RELEASE MATHEMATICAL THINKING IN YOUR CLASSROOM

New professional learning titles to help you succeed
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Look for these symbols:

- **Canadian Content**
- **Bestseller**
- **Available in French** Contact Chenelière/Groupe Modulo for French resources at 1-800-565-5531
- **WNCP Approved**
- **Digital Resources** Content solutions provided online in a variety of formats
PRIME provides a framework to help teachers:
• Understand how students learn math developmentally
• Differentiate instruction to enable students to experience success more often
• See connections in order to focus on the “big picture” of mathematics

Meeting the unique needs of Canadian educators
PRIME resources were developed using provincial curriculum documents and validated with over 12,000 Canadian students. The complete series covers all five strands of the mathematics curriculum.
• Number and Operations
• Patterns and Algebra
• Geometry
• Data Management and Probability
• Measurement

Comprehensive courses and kits have been divided by strand to provide educators with an in-depth understanding of concepts and content in PRIME.

Courses
Each course provides a framework to help educators understand the phases students pass through in their developmental understanding of mathematics. PRIME offers three types of courses to support district initiatives.

Facilitator Course(s)
This course provides comprehensive training to enable facilitators to train other teachers in their board.
Price: $995.00
3 or 4 days of training (depending on the strand)

Teacher Course(s)
This course helps teachers build their own understanding of math content and introduce them to the PRIME Developmental Maps and Tools.
Price: $795.00
2 or 3 days of training (depending on the strand)

School Mathematics Improvement
This course has been designed for school leaders and administrators to learn how to use the research findings of the Ten Dimensions, a framework for the improvement of mathematics instruction, and the PRIME Leadership Handbook to lead school improvement in mathematics.
Price: $295.00
Course length is 1 full day or 2 half days

PRIME is a Canadian, research-based professional resource designed to help educators deepen their knowledge of mathematics. The focus of PRIME is to link formative assessment to instructional decision making and provide teachers with the strategies, content knowledge, and confidence to differentiate instruction for their students.
Strand Kits

Each kit includes:

**Developmental Maps**
• Phases and Indicator maps describe each phase using behavioural indicators

**Guide to Using the Developmental Map**
• Helps teachers understand how students learn math developmentally in each strand and provides strategies to enhance and differentiate instruction

**Background and Strategies Book**
• Designed to increase teacher knowledge and understanding of key mathematics concepts, skills, and processes

**Diagnostic Tools Book**
• This book can be used to confirm a student’s placement on the developmental map

School Mathematics Improvement Kit

Includes:

**Ten Dimensions Research Study**
• This study details the research behind the Ten Dimensions

**Leadership Handbook**
• Presents a vision for a successful mathematics program

**PRIME Developmental Maps Research Study**
• Details the extensive research to determine the phases of development

**PRIME Developmental Maps**
• Includes the Number and Operations Developmental Maps

**PRIME Implementation Guide**
• This handbook provides ways to support the successful implementation of PRIME

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<td>Number and Operations Strand Kit</td>
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<td>Patterns and Algebra Strand Kit</td>
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<td>Geometry Strand Kit</td>
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<td>Measurement Strand Kit</td>
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To order Toll Free 1-800-268-2222 Prices reflect 20% K–12 Educator’s discount.
DR. MARIAN SMALL
K–8 Mathematics
Professional Learning Library
Author: Dr. Marian Small
A comprehensive collection of bestselling K–8 mathematics professional learning titles from Dr. Marian Small
- A mathematics reference library to support any K–8 math teacher
- Provides teachers with the content knowledge, confidence, and strategies to differentiate instruction for individual and whole-class success

Reference Library Contents:
- Making Math Meaningful: To Canadian Students, K–8, Third Edition
- Big Ideas from Dr. Small, K–3
- Big Ideas from Dr. Small, 4–8
- Building Proportional Reasoning Across Grades and Math Strands, K–8
- Uncomplicating Fractions
- Uncomplicating Algebra
- Eyes on Math: A Visual Approach to Teaching Math Concepts
- Good Questions, Third Edition
- Mathematics Teacher eMentor Grades 4–6
- Teaching Mathematical Thinking

©2017, Teacher’s College Press
Book 9780807758564 $37.95

NEW EDITION

Teaching Mathematical Thinking
Tasks and Questions to Strengthen Practices and Process
Author: Dr. Marian Small
This resource helps schools and districts refine their teaching of standards-based mathematical practices. A chapter is devoted to each of the eight standards of practice and includes a discussion of what each standard looks like in grades K–2, 3–5, and 6–8. It also discusses how to formatively assess student performance.

Key Features
- Addresses common misunderstandings and places where teachers and students struggle
- Provides lucid explanation of difficult concepts
- Presents fresh and engaging teaching examples
- Offers helpful troubleshooting tips
- Includes examples of student work

©2017, Teacher’s College Press
Book 9780807758564 $37.95

NEW EDITION

Good Questions
Great Ways to Differentiate Mathematics Instruction
Third Edition
Author: Dr. Marian Small
Finally, an accessible professional learning resource that provides clear, ready-to-use ideas for differentiating instruction in mathematics!

Key Features
- Includes more than 100 new tasks and questions
- With continued attention to big ideas in math, this edition contains many new questions that teachers can adapt or use as models to create their own, along with scaffolding and consolidating questions
- Teaching Tips and an organizing template at the end of each chapter help teachers build new tasks and open questions
- Shows how to create a more inclusive classroom learning community with mathematical talk that engages participants from all levels

©2017, Teacher’s College Press and NCTM
9780807758540 $46.95

www.nelson.com/mariansmall
**More Good Questions**

*Great Ways to Differentiate Secondary Mathematics Instruction*

**Authors:** Dr. Marian Small, Amy Lin

More Good Questions, written specifically for secondary mathematics teachers, presents two powerful and universal strategies that teachers can use to differentiate instruction across all math content: open questions and parallel tasks. With particular emphasis on algebra, chapters also address number and operations, geometry, measurement, and data analysis and probability, with examples included for pre-calculus.

