus**	**Materials**
43: Estimating Money 43	**Big Ideas 1 and 2** **P & A Big Idea 1** **Focus:** Estimating, counting, and comparing collections of coins	• Student Card 43 (**Activity 43A/43B: Saving Money**) • Jar of 5 dimes and jar of 10 nickels • Canadian play coins or use coin cutouts from Master 115 (nickels, dimes, and quarters) • Multi-Use Card 5: Hundred Chart • Master 116: *Estimating Money* Recording Sheet • Master 117: Referent Jars • Master 118: Assessment

Cluster 9: Financial Literacy (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
44: Earning Money 44	**Big Ideas 1 and 2** **P & A Big Idea 1** **Focus:** Composing and decomposing money amounts to 100 cents	• Canadian play coins or use coin cutouts from Master 115 (nickels, dimes, and quarters) • Master 119: Hire Me • Master 120: Assessment *No student card is needed for this activity.
45: Spending Money 45	**Big Ideas 1, 2, and 4** **Focus:** Adding and subtracting dollar amounts to $20	• Student Card 45 (**Activity 45A/45B: At the Toy Store**) • Canadian play coins or use money cutouts from Master 115 (loonies, toonies, $5 bills, and $10 bills) • Multi-Use Card 1: Ten-Frames • Multi-Use Card 3: Five-Frames • Master 121: Used Sports Equipment Store • Master 122: Clothing Store • Master 123: Assessment
46: Spending Money 46	**Big Ideas 1, 2, and 4** **Focus:** Adding, subtracting, and comparing money amounts to 100¢	• Canadian play coins or use coin cutouts from Master 115 (nickels, dimes, and quarters) • Master 124: Calendar • Master 125: Items to Save For • Master 126: Jobs to Save Money • Master 127: Assessment *No student card is needed for this activity.
47: Consolidation 47	**Big Ideas 1, 2, and 4** **P & A Big Idea 1** **Focus:** Consolidating financial literacy	• Student Card 47 (**Activity 47A/47B: Party Supplies**) • Canadian play loonies, toonies, $5 bills, and $10 bills or use money cutouts from Master 115 • Multi-Use Card 5: Hundred Chart • Master 128: Sample Jobs • Master 129: Our Savings Plan • Master 130: Assessment

Cluster 9: Financial Literacy		
Intervention	**Big Idea/Focus**	**Materials**
17: Counting Coins	**Big Ideas 1 and 2** **P & A Big Idea 1** **Focus:** Identifying coins and counting coins of the same denomination	• Student Card 17 (**Activity 17A/17B: Sorting Coins**) • Canadian play coins (small collection per pair) or coin cutouts from Master 35 • Multi-Use Card 5: Hundred Chart • Master 36: Assessment
18: Wants and Needs	**Big Idea 1** **Focus:** Distinguishing between wants and needs	• Student Card 18 (**Activity 18A/18B: What Do We Need?**) • Master 37: Activity Choices • Master 38: Assessment

Patterning and Algebra

Big Idea 1: Regularity and repetition form patterns that can be generalized and predicted mathematically.

Big Idea 2: Patterns and relations can be represented with symbols, equations, and expressions.

Number Big Idea 1: Numbers tell us how many and how much.

Number Big Idea 2: Numbers are related in many ways.

Number Big Idea 4: Quantities and numbers can be added and subtracted to determine how many or how much.

Cluster 1: Repeating Patterns		
Math Every Day	**Big Idea/Focus**	**Materials**
1: Show Another Way	**Big Idea 1** **Focus:** Identifying the core of a repeating pattern and representing the pattern in different ways	• None
1: Repeating Patterns Around Us	**Big Idea 1** **Focus:** Identifying and describing repeating patterns	• Pictures of repeating patterns in the real world, or Master 6

Cluster 1: Repeating Patterns		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Exploring Patterns 1	**Big Idea 1** **Focus:** Creating repeating patterns based on copies of the core	• Student Card 1 (**Activity 1A/1B: Our Cores**) • Attribute Blocks • Paper clips and pencils for pointers • Counters • Number cubes (labelled 1–6) • Master 2: Our Cores (for *Extension*) • Master 3: Assessment
2: Extending and Predicting 2	**Big Idea 1** **Focus:** Extending and predicting elements in repeating patterns	• Counters (for *Before*) • String, pipe cleaners, or heavy thread • At least 3–5 colours and different sizes of beads • Coloured pencils • Master 4: Bracelet Cores • Master 5: My Bracelet Plan • Master 6: Assessment *No student card is needed for this activity.

Cluster 1: Repeating Patterns (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
3: Errors and Missing Elements 3	**Big Idea 1** **Focus:** Predicting missing elements and correcting errors in repeating patterns	• Student Card 3 (**Activity 3A/3C/3E: Find the Errors; Activity 3B/3D/3F: Find What's Missing**) • Colour Tiles, Attribute Blocks, counters, number cubes, drawing materials (optional) • Master 7: Assessment
4: Combining Attributes 4	**Big Idea 1** **Focus:** Recognizing, extending, and creating repeating patterns involving two attributes	• Colour Tiles, Attribute Blocks, counters, number cubes, drawing materials • Master 8: Our Core Cards • Master 9: Two Attributes Changing • Master 10: Assessment *No student card is needed for this activity.
5: Consolidation 5	**Big Idea 1** **Focus:** Consolidating repeating patterns	• Colour Tiles, Attribute Blocks, counters, number cubes, drawing materials • Master 11: Action Cards • Master 12: Core Cards • Master 13: Repeating Patterns Around Us • Master 14: Assessment *No student card is needed for this activity.

Cluster 1: Repeating Patterns		
Intervention	**Big Idea/Focus**	**Materials**
1: Finding the Core	**Big Idea 1** **Focus:** Identifying the repeating unit (core) of a pattern	• Student Card 1 (**Activity 1A/1B: Find My Core**) • Colour Tiles, Attribute Blocks, counters, number cubes • Master 39: Assessment
2: Representing Patterns	**Big Idea 1** **Focus:** Representing the same pattern in different ways	• Student Card 1 (**Activity 1A/1B: Find My Core**) • Colour Tiles, Attribute Blocks, counters, number cubes, drawing materials • Master 40: Assessment

Cluster 2: Increasing/Decreasing Patterns		
Math Every Day	**Big Idea/Focus**	**Materials**
2A: How Many Can We Make?	**Big Idea 1** **Number Big Idea 4** **Focus:** Creating increasing number patterns and identifying the pattern rule	• Chart paper or whiteboard and markers • Multi-Use Card 5: Hundred Chart
2A: Error Hunt	**Big Idea 1** **Number Big Idea 4** **Focus:** Finding and correcting errors or missing terms in increasing patterns	• Chart paper or whiteboard and markers, or Colour Tiles
2B: Making Increasing Patterns	**Big Idea 1** **Number Big Idea 4** **Focus:** Creating increasing patterns with a calculator	• 4-function calculator
2B: Making Decreasing Patterns	**Big Idea 1** **Number Big Idea 4** **Focus:** Creating decreasing patterns with a calculator	• 4-function calculator

Cluster 2: Increasing/Decreasing Patterns		
Teacher Card	**Big Idea/Focus**	**Materials**
6: Increasing Patterns 1 6	**Big Idea 1** **Number Big Idea 4** **Focus:** Identifying and reproducing increasing patterns concretely and pictorially	• Student Card 6 (**Activity 6A/6B: Build Me!**) • Linking cubes (50 per pair) • Master 16: Increasing Patterns • Master 17: Assessment
7: Increasing Patterns 2 7	**Big Idea 1** **Number Big Idea 4** **Focus:** Identifying and reproducing increasing patterns numerically	• Student Card 7 (**Activity 7A/7B: Build Me Too!**) • Colour Tiles (40 per pair) • Master 18: More Increasing Patterns • Master 19: Assessment
8: Decreasing Patterns 8	**Big Idea 1** **Number Big Idea 4** **Focus:** Identifying and reproducing decreasing patterns concretely, pictorially, and numerically	• Student Card 8 (**Activity 8A/8B: I'm Shrinking!**) • Colour Tiles (about 60 per pair) • Master 20: More Decreasing Patterns • Master 21: Assessment

Cluster 2: Increasing/Decreasing Patterns (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
9: Extending Patterns 9	**Big Idea 1** **Number Big Idea 4** **Focus:** Reproducing and extending increasing patterns	• Linking cubes (for *Before*) • Colour Tiles (about 75 per pair) • Master 22: Increasing Pattern Cards • Master 23: Assessment *No student card is needed for this activity.
10: Reproducing Patterns 10	**Big Idea 1** **Number Big Idea 4** **Focus:** Reproducing the same increasing pattern in different ways	• Student Card 10 (**Activity 10A/10B: Show Other Ways**) • Linking cubes (9) (for *Before*) • Patterning materials (e.g., Colour Tiles, counters, linking cubes) • Master 24: Assessment
11: Creating Patterns 11	**Big Idea 1** **Number Big Idea 4** **Focus:** Creating increasing patterns and explaining the pattern rules	• Patterning materials (e.g., linking cubes, Colour Tiles, counters, Pattern Blocks, paper clips, coins, pine cones, twigs, small rocks) • Number cubes labelled 1–6 (for *Extension*) • 4-function calculator (for *Consolidation*) • Master 25: Assessment *No student card is needed for this activity.
12: Errors and Missing Terms 12	**Big Idea 1** **Number Big Idea 4** **Focus:** Predicting missing terms and correcting errors in increasing patterns	• Linking cubes (about 50 per pair) • File folders to act as barriers (1 per pair) • Master 26: What's Wrong? • Master 27: Assessment *No student card is needed for this activity.
13: Solving Problems 13	**Big Idea 1** **Number Big Idea 4** **Focus:** Identifying, reproducing, and extending increasing patterns to solve problems	• Student Card 13 (**Activity 13A/13B: Beading a Necklace**) • Lengths of string and beads of various colours • Master 28: Beaded Belt • Master 29: Beading Story • Master 30: Assessment
14: Consolidation 14	**Big Idea 1** **Number Big Idea 4** **Focus:** Consolidating increasing/decreasing patterns	• Linking cubes (for *Before*) • Patterning materials (e.g., string • and beads, linking cubes, Colour Tiles, counters, paper clips, coins) • Master 31: Assessment *No student card is needed for this activity.

Cluster 2: Increasing/Decreasing Patterns		
Intervention	**Big Idea/Focus**	**Materials**
3: Skip-Counting	**Big Idea 1** **Number Big Idea 1** **Focus:** Skip-counting forward by 2s, 5s, and 10s	• 4-function calculators (1 per pair) • Multi-Use Card 5: Hundred Chart • Master 41: Assessment *No student card is needed for this activity.

Cluster 2: Increasing/Decreasing Patterns (continued)		
Intervention	**Big Idea/Focus**	**Materials**
4: Repeated Addition and Subtraction	**Big Idea 1** **Number Big Idea 4** **Focus:** Exploring repeated addition and subtraction of 2s and 5s	• Student Card 4 (**Activity 4A/4B: On and Off the Shelf**) • Master 42: *On and Off the Shelf* Cards • Master 43: Assessment *No student card is needed for this activity.

Cluster 3: Equality and Inequality		
Math Every Day	**Big Idea/Focus**	**Materials**
3A: Equal or Not Equal?	**Big Idea 2** **Number Big Idea 4** **Focus:** Identifying number sentences as equal or not equal	• Pan balance • 2 colours of linking cubes
3A: How Many Ways?	**Big Idea 2** **Number Big Idea 4** **Focus:** Decomposing a number less than or equal to 18	• 2 colours of linking cubes
3B: Which One Doesn't Belong?	**Big Idea 2** **Number Big Idea 4** **Focus:** Identifying the expression that does not belong	• Chart paper or whiteboard and markers
3B: What's Missing?	**Big Idea 2** **Number Big Idea 4** **Focus:** Finding a missing number in a number sentence	• Chart paper or whiteboard and markers • Master 7: *What's Missing?* Number Sentences

Cluster 3: Equality and Inequality		
Teacher Card	**Big Idea/Focus**	**Materials**
15: Equal and Unequal Sets 15	**Big Idea 2** **Focus:** Creating equal and unequal sets and identifying the unequal set	• Pan balances (1 per pair) • Linking cubes of different colours (about 40 per pair) • Master 33: *Equal and Unequal Sets* Recording Sheet • Master 34: Assessment *No student card is needed for this activity.

Cluster 3: Equality and Inequality (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
16: Equal or Not Equal? 16	**Big Idea 2** **Number Big Idea 4** **Focus:** Identifying equal and not equal number sentences	• Pan balances (1 per pair) • Linking cubes of different colours (about 40 per pair) • Master 35: *Equal or Not Equal?* Cards • Master 36: Assessment *No student card is needed for this activity.
17: Exploring Number Sentences 17	**Big Idea 2** **Number Big Idea 4** **Focus:** Exploring number sentences that involve addition and subtraction	• 2 colours of linking cubes (about 40 per pair) • Master 37: Tent Cards • Master 38: *Equal or Not Equal?* Number Sentences • Master 39: Assessment *No student card is needed for this activity.
18: Exploring Properties 18	**Big Idea 2** **Number Big Idea 4** **Focus:** Exploring properties of addition and subtraction	• Counters • Multi-Use Card 1: Ten-Frames (optional) • Master 40: *Equal Match* Board • Master 41: *Equal Match* Cards • Master 42: Assessment *No student card is needed for this activity.
19: Missing Numbers 19	**Big Idea 2** **Number Big Idea 4** **Focus:** Determining the missing number in equations involving addition or subtraction	• Pan balances (1 per pair) • 2 colours of linking cubes or counters (about 30 per pair) • Master 43: *Find the Missing Number* Cards • Master 44: Assessment *No student card is needed for this activity.
20: Consolidation 20	**Big Idea 2** **Number Big Ideas 2 and 4** **Focus:** Consolidating equality and inequality	• 2 colours of linking cubes or two-sided counters (about 40 per pair; 20 of each colour) • Pan balances • Master 45: *Number Sentence* Recording Sheet • Master 46: Assessment *No student card is needed for this activity.

Cluster 3: Equality and inequality		
Intervention	**Big Idea/Focus**	**Materials**
5: Exploring 10	**Big Idea 2** **Number Big Idea 2** **Focus:** Decomposing 10 to write equalities	• Two-sided counters (20, for *Before*) • Cups of 10 two-sided counters (2 per pair) • Coloured pencils • Multi-Use Card 1: Ten-Frames • Master 44: Spill and Fill • Master 45: Assessment *No student card is needed for this activity.
6: Balancing Sets	**Big Idea 2** **Number Big Idea 1** **Focus:** Creating equal and not equal sets	• Linking cubes (about 30 per pair) • Pan balances (1 per pair) • Master 46: *Balancing Sets* Recording Sheet • Master 47: Assessment *No student card is needed for this activity.

Measurement

Big Idea 1: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.

Big Idea 2: Assigning a unit to a continuous attribute allows us to measure and make comparisons.

Number Big Idea 1: Numbers tell us how many and how much.

Number Big Idea 2: Numbers are related in many ways.

