

Mathematicians Are People Too Vol 1 Stories From The Lives Of Great Mathematicians

Grounded in theory and best-practices research, this practical text provides teachers with 40 strategies for using fiction and non-fiction trade books to teach in five key content areas: language arts and reading, social studies, mathematics, science, and the arts. Each strategy provides everything a teacher needs to get started: a classroom example that models the strategy, a research-based rationale, relevant content standards, suggested books, reader-response questions and prompts, assessment ideas, examples of how to adapt the strategy for different grade levels (K-2, 3-5, and 6-8), and ideas for differentiating instruction for English language learners and struggling students. Throughout the book, student work samples and classroom vignettes bring the content to life.

This practical, accessible resource will help future and practicing teachers integrate literature into their middle school or high school classrooms, while also addressing content area standards and improving the literacy skills of their students. Two introductory chapters are followed by five chapters that each cover a different genre: Chapter 3, Informational Books; Chapter 4, Fiction; Chapter 5, Biography, Autobiography, and Memoir; Chapter 6, Poetry; and Chapter 7, How-to and Hands-on Books. Each genre chapter consists of four parts: Part 1: Discusses the genre and how content area teachers can use books within that genre to further content learning and enhance literacy skills. Part 2: Offers hands-on instructional strategies and activities using literature, with activities for use in a variety of disciplines. Part 3: Presents individual author studies (three or four per chapter) with bibliographies and guidelines for using the authors' books in content area courses. Part 4: Features an annotated bibliography of specially selected children and young adult literature for that genre, organized by content area. The annotations provide information about the book, which can be used to prepare booktalks, and teaching ideas for using in a specific content area. Altogether these sections contain more than 600 annotated entries tabbed by subject area, including art, English/language arts, languages and culture, math and technology, music, PE/health, science, and social studies/history.

Tracing the development of mathematics from a biographical standpoint, Mathematics Frontiers: 1950 to the Present profiles innovators from the second half of the 20th century who made significant discoveries in both pure and applied mathematics. From John H. Conway, who helped complete the classification of all finite groups (and invented The Game of Life board game), to Stephen Hawking, who established the mathematical basis for black holes, to Fan Chung, who developed an encoding and decoding algorithm for cell phone calls, this lively survey of contemporary minds behind the math is ideal for middle and high school students seeking resources for research or general interest.

Do the new math standards have you scrambling? Have you been searching for pattern blocks, multilink cubes, prisms, tangrams, or puzzles to use in your next lesson? Do you want to know where to find the best calculators, math books, games, reproducibles, toys, or other math materials? You'll find math resources quickly and easily with Perry's new guide! Organized by such topics as problem solving, estimation, number sense and numeration, and geometry and spatial relationships, this book shows you where to find the manipulatives and materials you need to support the new NCTM standards. Each product is briefly described along with its classroom applications. Materials of exceptional quality and value are indicated. Even the addresses of publishers and suppliers are given. If you're looking for ways to make the implementation of the standards easier, you'll want this book. It's a great resource and a real time-saver!

The Essential Resource Guide for Homeschoolers, Parents, and Educators Covering Every Subject from Arithmetic to Zoology

Convergent Learning Experiences Prepare Students for the Real World—a World that is Not Divided Into Scientific Disciplines

Yearbook 2014, Association of Mathematics Educators

How to Help Your Child Love Math, Even if You Don't

The Mathematical Foundations of Music

The Complete Home Learning Sourcebook

From the reviews: "...one of the best textbooks introducing several generations of mathematicians to higher mathematics. ... This excellent book is highly recommended both to instructors and students." --Acta Scientiarum Mathematicarum, 1991

Looks at the history of mathematical discoveries and the lives of great mathematicians.

From 700 BCE to CE 1300, thousands of scholars from many different civilizations introduced mathematical ideas that established the foundations of arithmetic, number theory, algebra, geometry, and trigonometry, as well as the .

