Mathematics 6-9:

Recommended Resources for the Renewed Curricula

$$a^2 + b^2 = c^2$$
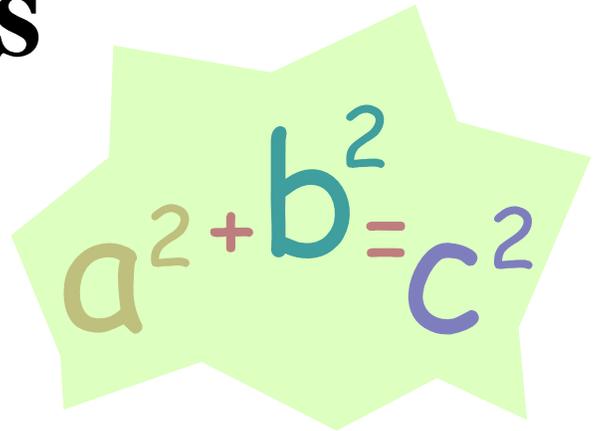
A list of professional materials available for borrowing from the Stewart Resources Centre – July 2013

SASKATCHEWAN • TEACHERS' FEDERATION ®

The STF Stewart Resources Centre – CHECK US OUT!

In order to serve you better, we have compiled the following list of resources that directly address some of your professional needs. We hope you find this publication helpful, and we would be pleased to hear from you if you would like us to continue producing more specialized resource lists, or if you have suggestions on how we can improve our service to you. We want to serve you better!

We make it easy for you to use the Stewart Resources Centre:

- For rural schools, we mail our resources directly to you and provide a postage-paid mailing label for you to use to mail the resources back to us. (Audio-visual resources are excluded from the Canada Post library mailing rate, so you will need to pay postage to return these items.)

- For schools in Saskatoon, your resources arrive at your school through the weekly inter-school mail delivery. Materials may also be returned to us using this courier system.

- You don't need to know the exact titles for resources you need. Provide a topic and an approximate grade level at which you would like to use the materials, and we will do the rest!

- We are accessible 24 hours a day through the STF website: www.stf.sk.ca You may search our catalog online or e-mail us your resource requests at: src@stf.sk.ca

- Call us! STF members may call the Stewart Resources Centre toll-free at 1-800-667-7762, ext. 6323, or we can be reached at 373-1660, ext. 6323 for local calls.

- Visit us in person! We are open 8:30 a.m. to 5:00 p.m. from Monday to Friday.

MATHEMATICS GRADE 6

813.6 P361
All of the above / Pearsall, Shelley.
New York, NY: Little, Brown, 2008.
Subjects: Interpersonal relations – Juvenile fiction. Self-confidence – Juvenile fiction. Tetrahedra –
Juvenile fiction. Geometry – Juvenile fiction. Schools – Juvenile fiction.
Summary: Five urban middle school students, their teacher, and other community members relate
how a school project to build the world's largest tetrahedron affects the lives of everyone involved.

510.7 C456
Changing the faces of mathematics : perspectives on Indigenous people of North America /
Hankes, Judith Elaine. Fast, Gerald R.
Reston, VA: NCTM, 2002.
Subjects: Mathematics – Study and teaching – Social aspects. Indians of North America – Education.
Mathematical ability.
Summary: This resource is a collection of essays related to teaching mathematics in a culturally
relevant way to First Nations people of North America. Examples include suggestions for teaching
numbers and operations concepts using traditional games, and for introducing students to a variety of
number systems specific to North American First Nations people.

372.7 S159
Children are mathematical problem solvers / Sakahaug, Lynae. Olson, Melfried.
Reston, VA: NCTM, 2002.
Subjects: Mathematics – Study and teaching. Mathematics – Problems, exercises, etc.
Summary: Emphasizing problem solving as the foundation of mathematical understanding, the 29
activities challenge students to reason and communicate their understandings. Originating from the
NCTM journals, these activities stretch beyond translation problems to offer authentic tasks that can
be solved using varying methods.

372.7 E96
**Exploring mathematics through literature : articles and lessons for prekindergarten through
grade 8** / Thiessen, Diane. (Ed.).
Reston, VA: National Council of Teachers of Mathematics, 2004.
Subjects: Mathematics – Study and teaching (Primary). Mathematics – Study and teaching
(Elementary).
Summary: Using literature as the starting point for mathematical explorations, this collection of
articles and lessons provides teachers with numerous examples of how to build students'
understanding of mathematical concepts effectively. The articles focus on five strands: numbers and
operations, algebra, geometry, measurement and data analysis, and probability. Many activities lend
themselves to small group and whole class discussions.

- Annotations have been excerpted from book descriptions provided by the publishers and from bibliographies
  distributed by the Saskatchewan Ministry of Education.

372.7 S542
Extending the challenge in mathematics : developing mathematical promise in K-8 students /
Sheffield, Linda Jensen.
Thousand Oaks, CA: Corwin Press, 2003.
Subjects: Mathematics – Study and teaching (Elementary). Gifted children – Education.
Summary: Presenting engaging problems that are context and content based, the author demonstrates
methods for developing mathematical understanding. Each investigation includes open-ended
questions to guide mathematical communication, and probing assessment questions that relate to the
objectives.

510 S399
G is for googol : a math alphabet book / Schwartz, David M.
Berkeley, CA: Tricycle Press, 1998.
Subjects: Mathematics – Juvenile literature.
Summary: This book highlights one or more mathematical concepts, ideas, or symbols for each letter
of the alphabet. It offers a thorough description of each term, often with possible connections to other
topics. As well, interesting (and sometimes humourous) examples are included.

516 J17
Geometry : seeing, doing, understanding (3rd ed.) / Jacobs, Harold R.
New York, NY: W. H. Freeman, 2003.
Subjects: Geometry.
Summary: Jacobs allows students to use guided discovery to develop geometric intuition. The text
includes examples and exercises that are relevant to students. Students will use inductive and
deductive reasoning through the study of geometry. Jacobs has structured the materials so that
students discover the ideas for themselves.

372.7 S951
Good questions for math teaching : why ask them and what to ask, K-6 / Sullivan, Peter. Lilburn,
Pat.
Sausalito, CA: Math Solutions, 2002.
Subjects: Mathematics – Study and teaching (Elementary). Questioning.
Summary: This book promotes the use of open-ended mathematical questions. The sixteen
mathematical topics covered include number, measurement, geometry, chance, and data.

372.7 S395
Good questions for math teaching : why ask them and what to ask, grades 5-8 / Schuster, Lainie.
Anderson, Nancy Canavan.
Sausalito, CA: Math Solutions Publications, 2005.
Subjects: Mathematics – Study and teaching (Middle school). Questioning.
Summary: This book promotes the use of open-ended mathematical questions. Part One explores the
nature of good questioning, and Part Two provides a brief description of how to use the book to
support mathematical instruction and investigation. Part Three consists of numerous questions to use
in math class that help students to explore number relationships; multiplication and proportional
reasoning; fractions, decimals, and percents; geometry; algebraic thinking; data analysis and
probability; and measurement.