Cluster 1: Using Non-Standard Units		
Math Every Day	**Big Idea/Focus**	**Materials**
1: Estimation Scavenger Hunt	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Estimating and comparing length, distance around, mass, capacity, and area	• None
1: Estimation Station	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Estimating and measuring length, distance around, mass, capacity, and area	• An unusual/curious object in the room (e.g., pumpkin, plant pot, painting) • Small pieces of paper • Box to collect estimates

Cluster 1: Using Non-Standard Units		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Measuring Length 1 1	**Big Idea 2** **Number Big Idea 1** **Focus:** Using non-standard units to estimate and measure objects by length	• Student Card 1 (**Activity 1A/1B: Carrots, Carrots!**) • Objects of different lengths (e.g., pencil, marker, craft stick, crayon, straw) (5) • Centicubes (25 per pair) • Paper clips (10 per pair) • Rulers (for *Combined Grades Extension*) • Master 2: *Measuring Carrots* Recording Sheet • Master 3: Assessment
2: Measuring Length 2 2	**Big Idea 2** **Number Big Idea 1** **Focus:** Iterating (repeating) a single unit to estimate, measure, and compare objects by length	• Student Card 2 (**Activity 2: Which is Longer?**) • Linking cubes (1 per pair) • Chart paper (or whiteboard) • Picture of a wolf • Rulers (for *Combined Grades Extension*) • Master 4: *Which Is Longer?* Recording Sheet • Master 5: Assessment

Cluster 1: Using Non-Standard Units (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
3: Measuring Distance Around 3	**Big Idea 2** **Number Big Idea 1** **Focus:** Using non-standard units to estimate, measure, compare, and order distances around	• String, scissors, paper clips • 3 cans of different sizes (e.g., juice, soup, and tomato sauce cans) (1 set per group) • Rulers (for *Combined Grades Extension*) • Master 6: *How Big Around?* Recording Sheet • Master 7: Assessment *No student card is needed for this activity.
4: Measuring Mass 4	**Big Idea 2** **Number Big Idea 1** **Focus:** Using non-standard units to estimate, measure, compare, and order objects by mass	• Pan balances (1 per pair) • Objects in the classroom that fit in a pan of the pan balance • Craft scissors and linking cubes • Centicubes • Master 8: *Measuring Mass* Recording Sheet • Master 9: Assessment *No student card is needed for this activity.
5: Measuring Area 5	**Big Idea 2** **Number Big Idea 1** **Focus:** Using non-standard units to estimate, measure, and compare objects by area	• Colour Tiles (30 per pair) • Transparent grid (for *Combined Grades Extension*) • Master 10: My Friend's Garden • Master 11: Garden Designs • Master 12: *Garden Designs* Recording Sheet • Master 13: Assessment *No student card is needed for this activity.
6: Measuring Capacity 6	**Big Idea 2** **Number Big Idea 1** **Focus:** Using an intermediary object to estimate, measure, compare, and order objects by capacity	• Containers of different shapes and sizes (e.g., bowls, juice cans, milk cartons) (3 per group) • Centicubes (or marbles or sand) • Plastic cups (1 per group) • Measuring jugs (litres) (for *Combined Grades Extension*) • Master 14: *How Many Cups?* Recording Sheet • Master 15: Assessment *No student card is needed for this activity.
7: Consolidation 7	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Consolidating measuring with non-standard units	• Variety of objects to measure (from previous activities) • Measuring units (e.g., centicubes, paper clips, linking cubes, Colour Tiles, plastic cups) • Pan balance, string, and scissors • Rulers and measuring jugs (litres) (for *Combined Grades Extension*) • Master 16: *Measurement* Recording Sheet • Master 17: Assessment *No student card is needed for this activity.

Cluster 1: Using Non-Standard Units		
Intervention	**Big Idea/Focus**	**Materials**
1: Exploring Length	**Big Idea 2** **Number Big Idea 1** **Focus:** Using multiple copies of a unit to measure length	• Centicubes (10 per student) • Card stock strips (30 cm by 6 cm) (1 per pair) • Uniform units made from construction paper (4 cm by 2 cm, in 2 colours) or photocopy from Master 48: Uniform Units • Glue sticks (1 per pair) • Master 49: Assessment *No student card is needed for this activity.
2: Conserving Area	**Big Idea 1** **Number Big Idea 1** **Focus:** Exploring the conservation of area	• Scissors (1 per pair) • Glue sticks (1 per pair) • Colour Tiles (30 per pair) • Construction paper (2 sheets per pair) • Master 50: Large Squares • Master 51: Large Rectangles (for *Extension*) • Master 52: Assessment *No student card is needed for this activity.

Cluster 2: Using Standard Units		
Math Every Day	**Big Idea/Focus**	**Materials**
2: What Am I?	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Estimating length in standard units	• Centimetre rulers (or Master 8) and/or metre sticks
2: Which Unit?	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Selecting an appropriate standard unit to measure length	• Centimetre ruler • Metre stick

Cluster 2: Using Standard Units		
Teacher Card	**Big Idea/Focus**	**Materials**
8: Benchmarks and Estimation 8	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Using benchmarks to estimate and measure length in centimetres and metres	• Large paper clip • Rulers and metre sticks (for *Combined Grades Extension*) • Master 19: Measurement Hunt • Master 20: Assessment *No student card is needed for this activity.
9: The Metre 9	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Using the metre to measure length	• Metre sticks or metre-long measuring tapes (1 per pair) • Master 21: How Many Metres? • Master 22: Assessment *No student card is needed for this activity.

Cluster 2: Using Standard Units (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
10: The Centimetre 10	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Using the centimetre to measure length	• Centimetre rulers (1 per pair) • Centicubes (15 per student) • Master 23: Centimetre Ruler • Master 24: How Many Centimetres? • Master 25: Broken Ruler (for *Combined Grades Extension*) • Master 26: Assessment *No student card is needed for this activity.
11: Metres or Centimetres? 11	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Choosing an appropriate standard unit to measure length	• Centimetre rulers (1 per pair) (or Master 23) • Metre sticks (1 per pair) • Master 27: Metres or Centimetres? • Master 28: Assessment *No student card is needed for this activity.
12: Consolidation 12	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Consolidating measuring length using standard units	• Centimetre rulers (1 per pair) (or Master 23) • Metre sticks (1 per pair) • Master 29: Outdoor Measurement Hunt • Master 30: Assessment *No student card is needed for this activity.

Cluster 2: Using Standard Units		
Intervention	**Big Idea/Focus**	**Materials**
3: Iterating the Unit	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Iterating (repeating) a single-length unit to measure	• Student Card 3 (**Activity 3: Rocky the Raccoon**) • Paper clips (1 per pair) • Master 53: Picture Frame • Master 54: Measuring Other Animals • Master 55: Assessment
4: Using a Centicube Ruler	**Big Ideas 1 and 2** **Number Big Idea 1** **Focus:** Using standard-sized objects to estimate and measure length	• Centicubes (10 per pair) • Craft stick (for *Before*) • Bins of 4–5 objects of varied lengths, all shorter than 10 centicubes (e.g., pipe cleaner, pencil, glue stick) (1 per pair) • Master 56: Recording Sheet • Master 57: Assessment *No student card is needed for this activity.

Cluster 3: Time and Temperature		
Math Every Day	**Big Idea/Focus**	**Materials**
3A: Hula Hoop Clock	**Big Idea 1** **Number Big Ideas 1 and 2** **Focus:** Telling time to the quarter-hour	• Hula hoop • 5 bean bags (or paper cups or sticky notes) • Coloured tape or sticky notes • 30-cm ruler • Metre stick

Cluster 3: Time and Temperature (continued)		
Math Every Day	**Big Idea/Focus**	**Materials**
3A: Calendar Questions	**Big Idea 1** **Number Big Ideas 1 and 2** **Focus:** Exploring the calendar through questions	• Class calendar
3B: Monthly Mix-Up	**Big Idea 1** **Number Big Ideas 1 and 2** **Focus:** Matching a month with its position in the year	• Master 9: Number Cards 1–12 or ordinal number cards 1st–12th (Master 10) • Master 11: 12 Month Cards
3B: Thermometer Drop or Pop	**Big Idea 1** **Number Big Ideas 1 and 2** **Focus:** Relating hot and cold temperatures to levels of liquid	• Thermometer • Master 13: Images of places/activities illustrating hot and cold temperatures

Cluster 3: Time and Temperature		
Teacher Card	**Big Idea/Focus**	**Materials**
13: Days and Weeks 13	**Big Idea 1** **Number Big Ideas 1 and 2** **Focus:** Relating the days and weeks in a month	• Class calendar • 4 colours of centicubes (about 5 of each colour per group) • Master 32: Calendar Page • Master 33: June Calendar Page • Master 34: Calendar Puzzle Cards • Master 35: Assessment *No student card is needed for this activity.
14: Months in a Year 14	**Big Idea 1** **Number Big Ideas 1 and 2** **Focus:** Investigating the relationship between months and a year	• Class calendar • Master 36: Full-Year Calendar • Master 37: Month Clue Cards • Master 38: Assessment *No student card is needed for this activity.
15: Measuring Time 15	**Big Idea 1** **Number Big Idea 1** **Focus:** Constructing and using a pendulum to measure time intervals	• Lengths of string/yarn taped at one end (40 cm) (1 per student) • Pony beads (4 per student) • Tape • Master 39: How to Make a Pendulum • Master 40: Pendulum Activity Cards • Master 41: Assessment *No student card is needed for this activity.

Cluster 3: Time and Temperature (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
16: Time to the Quarter-Hour 16	**Big Idea 1** **Number Big Idea 1** **Focus:** Telling and writing time to the quarter-hour	• Demonstration analogue clock • Master 42: Analogue Clock Cards • Master 43: Digital Clock Cards • Master 44: Assessment *No student card is needed for this activity.
17: Changes in Temperature 17	**Big Idea 1** **Number Big Idea 1** **Focus:** Identifying changes in temperature and how they affect everyday experiences	• Demonstration thermometer • 3 cups with hot, warm, and ice water • Glue, red crayons • Multi-Use Card 10: Thermometer • Master 45: Thermometer for *Before* (3 copies) • Master 46: Cold, Warm, or Hot? • Master 47: Pictures for *Cold, Warm, or Hot?* • Master 48: Assessment *No student card is needed for this activity.
18: Consolidation 18	**Big Idea 1** **Number Big Ideas 1 and 2** **Focus:** Consolidating the measurement of time and temperature	• Class calendar • Demonstration analogue clock • Thermometer • Counters (20 per pair) • Master 36: Full-Year Calendar • Master 49: *Time and Temperature* Game Board • Master 50: *Time and Temperature* Cards • Master 51: Assessment *No student card is needed for this activity.

Cluster 3: Time and Temperature		
Intervention	**Big Idea/Focus**	**Materials**
5: Months of the Year	**Big Idea 1** **Number Big Idea 1** **Focus:** Investigating the months of the year	• Class calendar • Glue • Master 58: Full-Year Calendar • Master 59: *Months of the Year* Game Board • Master 60: Month Cards • Master 61: Assessment *No student card is needed for this activity.
6: Telling Time	**Big Idea 1** **Number Big Idea 1** **Focus:** Telling time to the hour and half-hour	• Demonstration analogue clock • Glue • Master 62: *What Time Is It?* Game Board • Master 63: Clock Cards • Master 64: Assessment *No student card is needed for this activity.

Geometry

Big Idea 1: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.

Big Idea 2: 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change.

Big Idea 3: Objects can be located in space and viewed from multiple perspectives.

Patterning and Algebra Big Idea 1: Regularity and repetition form patterns that can be generalized and predicted mathematically.

Patterning and Algebra Big Idea 2: Patterns and relations can be represented with symbols, equations, and expressions.

Number Big Idea 1: Numbers tell us how many and how much.

Cluster 1: 2-D Shapes		
Math Every Day	**Big Idea/Focus**	**Materials**
1: Visualizing Shapes	**Big Idea 1** **P & A Big Idea 1** **Focus:** Visualizing and naming 2-D shapes	• Non-transparent bag of 2-D shapes (e.g., Attribute Blocks)
1: Comparing Shapes	**Big Idea 1** **P & A Big Idea 1** **Focus:** Comparing 2-D shapes to find similarities and differences	• Selection of 2-D shapes (e.g., Attribute Blocks)

Cluster 1: 2-D Shapes		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Sorting 2-D Shapes 1	**Big Idea 1** **P & A Big Idea 1** **Focus:** Analyzing geometric and non-geometric attributes of 2-D shapes to sort them using two attributes	• Student Card 1 (**Activity 1A/1B: Hula Hoop Sort**) • Attribute Blocks (thin blocks only, 1 set per pair) • Hula hoops (2) (optional) • Master 2: Attribute Cards • Master 3: Assessment
2: Exploring 2-D Shapes 2	**Big Idea 1** **Focus:** Analyzing and identifying 2-D shapes	• Attribute Blocks (thin blocks only, 1 set per pair) • Master 4: Shape Cards • Master 5: Assessment *No student card is needed for this activity.

Cluster 1: 2-D Shapes (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
3: Constructing 2-D Shapes 3	**Big Idea 1** **Focus:** Constructing 2-D shapes with given attributes	• String (about 3 m long) • Geoboards and sets of elastics (1 per student) (optional) • Modelling clay/marshmallows and different lengths of straws/pipe cleaners • Master 6: Assessment *No student card is needed for this activity.
4: Symmetry in 2-D Shapes 4	**Big Ideas 1 and 2** **Focus:** Identifying lines of symmetry on 2-D shapes	• Miras (1 per pair) • Scissors (optional) • Master 7: Large Shapes (for *Before*) • Master 8: Symmetry Cards • Master 9: Symmetry Sorting Mat • Master 10: Assessment *No student card is needed for this activity.
5: Consolidation 5	**Big Ideas 1 and 2** **P & A Big Idea 1** **Focus:** Consolidating 2-D shapes	• Student Card 1 (**Activity 1A/1B: Hula Hoop Sort**) • Attribute Blocks (1 set for *Before*) • Miras • Master 4: Shape Cards • Master 11: Consolidation Attribute Cards • Master 12: Assessment

Cluster 1: 2-D Shapes		
Intervention	**Big Idea/Focus**	**Materials**
1: Sorting Shapes	**Big Idea 1** **P & A Big Idea 1** **Focus:** Analyzing attributes of 2-D shapes to sort them using one attribute	• Attribute Blocks (1 set per pair) • Multi-Use Card 6: Sorting Mat • Master 65: Attribute Cards • Master 66: Assessment *No student card is needed for this activity.
2: Analyzing 2-D Shapes	**Big Idea 1** **P & A Big Idea 1** **Focus:** Analyzing geometric attributes of 2-D shapes	• Student Card 2 (**Activity 2A/2B: My Shape Bin**) • Master 67: 2-D Shapes • Master 68: Attribute Cards for Shape Bin • Master 69: Assessment

Cluster 2: 3-D Solids		
Math Every Day	**Big Idea/Focus**	**Materials**
2A: Geometry in Poetry	**Big Idea 1** **P & A Big Idea 1** **Focus:** Identifying 3-D solids in the environment	• Master 14: *Geometry Poem* • Set of 3-D solids: cone, sphere, rectangular prism, cylinder, cube, pyramid
2A: What Do You See?	**Big Idea 1** **P & A Big Idea 1** **Focus:** Identifying 2-D shapes in 3-D solids in the environment	• Overhead projector • Set of 2-D shapes: square, triangle, rectangle, circle • Pictures that contain examples of 3-D solids in the environment (e.g., a house that is a rectangular prism with a rectangular pyramid for its roof)
2B: Solids Around Us	**Big Idea 1** **P & A Big Idea 1** **Focus:** Identifying examples of 3-D solids in the environment	• Set of 3-D solids: cone, sphere, rectangular prism, cylinder, cube, pyramid
2B: Which Solid Does Not Belong?	**Big Idea 1** **P & A Big Idea 1** **Focus:** Analyzing geometric attributes of 3-D solids to identify the one that does not belong in a set	• Set of 3-D solids: cones; cylinders; spheres; rectangular, square, and triangular pyramids; rectangular and triangular prisms; cubes

Cluster 2: 3-D Solids		
Teacher Card	**Big Idea/Focus**	**Materials**
6: Sorting 3-D Solids 6	**Big Idea 1** **P & A Big Idea 1** **Focus:** Sorting 3-D solids using two attributes	• Student Card 1 (**Activity 1A/1B: Hula Hoop Sort**) • 2 hula hoops • Sets of 10–12 solids (e.g., cubes, prisms, cones, spheres, cylinders, pyramids) (1 set per pair) • Master 14: Attribute Cards for 3-D Solids • Master 15: Assessment
7: 3-D Solids Around Us 7	**Big Idea 1** **P & A Big Idea 1** **Focus:** Identifying 3-D solids in the environment	• Soup can and paper towel roll (for *Before*) • 3-D solids (cubes, prisms, cylinders, spheres, cones, and pyramids) • Master 16: *Exploring Solids* Recording Sheet • Master 17: Assessment *No student card is needed for this activity.