**Key Features**
- Helps teachers differentiate math instruction with less difficulty and greater success
- Contains almost 300 questions and tasks that teachers and coaches can adopt immediately, adapt, or use as models to create their own, along with scaffolding and consolidating questions
- Includes Teaching Tips and an organizing template at the end of each chapter to help teachers build new tasks and open questions
- Demonstrates how to use more inclusive learning conversations to promote broader student participation
- Presents strategies and examples that are organized around big ideas within the National Council of Teachers of Mathematics (NCTM) content strands
- Provides lots of activities and teaching ideas

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9780807750889 $41.95

[nelson.com/mariansmall](nelson.com/mariansmall)

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**Big Ideas From Dr. Small**

*Creating a Comfort Zone for Teaching Mathematics*

**Grades K–12**

**Author:** Dr. Marian Small

Big Ideas from Dr. Small provides math teachers with what they need to know, along with practical activities and follow-up questions to use in the classroom.

**About the Book**
- Helps teachers see the connections in math using Big Ideas as organizers
- Clear graphics illustrate key mathematical concepts, making them easier to understand
- Chapters include classroom activities for every math topic, with strategies and clear direction around questioning and differentiating instruction

**About the Facilitator’s Guide with DVD**
- Enables coaches and facilitators of Professional Learning Communities to cover all math strands in 10 two-hour sessions, or to focus on strands and/or topics of particular interest
- DVD includes video clips of activities in action in the classroom, featuring Dr. Marian Small introducing each clip and reflecting with the teacher afterward

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Grades K–3 Kit (Book, Facilitator’s Guide, and DVD) 9780176110789 $159.95
Grades K–3 Facilitator’s Guide with DVD 9780176105570 $109.95
Grades K–3 Book 9780176105563 $59.95
Grades 4–9 Kit (Book, Facilitator’s Guide, and DVD) 9780176110772 $169.95
Grades 4–9 Facilitator’s Guide with DVD 9780176241742 $109.95
Grades 4–9 Book 9780176357139 $76.95
Grades 9–12 Book 9780176503512 $84.95
Grades 9–12 Facilitator’s Guide 9780176504540 $119.95

[nelson.com/bigideas](nelson.com/bigideas)

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**Making Math Meaningful**

*To Canadian Students, K–8*

**Third Edition**

**Author:** Dr. Marian Small

Dr. Marian Small combines her wealth of research and practical experience to create this thorough, accessible resource. Making Math Meaningful provides teachers with insight on how to make mathematics make sense to students and capture their interest. An invaluable reference for the non-specialist math teacher teaching sophisticated math concepts to a diverse student population, this resource is filled with samples from Canadian students and connects to Canadian curricula.

**Table of Contents**
1. How Students Learn Math and What Math We Want Them to Learn
2. Focusing Instruction on Big Ideas and Mathematical Processes
3. Assessment and Evaluation
4. Planning Instruction
5. A Focus on Problem Solving
6. A Focus on Communication
7. Early Numbers
8. Early Operations
9. Developing Fact Fluency
10. Representing Larger Whole Numbers
11. Estimation and Calculation Strategies with Larger Whole Numbers
12. Fractions
13. Decimals
14. Ratio and Proportion
15. Extending the Number System to Negative and Irrational Numbers
16. Patterns and Algebra
17. 3-D and 2-D Shapes
18. Location and Movement
19. The Nature of Measurement, with a Focus on Length and Area
20. Capacity, Volume, Mass, Time, Temperature, and Angles
21. Data
22. Probability

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Book 9780176582555 $115.96
Facilitator’s Guide (Online Only) 9780176769321 $99.95
Book + Facilitator’s Guide 9780176772284 $201.64

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To order Toll Free 1-800-268-2222 Prices reflect 20% K–12 Educator’s discount.
Eyes on Math
A Visual Approach to Teaching Math Concepts
Author: Dr. Marian Small

Eyes on Math: A Visual Approach to Teaching Math Concepts is a unique resource that shows how to use images to stimulate mathematical teaching conversations around K–8 math concepts.

Key Features
- Includes more than 120 full-colour graphics and pictures that illustrate mathematical topics
- Each image is supported with:
  - A brief mathematical background and context
  - Questions to use with students to lead the instructional conversation
  - Expected answers for each question
  - Explanations for why each question is important
  - Follow-up extensions to solidify and assess student understanding gained through discussion
- Images can be downloaded for projection onto Interactive Whiteboards or screens
- New ways for teachers to clarify concepts that students find difficult

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9780807753910 $41.95
nelson.com/eyesonmath

INVALUABLE FOR TEACHERS WORKING WITH STUDENTS WITH LOWER READING ABILITY, INCLUDING ELL AND SPECIAL EDUCATION STUDENTS!

Uncomplicating Algebra and Uncomplicating Fractions

Author: Dr. Marian Small

Uncomplicate concepts by focusing on the most important ideas students need to grasp

Uncomplicating Algebra and Uncomplicating Fractions are practical must-have resources from Dr. Marian Small that help teachers understand how to teach and assess student learning of algebra and fractions.