372.72 S628
It all adds up : engaging 8-12 year olds in math investigations / Skinner, Penny.
Sausalito, CA: Math Solutions, 1999.

Subjects: Arithmetic – Study and teaching (Elementary). Mathematics – Study and teaching (Elementary).

Summary: This book describes effective teaching strategies and lessons that lead middle and upper primary students to become competent in computation; to build a clear understanding of the four operations - addition, multiplication, subtraction, and division; and to grow enthusiastic about mathematics.

Lessons for Algebraic Thinking Series

512 L419
Lessons for algebraic thinking : grades 6-8 / Lawrence, Ann. Hennessy, Charlie.
Sausalito, CA: Math Solutions Publications, 2002.
Subjects: Algebra – Study and teaching (Middle school).
Summary: This resource fosters authentic applications for abstract concepts in algebra. Each chapter provides detailed lessons, suggested technology connections and samples of students' work. The activity-based lessons develop the students' understanding of relationships, variables and functions.

510.71 B363
Math and science across cultures : activities and investigations from the Exploratorium / Bazin, Maurice. Tamez, Modesto.
New York, NY: New Press, 2002.
Subjects: Mathematics – Study and teaching. Science – Study and teaching. Mathematics – Ancient. Science – Ancient.
Summary: This book is designed to help teachers use hands-on activities to explore the math and science of different cultural traditions, and to make these subjects more relevant and approachable for children of all backgrounds. With instructions in this book, you can: construct a Brazilian carnival instrument and investigate the science of sound; play a peg solitaire game from Madagascar and learn about mathematical patterns; experiment with a traditionally prepared cup of Chinese tea and learn about energy flow; and count like an Egyptian, decipher Mayan mathematical symbols, and decode the ancient Inca number system of knotted cords.

372.7 M426 OVERSIZE
Math in a cultural context : lessons learned from Yup'ik Eskimo elders [kit] / University of Alaska Fairbanks.
Calgary, AB: Detselig Enterprises, 2003-2004.
Contents: 7 books and 2 CD-ROMs.
Subjects: Mathematics – Study and teaching (Elementary). Yup'ik Eskimos – Alaska.
Summary: This series provides an authentic example of ways to integrate First Nations, Métis and Inuit content, to incorporate cultural ways of knowing, and to bridge gaps between different ways of knowing and understanding. The series includes cultural stories given by Elders.

372.7 C463
Math matters : understanding the math you teach, grades K-8 (2nd ed.) / Chapin, Suzanne H. Johnson, Art.
Sausalito, CA: Math Solutions Publications, 2006.
Subjects: Mathematics – Study and teaching (Elementary).
Summary: This resource assists teachers to understand mathematical concepts and skills presented in the curriculum. Sections of this resource provide information on number sense, computation, the four operations, fractions, decimals, percents, algebra, geometry, measurement, statistics, and probability.

372.7 W597

A mathematical passage : strategies for promoting inquiry in grades 4-6 / Whitin, David J. Cox, Robin.
Portsmouth, NH: Heinemann, 2003.
Subjects: Mathematics – Study and teaching (Elementary). Mathematics – Study and teaching (Middle school). Inquiry (Theory of knowledge). Questioning.
Summary: This book provides a framework for developing critical thinking and inquiry learning in the exploration of mathematical concepts. It includes examples of activities that facilitate interdisciplinary connections, suggestions for extending students' mathematical thinking through conversation, strategies for organizing math workshops for students, and ideas of how to use math journals as assessment tools to gauge students' understanding of mathematical concepts.

510 H791
Mental math in junior high / Hope, Jack A.
Palo Alto, CA: Dale Seymour, 1988.
Subjects: Mathematics – Study and teaching.
Summary: This resource presents strategies for teaching mental mathematics. It focuses on more difficult mental calculations with whole numbers. Students learn techniques such as searching for compatibles, tacking on trailing zeros, and front end multiplying.

Navigations Series

372.7 N325
Navigating through algebra in grades 6-8 / Friel, Susan N. Rachlin, Sid. Doyle, Dot.
Reston, VA: NCTM, 2001.
Subjects: Algebra – Study and teaching (Middle school).
Summary: These activity-based learning resources introduce, develop, and extend student thinking and reasoning in various mathematical concepts. Several related activities suited to the developmental stages of students are provided. Accompanying the interactive investigations is a CD-ROM containing blackline masters, professional readings, and applets for the students to manipulate.

372.7 N325
Navigating through geometry in grades 6-8 / Pugalee, David K.
Reston, VA: NCTM, 2002.
Subjects: Geometry – Study and teaching (Middle school).
Summary: These activity-based learning resources introduce, develop, and extend student thinking and reasoning in various mathematical concepts. Several related activities suited to the developmental stages of students are provided. Accompanying the interactive investigations is a CD-ROM containing blackline masters, professional readings, and applets for the students to manipulate.

372.7 N325
Navigating through probability in grades 6-8 / Bright, George W.
Reston, VA: NCTM, 2003.
Subjects: Mathematical statistics – Study and teaching (Middle school). Probabilities – Study and teaching (Middle school).
Summary: These activity-based learning resources introduce, develop, and extend student thinking and reasoning in various mathematical concepts. Several related activities suited to the developmental stages of students are provided. Accompanying the interactive investigations is a CD-ROM containing blackline masters, professional readings, and applets for the students to manipulate.

510 N425
Nelson math focus 6 : student book / Small, Marian.

Nelson mathfocus. 6 : teacher's resource / Small, Marian.
Toronto, ON: Nelson Education, 2010.
Subjects: Mathematics.
Summary: The student-friendly design of this textbook uses a consistent lesson format: a central task or question followed by Reflecting, Checking, and Practising. It also includes multiple sample solutions with student think-aloud to support understanding.

510.92 L897
Of numbers and stars : the story of Hypatia / Love, D. Anne.
New York, NY: Holiday House, 2006.
Subjects: Women mathematicians – Egypt – Biography – Juvenile literature. Women philosophers – Egypt – Biography – Juvenile literature.
Summary: Raised during the fourth century C.E. in Alexandria, Egypt, Hypatia became an authority in mathematics. Hypatia's father, Theon, believed that she should be educated the same as a boy. Hypatia became fascinated with numbers after watching Theon write number sentences. Other scholars sought Hypatia's opinions on mathematics, science, or philosophy.