Cluster 2: 3-D Solids (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
8: Constructing 3-D Solids 8	**Big Idea 1** **P & A Big Idea 1** **Focus:** Constructing and comparing 3-D solids with given attributes	• Building materials (linking cubes, cardboard, modelling clay) • 3-D solids (cubes, prisms, cones, spheres, cylinders, pyramids) • Scissors, glue, tape • Master 18: Photo of Roof • Master 19: Solid Cards • Master 20: Nets of Rectangular Prisms (for *Combined Grades Extension*) • Master 21: Assessment *No student card is needed for this activity.
9: Constructing Skeletons 9	**Big Idea 1** **P & A Big Idea 1** **Focus:** Constructing and comparing skeletons of 3-D solids	• 3-D solids (cubes, prisms, pyramids) • Modelling clay • Straws of 2 different lengths (short/long) • Master 22: Photo of Skeleton of Rectangular Prism (for *Before*) • Master 23: Assessment *No student card is needed for this activity.
10: Consolidation 10	**Big Idea 1** **P & A Big Idea 1** **Focus:** Consolidating 3-D solids	• Set of 3-D solids (prisms, pyramids, cubes, cones, cylinders, spheres) • Straws of 2 different lengths (short/long) • Modelling clay, linking cubes, cardboard, scissors • Chart paper (1 sheet per group) • 2 hula hoops • Master 14: Attribute Cards for 3-D Solids • Master 24: Assessment *No student card is needed for this activity.

Cluster 2: 3-D Solids		
Intervention	**Big Idea/Focus**	**Materials**
3: Sorting Solids	**Big Idea 1** **P & A Big Idea 1** **Focus:** Using one attribute to sort 3-D solids	• Sets of 3-D solids: cubes, prisms, pyramids, cones, cylinders, spheres (1 per pair) • Multi-Use Card 6: Sorting Mat • Master 70: Attribute Cards • Master 71: Assessment *No student card is needed for this activity.
4: Attributes of Solids	**Big Idea 1** **P & A Big Idea 1** **Focus:** Analyzing and identifying 3-D solids	• Set of 6 reference solids: sphere, cylinder, cube, rectangular prism, triangular prism, cone • Set of 6 solids in a non- transparent bag (1 set per pair) • Master 72: Identifying Solids: Questions You Might Ask • Master 73: Assessment *No student card is needed for this activity.

Cluster 3: Geometric Relationships		
Math Every Day	**Big Idea/Focus**	**Materials**
3A: Fill Me In!	**Big Idea 1** **P & A Big Idea 1** **Focus:** Covering an outline with 2-D shapes in different ways	• Overhead projector • Pattern Blocks • Master 15: Pattern Block Outlines
3A: Make Me a Picture	**Big Idea 1** **P & A Big Idea 1** **Focus:** Using 2-D shapes to compose a picture	• Pattern Blocks and/or Attribute Blocks
3B: Name the Solid	**Big Idea 1** **P & A Big Idea 1** **Focus:** Identifying a solid from its shadow	• 3-D solids (prisms, pyramids, cone, sphere, cylinder, cube) • Overhead projector • File folder to act as a barrier
3B: Draw the Shape	**Big Idea 1** **P & A Big Idea 1** **Focus:** Sketching a composite shape after viewing it briefly	• Master 16: *Draw the Shape* Cards • Paper • Pencils

Cluster 3: Geometric Relationships		
Teacher Card	**Big Idea/Focus**	**Materials**
11: Making Shapes 11	**Big Idea 1** **Focus:** Constructing 2-D shapes from other shapes	• Pattern Blocks (no tan parallelograms) • Master 26: Shapes from Squares • Master 27: Fill the Hexagons • Master 28: Fill the Rectangles • Master 29: Assessment *No student card is needed for this activity.
12: Building with Solids 12	**Big Idea 1** **Focus:** Constructing composite structures with 3-D solids	• 3-D solids and cloth (for *Before*) • Station 1: 3-D solids (prisms, cylinders, cones, spheres, cubes) • Station 2: packaging materials (e.g., cereal boxes, paper towel rolls) • Station 3: linking cubes • Station 4: Polydrons® (optional) • Master 30: Our Structure • Master 31: Assessment *No student card is needed for this activity.

Cluster 3: Geometric Relationships (continued)		
Teacher Card	**Big Idea/Focus**	**Materials**
13: Visualizing Shapes and Solids 13	**Big Idea 1** **Focus:** Creating 2-D shapes and 3-D solids using visualization and verbal instructions	• Geoboards and elastic bands (1 set per pair) • Bags of 2-D shapes: squares, rectangles, triangles, hexagons (1 per pair) • Bags of 3-D solids: cubes, prisms, pyramids, cylinders, cones (1 per pair) • Building materials: linking cubes, modelling clay, Polydrons® • Master 32: Geoboard Shapes • Master 33: Assessment *No student card is needed for this activity.
14: Creating Pictures and Designs 14	**Big Idea 1** **Focus:** Constructing pictures and designs with 2-D shapes	• Pattern Blocks • Tangrams • Pencil crayons, glue, tape • Master 34: Shape Picture • Master 35: Shape Design • Master 36: Pattern Block Cutouts • Master 37: Tangram Cutouts • Master 38: Assessment *No student card is needed for this activity.
15: Covering Outlines 15	**Big Idea 1** **Focus:** Covering outlines with 2-D shapes in more than one way	• Student Card 15 (**Activity 15A/15B/15C/15D: Anchors Away!**) • Pattern Blocks • Paper clips and pencils for pointers (1 set per pair) • Master 39: Assessment
16: Creating Symmetrical Designs 16	**Big Idea 1** **Focus:** Constructing and describing 2-D symmetrical designs	• Masking tape • Miras (1 per pair) • Pattern Blocks • Master 40: Pictures for Symmetry • Master 41: Make It Symmetrical • Master 42: Assessment *No student card is needed for this activity.
17: Consolidation 17	**Big Idea 1** **Focus:** Consolidating geometric relationships	• Pattern Blocks • Geoboards and elastic bands • Linking cubes • Tangrams • Polydrons® or modelling clay • Master 41a: Make It Symmetrical • Master 43: Task Cards • Master 44: Assessment *No student card is needed for this activity.

Cluster 3: Geometric Relationships		
Intervention	**Big Idea/Focus**	**Materials**
5: Covering Outlines	**Big Idea 1** **Focus:** Completing an outline with shapes in more than one way	• Pattern Blocks • Master 74: Pattern Block Outlines (for *Before*) • Master 75: Fill Me! • Master 76: Assessment *No student card is needed for this activity.
6: Describing Solids	**Big Idea 1** **Focus:** Constructing structures with 3-D solids and describing solids used	• 2 identical cereal boxes (for *Before*) • 3-D solids: cube, rectangular prism, triangular prism, cylinder, sphere, cone, pyramid (2 identical sets per pair) • File folders to act as barriers (1 per pair) • Scissors • Master 77: Assessment *No student card is needed for this activity.

Cluster 4: Location and Movement		
Math Every Day	**Big Idea/Focus**	**Materials**
4A: Our Design	**Big Idea 3** **Focus:** Using relative positions to describe the locations of objects	• Chart paper or whiteboard and markers • 6 × 6 square grid • Coloured markers or crayons
4A: Treasure Map	**Big Idea 3** **Focus:** Locating objects by interpreting a map	• A map • Slips of paper • Ballot box • Master 17: Map of Neighbourhood
4B: Crazy Creatures	**Big Idea 3** **Focus:** Describing the views of 3-D objects from multiple perspectives	• Linking cubes • Labels
4B: Perspective Matching Game	**Big Idea 3** **Focus:** Recognizing 3-D objects from multiple perspectives	• Master 18: Perspective Picture Cards • Master 19: View Cards

Cluster 4: Location and Movement		
Teacher Card	**Big Idea/Focus**	**Materials**
18: Reading Maps 18	**Big Idea 3** **Focus:** Providing and interpreting instructions to locate objects on maps	• Student Card 18 (**Activity 18A/18B: Way to Go**) • Bear counters/toy characters • Master 46: Classroom Map • Master 47: *I Spy* Cards • Master 48: Path Cards • Master 49: Maps with Grid • Master 50: Position Words • Master 51: Assessment
19: Drawing a Map 19	**Big Idea 3** **Focus:** Making simple maps based on familiar settings	• Dollhouse or model of a building (for *Before*; optional) • Blank paper • Coloured pencils • Transparent 2-cm grid (for *Combined Grades Extension*) • Master 52: Assessment *No student card is needed for this activity.
20: Perspective Taking 20	**Big Idea 3** **Focus:** Recognizing and describing the views of objects from multiple perspectives	• Student Card 20 (**Activity 20A/20B: My View**) • Camera (optional for *Extension* and *Combined Grades Extension*) • Master 53: Multiple Views • Master 54: Perspective Recording Sheet • Master 55: Assessment
21: Consolidation 21	**Big Idea 3** **Focus:** Consolidating location and movement	• Student Card 21 (**Activity 21A/21B: Amusement Park Map; Activity 21C/21D: Photo Album**) • Red, yellow, and blue pencil crayons • Transparent 2-cm grid (for *Combined Grades Extension*) • Master 56: Assessment

Cluster 4: Location and Movement		
Intervention	**Big Idea/Focus**	**Materials**
7: Tower Views	**Big Idea 3** **Focus:** Visualizing 3-D objects from multiple perspectives	• Linking cubes • Master 78: Tower Views • Master 79: Structure Recording Sheets • Master 80: Viewing Frame • Master 81: Assessment *No student card is needed for this activity.
8: Direction Buddies	**Big Idea 3** **Focus:** Giving and following simple directions	• Chart paper • Masking tape • Sheets of construction paper (green, red) • Two stuffed animals with front paws labelled *Left* and *Right* with masking tape • Objects to place as obstacles on the ten-frame • Master 82: Assessment *No student card is needed for this activity.

Cluster 5: Coding		
Math Every Day	**Big Idea/Focus**	**Materials**
5: Code of the Day	**Big Idea 3** **P & A Big Idea 2** **Number Big Idea 1** **Focus:** Writing different codes that get to the same finish	• Chart paper or whiteboard and markers
5: Wandering Animals	**Big Idea 3** **P & A Big Idea 2** **Number Big Idea 1** **Focus:** Describing movement from one position to another on a grid	• Chart paper or whiteboard and markers • Master 20: Animal Faces

Cluster 5: Coding		
Teacher Card	**Big Idea/Focus**	**Materials**
22: Exploring Coding	**Big Idea 3** **Number Big Idea 1** **Focus:** Making paths and writing codes to describe them	• Linking cubes (about 20 per pair in 2 colours) • Master 58: Find a Path • Master 59: My Cube Path • Master 60: Assessment *No student card is needed for this activity.
23: Coding on a Grid	**Big Idea 3** **Number Big Idea 1** **Focus:** Writing codes for movements on a grid	• Master 61: 4 × 4 Grid (for *Before*) • Master 62: Grid A • Master 63: Grid B • Master 64: Cutouts • Master 65: Assessment *No student card is needed for this activity.
24: Number Codes	**Big Idea 3** **Number Big Idea 1** **Focus:** Writing different codes for the same grid using numbers and arrows	• Master 61: 4 × 4 Grid (for *Before*) • Master 66: Grid 1 • Master 67: Grid 2: Code Breakers • Master 68: Cutouts • Master 69: Assessment *No student card is needed for this activity.
25: Consolidation	**Big Idea 3** **Number Big Idea 1** **Focus:** Consolidating coding	• Masking tape • Master 70: 6 × 6 Grid (optional) • Master 71: Consolidation Cutouts • Master 72: Recording Sheet • Master 73: Assessment *No student card is needed for this activity.

Cluster 5: Coding		
Intervention	**Big Idea/Focus**	**Materials**
9: I Spy	**Big Idea 3** **Focus:** Using positional language	• Various classroom objects • Master 83: Left/Right Visual • Master 84: Assessment *No student card is needed for this activity.
10: Five Questions	**Big Idea 3** **Number Big Idea 1** **Focus:** Asking questions to determine the position of an object on a grid	• Student Card 10 (**Activity 10: What's My Letter?**) • Chart paper • Master 85: Sample Questions • Master 86: Blank Grid • Master 87: Direction Visuals • Master 88: Assessment

Data Management and Probability

Big Idea 1: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.

Patterning and Algebra Big Idea 1: Regularity and repetition form patterns that can be generalized and predicted mathematically.

Cluster 1: Data Management		
Math Every Day	**Big Idea/Focus**	**Materials**
1: Conducting Surveys	**Big Idea 1** **P & A Big Idea 1** **Focus:** Collecting and interpreting data from simple surveys	• Chart paper or whiteboard and markers
1: Reading and Interpreting Graphs	**Big Idea 1** **P & A Big Idea 1** **Focus:** Reading and interpreting graphs	• Master 21: Sample Graphs (pictographs, line plots, bar graphs) for students to interpret

Cluster 1: Data Management		
Teacher Card	**Big Idea/Focus**	**Materials**
1: Interpreting Graphs 1 1	**Big Idea 1** **P & A Big Idea 1** **Focus:** Reading and interpreting concrete graphs and pictographs	• Student Card 1 (**Activity 1A: River Walk; Activity 1B: Another River Walk**) • Master 2: Sample Pictograph • Master 3: Assessment
2: Interpreting graphs 2 2	**Big Idea 1** **P & A Big Idea 1** **Focus:** Reading and interpreting line plots and bar graphs	• Student Card 2 (**Activity 2A: Insects in the Garden; Activity 2B: Plants in the Garden**) • Master 4: Sample Line Plot • Master 5: Sample Bar Graph • Master 6: Assessment
3: Creating a Survey 3	**Big Idea 1** **P & A Big Idea 1** **Focus:** Collecting and recording data to answer questions	• Collection of 3 toys (for *Before*) • Master 7: Our Survey • Master 8: Assessment *No student card is needed for this activity.
4: Making Graphs 1 4	**Big Idea 1** **P & A Big Idea 1** **Focus:** Making concrete graphs and pictographs to display and interpret data	• 4 different colours of linking cubes (1 per student) • Sticky notes • Bags of about 20 small objects (mix of 4 types) (1 bag per pair) • Master 9: Graphing Mat (or Multi-Use Card 7) • Master 10: Assessment *No student card is needed for this activity.
5: Making Graphs 2 5	**Big Idea 1** **P & A Big Idea 1** **Focus:** Making line plots and bar graphs to display and interpret data	• Coloured pencils or crayons • Master 11: Line Plot Template • Master 12: Bar Graph Template • Master 13: Sample Line Plot • Master 14: Assessment *No student card is needed for this activity.
6: Consolidation 6	**Big Idea 1** **P & A Big Idea 1** **Focus:** Consolidating data management	• Coloured pencils • Counters (for concrete graphs) • Master 7: Our Survey • Master 9: Graphing Mat • Master 11: Line Plot Template • Master 12: Bar Graph Template • Master 15: Trees Planted • Master 16: Assessment *No student card is needed for this activity.

Cluster 1: Data Management		
Intervention	**Big Idea/Focus**	**Materials**
1: Interpreting Pictographs	**Big Idea 1** **P & A Big Idea 1** **Focus:** Reading and interpreting pictographs	• Master 89: Do You Like Dogs? (for *Before*) • Master 90: Children in Evening Art Class • Master 91: Students in Science Club • Master 92: Assessment *No student card is needed for this activity.
2: Sorting Objects	**Big Idea 1** **P & A Big Idea 1** **Focus:** Sorting objects in different ways using a single attribute to make comparisons	• Bags of about 20 countable objects that differ in colour, type, and shape (e.g., Attribute Blocks, Colour Tiles, Pattern Blocks, linking cubes) (1 per pair) • Multi-Use Card 6: Sorting Mat (for *Extension*) • Master 93: Assessment *No student card is needed for this activity.