Each topic includes:
- A brief discussion of the underlying ideas, including:
  - Brief mathematical background
  - Suggestions for appropriate representations of specific mathematical ideas, including equations, drawings, and manipulatives
  - Suggestions for explaining ideas to students
  - Cautions about misconceptions and situations to avoid
- Thoughtful concept-based questions that can be used for classroom instruction, practice, or assessment

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Uncomplicating Algebra 9780807755174 $32.95
nelson.com/uncomplicatingalgebra

Uncomplicating Fractions 9780807754856 $32.95
nelson.com/uncomplicatingfractions

Building Proportional Reasoning
Across Grades and Math Strands, K–8

Author: Dr. Marian Small

Building Proportional Reasoning is designed to help K–8 math teachers as they strive to help students become more proficient and comfortable working with multiplicative thinking and proportionality. It highlights approaches to proportional thinking and suggests good questions to ask to bring out important ideas and help students develop and hone their thinking.

For each proportional reasoning concept teachers will find:
- Background to the mathematics related to proportionality
- Suggestions for appropriate representations, including manipulatives
- Suggestions for explaining ideas to students
- Cautions about misconceptions or situations to avoid

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Book 9780807756607 $32.95
nelson.com/buildingproportionalreasoning
From Patterns to Algebra

Authors: Dr. Ruth Beatty, Dr. Catherine D. Bruce

From Patterns to Algebra is an innovative professional learning resource that identifies how students construct algebraic reasoning, beginning with patterning in the early grades.

Key Features

• Builds on students’ experience with patterning to construct algebraic reasoning that will support their exploration of linear relationships in later grades
• Maps out a highly effective lesson sequence for teaching to the big ideas related to linear relationships in patterning and algebra
• Helps teachers discover ways to link math learning from elementary to secondary grades
• Based on Canadian curriculum, Canadian research, and 7 years of field-testing with more than 1000 students

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Book + DVD (includes Book, Classroom Resource, and DVD) 9780176519681 $139.95

Book (includes Classroom Resource) 9780176519698 $114.95

DVD 9780176519674 $56.95

nelson.com/frompatternstoalgebra

The Four Roles of the Numerate Learner

Authors: Mary Fiore, Maria Luisa Lebar

Effective teaching and assessment strategies to help students think differently about mathematics

This timely book builds on our current understanding of how to effectively teach mathematics, and borrows from the successful frameworks used to teach literacy. It introduces a numeracy framework that supports an integrated approach to math instruction. It considers the mathematical practices students need to learn to construct number knowledge, become mathematicians, and simply “do math.” The goal is to provide multiple entry points into the world of math instruction—a new way of thinking and learning where learners engage in critical thinking about numeracy and act on their knowledge.

©2016, Pembroke

Book 9781551383118 $22.95

5 Practices for Orchestrating Productive Mathematics Discussions

Authors: Margaret S. Smith, Mary Kay Stein

Learn the five practices for facilitating effective inquiry-oriented classrooms by anticipating what students will do and what strategies they will use in solving a problem. This bestselling resource will connect the strategies and ideas in a way that helps students understand the mathematics being learned.

©2013, Corwin

Book 9781483351117 $43.50
Ontario Numeracy Assessment Package (ONAP)

Senior Advisor: Dr. Marian Small
Senior Author: Joanne Simmons—Toronto District School Board

Ontario’s only diagnostic assessment resource with anchor solutions for moderated marking

Key Features
• Provides teachers with a flexible entry assessment tool to identify students’ prior knowledge of the previous year’s expectations for all math strands in Ontario
• Assesses student performance directly against the curriculum expectations, as well as the Achievement Chart categories
• Helps classroom teachers, schools, and districts collect reliable and consistent data
• Quick and easy to administer and score

Each grade level kit contains:
One Teacher’s Resource featuring:
• Comprehensive assessments for each math strand
• Teacher notes for administration, scoring, and interpretation of the data
• Scoring guides for short answer and multiple choice assessment questions
• Rubrics, anchor solutions, and rationales for performance-based tasks (Grade 9 provided online)
• Instructional Next Steps
• Strategies for using the data

Comprehensive Teacher’s Resource (Digital Access):
• Simplifies recording and analyzing of ONAP data
• Contains interactive class Tracking Sheets for each strand
• Sorts individual and class data by overall and specific expectations
• Generates graphs for displaying data

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Grade 7 9780176340288 $309.95
Grade 8 9780176340518 $309.95
Grade 9 Academic 9780176510985 $309.95
Grade 9 Applied 9780176510992 $309.95

Developed to help teachers support students who are struggling in mathematics

Key Features
• Easy-to-use student and teacher resources to support students working as many as 3 levels below grade
• Diagnostic assessment for every topic to clearly pinpoint significant gaps in students’ understanding
• Strategic tools for differentiating instruction that enable teachers to build on what students understand and close critical gaps in understanding
• A research-based intervention approach that is founded on how students learn math developmentally, based on the research of Dr. Marian Small

Components
Teacher’s Resource
• Diagnostic assessment tools for every strand identify gaps
• Background information on why students might struggle
• Pathways providing open-ended and guided intervention for every topic
• Teaching notes to support differentiated instruction

Student Resource
• Intervention activities for topics in every strand
• Built-in tips and visuals to support student understanding
• Simple, clear language accessible to ELL learners

Digital Teacher’s Resource with Interactive Whiteboard Activities
• Complete Teacher’s Resource in PDF format
• Blackline Masters and PDFs of the Diagnostic Tools
• Over 100 SMART Notebook™ activities

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Ontario Numeracy Assessment Package
8
9

Leaps and Bounds Toward Math Understanding

Authors: Dr. Marian Small, Kathy Kubota-Zarivnij, Amy Lin

Prices subject to change without notice.

nelson.com/onap
Foundations of Mathematics

Authors: Cathy Canavan-McGrath, Michael Pruner, Hank Reinbold, Carol Shaw, Darin Trufyn

Nelson is pleased to support teachers and students across Western and Northern Canada with core resources carefully developed to help all students succeed in the Foundations of Mathematics courses.