510.71 K17
Out of the labyrinth : setting mathematics free / Kaplan, Robert. Kaplan, Ellen
New York, NY: Oxford University Press, 2007.
Subjects: Mathematics – Study and teaching.
Summary: Written as a guide for parents and educators, this book argues that math should be taught as the highest form of intellectual play rather than as a step-by-step acquisition of skills and facts. The authors emphasize that math is meant to be explored and savoured, and that it does not require special talent or ability.

510 A225
Pearson math makes sense 6 : student book / Morrow, Peggy.
Pearson math makes sense 6 : teacher guide / Morrow, Peggy.
Toronto, ON: Pearson Addison Wesley, 2006.
Subjects: Mathematics – Textbooks. Mathematics – Study and teaching (Middle school).
Summary: The student resource includes literature selections, practice pages, letters to parents, and tear-out Math at Home pages. The teacher resource consists of eight unit booklets, blackline masters, an overview, and a planning and assessment booklet. Each unit in the teacher resource contains mathematical background, curriculum across the grades, curriculum overview, planning for instruction, suggested time frame, and planning for assessment. Each lesson provides a curriculum focus, mathematical word wall suggestions, materials, and program resources.

510.7 C456
Perspectives on Indigenous people of North America / Hankes, Judith Elaine. Fast, Gerald R. (Eds.).
Reston, VA: National Council of Teachers of Mathematics, 2002.
Subjects: Indians of North America – Education. Mathematics – Study and teaching – Social aspects. Mathematical ability.
Summary: This resource is a collection of essays related to teaching mathematics in a culturally relevant way to First Nations people of North America. Examples include suggestions for teaching numbers and operations concepts using traditional games, and for introducing students to a variety of number systems specific to North American First Nations people.

516 N495
Sir Cumference and the dragon of Pi : a math adventure / Neuschwander, Cindy.

Watertown, PA: Charlesbridge, 1999.
Subjects: Circle – Juvenile literature. Pi – Juvenile literature.
Summary: When Sir Cumference drinks a potion which turns him into a dragon, his son Radius searches for the magic number known as pi which will restore him to his former shape.

516 N495
Sir Cumference and the great knight of Angleland : a math adventure / Neuschwander, Cindy.
Watertown, MA: Charlesbridge, 2001.
Subjects: Geometry – Juvenile literature.
Summary: To earn his knighthood, Radius must find and rescue a missing king. His father, Sir Cumference, and his mother, Lady Di of Ameter, give him a circular medallion (a protractor) that he uses to find his way through a maze of many angles.

516 N495
Sir Cumference and the sword in the cone : a math adventure / Neuschwander, Cindy.
Watertown, PA: Charlesbridge, 1999.
Subjects: Geometry – Juvenile literature. Cone – Juvenile literature.
Summary: Sir Cumference, Radius, and Sir Vertex search for Edgecalibur, the sword that King Arthur has hidden in a geometric solid.

372.7 B967
So you have to teach math : sound advice for K-6 teachers / Burns, Marilyn. Silbey, Robyn.
Sausalito, CA: Math Solutions, 2000.
Subjects: Mathematics – Study and teaching (Elementary)
Summary: The author supplies practical advice and guidance for frequently asked questions related to the teaching of mathematics. Methods for providing effective instruction and establishing a positive classroom environment are outlined. Sample chapter topics focus on effective calculator usage, connecting with parents, and leading class discussions.

372.7 T253
Teaching mathematics through problem solving : prekindergarten-grade 6 / Lester, Frank K. (Ed.).
Reston, VA: NCTM, 2003.
Subjects: Mathematics – Study and teaching (Elementary). Problem-based learning. Mathematics – Study and teaching (Early childhood).
Summary: This volume promotes a problem-solving approach to mathematics instruction. This approach engages students in making sense of problematic tasks in which mathematical concepts are embedded. The writers address issues and perspectives related to this approach (including the role of technology), and provide examples of its use in the classroom.

510.712 T253
Teaching mathematics through problem solving : grades 6-12 / Schoen, Harold L. (Ed.).
Reston, VA: National Council of Teachers of Mathematics, 2003.
Subjects: Mathematics – Study and teaching (Secondary). Problem-based learning.
Summary: This volume is a professional research-based resource that promotes a problem-solving approach to mathematics instruction. This approach engages students in making sense of problematic tasks in which mathematical concepts are embedded. The writers address issues and perspectives related to this approach, provide suggestions on how to select and use appropriate tasks and learning tools, and provide examples of the use of this approach in various classroom settings.

510.712 M983

Teaching mathematics vocabulary in context : windows, doors, and secret passageways /
Murray, Miki.
Portsmouth, NH: Heinemann, 2004.
Subjects: Mathematics – Study and teaching (Middle school). Mathematics – Terminology.
Summary: This resource for teachers focuses on strategies to help students develop a deeper
understanding of mathematical language and to enable them to use it when describing mathematical
concepts and relationships across the strands. Concrete examples illustrate how teachers can promote
mathematical understanding and reflection through discourse, writing, and the use of vocabulary in
context.

372.72 C297
Thinking mathematically : integrating arithmetic and algebra in elementary school / Carpenter,
Thomas P. Franke, Megan Loef. Levi, Linda.
Portsmouth, NH: Heinemann, 2003.
Subjects: Arithmetic – Study and teaching (Elementary). Algebra – Study and teaching (Elementary).
Summary: The emphasis of this resource is on teaching for deep understanding of mathematical
concepts. Using classroom examples, teachers are shown how to extend students' thinking to help
them integrate and connect new knowledge with previous understanding.

510.71 R795
Uncovering student thinking in mathematics : grades 6-12 / Rose, Cheryl M. Arline, Carolyn.
Thousand Oaks, CA: Corwin, 2008.
Subjects: Mathematics – Study and teaching (Middle school). Mathematical ability – Testing.
Summary: The authors provide 30 formative assessment probes to reveal common understandings
and misunderstandings in student thinking. This book: discusses standards, research results, and
practical craft knowledge; describes the purpose, structure, and development of mathematics
assessment probes; helps teachers build on students' current understandings while addressing their
identified difficulties; and offers examples of the faulty thinking students are likely to exhibit and
typical obstacles they may encounter.

The Van de Walle Professional Mathematics Series

372.7 V217
Teaching student-centered mathematics : grades K-3 / Van de Walle, John A. Lovin, LouAnn H.
Boston, MA: Pearson, 2006.
Subjects: Mathematics – Study and teaching (Primary).
Summary: This resource contains nearly 200 grade-appropriate activities, designed to help students
develop real understanding and confidence in mathematics. Topics include: foundations of student-
centred instruction, developing early number concepts and number sense, developing meaning for the
operations and solving-story problems, base-ten concepts and place value, strategies for whole-
number computation, early fraction concepts, helping children use data, and more.