Cluster 2: Probability and Chance		
Math Every Day	**Big Idea/Focus**	**Materials**
2: What's in the Bag?	**Big Idea 1** **Focus:** Using data from probability experiments to make predictions	• Paper bag • 10 linking cubes or Colour Tiles
2: Word of the Day	**Big Idea 1** **Focus:** Describing events that represent chance words	• None

Cluster 2: Probability and Chance		
Teacher Card	**Big Idea/Focus**	**Materials**
7: Likelihood of Events 7	**Big Idea 1** **Focus:** Using the language of chance to describe the likelihood of events	• Play coin (for *Before*) • Chart paper (1 sheet per pair) • Master 18: Value-Line Events • Master 19: Sample Value Line • Master 20: Value-Line Words • Master 21: Assessment *No student card is needed for this activity.

Cluster 2: Probability and Chance		
Teacher Card	**Big Idea/Focus**	**Materials**
8: Conducting Experiments 8	**Big Idea 1** **Focus:** Exploring the likelihood of different events using simple probability experiments	• Play coin (for *Before*) • Paper bags • Counters of different colours • Pencils and paper clips for pointers • Coloured pencils • Master 22: Spinner Templates • Master 23: Recording Sheet • Master 24: Probability Cards • Master 25: Assessment *No student card is needed for this activity.
9: Consolidation 9	**Big Idea 1** **Focus:** Consolidating probability and chance	• Paper bags • Counters of different colours • Pencils and paper clips for pointers (for *Extension*) • Coloured pencils (for *Extension*) • Master 26: Spinner Templates (for *Extension*) • Master 23: Recording Sheet • Master 27: Chance Cards • Master 28: Assessment *No student card is needed for this activity.

Cluster 2: Probability and Chance		
Intervention	**Big Idea/Focus**	**Materials**
3: The Language of Chance	**Big Idea 1** **Focus:** Using the language of chance to describe events	• Master 94: Event Cards • Master 95: Word Cards • Master 96: Assessment *No student card is needed for this activity.
4: More or Less Likely?	**Big Idea 1** **Focus:** Using the language of chance to compare the likelihood of two events	• Master 97: *More or Less Likely?* Events • Master 98: Assessment *No student card is needed for this activity.

Materials List

Grade 1 Activity Kit

Number

- Beads
- Bear counters
- Bingo chips/small counters
- Canadian play coins
- Centicubes
- Chart paper
- Counters, including two-sided
- Craft sticks
- Game pieces
- Hundred charts
- Large paper squares
- Linking cubes
- Masking tape
- Modelling clay
- Modelling clay tools
- Number lines
- Number cubes
- Objects from nature (e.g., leaf, acorn)
- Paper strips
- Pipe cleaners
- Rectangles
- Ribbon
- Scissors
- String
- Styrofoam®/paper cups
- Ten-frames

Patterning and Algebra

- Attribute Blocks
- Colour Tiles
- Counters
- Game pieces
- Linking cubes
- Number cubes
- Pan balances
- Paper clips
- Pattern Blocks
- Pencils
- Scissors
- Strips of construction paper (about 5 cm wide and 50 cm long)
- Tape

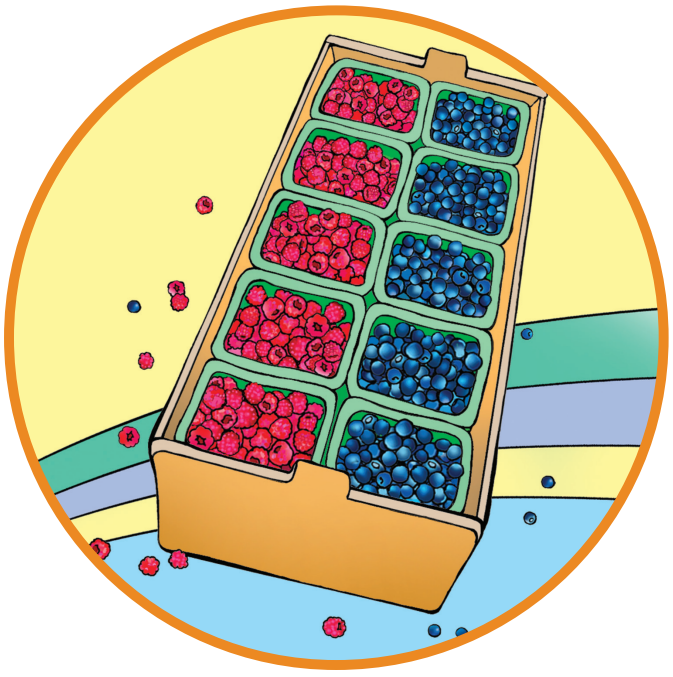
Measurement

- Books
- Colour Tiles
- Containers of different sizes and shapes (e.g., yogourt tubs, jam jars, milk cartons, baby food jars, cereal boxes)
- Cubes
- Cups
- Demonstration analogue clock
- Envelopes with 2 different sizes of paper squares
- Eraser
- Items of different lengths (e.g., paper clips, straws, pipe cleaners, string, linking cubes)
- Large tray of items (e.g., pencil, pen, marker, craft stick, crayon, straw)
- Large paper plates
- Linking cubes
- Measuring tools (e.g., linking cubes, centicubes, paper clips, string, Colour Tiles, paper squares, marbles)
- Metre stick
- Modelling clay

- Objects for comparing length, mass, and capacity
- Pan balances
- Paper clips
- Paper strips
- Pencil crayons
- Rectangular sheets of construction paper (9" by 12")
- Sand or water
- Sand timers
- Stapler
- Straws
- Two different-sized glasses
- Two different-sized green paper rectangles
- Variety of objects (e.g., rocks, pencils, cubes, balls)

Geometry

- Assortment of 3-D solids
- Attribute Blocks
- Beads or buttons, in different colours and sizes
- Bear counters/toy characters
- Building materials (e.g., cubes, wooden blocks, building blocks, popsicle sticks, rocks, objects from nature)



- Containers/boxes with square and circular faces
- Construction paper mats
- File folders
- Index cards
- Linking cubes
- Markers
- Miras
- Non-transparent bags
- Paper clips
- Pattern Blocks
- Pencils
- Sets of reference solids: sphere, cylinder, cube, rectangular prism, triangular prism, cone
- Small objects (e.g., rocks, cubes, craft sticks, paper cups)
- String, pipe cleaners, or heavy thread
- Two identical cereal boxes

Data Management and Probability

- 2-D shapes
- 3-D solids, linking cubes
- Bear counters
- Chart paper
- Coloured pencils/crayons
- Counters
- Linking cubes
- Number cubes
- Pattern Blocks
- Sticky notes

Grade 2 Activity Kit

Number

- 2 small sets of countable objects (e.g., counters, paper clips, marbles)
- A collection of paper strips, paper squares, paper plates, rectangles, pieces of ribbon, string, index cards
- Bingo dauber
- Bins or bags of small countable items (up to 200)
- Canadian play coins
- Card stock and hole punch
- Chart paper
- Clothespins
- Collections of familiar small toy animals (e.g., frogs and bear counters)
- Counters
- Cuisenaire rods
- Dried bean with face drawn on it
- Empty jars with lids
- Game pieces
- Index cards
- Items in the classroom to count that show different numbers (e.g., legs on a desk show 4)
- Jar of 5 dimes and jar of 10 nickels
- Lengths of yarn with a knot at one end
- Linking cubes
- Markers
- Number cubes labelled 0–9
- Number cubes labelled 1-6
- Number lines
- Paper or cardstock, folded in half
- Paper plates
- Pattern blocks
- Pictures or books that show math
- Pipe cleaners
- Rekenreks
- Scissors
- Sets of double-nine dominoes
- Small beads
- Small rocks
- String
- String with beads
- Strips of construction paper (about 50 cm long)
- Tape
- Ten-frames
- Two-sided counters
- Whiteboard

Patterning and Algebra

- 4-function calculator
- Attribute Blocks
- Beads
- Chart paper
- Coins
- Colour Tiles
- Coloured pencils
- Counters
- File folders to act as barriers
- Heavy thread
- Lengths of string and beads of various colours
- Linking cubes
- Markers
- Number cubes labelled 1–6
- Pan balance
- Paper clips and pencils for pointers
- Pictures of repeating patterns in the real world
- Pine cones
- Pipe cleaners
- Small rocks
- String
- Twigs
- Two-sided counters
- Whiteboard

Measurement

- 30-cm ruler
- Bean bags
- Box to collect estimates
- Cans of different sizes (e.g., juice, soup, and tomato sauce cans)
- Card stock strips
- Centicubes
- Centimetre rulers
- Class calendar
- Colour Tiles
- Coloured tape
- Construction paper
- Craft stick
- Cups with hot, warm, and ice water
- Demonstration analogue clock
- Glue sticks
- Hula hoop
- Measuring jugs (litres)
- Metre sticks
- Objects of different lengths (e.g., pencil, marker, craft stick, crayon, straw)
- Pan balances
- Paper clips
- Picture of a wolf
- Plastic cups
- Pony beads
- Scissors
- Small pieces of paper
- Sticky notes
- String
- Tape
- Thermometer
- Transparent grid
- Uniform units made from construction paper (4 cm by 2 cm, in 2 colours)
- Unusual/curious object in the room (e.g., pumpkin, plant pot, painting)

Geometry

- 2-D shapes
- 3-D solids
- 6 × 6 square grid
- Attribute Blocks
- Ballot box
- Camera (optional)
- Cereal boxes
- Chart paper
- Crayons
- Dollhouse or model of a building
- File folder to act as a barrier
- Geoboards and sets of elastics
- Glue
- Hula hoops
- Labels
- Linking cubes
- Map
- Markers
- Marshmallows
- Miras
- Modelling clay
- Overhead projector
- Paper
- Paper towel roll
- Pattern Blocks
- Pencils
- Pictures that contain examples of 3-D solids in the environment (e.g., a house that is a rectangular prism with a rectangular pyramid for its roof)
- Pipe cleaners
- Polydrons®
- Reference solids
- Scissors
- Selection of 2-D shapes (e.g., Attribute Blocks)
- Sheets of construction paper (green, red)
- Soup can
- Straws
- String
- Stuffed animals with front paws labelled left and right with masking tape
- Tangrams

- Tape
- Various classroom objects
- Whiteboard

Data Management and Probability

- Attribute Blocks
- Chart paper
- Colour Tiles
- Coloured pencils or crayons
- Counters
- Linking cubes
- Markers
- Paper bag
- Pattern blocks
- Play coin
- Sticky notes
- Whiteboard

Line Masters

Grade 1 Activity Kit

Number

Cluster 1: Counting

Master 1: Curriculum Correlation
Master 2: *My Huckleberry (Duje)* Story
Master 3: First Nations Languages and Dialects
Master 4: Audio Recordings
Master 5: Activity 1 Assessment
Master 6: Action Cards
Master 7: Activity 2 Assessment
Master 8: *Hopping On* Game Boards
Master 9: *Hopping Back* Game Boards
Master 10: Activity 3 Assessment
Master 11: Barn Animal Cards
Master 12: Ordinal Number Cards
Master 13: Activity 4 Assessment
Master 14: Number Cards
Master 15: Activity 5 Assessment

Cluster 2: Spatial Reasoning

Master 16: Curriculum Correlation
Master 17: Dot Cards
Master 18: How Many Dots?
Master 19: Activity 6 Assessment
Master 20: *Grab 20!* Recording Sheet
Master 21: Activity 7 Assessment
Master 22: *How Many?* Recording Sheet
Master 23: Activity 8 Assessment

Cluster 3: Comparing and Ordering

Master 24: Curriculum Correlation
Master 25: More/Fewer Cards
Master 26 Activity 9 Assessment
Master 27: Banana Cards
Master 28: Activity 10 Assessment
Master 29: Master 11 Assessment
Master 30: Fish Outlines
Master 31: Activity 12 Assessment

Cluster 4: Skip-Counting

Master 32: Curriculum Correlation
Master 33: Activity 13 Assessment
Master 34: The School Fun Fair
Master 35: Activity Cards
Master 36: *The Fun Fair* Recording Sheet
Master 37: Activity 14 Assessment
Master 38: *Delivering Mail* Game Board
Master 39: *Mail on Planet Math* Game Board

Master 40: Activity 15 Assessment
Master 41: *Under Construction!* Recording Sheet
Master 42: Activity 16 Assessment

Cluster 5: Composing and Decomposing
Master 43: Curriculum Correlation
Master 44: *Ten in the Pools* Recording Sheet
Master 45: Activity 17 Assessment
Master 46: Tower Recording Sheet
Master 47: Activity 18 Assessment
Master 48: Ten-Frame Recording Sheet
Master 49: Activity 19 Assessment
Master 50: Coin Cards
Master 51: Activity 20 Assessment
Master 52: Equal Groups Recording Sheet
Master 53: Activity 21 Assessment
Master 54: Activity 22 Assessment
Master 55: Activity 23 Assessment

Cluster 6: Early Place Value
Master 56: Curriculum Correlation
Master 57: Tens and Ones Recording Sheet
Master 58: Activity 24 Assessment
Master 59: Activity 25 Assessment
Master 60: Matching Cards
Master 61: Activity 26 Assessment
Master 62: Tens and Ones Cut-outs
Master 63: Sample Number Poster
Master 64: Activity 27 Assessment

Cluster 7: Operational Fluency
Master 65: Curriculum Correlation
Master 66: Bingo Cards
Master 67: Caller's Sheet
Master 68: Activity 28 Assessment
Master 69: *Traditional Fish Weirs* Story
Master 70: Salmon Cards
Master 71: Answer Cards
Master 72: Activity 29 Assessment
Master 73: Subtracting to 20 Recording Sheet
Master 74: Activity 30 Assessment
Master 75: Math Problem Cards
Master 76: Activity 31 Assessment
Master 77: Even-Number Cards
Master 78: Doubles with Ten-Frames Cards
Master 79: Doubles Cards
Master 80: Odd-Number Cards
Master 81: Near-Doubles Cards
Master 82: Activity 32 Assessment
Master 83: Activity 33 Assessment
Master 84: *Math in Pictures* Recording Sheet
Master 85: Math in Pictures
Master 86: Activity 34 Assessment
Master 87: Number Talks
Master 88: Number Sentences
Master 89: Activity 35 Assessment

Cluster 8: Financial Literacy
Master 90: Curriculum Correlation
Master 91: Activity 36 Assessment
Master 92: Activity 37 Assessment
Master 93: Object Pictures
Master 94: Activity 38 Assessment
Master 95: Our Stores
Master 96: Activity 39 Assessment
Master 97: Activity 40 Assessment

Patterning and Algebra

Cluster 1: Investigating Repeating Patterns
Master 1: Curriculum Correlation
Master 2: Activity 1 Assessment
Master 3: Pattern Cards
Master 4: Core Cards
Master 5: Activity 2 Assessment
Master 6: Activity 3 Assessment
Master 7: Activity 4 Assessment
Master 8: Crown Cut-Out
Master 9: Activity 5 Assessment

Cluster 2: Creating Patterns
Master 10: Curriculum Correlation
Master 11: Activity 6 Assessment
Master 12: *The Number Four (Newo)* Story
Master 13: Activity 7 Assessment
Master 14: *Fancy Dance* Story
Master 15: Activity 8 Assessment
Master 16: Activity 9 Assessment

Cluster 3: Equality and Inequality

Master 17: Curriculum Correlation
Master 18: Am I Balanced? Recording Sheet
Master 19: Activity 10 Assessment
Master 20: Activity 11 Assessment
Master 21: Activity 12 Assessment
Master 22: Number Cards
Master 23: Pan Card Recording Sheet
Master 24: Activity 13 Assessment