Principles of Mathematics

Authors: Cathy Canavan-McGrath, Michael Pruner, Carol Shaw, Darin Trufyn

Nelson is pleased to support teachers and students in Alberta, Northwest Territories, and Nunavut with resources carefully developed to help all students succeed in the Alberta Mathematics 20–2 and 30–2 courses.

Key Features

- Designed to engage a wide range of students with real-world contexts in every lesson
- Problem-solving puzzles, and interesting features encourage a hands-on, action-based approach to mathematics
- Includes easy-to-understand student explanations in every example to help students make important connections in their mathematical understanding
- Student Book contains almost 1900 practice questions (answers included)
- Student Workbook consists of 300 additional pages of skill-based practice aligned with every lesson in the Student Book
- Teacher’s Resource includes comprehensive planning support for every lesson, assessment tools, plus a wealth of tools and strategies for differentiating instruction
- Interactive Whiteboard Add-On Pack provides ready-to-use SMART Notebook™ files so you can deliver your lessons on an interactive whiteboard
Mathematics for Apprenticeship and Workplace

Authors: Carol Brydon, Serge Desrochers, Liz Grill-Donovan, Nicole Lisafeld

Mathematics for Apprenticeship and Workplace resources are comprehensive supplementary workbooks that are carefully designed to engage students in the real-life contexts of mathematics.

Key Features
- Written at an appropriate reading level
- Supports 100% of outcomes in the curriculum
- Each lesson includes prompts, examples, and exercises scaffolded in manageable steps
- Consistent, easy-to-follow layout
- Provides a comprehensive record of learning
- Workbook includes a Glossary, and Charts and Formulas reference sheet
- Solutions Book (Print or Digital Access) provides full solutions for every question
- Interactive Whiteboard lessons include ready-to-use SMART Notebook™ files for every lesson in the Workbook
- Blackline Masters provide extra practice for every lesson in the Workbook

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Supports WNCP Apprenticeship and Workplace 10–12 Courses

Also available through the Manitoba Textbook Bureau (MTBB)
Mathematics for Knowledge and Employability

Senior Author: Chris Zarski
Authors: Carolyn Bouchard, Carla Kozak, David Moss, Michael Pruner, Carol Shaw, Monique Soetaert

A practical solution to transition students into Apprenticeship and Workplace

Key Features
- Developed to support students by closing gaps and building upon their mathematical understanding
- Focuses on developing essential mathematics skills for everyday life
- Supports differentiated learning in a range of classroom environments
- Ready-to-use Interactive Whiteboard lessons provide interactive and engaging lessons
- Accessible, straight-to-the-point Record of Learning provides ample opportunity for further practice

Interactive Whiteboard Lessons
- Carefully designed, ready-to-use Interactive Whiteboard lessons for each lesson
- Games provide opportunities to activate prior knowledge, practice new concepts, and consolidate learning within each unit
- Interactive, hands-on practice opportunities embedded into each lesson to keep students engaged
- Prepares students for further practice and application of skills and concepts presented in the Student Record of Learning

Student Record of Learning
- Easy-to-use Record of Learning provides ample practice and application of skills and concepts based on workplace situations students will encounter
- Each lesson includes a summary of key concepts, as well as practice questions sequenced to build student confidence
- Predictable layout helps students to organize their work
- Written at an accessible reading level
- Employment connections embedded throughout

Solutions Book
- Student Record of Learning with answers and solutions provided on every page for teacher reference

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| Grade 8    | Student Record of Learning (Single copy, Print only) | 9780176679170 | $25.95 |
| Grade 9    | Student Record of Learning (Single copy, Print only) | 9780176679118 | $26.95 |
| Grade 10   | Student Record of Learning (Single copy, Print only) | 9780176664763 | $27.95 |
| Grade 11   | Student Record of Learning (Single copy, Print only) | 9780176679149 | $26.95 |

Interactive Whiteboard Package (USB, includes SMART Notebook™ Lessons)
- Interactive Whiteboard Package (USB, includes SMART Notebook™ Lessons) | 9780176679187 | $209.95 |
- Interactive Whiteboard Package (USB, includes SMART Notebook™ Lessons) | 9780176679194 | $209.95 |
- Interactive Whiteboard Package (USB, includes SMART Notebook™ Lessons) | 9780176664756 | $219.95 |
- Interactive Whiteboard Package (USB, includes SMART Notebook™ Lessons) | 9780176664749 | $219.95 |
- Interactive Whiteboard Package (USB, includes SMART Notebook™ Lessons) | 9780176679163 | $214.95 |

AB Developed for the Knowledge and Employability Alberta Mathematics Courses: 8, 9, 10–4, 20–4

nelson.com/knowledgeandemployability
Math Focus

Authors: Dr. Marian Small et al.

Built on a foundation of sound pedagogy and current Canadian research, Math Focus is written to help teachers meet the diverse needs of learners in the classroom.

Key Features

- Developed by leading Canadian mathematics educator Dr. Marian Small
- Built on a strong foundation of Canadian research into how students learn mathematics
- Less reading, more math
- Thousands of questions, lots of practice
- Comprehensive teacher support with differentiated instruction built into every lesson
- Opportunities for assessment before, during, and after every lesson
- Student Success Adapted Program provides lesson-by-lesson support for struggling students

Student Success Adapted Program

This unique consumable workbook provides extra support for every lesson in the Student Book.
- Same curriculum goals at a more accessible level
- Each lesson from the student resource scaffolded into manageable steps
- Reading level 2 to 4 levels below grade
- Answer book sold separately


WNCP

Developed for the WNCP Mathematics Curriculum, Grades 7–9

nelson.com/mathfocus
ON

Ontario

Grades 7–8

Nelson Mathematics

Authors: Dr. Marian Small, Mary Lou Kestell, David Zimmer

Developed specifically to meet the needs and respond to the challenges of today’s Canadian mathematics classroom, this practical and manageable program provides a 100% curriculum fit.