372.7 V217
Teaching student-centered mathematics : grades 3-5 / Van de Walle, John A. Lovin, LouAnn H.
Boston, MA: Pearson, 2006.
Subjects: Mathematics – Study and teaching (Primary).
Summary: This resource contains nearly 200 grade-appropriate activities, designed to help students
develop real understanding and confidence in mathematics. Topics include: foundations of student-
centred instruction, number and operation sense, developing fraction concepts, fraction computation,
decimal & percent concepts and decimal computation, developing measurement concepts, exploring
concepts of probability, and more.

372.7 V217
Teaching student-centered mathematics : grades 5-8 / Van de Walle, John A. Lovin, LouAnn H.
Boston, MA: Pearson, 2006.
Subjects: Mathematics – Study and teaching (Middle school).
Summary: This resource promotes the use of problem-based activities to develop students' conceptual understanding of mathematical concepts. Numerous practical examples of problem-based activities, assessment notes, and ideas for integrating technology into instruction are included.

MATHEMATICS GRADE 7

813.6 P361
All of the above / Pearsall, Shelley.
New York, NY: Little, Brown, 2008.
Subjects: Interpersonal relations – Juvenile fiction. Self-confidence – Juvenile fiction. Tetrahedra – Juvenile fiction. Geometry – Juvenile fiction. Schools – Juvenile fiction.
Summary: Five urban middle school students, their teacher, and other community members relate how a school project to build the world's largest tetrahedron affects the lives of everyone involved.

372.7 M426 OVERSIZE
Building a fish rack : investigations into proofs, properties, perimeter, and area - part of the kit entitled:
Math in a cultural context : lessons learned from Yup'ik Eskimo elders [kit] / University of Alaska Fairbanks.
Calgary, AB: Detselig Enterprises, 2003-2004.
Contents: 7 books and 2 CD-ROMs.
Subjects: Mathematics – Study and teaching (Elementary). Yup'ik Eskimos – Alaska.
Summary: This series provides an authentic example of ways to integrate First Nations, Métis and Inuit content, to incorporate cultural ways of knowing, and to bridge gaps between different ways of knowing and understanding. The series includes cultural stories given by Elders.

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Summary: Emphasizing problem solving as the foundation of mathematical understanding, the 29 activities challenge students to reason and communicate their understandings. Originating from the NCTM journals, these activities stretch beyond translation problems to offer authentic tasks that can be solved using varying methods.

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Subjects: Arithmetic – Study and teaching (Elementary). Mathematics – Study and teaching (Elementary).
Summary: This book describes effective teaching strategies and lessons that lead middle and upper primary students to become competent in computation; to build a clear understanding of the four

operations - addition, multiplication, subtraction, and division; and to grow enthusiastic about mathematics.

Lessons for Algebraic Thinking Series

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Summary: This resource fosters authentic applications for abstract concepts in algebra. Each chapter provides detailed lessons, suggested technology connections and samples of students' work. The activity-based lessons develop the students' understanding of relationships, variables and functions.

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Math matters : understanding the math you teach, grades K-8 (2nd ed.) / Chapin, Suzanne H. Johnson, Art.
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Summary: This resource assists teachers to understand mathematical concepts and skills presented in the curriculum. Sections of this resource provide information on number sense, computation, the four operations, fractions, decimals, percents, algebra, geometry, measurement, statistics, and probability.

372.7 W597
A mathematical passage : strategies for promoting inquiry in grades 4-6 / Whitin, David J. Cox, Robin.
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Summary: This book provides a framework for developing critical thinking and inquiry learning in the exploration of mathematical concepts. It includes examples of activities that facilitate interdisciplinary connections, suggestions for extending students' mathematical thinking through conversation, strategies for organizing math workshops for students, and ideas of how to use math journals as assessment tools to gauge students' understanding of mathematical concepts.

510 M431
MathLinks 7 : student text / McAskill, Bruce.
MathLinks 7 : teacher's resource / McAskill, Bruce.

Toronto, ON: McGraw-Hill, 2007.
Subjects: Mathematics – Study and teaching (Middle school).
Summary: This resource consists of a student resource, a teacher's guide, and editable blackline masters available on the accompanying CD-ROM. Each unit begins with a problem called a Math Link that connects math and the real world. Lessons follow the basic format of explore or discuss, reflect, review key ideas, communicate, practise, apply, and extend. At the end of each unit there is a chapter review, a practice test, a wrap up of the chapter problem, and a page of math games.

510 H791
Mental math in junior high / Hope, Jack A.
Palo Alto, CA: Dale Seymour, 1988.
Subjects: Mathematics – Study and teaching.
Summary: This resource presents strategies for teaching mental mathematics. It focuses on more difficult mental calculations with whole numbers. Students learn techniques such as searching for compatibles, tacking on trailing zeros, and front end multiplying.

Navigations Series

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Summary: These activity-based learning resources introduce, develop, and extend student thinking and reasoning in various mathematical concepts. Several related activities suited to the developmental stages of students are provided. Accompanying the interactive investigations is a CD-ROM containing blackline masters, professional readings, and applets for the students to manipulate.

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Reston, VA: NCTM, 2002.
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Summary: These activity-based learning resources introduce, develop, and extend student thinking and reasoning in various mathematical concepts. Several related activities suited to the developmental stages of students are provided. Accompanying the interactive investigations is a CD-ROM containing blackline masters, professional readings, and applets for the students to manipulate.

372.7 N325
Navigating through probability in grades 6-8 / Bright, George W.
Reston, VA: NCTM, 2003.
Subjects: Mathematical statistics – Study and teaching (Middle school). Probabilities – Study and teaching (Middle school).
Summary: These activity-based learning resources introduce, develop, and extend student thinking and reasoning in various mathematical concepts. Several related activities suited to the developmental stages of students are provided. Accompanying the interactive investigations is a CD-ROM containing blackline masters, professional readings, and applets for the students to manipulate.

510 N425
Nelson math focus 7 : student text / Small, Marian.
Nelson math focus 7 : teacher's resource / Small, Marian.
Toronto, ON: Thomson/Nelson, 2008.
Subjects: Mathematics – Study and teaching (Middle school).

Summary: The teacher resource modules present suggestions for lesson plans and the pacing of each chapter. Each of the modules relates to a chapter in the student text. The lesson plans include differentiated instruction suggestions, such as extra challenge activities and extra student support activities, as well as differentiated learning support.

510.92 L897
Of numbers and stars : the story of Hypatia / Love, D. Anne.
New York, NY: Holiday House, 2006.
Subjects: Women mathematicians – Egypt – Biography – Juvenile literature. Women philosophers – Egypt – Biography – Juvenile literature.
Summary: Raised during the fourth century C.E. in Alexandria, Egypt, Hypatia became an authority in mathematics. Hypatia's father, Theon, believed that she should be educated the same as a boy. Hypatia became fascinated with numbers after watching Theon write number sentences. Other scholars sought Hypatia's opinions on mathematics, science, or philosophy.