Measurement

Cluster 1: Comparing Objects

Master 1: Curriculum Correlation
Master 2: Activity 1 Assessment
Master 3: Activity 2 Assessment
Master 4: Activity 3 Assessment
Master 5: Comparison Cards
Master 6: Making Comparisons Recording Sheet
Master 7: Activity 4 Assessment
Master 8: Activity 5 Assessment
Master 9: Word Cards
Master 10: Activity 6 Assessment

Cluster 2: Using Uniform Units

Master 11: Curriculum Correlation
Master 12: Sorting Mat
Master 13: Activity 7 Assessment
Master 14: Hand Span Recording Sheet
Master 15: Activity 8 Assessment
Master 16: How Many Cubes? Recording Sheet
Master 17: Activity 9 Assessment
Master 18: About One Metre Recording Sheet
Master 19: Activity 10 Assessment
Master 20: Paper Snake
Master 21: *Silly Snake!* Recording Sheet
Master 22: Activity 11 Assessment
Master 23: The Toy Castle
Master 24: Activity 12 Assessment
Master 25: Paper Squares (3" by 3")
Master 26: Paper Squares (1.5" by 1.5")
Master 27: Activity 13 Assessment
Master 28: Activity 14 Assessment
Master 29: Recording Sheet
Master 30: Activity 15 Assessment

Cluster 3: Time and Temperature

Master 31: Curriculum Correlation
Master 32: Building a Snow Figure
Master 33: Activity Pictures
Master 34: Activity Pictures (Extension)
Master 35: Activity 16 Assessment
Master 36: Passage of Time Activity Cards
Master 37: Passage of Time Recording Sheet
Master 38: Activity 17 Assessment
Master 39: Clock Cards
Master 40: Clock Cards (Extension)
Master 41: Activity 18 Assessment
Master 42: Which Season? Cards
Master 43: Tree Cards
Master 44: Activity 19 Assessment
Master 45: Month Cards
Master 46: Ordinal Number Cards
Master 47: Activity 20 Assessment
Master 48: Activity 21 Assessment

Geometry

Cluster 1: 2-D Shapes

Master 1: Curriculum Correlation
Master 2: Attribute Shapes
Master 3: Activity 1 Assessment
Master 4: *Shape Song*
Master 5: Am I a Triangle? Cards
Master 6: Activity 2 Assessment
Master 7: Am I a Rectangle? Cards
Master 8: Activity 3 Assessment
Master 9: Activity 4 Assessment
Master 10: Shape Cards
Master 11: Activity 5 Assessment
Master 12: Activity 6 Assessment

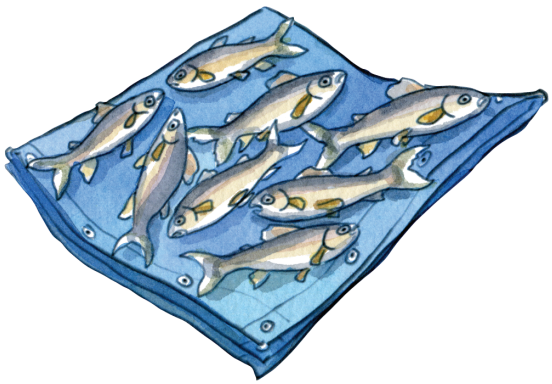
Cluster 2: 3-D Solids

Master 13: Curriculum Correlation
Master 14: Activity 7 Assessment
Master 15: Activity 8 Assessment
Master 16: Activity 9 Assessment
Master 17: The Unfinished Castle
Master 18: Activity 10 Assessment

Cluster 3: Geometric Relationships
Master 19: Curriculum Correlation
Master 20: Activity 11 Assessment
Master 21: Pattern Block Design Templates
Master 22: Activity 12 Assessment
Master 23: Activity 13 Assessment
Master 24: Quilt Design
Master 25: *Find the Shapes* Designs
Master 26: *Find the Shapes* Recording Sheet
Master 27: Activity 14 Assessment
Master 28: Shape Outline Cards
Master 29: Made with Solids Cards
Master 30: Activity 15 Assessment

Cluster 4: Symmetry
Master 31: Curriculum Correlation
Master 32: Exploring Lines of Symmetry
Master 33: Symmetrical Images
Master 34: Activity 16 Assessment
Master 35: Activity 17 Assessment
Master 36: Necklace/Bracelet Templates
Master 37: Activity 18 Assessment

Cluster 5: Location and Movement
Master 38: Curriculum Correlation
Master 39: Objects on a Table
Master 40: Position Cards
Master 41: Activity 19 Assessment
Master 42: Maps
Master 43: Activity 20 Assessment
Master 44: Map of a Classroom
Master 45: Student Card Map A
Master 46: Student Card Map B
Master 47: Activity 21 Assessment



Data Management and Probability

Cluster 1: Data Management
Master 1: Curriculum Correlation
Master 2: Activity 1 Assessment
Master 3: Activity 2 Assessment
Master 4: Tally Chart
Master 5: Pictograph Pictures
Master 6: Activity 3 Assessment
Master 7: Activity 4 Assessment

Cluster 2: Probability and Chance
Master 8: Curriculum Correlation
Master 9: Could It Happen? Events
Master 10: More Likely or Less Likely
Master 11: Activity 5 Assessment
Master 12: Chance Words
Master 13: Activity 6 Assessment

Multi-Use Masters

Multi-Use Master 1: Ten-Frames
Multi-Use Master 2: Place-Value Mat
Multi-Use Master 3: Five-Frames
Multi-Use Master 4: Part-Part-Whole Mat
Multi-Use Master 5: Hundred Chart
Multi-Use Master 6: Sorting Mat
Multi-Use Master 7: Graphing Mat
Multi-Use Master 8: Number Lines
Multi-Use Master 9: Addition Mat
Multi-Use Master 10: Subtraction Mat

Grade 2 Activity Kit

Teacher Cards

Number

Cluster 1: Counting

Master 1: Curriculum Correlation
Master 2: Hundred Chart 101–200
Master 3: Hundred Charts 101–500
Master 4: Activity 1 Assessment
Master 5: Skip-Counting by 2s Spider Webs
Master 6: Skip-Counting by 5s Spider Webs
Master 7: Skip-Counting by 10s Spider Webs
Master 8: Skip-Counting Spider Web Template
Master 9: Activity 2 Assessment
Master 10: Number Cards (4 to 9)
Master 11: Activity 3 Assessment
Master 12: Skip-Counting Backward Game Cards
Master 13: Activity 4 Assessment
Master 14: Counting On and Back Game Cards
Master 15: Skip-Counting Game Cards
Master 16: Activity 5 Assessment

Cluster 2: Number Relationships 1

Master 17: Curriculum Correlation
Master 18: *Comparing Quantities* Recording Sheet
Master 19: Activity 6 Assessment
Master 20: Activity 7 Assessment
Master 21: Number Cards (1–20)
Master 22: Activity 8 Assessment
Master 23: Ordinal Number Cards (to 20th)
Master 24: Ordinal Word Cards (to twentieth)
Master 25: Activity 9 Assessment
Master 26: *How Many in the Jar?* Recording Sheet
Master 27: Activity 10 Assessment
Master 28: *Making Trains* Recording Sheet
Master 29: Activity 11 Assessment
Master 30: Task Cards
Master 31: Activity 12 Assessment

Cluster 3: Grouping and Place Value

Master 32: Curriculum Correlation
Master 33: Building Numbers Cards
Master 34: Ten Trains and Ones
Master 35: Activity 13 Assessment
Master 36: Hundred Chart
Master 37: Activity 14 Assessment
Master 38: *How Many?* Recording Sheet
Master 39: Activity 15 Assessment
Master 40: Consolidation Task Cards
Master 41: Activity 16 Assessment

Cluster 4: Early Fractional Thinking

Master 42: Curriculum Correlation
Master 43: Rectangles
Master 44: Paper Square
Master 45: Paper Strip
Master 46: Activity 17 Assessment
Master 47: Bannock Story
Master 48: Circular Bannock
Master 49: Congruent Paper Squares
Master 50: Paper Shapes
Master 51: Activity 18 Assessment
Master 52: Coloured Rods
Master 53: Brown Rod Questions
Master 54: Activity 19 Assessment
Master 55: Hexagons
Master 56: *Regrouping Recording* Sheet
Master 57: Activity 20 Assessment
Master 58: Consolidation Cards
Master 59: Activity 21 Assessment

Cluster 5: Number Relationships 2

Master 60: Curriculum Correlation
Master 61: Closer To Cards
Master 62: Activity 22 Assessment
Master 63: Activity 23 Assessment
Master 64: Target Number Cards
Master 65: Jumping Bean Number Lines

Master 66: Activity 24 Assessment
Master 67: *Who Am I?* Cards
Master 68: Activity 25 Assessment

Cluster 6: Conceptualizing Addition and Subtraction
Master 69: Curriculum Correlation
Master 70: Domino Cards
Master 71: Activity 26 Assessment
Master 72: Activity 27 Assessment
Master 73: Think Board A
Master 74: Story Problems 2
Master 75: Activity 28 Assessment
Master 76: Story Problems 3
Master 77: Activity 29 Assessment
Master 78: Story Problem Starters
Master 79: Activity 30 Assessment
Master 80: Think Board B
Master 81: Problem Cards
Master 82: Activity 31 Assessment

Cluster 7: Operational Fluency
Master 83: Curriculum Correlation
Master 84: Planting Seeds
Master 85: Seed Cards (0–10)
Master 86: Seed Cards (0–20)
Master 87: My 20 Garden
Master 88: Activity 32 Assessment
Master 89: Common Doubles
Master 90: Activity 33 Assessment
Master 91: *Four in a Line* Cards
Master 92: *Three in a Line* Cards
Master 93: *Four in a Line* Game Board
Master 94: Activity 34 Assessment
Master 95: Question Cards
Master 96: *Multi-Digit Fluency* Recording Sheet
Master 97: Activity 35 Assessment
Master 98: Activity 36 Assessment

Cluster 8: Early Multiplicative Thinking
Master 99: Curriculum Correlation
Master 100: *Grouping Recording* Sheet
Master 101: Activity 37 Assessment
Master 102: Our Equal-Sharing Problem
Master 103: Activity 38 Assessment
Master 104: *Making Equal Groups* Recording Sheet
Master 105: Activity 39 Assessment
Master 106: *Our Repeated Addition Problems* Recording Sheet
Master 107: *How Many?* Objects
Master 108: Activity 40 Assessment
Master 109: Repeated Addition Problems
Master 110: Activity 41 Assessment
Master 111: Item Cards
Master 112: People Cards
Master 113: Activity 42 Assessment

Cluster 9: Financial Literacy
Master 114: Curriculum Correlation
Master 115: Money Cutouts
Master 116: *Estimating Money* Recording Sheet
Master 117: Referent Jars
Master 118: Activity 43 Assessment
Master 119: Hire Me
Master 120: Activity 44 Assessment
Master 121: Used Sports Equipment Store
Master 122: Clothing Store
Master 123: Activity 45 Assessment
Master 124: Calendar
Master 125: Items to Save For
Master 126: Jobs to Save Money
Master 127: Activity 46 Assessment
Master 128: Sample Jobs
Master 129: Our Savings Plan
Master 130: Activity 47 Assessment

Patterning and Algebra

Cluster 1: Repeating Patterns
Master 1: Curriculum Correlation
Master 2: Our Cores
Master 3: Activity 1 Assessment
Master 4: Bracelet Cores
Master 5: My Bracelet Plan
Master 6: Activity 2 Assessment
Master 7: Activity 3 Assessment
Master 8: Our Core Cards
Master 9: Two Attributes Changing

Measurement

Master 39: How to Make a Pendulum
Master 40: Pendulum Activity Cards
Master 41: Activity 15 Assessment
Master 42: Analogue Clock Cards
Master 43: Digital Clock Cards
Master 44: Activity 16 Assessment
Master 45: Thermometer for Before
Master 46: Cold, Warm, or Hot?
Master 47: Pictures for *Cold, Warm, or Hot?*
Master 48: Activity 17 Assessment
Master 49: *Time and Temperature* Game Board
Master 50: *Time and Temperature* Cards
Master 51: Activity 18 Assessment

Geometry

Cluster 1: 2-D Shapes

Master 1: Curriculum Correlation
Master 2: Attribute Cards
Master 3: Activity 1 Assessment
Master 4: Shape Cards
Master 5: Activity 2 Assessment
Master 6: Activity 3 Assessment
Master 7: Large Shapes
Master 8: Symmetry Cards
Master 9: Symmetry Sorting Mat
Master 10: Activity 4 Assessment
Master 11: Consolidation Attribute Cards
Master 12: Activity 5 Assessment

Cluster 2: 3-D Solids

Master 13: Curriculum Correlation
Master 14: Attribute Cards for 3-D Solids
Master 15: Activity 6 Assessment
Master 16: *Exploring Solids* Recording Sheet
Master 17: Activity 7 Assessment
Master 18: Photo of Roof
Master 19: Solid Cards
Master 20: Nets of Rectangular Prism
Master 21: Activity 8 Assessment
Master 22: Photo of Skeleton of Rectangular Prism
Master 23: Activity 9 Assessment
Master 24: Activity 10 Assessment

Cluster 3: Geometric Relationships

Master 25: Curriculum Correlation
Master 26: Shapes from Squares
Master 27: Fill the Hexagons
Master 28: Fill the Rectangles
Master 29: Activity 11 Assessment
Master 30: Our Structure
Master 31: Activity 12 Assessment
Master 32: Geoboard Shapes
Master 33: Activity 13 Assessment
Master 34: Shape Picture
Master 35: Shape Design
Master 36: Pattern Block Cutouts
Master 37: Tangram Cutouts
Master 38: Activity 14 Assessment
Master 39: Activity 15 Assessment
Master 40: Pictures for Symmetry
Master 41: Make It Symmetrical
Master 42: Activity 16 Assessment
Master 43: Task Cards
Master 44: Activity 17 Assessment

Cluster 4: Location and Movement

Master 45: Curriculum Correlation
Master 46: Classroom Map
Master 47: *I Spy* Cards
Master 48: Path Cards
Master 49: Maps with Grid
Master 50: Position Words
Master 51: Activity 18 Assessment
Master 52: Activity 19 Assessment
Master 53: Multiple Views
Master 54: Perspective Recording Sheet
Master 55: Activity 20 Assessment
Master 56: Activity 21 Assessment

Cluster 5: Coding

Master 57: Curriculum Correlation
Master 58: Find a Path
Master 59: My Cube Path
Master 60: Activity 22 Assessment
Master 61: 4 × 4 Grid
Master 62: Grid A
Master 63: Grid B

Data Management and Probability

Cluster 1: Data Management

Cluster 2: Probability and Chance

Intervention

Number

Patterning and Algebra

Master 39: Intervention Activity 1 Assessment
Master 40: Intervention Activity 2 Assessment
Master 41: Intervention Activity 3 Assessment
Master 42: *On and Off the Shelf* Cards
Master 43: Intervention Activity 4 Assessment
Master 44: Spill and Fill
Master 45: Intervention Activity 5 Assessment
Master 46: *Balancing Sets* Recording Sheet
Master 47: Intervention Activity 6 Assessment

Measurement

Master 48: Uniform Units
Master 49: Intervention Activity 1 Assessment
Master 50: Large Squares
Master 51: Large Rectangles
Master 52: Intervention Activity 2 Assessment
Master 53: Picture Frame
Master 54: Measuring Other Animals
Master 55: Intervention Activity 3 Assessment
Master 56: Recording Sheet
Master 57: Intervention Activity 4 Assessment
Master 58: Full-Year Calendar
Master 59: *Months of the Year* Game Board
Master 60: Month Cards
Master 61: Intervention Activity 5 Assessment
Master 62: *What Time is It?* Game Board
Master 63: Clock Cards
Master 64: Intervention Activity 6 Assessment