Key Features

- Developed by leading Canadian mathematics educator Dr. Marian Small
- Built on a strong foundation of Canadian research into how students learn mathematics
- Focuses on key mathematical ideas to help students make connections across the strands, the curriculum, and see the big ideas that connect mathematics
- Learning is sequenced from chapter to chapter to build success and confidence
- Builds on students’ prior knowledge, providing real-world applications to help motivate and engage students
- Balanced approach to mathematics instruction with 3 lesson types—Guided Activity, Direct Instruction, Exploration
- 3-part lesson plan model provides opportunities for problem solving and exploration in each lesson
- Purposeful visuals and a range of lesson types within each chapter benefit all learners and accommodate different teaching styles
- Practical opportunities for assessment before, during, and after every lesson
- Student Success Workbook designed to support students struggling in math

Companion Website

mathk8.nelson.com

Student Centre

- Try It Out questions provide extra practice for all chapters

Teacher Centre

- Support for online student activities, useful annotated Weblinks, professional resources, and more

Parent Centre

- Support for at-home activities, fun Weblinks, and tips for using the Internet safely

Online Teacher’s Resource

- Digital version of the Teacher’s Resource included with purchase of Teacher’s Resource

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Grade 7

Student Text 9780176269128 $71.95
Student Text & Online Student Text PDFs 9780176678658 $82.95
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Student Success Workbook Answers 9780176290542 $20.95
Solutions Manual 97801766706274 $20.95
Workbook Blackline Masters 9780176270193 $259.95
Combined Grades 7–8 Teacher’s Resource 9780176269975 $91.95

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Grades 7–8

Nelson Mathematics

Authors: Dr. Marian Small, Mary Lou Kestell, David Zimmer

Developed specifically to meet the needs and respond to the challenges of today’s Canadian mathematics classroom, this practical and manageable program provides a 100% curriculum fit.

Key Features

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- Digital version of the Teacher’s Resource included with purchase of Teacher’s Resource

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**Applied Mathematics 9**

Authors: Chris Kirkpatrick, Mary Fiore, Mary Bourassa, Bev Farahani, Anthony Persaud, Melissa Baker, Sharon Young

Applied Mathematics 9 is an innovative resource package designed to close gaps in understanding while moving students to success with the Ontario Grade 9 Applied Mathematics curriculum.

**Key Features**
- Prepares students for the EQAO Provincial Assessment—using multiple choice and open response questions modelled after those found on the EQAO Provincial Assessment
- Ready-to-use 3-part Interactive Whiteboard lessons provide interactive and engaging lessons
- Accessible Record of Learning provides a summary of key concepts, reinforcement of lesson content through solved examples that facilitate student reasoning, and opportunities for further practice
- Meaningful and practical opportunities for students to practise and apply skills and solve problems in real-world mathematical contexts
- Written at an accessible reading level for all students
- Flexibility to teach each lesson using either an open or guided approach
- Interactive, hands-on practice opportunities are embedded into each lesson

**Brief Table of Contents**
- Rational Numbers; Powers and Polynomials; Linear Relations; Linear Equations; Analytic Geometry; Investigating Relationships; Properties of 2-D Figures; Measurement
- Appendix A: Review of Essential Skills and Knowledge
- Appendix B: Review of Technical Skills
- Glossary
- Answers

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Student Success Workbook
- 9780176783414 $99.95
- 978017640209 $39.95

ON Trillium Approved Developed for the ON Grade 9 Academic Curriculum MPM1D, Revised 2005

**Principles of Mathematics 9**

Authors: Dr. Marian Small, Chris Kirkpatrick, David Zimmer, Crystal Chivers, Santo D’Agostino, Doug Duff, Kristina Farentino, Ian Macpherson, Joyce Tonner, James Williamson, T. Anne Yeager

Principles of Mathematics 9 ensures students build a solid foundation of learning.

**Key Features**
- Multiple entry points support a diversity of learners
- Extensive support for skill development
- Mathematical processes integrated throughout every chapter
- Sample achievement chart category questions identified in every lesson
- EQAO-style questions and chapter tasks
- Appropriate use of technology, including: TI-83 Plus, TI-84 Plus, TI-89 (CAS), The Geometer’s Sketchpad®, Spreadsheets

**Brief Table of Contents**
- Geometric Transformations and Symmetry; Coordinate Geometry; 2-Dimensional Data Analysis; Linear Relations; Systems of Linear Equations; Quadratic Relations; Properties of Quadratic Functions; Solving Quadratic Equations; Polynomial Functions; Exponential Functions; Geometry and Measurement
- Appendix A: Review of Essential Skills and Knowledge
- Appendix B: Review of Additional Skills
- Glossary
- Answers

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Teacher’s Resource  9780176340162 $364.95
Teacher’s Resource Binder  9780176340179 $39.95
Solutions Manual  9780176340186 $139.95
Computerized Assessment Bank  9780176340186 $259.95

**Nelson Mathematics 9**

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Student Text  9780176059996 $99.95
Teacher’s Resource Binder  9780176171407 $334.95
Computerized Test Bank  9780176171414 $334.95
Review of Essential Skills and Knowledge  9780176593384 $49.95
Review of Essential Skills and Knowledge Book  9780176157463 $12.95

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Student Success Workbook  9780176593414 $99.95
Student Success Workbook Answers  9780176340209 $39.95

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Student Record of Learning  9780176663261 $165.95
Solutions Book (Print)  9780176663278 $165.95

Developed for struggling students in MPM1D, Revised 2005

nelson.com/secondarymath
Mathematics Concepts and Connections 9

Authors: Stewart Craven, Anna D’Armento, Gillian Gibbons, Kathy Kubota-Zarivnij, Pat Margerm, Joe Servidio

Mathematics Concepts and Connections 9 is developed for students who learn best by doing. In Grade 9, students are involved in the hands-on costing and design of a Habitat for Humanity home.