510.71 K17
Out of the labyrinth : setting mathematics free / Kaplan, Robert. Kaplan, Ellen
New York, NY: Oxford University Press, 2007.
Subjects: Mathematics – Study and teaching.
Summary: Written as a guide for parents and educators, this book argues that math should be taught as the highest form of intellectual play rather than as a step-by-step acquisition of skills and facts. The authors emphasize that math is meant to be explored and savoured, and that it does not require special talent or ability.

510 A225
Pearson math makes sense 7 : student text / Garneau, Marc.
Pearson math makes sense 7 : teacher guide kit
Toronto, ON: Pearson Education Canada, 2007.
Subjects: Mathematics – Textbooks.
Summary: Student text lessons require students to explore the concept, make real-life connections, practise the skill, and reflect on what they have learned. The text includes mid-unit reviews, unit reviews, practice tests, unit problems, answer keys, a glossary, and an index.

510.7 C456
Perspectives on Indigenous people of North America / Hankes, Judith Elaine. Fast, Gerald R. (Eds.).
Reston, VA: National Council of Teachers of Mathematics, 2002.
Subjects: Indians of North America – Education. Mathematics – Study and teaching – Social aspects. Mathematical ability.
Summary: This resource is a collection of essays related to teaching mathematics in a culturally relevant way to First Nations people of North America. Examples include suggestions for teaching numbers and operations concepts using traditional games, and for introducing students to a variety of number systems specific to North American First Nations people.

510.712 T253
Teaching mathematics through problem solving : grades 6-12 / Schoen, Harold L. (Ed.).
Reston, VA: National Council of Teachers of Mathematics, 2003.
Subjects: Mathematics – Study and teaching (Secondary). Problem-based learning.
Summary: This volume is a professional research-based resource that promotes a problem-solving approach to mathematics instruction. This approach engages students in making sense of problematic tasks in which mathematical concepts are embedded. The writers address issues and perspectives

related to this approach, provide suggestions on how to select and use appropriate tasks and learning tools, and provide examples of the use of this approach in various classroom settings.

510.712 M983
Teaching mathematics vocabulary in context : windows, doors, and secret passageways /
Murray, Miki.
Portsmouth, NH: Heinemann, 2004.
Subjects: Mathematics – Study and teaching (Middle school). Mathematics – Terminology.
Summary: This resource for teachers focuses on strategies to help students develop a deeper understanding of mathematical language and to enable them to use it when describing mathematical concepts and relationships across the strands. Concrete examples illustrate how teachers can promote mathematical understanding and reflection through discourse, writing, and the use of vocabulary in context.

372.72 C297
Thinking mathematically : integrating arithmetic and algebra in elementary school / Carpenter, Thomas P. Franke, Megan Loef. Levi, Linda.
Portsmouth, NH: Heinemann, 2003.
Subjects: Arithmetic – Study and teaching (Elementary). Algebra – Study and teaching (Elementary).
Summary: The emphasis of this resource is on teaching for deep understanding of mathematical concepts. Using classroom examples, teachers are shown how to extend students' thinking to help them integrate and connect new knowledge with previous understanding.

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Uncovering student thinking in mathematics : grades 6-12 / Rose, Cheryl M. Arline, Carolyn.
Thousand Oaks, CA: Corwin, 2008.
Subjects: Mathematics – Study and teaching (Middle school). Mathematical ability – Testing.
Summary: The authors provide 30 formative assessment probes to reveal common understandings and misunderstandings in student thinking. This book: discusses standards, research results, and practical craft knowledge; describes the purpose, structure, and development of mathematics assessment probes; helps teachers build on students' current understandings while addressing their identified difficulties; and offers examples of the faulty thinking students are likely to exhibit and typical obstacles they may encounter.

The Van de Walle Professional Mathematics Series

372.7 V217
Teaching student-centered mathematics : grades K-3 / Van de Walle, John A. Lovin, LouAnn H.
Boston, MA: Pearson, 2006.
Subjects: Mathematics – Study and teaching (Primary).
Summary: This resource contains nearly 200 grade-appropriate activities, designed to help students develop real understanding and confidence in mathematics. Topics include: foundations of student-centred instruction, developing early number concepts and number sense, developing meaning for the operations and solving-story problems, base-ten concepts and place value, strategies for whole-number computation, early fraction concepts, helping children use data, and more.

372.7 V217
Teaching student-centered mathematics : grades 3-5 / Van de Walle, John A. Lovin, LouAnn H.
Boston, MA: Pearson, 2006.
Subjects: Mathematics – Study and teaching (Primary).

Summary: This resource contains nearly 200 grade-appropriate activities, designed to help students develop real understanding and confidence in mathematics. Topics include: foundations of student-centred instruction, number and operation sense, developing fraction concepts, fraction computation, decimal & percent concepts and decimal computation, developing measurement concepts, exploring concepts of probability, and more.

372.7 V217
Teaching student-centered mathematics : grades 5-8 / Van de Walle, John A. Lovin, LouAnn H.
Boston, MA: Pearson, 2006.
Subjects: Mathematics – Study and teaching (Middle school).
Summary: This resource promotes the use of problem-based activities to develop students' conceptual understanding of mathematical concepts. Numerous practical examples of problem-based activities, assessment notes, and ideas for integrating technology into instruction are included.

MATHEMATICS GRADE 8

813.6 P361
All of the above / Pearsall, Shelley.
New York, NY: Little, Brown, 2008.
Subjects: Interpersonal relations – Juvenile fiction. Self-confidence – Juvenile fiction. Tetrahedra –
Juvenile fiction. Geometry – Juvenile fiction. Schools – Juvenile fiction.
Summary: Five urban middle school students, their teacher, and other community members relate
how a school project to build the world's largest tetrahedron affects the lives of everyone involved.

510.7 C456
Changing the faces of mathematics : perspectives on Indigenous people of North America /
Hankes, Judith Elaine. Fast, Gerald R.
Reston, VA: NCTM, 2002.
Subjects: Mathematics – Study and teaching – Social aspects. Indians of North America – Education.
Mathematical ability.
Summary: This resource is a collection of essays related to teaching mathematics in a culturally
relevant way to First Nations people of North America. Examples include suggestions for teaching
numbers and operations concepts using traditional games, and for introducing students to a variety of
number systems specific to North American First Nations people.

372.7 S159
Children are mathematical problem solvers / Sakahaug, Lynae. Olson, Melfried.
Reston, VA: NCTM, 2002.
Subjects: Mathematics – Study and teaching. Mathematics – Problems, exercises, etc.
Summary: Emphasizing problem solving as the foundation of mathematical understanding, the 29
activities challenge students to reason and communicate their understandings. Originating from the
NCTM journals, these activities stretch beyond translation problems to offer authentic tasks that can
be solved using varying methods.