Geometry

Master 65: Attribute Cards
Master 66: Intervention Activity 1 Assessment
Master 67: 2-D Shapes
Master 68: Attribute Cards for Shape Bin
Master 69: Intervention Activity 2 Assessment
Master 70: Attribute Cards
Master 71: Intervention Activity 3 Assessment
Master 72: Identifying Solids: Questions You Might Ask
Master 73: Intervention Activity 4 Assessment
Master 74: Pattern Block Outlines
Master 75: Fill Me!
Master 76: Intervention Activity 5 Assessment
Master 77: Intervention Activity 6 Assessment
Master 78: Tower Views
Master 79: Structure Recording Sheets
Master 80: Viewing Frame
Master 81: Intervention Activity 7 Assessment
Master 82: Intervention Activity 8 Assessment
Master 83: Left/Right Visual
Master 84: Intervention Activity 9 Assessment
Master 85: Sample Questions
Master 86: Blank Grid
Master 87: Direction Visuals
Master 88: Intervention Activity 10 Assessment

Data Management and Probability

Master 89: Do You Like Dogs?
Master 90: Children in Evening Art Class
Master 91: Students in Science Club
Master 92: Intervention Activity 1 Assessment
Master 93: Intervention Activity 2 Assessment
Master 94: Event Cards
Master 95: Word Cards
Master 96: Intervention Activity 3 Assessment
Master 97: *More or Less Likely?* Events
Master 98: Intervention Activity 4 Assessment

Math Every Day

Number

Cluster 1: Coloured Rods
Cluster 2: Paper Shapes
Cluster 3: At the Beach
Cluster 4: Images of Everyday Items
Cluster 5: Coin Cutouts

Patterning and Algebra

Cluster 6: Repeating Patterns Around Us
Cluster 7: *What's Missing?* Number Sentences

Measurement

Cluster 8: Centimetre Rulers
Cluster 9: Number Cards (1 to 12)
Cluster 10: Ordinal Number Cards (1st to 12th)
Cluster 11: Month Cards
Cluster 12: Calendar Clue Cards
Cluster 13: Hot and Cold Temperatures

Geometry

Cluster 14: Geometry Poem
Cluster 15: Pattern Block Outlines
Cluster 16: *Draw the Shape* Cards
Cluster 17: Map of Neighbourhood
Cluster 18: Perspective Picture Cards
Cluster 19: View Cards
Cluster 20: Animal Faces

Data Management and Probability

Cluster 21: Sample Graphs

Multi-Use Masters

Multi-Use Master 1: Ten-Frames
Multi-Use Master 2: Place-Value Mat
Multi-Use Master 3: Five-Frames
Multi-Use Master 4: Part-Part-Whole Mat
Multi-Use Master 5: Hundred Chart
Multi-Use Master 6: Sorting Mat
Multi-Use Master 7: Graphing Mat
Multi-Use Master 8: Number Lines
Multi-Use Card 9: Open Number Line
Multi-Use Card 10: Thermometer

Teaching with Mathology Little Books

About Mathology Little Books

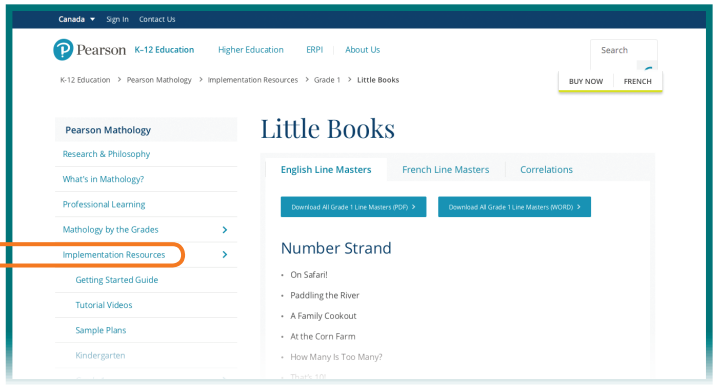
There are **72 fiction and non-fiction books**, with corresponding Teacher's Guides, organized around the Learning Progression's Big Ideas within each math strand.

The books span from **Kindergarten through Grade 3**. They are **math first**; each book focuses on two math foci in a Big Idea. **Indigenous** titles are included at each grade level, and all books have been reviewed by Indigenous educators as well as by bias and equity experts. All books are also available in **French**.

Digital Version and Tools for Little Books

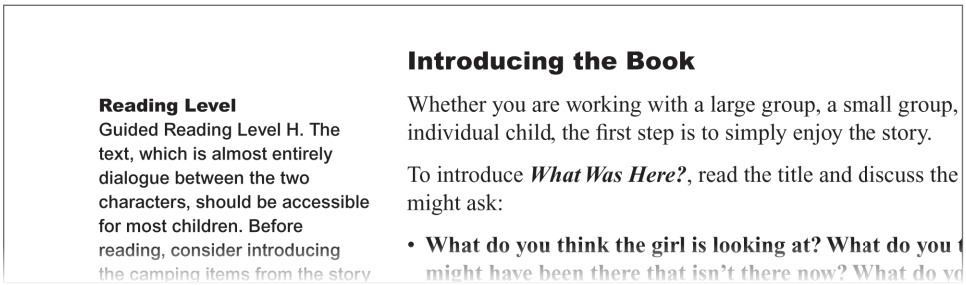
A **digital version** of each book, an interactive activity, and an audio recording are available via a URL or QR code, which is located on the back cover of each book.

Line masters for each Mathology Little Book, in Word and PDF format, are located at pearsonmathology.ca (see Implementation Resources, Grade 1 Resources, Mathology Little Books, English Line Masters.) They include resources such as math mats, Home Connection ideas, and assessment checklists.



About Mathology Little Books Teacher's Guides

The reading level for each book is noted in the accompanying guide.



Reading Level
Guided Reading Level H. The text, which is almost entirely dialogue between the two characters, should be accessible for most children. Before reading, consider introducing the camping items from the story

Introducing the Book

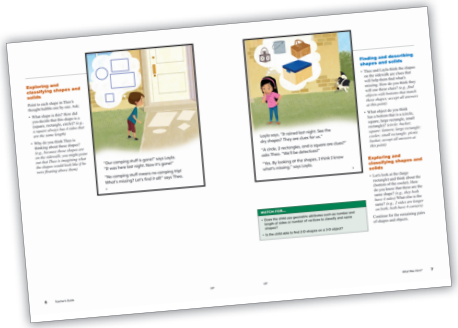
Whether you are working with a large group, a small group, individual child, the first step is to simply enjoy the story.

To introduce ***What Was Here?***, read the title and discuss the might ask:

- **What do you think the girl is looking at? What do you might have been there that isn't there now? What do yo**

The guides feature a wrap-around format (student book pages are reproduced in the guide with notes surrounding them) so that you can read the annotated copy as students read their copy. Conversation and Watch For prompts are included throughout. Different colours for the conversation prompts denote the two math foci in each Mathology Little Book.

Detailed teaching plans for large groups, small groups, and centre options include Watch For prompts and differentiation tips. Home Connections options are also included in each guide.



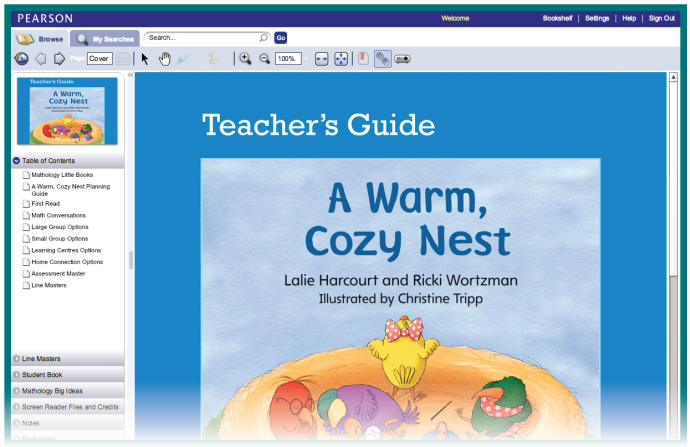
Digital Version and Tools for Teacher's Guide

With your order of a teacher's guide, you will receive an access code and registration instructions. If you have ordered multiple guides, use the same login name and password for all guides. Once you have logged in, you will see a bookshelf with each of the guides you have ordered.

Each guide includes these components:

- An etext version
- Line masters in Word and PDF format
- Wordless copy of the corresponding student book for projection/inquiry
- Mathology Big Ideas/Learning pathway

Should you encounter problems with registration, please email schoolaccesscodes@pearsoncanada.com.



Mathology Little Books Index

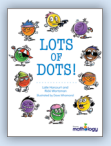
Number

BIG IDEA 1: Numbers tell us how many and how much.

KINDERGARTEN

A Warm, Cozy Nest
- count sets to 5
- recognize numerals to 5

Lots of Dots!
- subitize and count sets to 10
- compose and decompose to 10



Animals Hide
- count sets to 10
- compare quantities to 10

Dan's Doggy Daycare
- count and compare sets to 10
- compose and decompose 10

Acorns for Wilaiya
- count sets to 10
- compare sets to 10

GRADE 1

On Safari!
- count sets to 20
- add 1 or 2

BIG IDEA 2: Numbers are related in many ways.

KINDERGARTEN

Spot Check!
- compare quantities to 10
- count sets to 10

Time for Games
- compare quantities to 10 (further developed)
- count sets to 10 (further developed)

Let's Play Waltes!
- count and compare to 10
- compose and decompose to 10

GRADE 1

Paddling the River
- count, compare, and order to 20
- compose and decompose to 20

A Family Cookout
- compare and order quantities to 25
- estimate and count to 50

GRADE 2

What Would You Rather?
- compare quantities to 100
- estimate and count to 100

GRADE 3

Fantastic Journeys
- estimate quantities to 1000
- compare/order quantities to 1000

mathology Little Books

BIG IDEA 3: Quantities and numbers can be grouped by units or split into units.

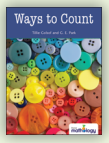
GRADE 1

At the Corn Farm
- group quantities based on units of 10
- compare and order sets/quantities to 20

How Many Is Too Many?
- estimate and group to skip-count to 50
- compare quantities to 50

GRADE 2

Ways to Count
- estimate and group to count to 100
- skip-count to 100



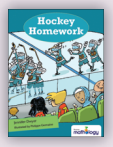
Family Fun Day
- split quantities into equal groups to count to 100
- compose/decompose to 100

Back to Batoche
- group quantities based on units of 10
- compare/order numbers to 100

The Best Birthday
- split wholes into equal parts (fractions)
- model equal grouping/sharing

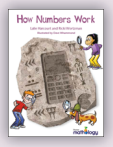
GRADE 3

Hockey Homework
- split wholes into equal parts (fractions)
- compare fractions



Finding Buster
- compose to 1000 based on place-value
- compare/order numbers to 1000

How Numbers Work
- compose/decompose 3-digit numbers
- find and use number patterns



BIG IDEA 4: Quantities and numbers can be added and subtracted to determine how many or how much.

GRADE 1

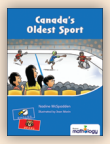
That's 10!
- add and subtract to 10
- compose and decompose 10

Hockey Time!
- add and subtract to 20
- compose and decompose to 20

Cats and Kittens!
- add and subtract to 20
- compare quantities to 20

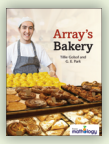
Buy 1—Get 1
- add and subtract to 20
- develop addition and subtraction strategies

Canada's Oldest Sport
- add and subtract to 20
- compare and order sets to 20



GRADE 2

Array's Bakery
- solve addition/subtraction problems
- solve equal grouping/sharing problems



Marbles, Alleys, Mibs, and Guli!
- add/subtract 2-digit numbers
- solve equal grouping/sharing problems

A Class-full of Projects
- add/subtract to 100
- compose/decompose based on units of 10

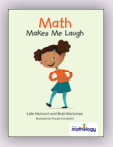
GRADE 2 (continued)

The Money Jar
- add/subtract to 100 (further developed)
- compose/decompose based on units of 10

The Great Dogsled Race
- add/subtract to 100
- compare/order numbers

GRADE 3

Math Makes Me Laugh
- add/subtract to 1000
- estimate, compare, and order numbers to 1000



The Street Party
- add/subtract to 1000
- compare/order numbers to 1000 (further developed)

Planting Seeds
- add/subtract to 1000
- develop concept of multiplication

BIG IDEA 5: Quantities and numbers can be multiplied (by grouping units) and divided (by splitting into units) to determine how many or how much.

GRADE 3

Sports Camp
- model and solve equal grouping/sharing problems
- relate adding to multiplying, subtracting to dividing

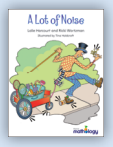
Calla's Jingle Dress
- multiply and divide to 50
- add and subtract to 100

Patterning and Algebra

BIG IDEA 1: Patterns can be described mathematically.

KINDERGARTEN

A Lot of Noise
- identify and extend repeating patterns
- reproduce and create repeating patterns



We Can Bead!
- describe, extend, and create repeating patterns
- sort objects by attributes

GRADE 1

Midnight and Snowfall
- identify and describe repeating patterns
- compare and create patterns

GRADE 2

The Best Surprise
- explore growing and shrinking patterns
- investigate number patterns

Pattern Quest
- investigate repeating patterns
- investigate growing and shrinking patterns

BIG IDEA 1: Patterns can be described mathematically. (continued)

GRADE 3

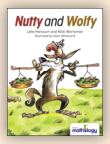
Namir's Marvellous Masterpieces

- investigate growing and shrinking patterns (further developed)
- use equations to represent simple growing and shrinking patterns

BIG IDEA 2: Symbols and expressions can be used to represent mathematical relations.

GRADE 1

Nutty and Wolfy



- explore equality and inequality
- compare quantities to 20

GRADE 2

Kokum's Bannock

- model and describe equality and inequality
- explore properties of addition and subtraction

GRADE 3

A Week of Challenges

- use properties of equality to solve problems
- use the language of algebra

Measurement

BIG IDEA 1: Many things in our world have attributes that can be measured and compared.

KINDERGARTEN

To Be Long

- compare objects by length
- order objects by length

GRADE 1

The Amazing Seed

- estimate and compare attributes
- estimate and measure using non-standard units

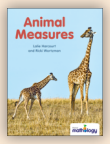
BIG IDEA 2: Units can be used to measure and compare attributes.

KINDERGARTEN

The Best in Show
- measure to compare and order objects
- choose and use measuring tools

GRADE 1

Animal Measures
- estimate and measure length
- compare measures according to length



GRADE 2

Getting Ready for School
- estimate and measure length, duration, and distance around
- compare, order, and describe measures

The Discovery
- estimate and measure length, perimeter, and area
- compare and describe length, perimeter, and area

GRADE 3

Goat Island
- measure time, temperature, and length
- explore units of measure and their relationships

The Bunny Challenge
- estimate, measure, and compare area
- estimate, measure, and compare perimeter

Measurements About YOU!
- estimate, measure, and compare attributes
- identify and relate measures

Geometry

BIG IDEA 1: Shapes and solids can be explored and compared based on attributes.

KINDERGARTEN

Zoom In, Zoom Out
- identify shapes
- locate objects

The Castle Wall
- explore, describe, and compare shapes and solids
- create and describe 3-D structures

GRADE 1

What Was Here?
- find and describe shapes and solids
- explore and classify shapes and solids

BIG IDEA 1: Shapes and solids can be explored and compared based on attributes. (continued)

GRADE 2

I Spy Awesome Buildings

- find and classify 2-D shapes in 3-D objects
- investigate and make 2-D shapes

GRADE 3

WONDERful Buildings

- identify, describe, and compare 2-D shapes and 3-D solids
- compose and decompose 2-D shapes and 3-D solids

BIG IDEA 2: Shapes and solids can be transformed in many ways.

GRADE 1

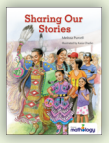
The Tailor Shop

- transform and describe shapes
- describe and compare shapes

GRADE 2

Sharing Our Stories

- explore lines of symmetry in 2-D shapes
- explore 2-D shapes



GRADE 3

Gallery Tour

- describe and compare transformations
- identify, describe, and compare 2-D shapes

BIG IDEA 3: Objects can be located in space and looked at from different perspectives.