Key Features
- 100% match to Ontario’s locally developed compulsory course MAT1L
- Accessible reading level supports student learning
- Construction Theme throughout engages students quickly and connects them to potential career paths
- Practical questions and real-life examples and illustrations actively involve students in mathematics relevant to everyday life
- Consistent and predictable 2-page lesson format supports students who struggle with reading and mathematics

Brief Table of Contents
Overview: This Book and Habitat for Humanity
Module 1: Fundraising
Module 2: Design and Model
Module 3: Purchasing Materials
Module 4: Making a House a Home
Module 5: Finishing the Job: Landscaping

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Student Workbook 5-Pack 9780176593391 $99.95
Student Workbook 10-Pack 9780176343491 $199.95
Teacher’s Resource 9780176324841 $299.95

ON Developed for ON Grade 9 LDCC MAT1L

Mathematics Concepts and Connections 10

Authors: Stewart Craven, Anna D’Armento, Gillian Gibbons, Kathy Kubota-Zarivnij, Pat Margerm, Joe Servidio

Mathematics Concepts and Connections 10 is developed for students who learn best by doing. In Grade 10, the theme of the ecological footprint encourages students to think about the day-to-day choices they make and how those choices impact the environment.

Key Features
- 100% match to Ontario’s locally developed compulsory course MAT2L
- Accessible reading level supports student learning
- Ecological Theme engages students quickly and explores environmental concerns
- Practical questions and real-life examples and illustrations actively involve students in mathematics relevant to everyday life
- Consistent and predictable 2-page lesson format supports students who struggle with reading and mathematics

Brief Table of Contents
Overview: This Book and Habitat for Humanity
Module 1: Understanding Data
Module 2: Measuring Our Consumption
Module 3: Measuring Our Ecological Footprint
Module 4: Getting from Here to There
Module 5: Making Smart Choices: Food, Money, and Jobs
Module 6: Displaying Our Ideas

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Student Workbook 10-Pack 9780176343507 $199.95
Teacher’s Resource 9780176324865 $299.95

ON Developed for ON Grade 10 LDCC MAT2L

Principles of Mathematics 10

Authors: Dr. Marian Small, Chris Kirkpatrick, Susanne Trew, Santo D’Agostino, John Rodger, Crystal Chilvers, Ian Macpherson, Mary Bourassa

Principles of Mathematics 10 ensures students build a solid foundation of learning so they are prepared for success in senior level courses and beyond.

Key Features
- Multiple entry points support a diversity of learners
- Extensive support for skill development
- Mathematical processes integrated throughout every chapter
- Frequently Asked Questions provide accessible review
- Sample achievement chart category questions identified in every lesson
- Numerous examples that provide support for students both in and out of the classroom

Brief Table of Contents
1. Systems of Linear Equations
2. Analytic Geometry: Line Segments and Circles
3. Graphs of Quadratic Relations
4. Factoring Algebraic Expressions
5. Applying Quadratic Models
6. Quadratic Equations
7. Similar Triangles and Trigonometry
8. Acute Triangle Trigonometry

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nelson.com/secondarymath
Functions and Applications 11

Authors: Dr. Marian Small, Chris Kirkpatrick, Andrew Dmytriw, Bev Farahani, Angelo Lillo, Kay Minter, David Pilmer, Noel Walker

Functions and Applications 11 supports the diverse needs of students in the MCF3M classroom, preparing them for success in Grade 12 and beyond.

Key Features
- Highly visual resource with accessible reading level
- Multiple step-by-step solved examples with student explanations to help students understand the thinking
- Wide variety of questions, gradually increasing in difficulty, to support all learners
- Extensive support for assessment in every chapter
- Appropriate technology used to support student understanding

Brief Table of Contents
Introduction to the Quadratic Function; The Algebra of Quadratic Expressions; Working with Quadratic Functions; Solving Financial Problems Involving Exponential Functions
Appendix A: Review of Essential Skills and Knowledge
Appendix B: Review of Technical Skills
Glossary
Answers

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Solutions Manual 9780176340322 $139.95
Computerized Assessment Bank 9780176340339 $259.95

ON Trillium Approved ➤
Developed for the ON Grade 11 University/College Curriculum MCF3M, Revised 2007

Functions and Applications 11 Student Success Workbook

Authors: Dr. Marian Small, Chris Kirkpatrick

Functions and Applications 11 Student Success Workbook is specially designed to help struggling students be successful. It provides accessible, on-grade math to support students in the Grade 11 University/College math course MCF3M.

Key Features
- All lessons written to meet the same goals as equivalent lessons in the textbook
- Clear instructions provided for all lessons, with exercises scaffolded in manageable steps
- Written at a level appropriate for struggling readers
- Predictable layout helps students strengthen their organizational skills
- Provides extra support and differentiated instruction opportunities

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Student Success Workbook 5-Pack 9780176593278 $99.95
Student Success Workbook Answers 9780176340353 $39.95

ON Developed for struggling students in MCF3M, Revised 2007

Functions 11

Authors: Dr. Marian Small, Chris Kirkpatrick, Barbara Aldred, Andrew Dmytriw, Shawn Godin, Angelo Lillo, David Pilmer, Noel Walker

Functions 11 provides support for all students, preparing them for success in Grade 12 and beyond.