Lists all the resources needed to create a balanced curriculum for homeschooling—from preschool to high school level

ENC Focus

Mathematics Applied to Science

Guide to Math Materials

1950 to Present

How Not to Be Wrong

E-Hi Textbooks & Serials in Print, 2005

Traces the development of mathematics from its beginnings in Babylonia and ancient Egypt to the work of Riemann and Godel in modern times

Bestselling author and astrophysicist Mario Livio examines the lives and theories of history's greatest mathematicians to ask how—if mathematics is an abstract construction of the human mind—it can so perfectly explain the physical world. Nobel Laureate Eugene Wigner once wondered about “the unreasonable effectiveness of mathematics” in the formulation of the laws of nature. Is God a Mathematician? investigates why mathematics is as powerful as it is. From ancient times to the present, scientists and philosophers have marveled at how such a seemingly abstract discipline could so perfectly explain the natural world. More than that—mathematics has often made predictions, for example, about subatomic particles or cosmic phenomena that were unknown at the time, but later were proven to be true. Is mathematics ultimately invented or discovered? If, as Einstein insisted, mathematics is “a product of human thought that is independent of experience,” how can it so accurately describe and even predict the world around us? Physicist and author Mario Livio brilliantly explores mathematical ideas from Pythagoras to the present day as he shows us how intriguing questions and ingenious answers have led to ever deeper insights into our world. This fascinating book will interest anyone curious about the human mind, the scientific world, and the relationship between them.

If you read nothing else on managing people, read these definitive articles from Harvard Business Review. Managing people is fraught with challenges, even if you're a seasoned manager. HBR's 10 Must Reads on Managing People 2-Volume Collection provides enduring ideas and practical advice on managing people to help you handle these difficulties and maximize your employees' performance. Bringing together HBR's 10 Must Reads on Managing People, Vol. 1 and HBR's 10 Must Reads on Managing People, Vol. 2, this collection includes twenty articles selected by HBR's editors and features the indispensable article “Leadership That Gets Results” by Daniel Goleman. From timeless classics to the latest game-changing ideas from thought leaders Marcus Buckingham, W. Chan Kim, Renee Mauborgne, and more, HBR's 10 Must Reads on Managing People 2-Volume Collection will inspire you to: Tailor your management style to fit your people and organizational goals Give feedback the right way Support first-time managers Manage emotional culture on your team Push your people to collaborate and break silos Overcome organizational obstacles to effective management Manage up and across Manage your boss HBR's 10 Must Reads paperback series is the definitive collection of books for new and experienced leaders alike. Leaders looking for the inspiration that big ideas provide, both to accelerate their own growth and that of their companies, should look no further. HBR's 10 Must Reads series focuses on the core topics that every ambitious manager needs to know:

Leadership, strategy, change, managing people, and managing yourself. Harvard Business Review has sorted through hundreds of articles and selected only the most essential reading on each topic. Each title includes timeless advice that will be relevant regardless of an ever-changing business environment .

Refuting the accepted belief that mathematics is exact and infallible, the author examines the development of conflicting concepts of mathematics and their implications for the physical, applied, social, and computer sciences

The Development of Mathematics

Enhancing Adolescent Learning and Literacy: Enhancing Adolescent Learning and Literacy

ENC Focus Review

Mathematical Thought from Ancient to Modern Times: Volume 2

Teaching Children Mathematics

“Witty, compelling, and just plain fun to read . . .” —Evelyn Lamb, Scientific American
The Freakonomics of math—a math-world superstar unveils the hidden beauty and logic of the world and puts its power in our hands
The math we learn in school can seem like a dull set of rules, laid down by the ancients and not to be questioned. In How Not to Be Wrong, Jordan Ellenberg shows us how terribly limiting this view is: Math isn't confined to abstract incidents that never occur in real life, but rather touches everything we do—the whole world is shot through with it. Math allows us to see the hidden structures underneath the messy and chaotic surface of our world. It's a science of not being wrong, hammered out by centuries of hard work and argument. Armed with the tools of mathematics, we can see through to the true meaning of information we take for granted: How early should you get to the airport? What does “public opinion” really represent? Why do tall parents have shorter children? Who really won Florida in 2000? And how likely are you, really, to develop cancer? How Not to Be Wrong presents the surprising revelations behind all of these questions and many more, using the mathematician's method of analyzing life and exposing the hard-won insights of the academic community to the layman—minus the jargon. Ellenberg chases mathematical threads through a vast range of time and space, from the everyday to the cosmic, encountering, among other things, baseball, Reaganomics, daring lottery schemes, Voltaire, the replicability crisis in psychology, Italian Renaissance painting, artificial languages, the development of non-Euclidean geometry, the coming obesity apocalypse, Antonin Scalia's views on crime and punishment, the psychology of slime molds, what Facebook can and can't figure out about you, and the existence of God. Ellenberg pulls from history as well as from the latest theoretical developments to provide those not trained in math with the knowledge they need. Math, as Ellenberg says, is “an atomic-powered prosthetic that you attach to your common sense, vastly multiplying its reach and strength.” With the tools of mathematics in hand, you can understand the world in a deeper, more meaningful way. How Not to Be Wrong will show you how.