KINDERGARTEN

The New Nest

- locate objects in space
- recognize shapes

GRADE 1

Memory Book

- locate and map objects in the environment
- investigate 2-D shapes and 3-D solids

BIG IDEA 3: Objects can be located in space and looked at from different perspectives. (continued)

GRADE 2

Robo
- describe the location of objects
- explore and describe the movement of objects

Data Management and Probability

BIG IDEA 1: Collecting and displaying data can help us predict and interpret situations.

KINDERGARTEN

Hedge and Hog
- collect and interpret data
- sort a collection

GRADE 1

Graph It!
- interpret concrete graphs and picture graphs
- build concrete graphs and picture graphs

GRADE 2

Big Buddy Days
- build pictographs
- interpret pictographs

Marsh Watch
- collect, organize, and display data in graphs
- read and ask questions about graphs

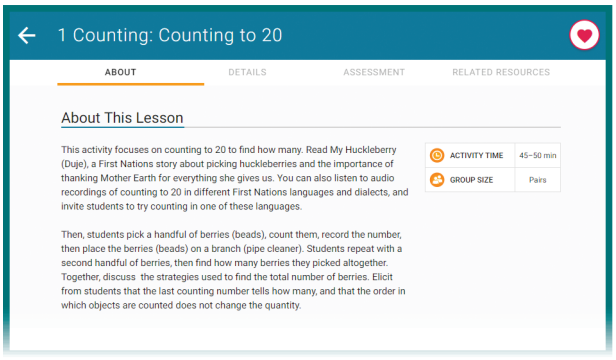
GRADE 3

Welcome to The Nature Park
- interpret charts, tables, pictographs, and bar graphs
- draw conclusions from data displays

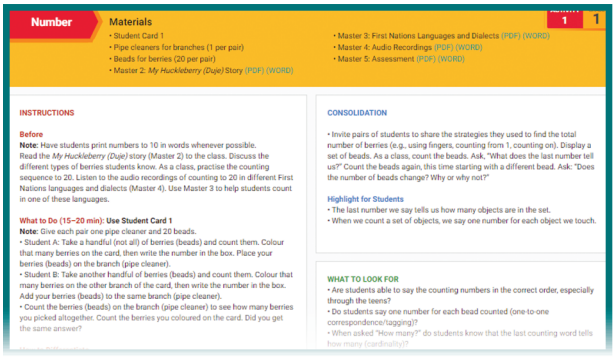
Chance
- explore the likelihood of different outcomes
- investigate the fairness of games

Teaching with mathology.ca

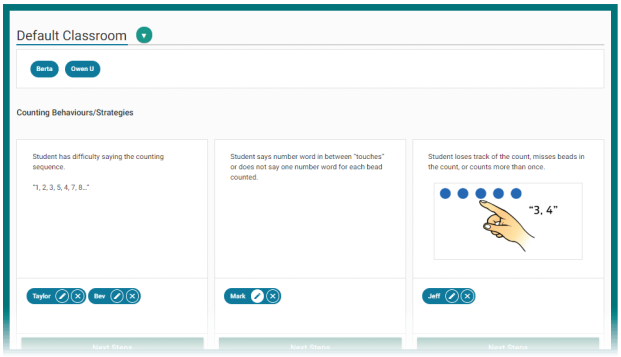
The embedded lesson supports in mathology.ca help you select, prepare, and run pedagogically rich activities.



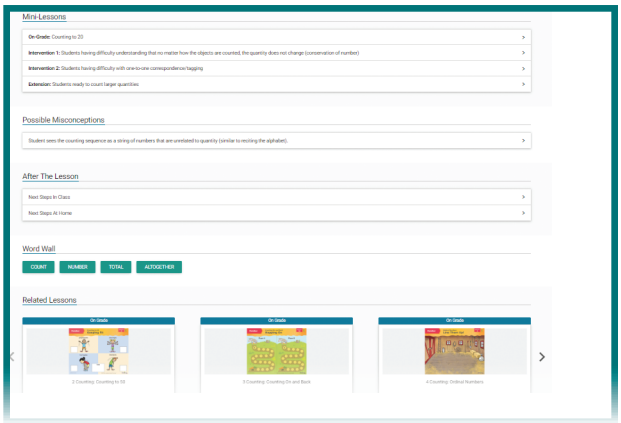
Find at a glance lessons that suit your teaching needs and grouping plans.



Differentiation notes, consolidation ideas and tips, things to look for as students are engaged in the activity, and probing questions support conversations with your students.



Observational assessment tools help you conduct and record your observations and assessment efficiently and suggested next steps



Differentiated mini-lessons to further support your students

Ideas for extended student support, in class and at home

Related lessons or stories on the same concept, both on grade and below

Assess & Track

Many different formative and summative assessment tools and supports in the Mathology components allow you to probe and gain insight into students' knowledge and understanding throughout their learning experience. These supports enable you to uncover what students know at all times, and to choose the next steps to help move them forward in their learning. Observational assessment is at the heart of all the Mathology components.

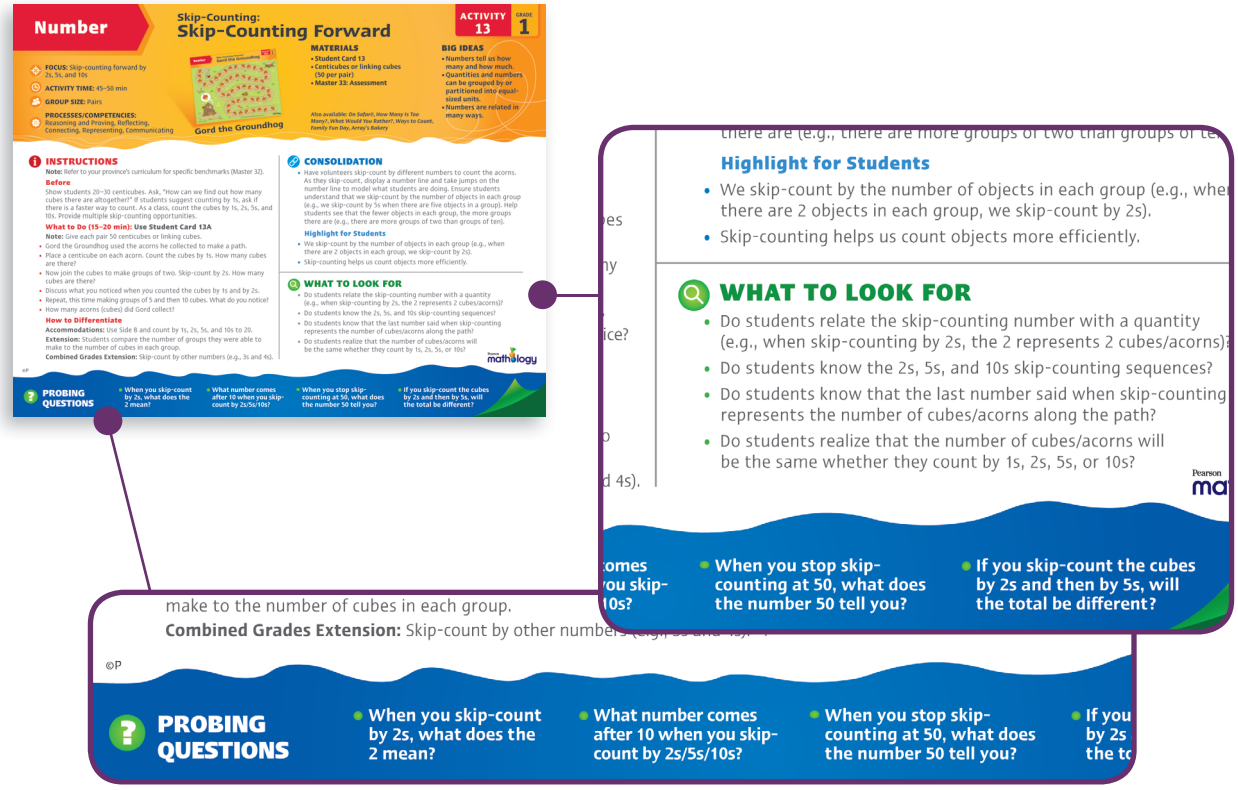
Diagnostic/Formative

Summative

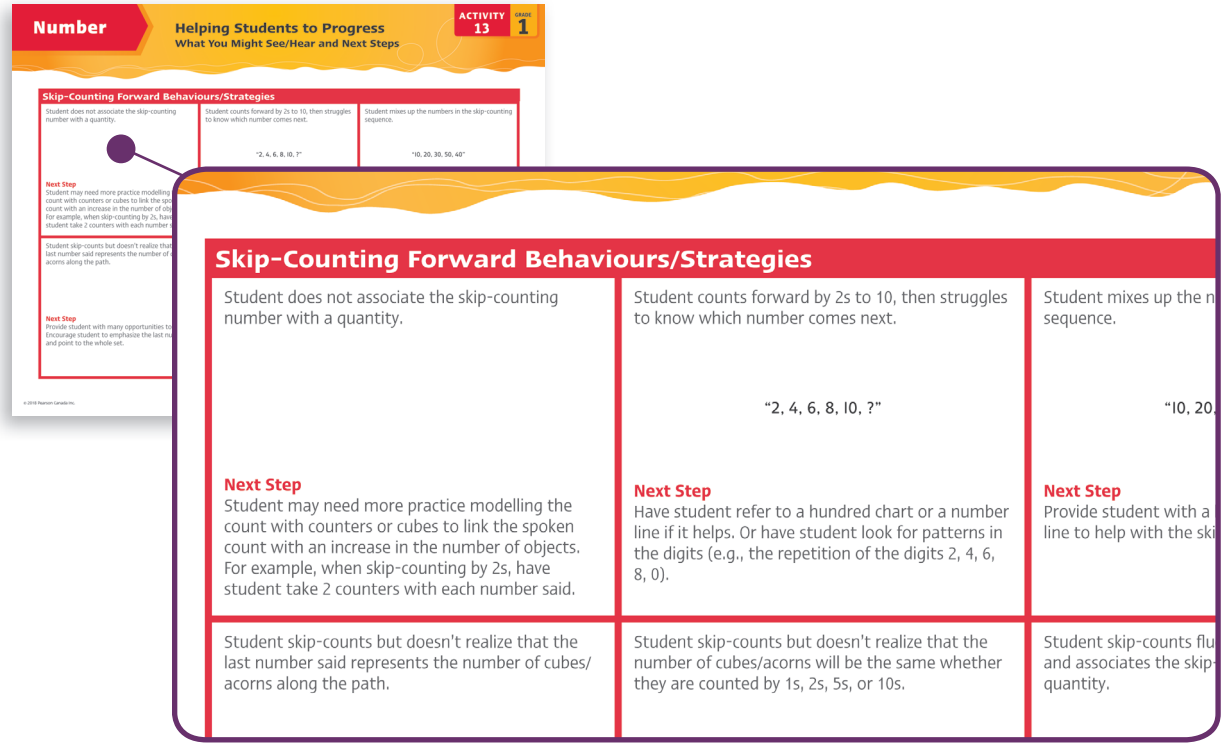
Assessing with Mathology Activity Kits

On each activity card, the following multiple formative assessment supports are available:

- **Probing Questions:** Questions that you might ask in the moment to reveal students' understanding and any misconceptions they may have
- **What to Look For:** Suggestions about what to observe as students are performing the activity

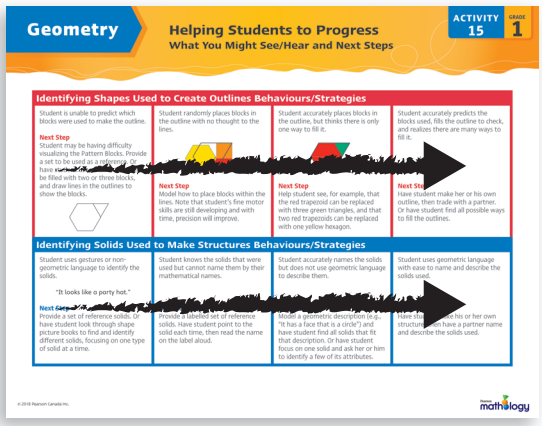


- **What You Might See/Hear and Next Steps:** Student behaviours and strategies that you may observe during the activity and ideas for next steps based on what you notice. These behaviours and strategies illustrate a progression of the most common responses, misconceptions, partial concepts, and strategies students may display while learning, culminating with a deep understanding of the concept.

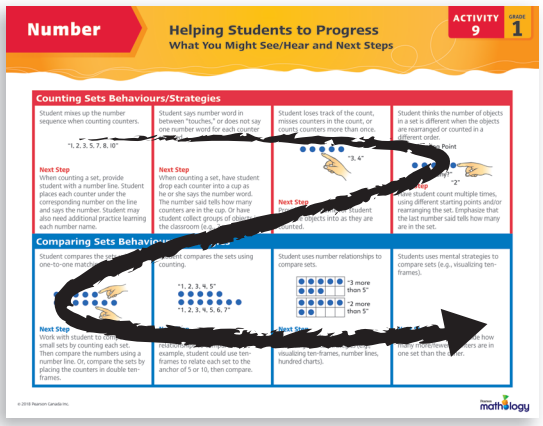


Some activities have concepts that cover a combined mathematical focus. Depending on the activity math focus and main concept, the card's Side B prompts allow you to observe on-grade mastery developing for two related concepts **simultaneously** or **sequentially**.

Simultaneously:



Sequentially:



Grade 1 Activity Kit

The following activities have a combined mathematical focus. Use the progression guidelines provided below to guide your observational assessment of student behaviours and strategies:

Number

Cluster 2: Spatial Reasoning Activity 8: Consolidation (simultaneous)

Cluster 3: Comparing and Ordering Activity 9: Comparing Sets Concretely (sequential)

Cluster 5: Composing and Decomposing Activity 19: Numbers to 20 (simultaneous)

Cluster 5: Composing and Decomposing Activity 21: Equal Groups (simultaneous)

Cluster 5: Composing and Decomposing Activity 23: Consolidation (simultaneous)

Cluster 7: Operational Fluency Activity 28: More or Less (sequential)

Cluster 7: Operational Fluency Activity 29: Adding to 20 (simultaneous)

Cluster 7: Operational Fluency Activity 30: Subtracting to 20 (simultaneous)

Cluster 7: Operational Fluency Activity 31: The Number Line (sequential)

Cluster 7: Operational Fluency Activity 32: Doubles (sequential)

Cluster 7: Operational Fluency Activity 34: Solving Story Problems (simultaneous)

Cluster 7: Operational Fluency Activity 35: Consolidation (simultaneous)

Cluster 8: Financial Literacy Activity 40: Consolidation (simultaneous)

Patterning and Algebra

Cluster 3: Equality and Inequality Activity 10: Exploring Sets (simultaneous)

Cluster 3: Equality and Inequality Activity 11: Making Equal Sets (simultaneous)

Measurement

Cluster 1: Comparing Objects Activity 6: Consolidation (simultaneous)

Cluster 2: Using Uniform Units Activity 9: Using Multiple Units (simultaneous)

Cluster 2: Using Uniform Units Activity 10: A Benchmark of One Metre (simultaneous)

Cluster 2: Using Uniform Units Activity 12: Iterating the Unit (simultaneous)

Cluster 3: Time and Temperature Activity 18: Telling Time (simultaneous)

Geometry

Cluster 1: 2-D Shapes Activity 4: Visualizing Shapes (simultaneous)

Cluster 1: 2-D Shapes Activity 6: Consolidation (simultaneous)

Cluster 2: 3-D Solids Activity 7: Exploring 3-D Solids (simultaneous)

Cluster 2: 3-D Solids Activity 9: Identify the Sorting Rule (simultaneous)

Cluster 3: Geometric Relationships Activity 11: Faces of Solids (simultaneous)

Cluster 3: Geometric Relationships Activity 15: Consolidation (simultaneous)

Cluster 5: Location and Movement Activity 20: Mapping (simultaneous)