Key Features
- Accessible reading level
- Multiple step-by-step solved examples with student explanations to help students understand the thinking
- Wide variety of questions, gradually increasing in difficulty, to support all learners
- Extensive support for assessment in every chapter
- Appropriate technology used to support student understanding

Brief Table of Contents
Introduction to Functions; Equivalent Algebraic Expressions; Quadratic Functions; Exponential Functions; Solving Financial Problems Involving Exponential Functions
Appendix A: Review of Essential Skills and Knowledge
Appendix B: Review of Technical Skills
Glossary
Answers

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Computerized Assessment Bank 9780176340285 $259.95

ON Trillium Approved ➤
Developed for the ON Grade 11 University Curriculum MCR3U, Revised 2007
Advanced Functions

Senior Author: Chris Kirkpatrick
Authors: Barbara Aldred, Crystal Chilvers, Beverly Farahani, Kristina Farentino, Angelo Lillo, Ian Macpherson, John Rodger, Sue Trew

Setting the stage for post-secondary success!

Key Features
- Mature design to help students transition to university level texts
- Multiple step-by-step solved examples with student explanations to help students understand the thinking
- Wide variety of questions, gradually increasing in difficulty, to support all learners
- Extensive support for assessment in every chapter
- Appropriate technology used to support student understanding

Brief Table of Contents
Functions: Characteristics and Properties
Functions: Understanding Rates of Change
Polynomial Functions
Polynomial Equations and Inequalities
Rational Functions: Equations and Inequalities
Trigonometric Functions
Trigonometric Identities and Equations
Exponential and Logarithmic Functions
Combinations of Functions

Calculus and Vectors

Senior Author: Chris Kirkpatrick
Authors: Peter Crippin, Robert Donato, Ruth Malinowski, Dean Murray, Jeffrey Shifrin, Loraine Wilson, Dave Wright

Setting the stage for post-secondary success!

Key Features
- Mature design to help students transition to university-level texts
- Carefully written to make concepts more accessible to a wider range of students
- Multiple step-by-step solved examples with student explanations to help students understand the thinking
- Wide variety of questions, gradually increasing in difficulty, to support all learners
- Extensive support for assessment in every chapter
- Appropriate technology used to support student understanding

Brief Table of Contents
Introduction of Calculus
Derivatives
Derivatives and Their Applications
Curve Sketching
Derivatives of Exponential and Trigonometric Functions
An Introduction to Vectors
Applications of Vectors
Equations of Lines and Planes
Relationships Between Points, Lines, and Planes
Calculus Appendix
Vector Appendices

Mathematics of Data Management

Authors: Gordon Cooke, Stewart Craven, Beverly Farahani, Chris Kirkpatrick, Tom Steinke, David Zimmer

Mathematics of Data Management features a progression of solved examples. The Teacher’s Resource with Digital Access offers comprehensive support for program planning, instruction, and assessment, and includes specific suggestions on managing culminating projects.

Key Features
- Clear and concise presentation of concepts and skills
- Additional achievement chart questions
- Chapter Test is provided at the end of each chapter for study and self-assessment

Mathematics for Everyday Life

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Grade 11

Student Text 9780772525924 $84.95
Teacher’s Resource Package 9780772525925 $199.95

Grade 12

Student Text 9780772525928 $84.95
Teacher’s Resource Package 9780772525929 $199.95

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Single Variable Calculus
Eighth Edition

Calculus
Eighth Edition

Author: James Stewart

This text is widely renowned for mathematical precision and accuracy, clarity of exposition, and outstanding examples and problem sets. Stewart’s writing style speaks clearly and directly to students, guiding them through key ideas, theorems, and problem-solving steps, and encouraging them to think as they read and learn calculus.

Key Features
- Every concept is supported by thoughtfully worked examples—many with step-by-step explanations—and carefully chosen exercises, which illustrates the quality of this pedagogical system
- Physics, engineering, chemistry, biology, medicine, and social science are used to motivate students and demonstrate the power of calculus as a problem-solving tool in a wide variety of fields
- Examples are models for problem-solving or a means of demonstrating techniques, as well as to encourage students to develop an analytic view of the subject
- Conceptual exercises encourage the development of communication skills by explicitly requesting descriptions, conjectures, and explanations and stimulate critical thinking to reinforce the concepts of calculus
- Comprehensive review sections follow each chapter and further support conceptual understanding

Fast Track to a 5: Preparing for the AP Calculus AB and Calculus BC Examinations (for Stewart Calculus)

Help students study for the AP exam quickly, efficiently, and effectively.

The workbook is closely correlated to this textbook and includes:
- A diagnostic test
- Test-taking strategies
- Course content review
- 2 full-length practice exams

Table of Contents
1. Functions and Limits
2. Derivatives
3. Applications of Differentiation
4. Integrals
5. Applications of Integration
6. Inverse Functions: Exponential, Logarithmic, and Inverse Trigonometric Functions
7. Techniques of Integration
8. Further Applications of Integration
9. Differential Equations
10. Curves in Parametric, Vector, and Polar Coordinates

Note – Single Variable Calculus ends here
11. Infinite Sequences and Series
12. Vectors and the Geometry of Space
13. Vector Functions
14. Partial Derivatives
15. Multiple Integrals
16. Vector Calculus
17. Second-Order Differential Equations
Single Variable Calculus
Early Transcendentals
Eighth Edition

Calculus
AP
Early Transcendentals
Eighth Edition

Author: James Stewart

These texts are renowned for mathematical precision and accuracy, clarity of exposition, and outstanding examples and problem sets. The Student Book introduces exponential and logarithmic functions in the first chapter, with their limits and derivatives found in Chapters 2–3, along with polynomials and other elementary functions.