372.7 E96
**Exploring mathematics through literature : articles and lessons for prekindergarten through
grade 8** / Thiessen, Diane. (Ed.).
Reston, VA: National Council of Teachers of Mathematics, 2004.
Subjects: Mathematics – Study and teaching (Primary). Mathematics – Study and teaching
(Elementary).
Summary: Using literature as the starting point for mathematical explorations, this collection of
articles and lessons provides teachers with numerous examples of how to build students'
understanding of mathematical concepts effectively. The articles focus on five strands: numbers and
operations, algebra, geometry, measurement and data analysis, and probability. Many activities lend
themselves to small group and whole class discussions.

372.7 S542
Extending the challenge in mathematics : developing mathematical promise in K-8 students /
Sheffield, Linda Jensen.
Thousand Oaks, CA: Corwin Press, 2003.
Subjects: Mathematics – Study and teaching (Elementary). Gifted children – Education.
Summary: Presenting engaging problems that are context and content based, the author demonstrates
methods for developing mathematical understanding. Each investigation includes open-ended

questions to guide mathematical communication, and probing assessment questions that relate to the objectives.

510 S399
G is for googol : a math alphabet book / Schwartz, David M.
Berkeley, CA: Tricycle Press, 1998.
Subjects: Mathematics – Juvenile literature.
Summary: This book highlights one or more mathematical concepts, ideas, or symbols for each letter of the alphabet. It offers a thorough description of each term, often with possible connections to other topics. As well, interesting (and sometimes humourous) examples are included.

516 J17
Geometry : seeing, doing, understanding (3rd ed.) / Jacobs, Harold R.
New York, NY: W. H. Freeman, 2003.
Subjects: Geometry.
Summary: Jacobs allows students to use guided discovery to develop geometric intuition. The text includes examples and exercises that are relevant to students. Students will use inductive and deductive reasoning through the study of geometry. Jacobs has structured the materials so that students discover the ideas for themselves.

372.7 S395
Good questions for math teaching : why ask them and what to ask, grades 5-8 / Schuster, Lainie. Anderson, Nancy Canavan.
Sausalito, CA: Math Solutions Publications, 2005.
Subjects: Mathematics – Study and teaching (Middle school). Questioning.
Summary: This book promotes the use of open-ended mathematical questions. Part One explores the nature of good questioning, and Part Two provides a brief description of how to use the book to support mathematical instruction and investigation. Part Three consists of numerous questions to use in math class that help students to explore number relationships; multiplication and proportional reasoning; fractions, decimals, and percents; geometry; algebraic thinking; data analysis and probability; and measurement.

372.72 S628
It all adds up : engaging 8-12 year olds in math investigations / Skinner, Penny.
Sausalito, CA: Math Solutions, 1999.
Subjects: Arithmetic – Study and teaching (Elementary). Mathematics – Study and teaching (Elementary).
Summary: This book describes effective teaching strategies and lessons that lead middle and upper primary students to become competent in computation; to build a clear understanding of the four operations - addition, multiplication, subtraction, and division; and to grow enthusiastic about mathematics.

Lessons for Algebraic Thinking Series

512 L419
Lessons for algebraic thinking : grades 6-8 / Lawrence, Ann. Hennessy, Charlie.
Sausalito, CA: Math Solutions Publications, 2002.
Subjects: Algebra – Study and teaching (Middle school).
Summary: This resource fosters authentic applications for abstract concepts in algebra. Each chapter provides detailed lessons, suggested technology connections and samples of students' work. The activity-based lessons develop the students' understanding of relationships, variables and functions.

510.71 B363
Math and science across cultures : activities and investigations from the Exploratorium / Bazin, Maurice. Tamez, Modesto.
New York, NY: New Press, 2002.
Subjects: Mathematics – Study and teaching. Science – Study and teaching. Mathematics – Ancient. Science – Ancient.
Summary: This book is designed to help teachers use hands-on activities to explore the math and science of different cultural traditions, and to make these subjects more relevant and approachable for children of all backgrounds. With instructions in this book, you can: construct a Brazilian carnival instrument and investigate the science of sound; play a peg solitaire game from Madagascar and learn about mathematical patterns; experiment with a traditionally prepared cup of Chinese tea and learn about energy flow; and count like an Egyptian, decipher Mayan mathematical symbols, and decode the ancient Inca number system of knotted cords.

372.7 C463
Math matters : understanding the math you teach, grades K-8 (2nd ed.) / Chapin, Suzanne H. Johnson, Art.
Sausalito, CA: Math Solutions Publications, 2006.
Subjects: Mathematics – Study and teaching (Elementary).
Summary: This resource assists teachers to understand mathematical concepts and skills presented in the curriculum. Sections of this resource provide information on number sense, computation, the four operations, fractions, decimals, percents, algebra, geometry, measurement, statistics, and probability.

372.7 W597
A mathematical passage : strategies for promoting inquiry in grades 4-6 / Whitin, David J. Cox, Robin.
Portsmouth, NH: Heinemann, 2003.
Subjects: Mathematics – Study and teaching (Elementary). Mathematics – Study and teaching (Middle school). Inquiry (Theory of knowledge). Questioning.
Summary: This book provides a framework for developing critical thinking and inquiry learning in the exploration of mathematical concepts. It includes examples of activities that facilitate interdisciplinary connections, suggestions for extending students' mathematical thinking through conversation, strategies for organizing math workshops for students, and ideas of how to use math journals as assessment tools to gauge students' understanding of mathematical concepts.

510 M431
MathLinks 8 : student book / McAskill, Bruce.
MathLinks 8 : teacher's resource / McAskill, Bruce.
Toronto, ON: McGraw-Hill, 2008.
Subjects: Mathematics.
Summary: This resource consists of a student text and a teacher resource. The teacher resource includes a CD with worked solutions for questions in the student resource and an assessment bank. The student resource introduces topics in real-world contexts and provides the students with a list of what you will learn, key words, and literacy links.

510 H791
Mental math in junior high / Hope, Jack A.
Palo Alto, CA: Dale Seymour, 1988.
Subjects: Mathematics – Study and teaching.

Summary: This resource presents strategies for teaching mental mathematics. It focuses on more difficult mental calculations with whole numbers. Students learn techniques such as searching for compatibles, tacking on trailing zeros, and front end multiplying.

<u>Navigations Series</u>

372.7 N325
Navigating through algebra in grades 6-8 / Friel, Susan N. Rachlin, Sid. Doyle, Dot.
Reston, VA: NCTM, 2001.
Subjects: Algebra – Study and teaching (Middle school).
Summary: These activity-based learning resources introduce, develop, and extend student thinking and reasoning in various mathematical concepts. Several related activities suited to the developmental stages of students are provided. Accompanying the interactive investigations is a CD-ROM containing blackline masters, professional readings, and applets for the students to manipulate.