Data Management and Probability

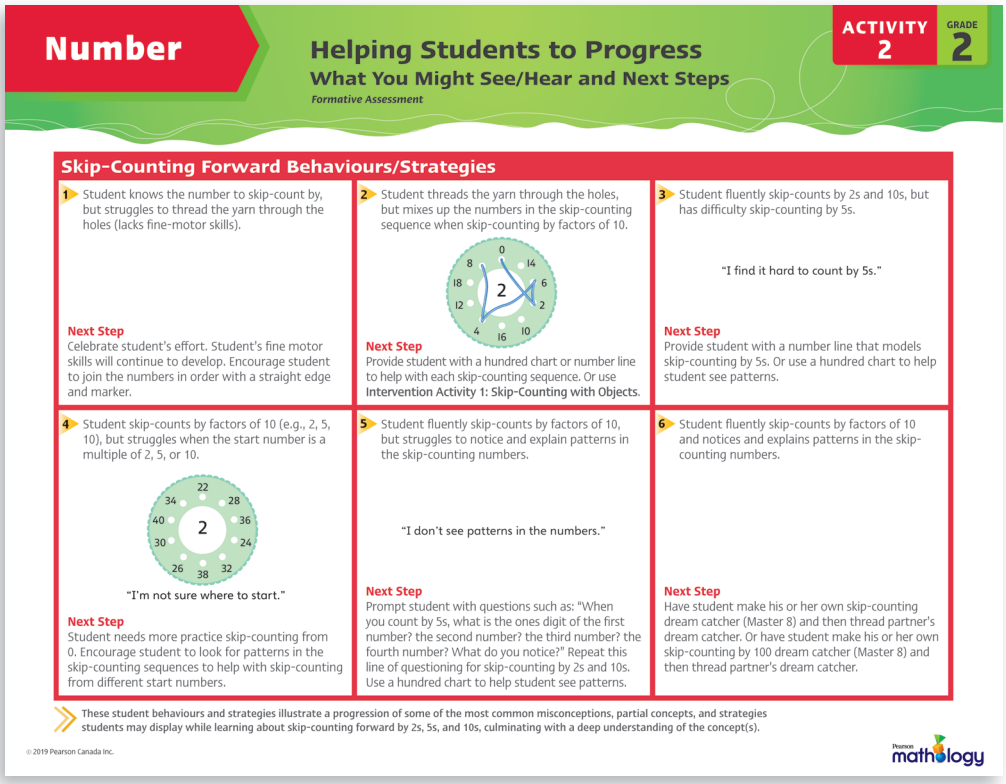
Cluster 1: Data Management Activity 2: Making Concrete Graphs (simultaneous)

Cluster 1: Data Management Activity 3: Making Pictographs (simultaneous)

Cluster 1: Data Management Activity 4: Consolidation (simultaneous)

Grade 2 Activity Kit

For all grade 2 activities that have concepts that cover a combined mathematical focus, Side B prompts allow you to observe on-grade mastery developing for two related concepts **sequentially**.



Number

Helping Students to Progress

What You Might See/Hear and Next Steps

Formative Assessment

ACTIVITY 2 GRADE 2

Skip-Counting Forward Behaviours/Strategies

1 Student knows the number to skip-count by, but struggles to thread the yarn through the holes (lacks fine-motor skills).

Next Step
Celebrate student's effort. Student's fine motor skills will continue to develop. Encourage student to join the numbers in order with a straight edge and marker.

2 Student threads the yarn through the holes, but mixes up the numbers in the skip-counting sequence when skip-counting by factors of 10.

0, 14, 6, 2, 10, 16, 4, 12, 18, 8, 2

Next Step
Provide student with a hundred chart or number line to help with each skip-counting sequence. Or use **Intervention Activity 1: Skip-Counting with Objects**.

3 Student fluently skip-counts by 2s and 10s, but has difficulty skip-counting by 5s.

"I find it hard to count by 5s."

Next Step
Provide student with a number line that models skip-counting by 5s. Or use a hundred chart to help student see patterns.

4 Student skip-counts by factors of 10 (e.g., 2, 5, 10), but struggles when the start number is a multiple of 2, 5, or 10.

22, 28, 36, 24, 32, 38, 26, 30, 40, 34, 2

"I'm not sure where to start."

Next Step
Student needs more practice skip-counting from 0. Encourage student to look for patterns in the skip-counting sequences to help with skip-counting from different start numbers.

5 Student fluently skip-counts by factors of 10, but struggles to notice and explain patterns in the skip-counting numbers.

"I don't see patterns in the numbers."

Next Step
Prompt student with questions such as: "When you count by 5s, what is the ones digit of the first number? the second number? the third number? the fourth number? What do you notice?" Repeat this line of questioning for skip-counting by 2s and 10s. Use a hundred chart to help student see patterns.

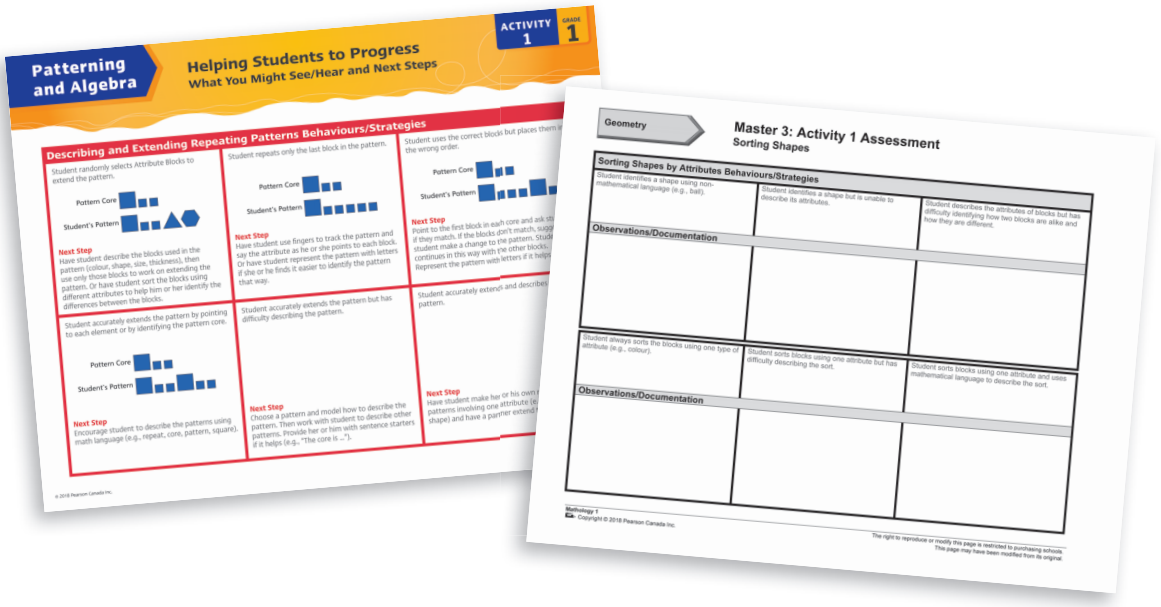
6 Student fluently skip-counts by factors of 10 and notices and explains patterns in the skip-counting numbers.

Next Step
Have student make his or her own skip-counting dream catcher (Master 8) and then thread partner's dream catcher. Or have student make his or her own skip-counting by 100 dream catcher (Master 8) and then thread partner's dream catcher.

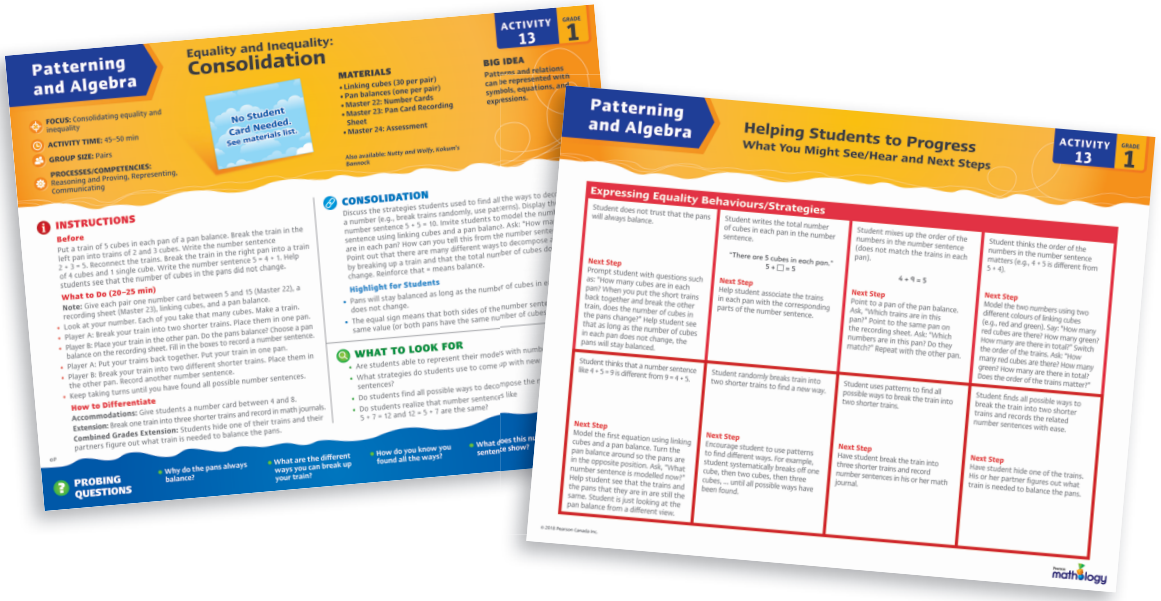
These student behaviours and strategies illustrate a progression of some of the most common misconceptions, partial concepts, and strategies students may display while learning about skip-counting forward by 2s, 5s, and 10s, culminating with a deep understanding of the concept(s).

Pearson mathology

- **modifiable assessment line masters** for every activity based on Side B of the teacher card



Consolidation activity cards at the end of each cluster focus on **summative assessment** for individuals and the whole class. The cluster consolidation lessons are rich activities and games with an overarching math focus, allowing teachers to observe students apply the learning in the cluster flexibly and creatively.



Corresponding line masters are available at pearsonmathology.ca in the Line Masters, Correlations & Other Useful Resources section.

Assessing with Mathology Little Books

For each Mathology Little Book, the Teacher's Guide includes **Watch For** prompts that allow you to assess students' understanding as you read the books with your students.

Assessment line masters are available for each book. They include checklists of indicators with space provided for your observations and notes.

WATCH FOR...

- Does the child recognize the relationshi and the 3-D objects Layla and Theo four harder to identify by their faces (e.g., the bottom face).

On Safari!

Line Master 1 (Assessment Master)

Name: _____

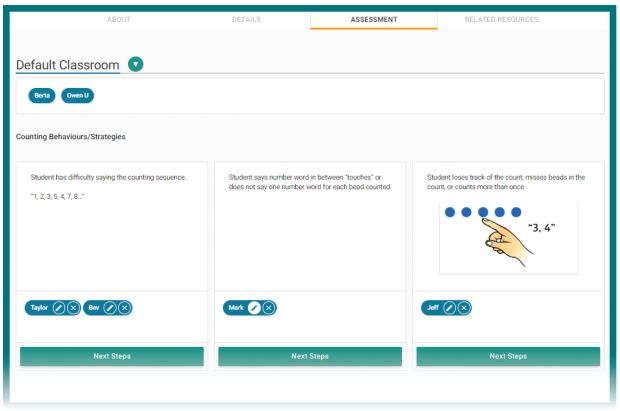
Count sets to 20	Not observed	Sometimes	Consistently
Says one number for each object counted (one-to-one correspondence)			
Says counting by 2 numbers in correct sequence (stable order)			
Knows that the last counting word tells how many are in the set (cardinality)			
Counts and creates sets (to 20) by 1s and 2s			
Knows that counting a set different ways does not change the number (conservation of number)			
Add 1 or 2			
Adds 1 to a set and states how many			
Adds 2 to a set and states how many			

Strengths:

Next Steps:

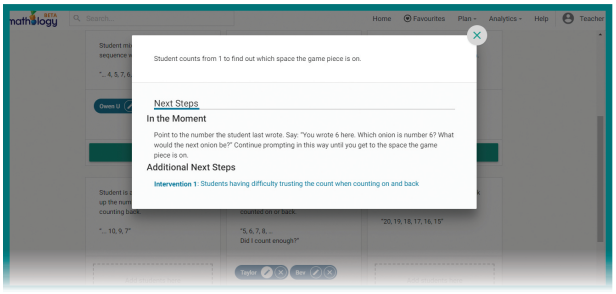
Assessing with mathology.ca

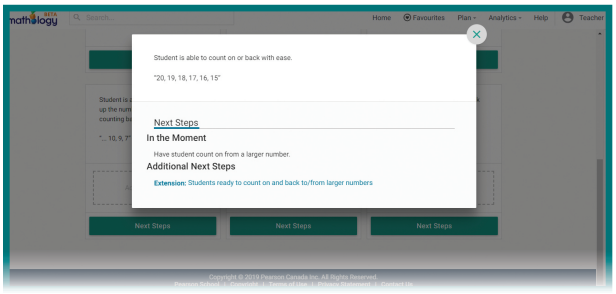
The assessment tool in mathology.ca allows you to capture in the moment the observations you make about what all students know at all times.



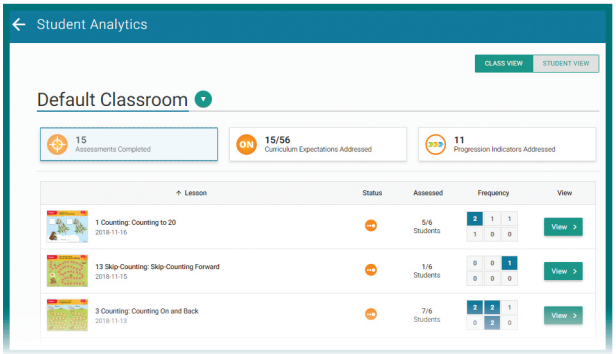
Locate your students on a continuum of behaviours and strategies that students may display while learning, culminating with a deep understanding of the concept.

Drag and drop your students' names in the corresponding boxes. Add notes where needed.





Choose differentiated next steps for your students: an Intervention activity for students who need further support, a Math Little Book, or an Extension activity for students ready for more.



Use the student or classroom analytics dashboard at the top to keep track of your assessments and to summarize your observations in a practical way.

PRO Professional Learning

Throughout Mathology, an organic approach, embedding professional learning instruments, supports your professional judgment in the selection and implementation of deep mathematical learning in your classroom. This approach also provides you with built-in tools to facilitate teacher choice.

Each component helps you build **ongoing learning** in math pedagogy. These components also assist you in developing **individual learning paths** using a variety of approaches: the most current research; Big Ideas in math education (the Learning Progression); linking of curriculum to classroom practice; and inclusive three-part lesson plans that reach all of your students.

Mathology Activity Kit

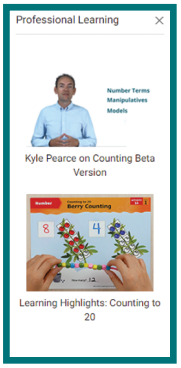
- practical suggestions for **differentiation**, **probing questions**, and textual and visual representations of **student responses** to help you assess where students are and what you need to move forward
- **responsive teaching** guides through built-in observational assessment prompts (lesson-specific What to Look For prompts)

Mathology Little Books

- pathways for learning for Big Ideas in math
- story-specific Watch For prompts to guide your observations and conversations
- grouping and differentiation supports

Mathology.ca

- content module videos, exploring facets of math instruction and topics such as **small group instruction**, **differentiation**, **assessment**, **teaching in multi-grade classrooms**, and **math models**
- learning highlight videos, practical tips
- Big Ideas videos



Go to pearsonmathology.ca, then view the Professional Learning section to find resources that help you elevate your math instruction. Also included in this section are targeted professional learning courses for educators, coaches, and administrators.