Key Features
• Author’s clear writing style guides students through key ideas, theorems, and problem-solving steps
• Thoughtfully worked examples that support concepts as models for problem-solving, with many including step-by-step explanations
• Examples that encourage students to develop an analytical and insightful view of mathematical concepts, with many displaying solutions graphically, analytically, and/or numerically

Table of Contents
1. Functions and Models
2. Limits and Derivatives
3. Differentiation Rules
4. Applications of Differentiation
5. Integrals
6. Applications of Integration
7. Techniques of Integration
8. Further Applications of Integration
9. Differential Equations
10. Parametric Equations and Polar Coordinates
11. Infinite Sequences and Series
Note – Single Variable Calculus: Early Transcendentals ends here
12. Vectors and the Geometry of Space
13. Vector Functions
14. Partial Derivatives
15. Multiple Integrals
16. Vector Calculus
17. Second-Order Differential Equations

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AP Teacher’s Guide 9781305272613  $34.95

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Calculus for AP

Authors: Ron Larson, Paul Battaglia

For the first time, Ron Larson has partnered with an AP calculus teacher to develop a program that meets the needs of the AP calculus course while helping students develop mathematical knowledge conceptually. With a clear focus on course demands, Calculus for AP introduces content in the sequence most preferred by AP calculus teachers, resulting in more complete content coverage.

Key Features

• The Table of Contents presents topics in the sequence preferred by most AP calculus teachers to meet course demands
• Exponential, logarithmic, and inverse trigonometric functions are introduced earlier in the course, allowing for complete coverage of differentiation and a greater variety of applications
• Mathematical Practices for AP Calculus (MPACs) that are presented in the AP Curriculum Framework for AP calculus AB and BC are represented and clearly labelled in the text, examples, and exercises
• Calculus AP Exam Preparation Questions are modelled after the AP Exam and appear at both the end of section exercises and chapter
• Insights are AP specific and appear throughout the book to offer important information about material commonly appearing on the AP Exam

Table of Contents

P. Preparation for Calculus
1. Limits and Their Properties
2. Differentiation
3. Applications of Differentiation
4. Integration
5. Differential Equations
6. Applications of Integration
7. Integration Techniques, L'Hopital's Rule, and Improper Integrals
8. Infinite Series
9. Parametric Equations, Polar Coordinates, and Vectors

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GRADES 11–12
Precalculus
Mathematics for Calculus
Seventh Edition
Authors: James Stewart, Lothar Redlin, Saleem Watson

This bestselling author team is known for explaining concepts simply and clearly while also providing a detailed explanation of concepts that are often considered difficult for students. Precalculus introduces problem-solving and mathematical modelling early on, and provides students with a solid foundation in the principles of mathematical thinking.

Key Features
- Focus on Modeling sections illustrate modelling techniques and are devoted to teaching students how to create their own mathematical models, rather than using prefabricated formulas
- Mathematics in the Modern World vignettes show that mathematics is a living science crucial to the scientific and technological progress of recent times
- Discovery/Discussion/Writing problems at the end of each section encourage students to use and develop conceptual, critical thinking, and writing skills
- Discovery Projects engages students by providing a challenging but accessible set of activities that enable them to explore in greater depth an interesting aspect of the topic they have just learned

Table of Contents
1. Fundamentals
2. Functions
3. Polynomial and Rational Functions
4. Exponential and Logarithmic Functions
5. Trigonometric Functions: Unit Circle Approach
6. Trigonometric Functions: Right Triangle Approach
7. Analytic Trigonometry
8. Polar Coordinates and Parametric Equations
9. Vectors in Two and Three Dimensions
10. Systems of Equations and Inequalities
11. Conic Sections
12. Sequences and Series
13. Limits: A Preview of Calculus
14. Probability and Statistics

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Statistics
Learning from Data
AP Edition
Authors: Roxy Peck, Chris Olsen

This textbook offers an innovative approach to teaching and learning AP statistics by tackling the areas that students struggle with most—probability, hypothesis testing, and selecting an appropriate method of analysis. Supported by learning objectives, real-data examples and exercises, students will gain conceptual understanding, mechanical proficiency, and the ability to put knowledge into practice.

Key Features
• Chapter Learning Objectives explicitly state the expected student outcomes and are presented in three categories: Conceptual Understanding, Mastery of Mechanics, and Putting It into Practice
• Exercises and examples have been selected from journal articles, newspapers, and other published sources and cover a wide range of disciplines and subject areas that interest students
• Are You Ready to Move On? questions allow students to confirm that they have achieved the chapter learning objectives and serve as a comprehensive end-of-chapter review
• The treatment of probability in this text is complete, including conditional probability and Bayes’ Rule type probability calculations. However, it’s done in a way that eliminates the need for the symbolism and formulas, which are a roadblock for many students

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Section I: Collecting Data
1. Collecting Data in Reasonable Ways
Section II: Describing Data Distributions
2. Graphical Methods for Describing Data Distributions
3. Numerical Methods for Describing Data Distributions
4. Describing Bivariate Numerical Data
Section III: A Foundation For Inference: Reasoning About Probability
5. Probability
6. Random Variables and Probability Distributions
Section IV: Learning from Sample Data
7. An Overview of Statistical Inference-Learning from Data
8. Sampling Variability and Sampling Distributions
10. Asking and Answering Questions About a Population Proportion
11. Asking and Answering Questions About the Difference Between Two Population Proportions
12. Asking and Answering Questions About a Population Mean
13. Asking and Answering Questions About the Difference Between Two Population Means
Section V: Additional Opportunities to Learn from Data
14. Learning from Experiment Data
15. Learning from Categorical Data
16. Understanding Relationships-Numerical Data Part 2 (online)
17. Asking and Answering Questions About More Than Two Means (online)
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