372.7 N325
Navigating through geometry in grades 6-8 / Pugalee, David K.
Reston, VA: NCTM, 2002.
Subjects: Geometry – Study and teaching (Middle school).
Summary: These activity-based learning resources introduce, develop, and extend student thinking and reasoning in various mathematical concepts. Several related activities suited to the developmental stages of students are provided. Accompanying the interactive investigations is a CD-ROM containing blackline masters, professional readings, and applets for the students to manipulate.

372.7 N325
Navigating through probability in grades 6-8 / Bright, George W.
Reston, VA: NCTM, 2003.
Subjects: Mathematical statistics – Study and teaching (Middle school). Probabilities – Study and teaching (Middle school).
Summary: These activity-based learning resources introduce, develop, and extend student thinking and reasoning in various mathematical concepts. Several related activities suited to the developmental stages of students are provided. Accompanying the interactive investigations is a CD-ROM containing blackline masters, professional readings, and applets for the students to manipulate.

510 N425
Nelson math focus 8 : student text / Small, Marian.
Nelson math focus 8 : student workbook / Small, Marian.
Nelson math focus 8 : teacher's resource / Small, Marian.
Toronto, ON: Thomson/Nelson, 2008.
Subjects: Mathematics – Study and teaching (Middle school).
Summary: This resource consists of a student text, a student workbook, and a 12-booklet teacher resource. The teacher's resource consists of one booklet for each unit in the student resource. It contains a curriculum correlation and continuum across the grades.

510.92 L897
Of numbers and stars : the story of Hypatia / Love, D. Anne.
New York, NY: Holiday House, 2006.
Subjects: Women mathematicians – Egypt – Biography – Juvenile literature. Women philosophers – Egypt – Biography – Juvenile literature.
Summary: Raised during the fourth century C.E. in Alexandria, Egypt, Hypatia became an authority in mathematics. Hypatia's father, Theon, believed that she should be educated the same as a boy.

Hypatia became fascinated with numbers after watching Theon write number sentences. Other scholars sought Hypatia's opinions on mathematics, science, or philosophy.

510.71 K17
Out of the labyrinth : setting mathematics free / Kaplan, Robert. Kaplan, Ellen
New York, NY: Oxford University Press, 2007.
Subjects: Mathematics – Study and teaching.
Summary: Written as a guide for parents and educators, this book argues that math should be taught as the highest form of intellectual play rather than as a step-by-step acquisition of skills and facts. The authors emphasize that math is meant to be explored and savoured, and that it does not require special talent or ability.

512 F974
The pattern and function connection / Fulton, Brad S. Lombard, Bill.
Emeryville, CA: Key Curriculum Press, 2001.
Subjects: Algebra – Study and teaching (Middle school).
Summary: Through study and analysis of patterns, this resource provides support for building logical understanding of relations, linear and nonlinear functions, and function rotation. Authentic applications are posed in the suggested activities, discussions, journal topics, and homework assignments.

510 A225
Pearson math makes sense 8 : student text / Baron, Lorraine.
Pearson math makes sense 8 : teacher guide kit
Toronto, ON: Pearson Education Canada, 2008.
Subjects: Mathematics – Textbooks. Mathematics – Study and teaching (Middle school).
Summary: This resource consists of a student text and a teacher resource. The teacher resource consists of a booklet for each of the nine units in the student text. Each booklet includes an overview of the unit, planning and assessment support, key ideas and curriculum links, content background, and three-part lessons with model teacher prompts for each lesson.

510.712 T253
Teaching mathematics through problem solving : grades 6-12 / Schoen, Harold L. (Ed.).
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Subjects: Mathematics – Study and teaching (Secondary). Problem-based learning.
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510.712 M983
Teaching mathematics vocabulary in context : windows, doors, and secret passageways / Murray, Miki.
Portsmouth, NH: Heinemann, 2004.
Subjects: Mathematics – Study and teaching (Middle school). Mathematics – Terminology.
Summary: This resource for teachers focuses on strategies to help students develop a deeper understanding of mathematical language and to enable them to use it when describing mathematical concepts and relationships across the strands. Concrete examples illustrate how teachers can promote mathematical understanding and reflection through discourse, writing, and the use of vocabulary in context.

372.72 C297
Thinking mathematically : integrating arithmetic and algebra in elementary school / Carpenter, Thomas P. Franke, Megan Loef. Levi, Linda.
Portsmouth, NH: Heinemann, 2003.
Subjects: Arithmetic – Study and teaching (Elementary). Algebra – Study and teaching (Elementary).
Summary: The emphasis of this resource is on teaching for deep understanding of mathematical concepts. Using classroom examples, teachers are shown how to extend students' thinking to help them integrate and connect new knowledge with previous understanding.

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Subjects: Mathematics – Study and teaching (Middle school). Mathematical ability – Testing.
Summary: The authors provide 30 formative assessment probes to reveal common understandings and misunderstandings in student thinking. This book: discusses standards, research results, and practical craft knowledge; describes the purpose, structure, and development of mathematics assessment probes; helps teachers build on students' current understandings while addressing their identified difficulties; and offers examples of the faulty thinking students are likely to exhibit and typical obstacles they may encounter.

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Subjects: Mathematics – Study and teaching (Middle school).
Summary: This resource promotes the use of problem-based activities to develop students' conceptual understanding of mathematical concepts. Numerous practical examples of problem-based activities, assessment notes, and ideas for integrating technology into instruction are included.

516 E47
What's your angle, Pythagoras? : a math adventure / Ellis, Julie.
Watertown, MA: Charlesbridge, 2004.
Subjects: Pythagorean theorem – Juvenile literature. Geometry – Juvenile literature.
Summary: In ancient Greece, young Pythagoras discovers a special number pattern (the Pythagorean theorem) and uses it to solve problems involving right triangles.

MATHEMATICS GRADE 9

813.6 P361
All of the above / Pearsall, Shelley.
New York, NY: Little, Brown, 2008.
Subjects: Interpersonal relations – Juvenile fiction. Self-confidence – Juvenile fiction. Tetrahedra –
Juvenile fiction. Geometry – Juvenile fiction. Schools – Juvenile fiction.
Summary: Five urban middle school students, their teacher, and other community members relate
how a school project to build the world's largest tetrahedron affects the lives of everyone involved.

372.7 M426 OVERSIZE
Building a fish rack : investigations into proofs, properties, perimeter, and area - part of the kit
entitled:
Math in a cultural context : lessons learned from Yup'ik Eskimo elders [kit] / University of
Alaska Fairbanks.
Calgary, AB: Detselig Enterprises, 2003-2004.
Contents: 7 books and 2 CD-ROMs.
Subjects: Mathematics – Study and teaching (Elementary). Yup'ik Eskimos – Alaska.
Summary: This series provides an authentic example of ways to integrate First Nations, Métis and
Inuit content, to incorporate cultural ways of knowing, and to bridge gaps between different ways of
knowing and understanding. The series includes cultural stories given by Elders.

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Changing the faces of mathematics : perspectives on Indigenous people of North America /
Hankes, Judith Elaine. Fast, Gerald R.
Reston, VA: NCTM, 2002.
Subjects: Mathematics – Study and teaching – Social aspects. Indians of North America – Education.
Mathematical ability.
Summary: This resource is a collection of essays related to teaching mathematics in a culturally
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Subjects: Mathematics – Juvenile literature.
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A mathematical passage : strategies for promoting inquiry in grades 4-6 / Whitin, David J. Cox, Robin.
Portsmouth, NH: Heinemann, 2003.
Subjects: Mathematics – Study and teaching (Elementary). Mathematics – Study and teaching (Middle school). Inquiry (Theory of knowledge). Questioning.
Summary: This book provides a framework for developing critical thinking and inquiry learning in the exploration of mathematical concepts. It includes examples of activities that facilitate interdisciplinary connections, suggestions for extending students' mathematical thinking through conversation, strategies for organizing math workshops for students, and ideas of how to use math journals as assessment tools to gauge students' understanding of mathematical concepts.

510 M431
MathLinks 9 : student book / McAskill, Bruce.
Toronto, ON: McGraw-Hill, 2009.
Subjects: Mathematics.
Summary: The student resource introduces topics in real-world contexts and provides the students with a list of what you will learn, key words, and literacy links. The Check Your Understanding section includes questions for practising, applying, and extending student understanding of the concepts.

510 H791
Mental math in junior high / Hope, Jack A.
Palo Alto, CA: Dale Seymour, 1988.
Subjects: Mathematics – Study and teaching.

Summary: This resource presents strategies for teaching mental mathematics. It focuses on more difficult mental calculations with whole numbers. Students learn techniques such as searching for compatibles, tacking on trailing zeros, and front end multiplying.

<u>Navigations Series</u>

512 N325
Navigating through algebra in grades 9-12 / Burke, Maurice.
Reston, VA: National Council of Teachers of Mathematics, 2001.
Subjects: Algebra – Study and teaching (Secondary).
Summary: This book focuses on algebra as a language of process, expands the notion of variable, develops ideas about the representation of functions, and extends students' understanding of algebraic equivalence and change. In the activities, students apply properties of functions by using median salary data, explore the meaning of equivalent equations, and use recursive or iterative forms to represent relationships.

372.7 N325
Navigating through probability in grades 9-12 / Shaughnessy, Michael.
Reston, VA: National Council of Teachers of Mathematics, 2004.
Subjects: Mathematical statistics – Study and teaching (Secondary). Probabilities – Study and teaching (Secondary).
Summary: This book assists high school teachers in honing their students' thinking by introducing them to two approaches to probability and exploring both approaches in real-world contexts. The first approach, which interprets probability as relative frequency over the long run, uses actual or simulated data from many experiments to arrive at empirical probabilities. The second approach analyzes outcomes abstractly to arrive at theoretical probabilities.

510 N425
Nelson math focus 9 : student text / Small, Marian.
Nelson mathfocus. 9 : teacher's resource / Small, Marian
Toronto, ON: Thomson/Nelson, 2010.
Subjects: Mathematics.
Summary: The student textbook includes Frequently Asked Questions in every chapter to help students and parents; lots of opportunities to check understanding before, during, and after the lesson; and two glossaries - one with instructional words and the other with mathematical words.

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Out of the labyrinth : setting mathematics free / Kaplan, Robert. Kaplan, Ellen
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Subjects: Mathematics – Study and teaching.
Summary: Written as a guide for parents and educators, this book argues that math should be taught as the highest form of intellectual play rather than as a step-by-step acquisition of skills and facts. The authors emphasize that math is meant to be explored and savoured, and that it does not require special talent or ability.

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Summary: Through study and analysis of patterns, this resource provides support for building logical understanding of relations, linear and nonlinear functions, and function rotation. Authentic

applications are posed in the suggested activities, discussions, journal topics, and homework assignments.

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Pearson math makes sense 9 : student text / Baron, Lorraine.
Pearson math makes sense 9 : proguide
Toronto, ON: Pearson Education Canada, 2008.
Subjects: Mathematics – Textbooks.
Summary: The student resource includes literature selections, practice pages, letters to parents, and tear-out Math at Home pages. This resource identifies a Math Focus (goals) and Home Connection (ways to help at home) for each lesson.

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Perspectives on Indigenous people of North America / Hankes, Judith Elaine. Fast, Gerald R. (Eds.).
Reston, VA: National Council of Teachers of Mathematics, 2002.
Subjects: Indians of North America – Education. Mathematics – Study and teaching – Social aspects. Mathematical ability.
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Summary: This resource for teachers focuses on strategies to help students develop a deeper understanding of mathematical language and to enable them to use it when describing mathematical concepts and relationships across the strands. Concrete examples illustrate how teachers can promote mathematical understanding and reflection through discourse, writing, and the use of vocabulary in context.

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Summary: The emphasis of this resource is on teaching for deep understanding of mathematical concepts. Using classroom examples, teachers are shown how to extend students' thinking to help them integrate and connect new knowledge with previous understanding.

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Uncovering student thinking in mathematics : grades 6-12 / Rose, Cheryl M. Arline, Carolyn.
Thousand Oaks, CA: Corwin, 2008.
Subjects: Mathematics – Study and teaching (Middle school). Mathematical ability – Testing.
Summary: The authors provide 30 formative assessment probes to reveal common understandings and misunderstandings in student thinking. This book: discusses standards, research results, and practical craft knowledge; describes the purpose, structure, and development of mathematics assessment probes; helps teachers build on students' current understandings while addressing their identified difficulties; and offers examples of the faulty thinking students are likely to exhibit and typical obstacles they may encounter.

512 V217
A visual approach to functions / Van Dyke, Frances.
Emeryville, CA: Key Curriculum Press, 2002.
Subjects: Graphic methods. Mathematics – Study and teaching (Secondary). Algebraic functions.
Algebra – Study and teaching (Secondary).
Summary: Consisting of individual lessons with blackline masters and teacher notes, this resource introduces linear, exponential, and quadratic functions encountered in algebra. Each chapter features a graph and a series of statements describing a function that is explored prior to the introduction of tables or algebraic notation. Subsequent chapter lessons introduce coordinates, quantitative graphs, and tables. Ideas for incorporating graphing calculators are included at the end of each chapter.