Scientists and other keen observers of the natural world sometimes make or write a statement pertaining to scientific activity that is destined to live on beyond the brief period of time for which it was intended. This book serves as a collection of these statements from great philosophers and thought-influencers of science, past and present. It allows the reader quickly to find relevant quotations or citations. Organized thematically and indexed alphabetically by author, this work makes readily available an unprecedented collection of approximately 18,000 quotations related to a broad range of scientific topics.

Practical and entertaining maths for science, addressing the real world rather than dry theories.

During the 16th and 17th centuries, mathematicians developed a wealth of new ideas but had not carefully employed accurate definitions, proofs, or procedures to document and implement them. However, in the early 19th century, mathematicians began to recognize the need to precisely define their terms, to logically prove even obvious principles, and to use rigorous methods of manipulation. The Foundations of Mathematics presents the lives and accomplishments of 10 mathematicians who lived between CE 1800 and 1900 and contributed to one or more of the four major initiatives that characterized the rapid growth of mathematics during the 19th century: the introduction of rigor, the investigation of the structure of mathematical systems, the development of new branches of mathematics, and the spread of mathematical activity throughout Europe. This readable new volume communicates the importance and impact of the work of the pioneers who redefined this area of study.

Text Sets

Methods of Mathematical Physics

Math Teacher's Survival Guide: Practical Strategies, Management Techniques, and Reproducibles for New and Experienced Teachers, Grades 5-12

The Birth of Mathematics

Gaither's Dictionary of Scientific Quotations

Resources to Support the NCTM Standards

Written by educators from diverse experiences, Text Sets: Multimodal Learning for Multicultural Students provides ready-to-use multicultural text sets complete with annotations, instructional activities, and multimedia tools, as well as a framework for building and using new sets.

Time-honored study by a prominent scholar of mathematics traces decisive epochs from the evolution of mathematical ideas in ancient Egypt and Babylonia to major breakthroughs in the 19th and 20th centuries. 1945 edition.

Cheryl Beaver, Laurie Burton, Maria Fung, Klay Kruczek, editors—Cover.

From one of the greatest minds in contemporary mathematics, Professor E.T. Bell, comes a witty, accessible, and fascinating look at the beautiful craft and enthralling history of mathematics. Men of Mathematics provides a rich account of major mathematical milestones, from the geometry of the Greeks through Newton's calculus, and on to the laws of probability, symbolic logic, and the fourth dimension. Bell breaks down this majestic history of ideas into a series of engrossing biographies of the great mathematicians who made progress possible—and who also led intriguing, complicated, and often surprisingly entertaining lives. Never pedantic or dense, Bell writes with clarity and simplicity to distill great mathematical concepts into their most understandable forms for the curious everyday reader. Anyone with an interest in math may learn from these rich lessons, an advanced degree or extensive research is never necessary.

Resources in Education

The History of Mathematics: A Source-Based Approach, Volume 2

Mathematics Frontiers

Valuing Communication in Mathematics Classrooms : Readings from NCMT's School-based Journals

Ancient Times To 1300

HBR's 10 Must Reads on Managing People 2-Volume Collection

Automated reasoning programs are successfully tackling challenging problems in mathematics and logic, program verification, and circuit design. This two-volume book includes all the published papers of Dr Larry Wos, one of the world's pioneers in automated reasoning. It provides a wealth of information for students, teachers, researchers, and even historians of computer science about this rapidly growing field.The book has the following special features:(1) It presents the strategies introduced by Wos which have made automated reasoning a practical tool for solving challenging puzzles and deep problems in mathematics and logic;(2) It provides a history of the field — from its earliest stages as mechanical theorem proving to its broad base now as automated reasoning;(3) It illustrates some of the remarkable successes automated reasoning programs have had in tackling challenging problems in mathematics, logic, program verification, and circuit design;(4) It includes a CD-ROM, with a searchable index of all the papers, enabling readers to peruse the papers easily for ideas.

For years, Christian math books have looked basically like secular textbooks, with the addition of a Bible verse here or there. Here, at last, is a book to help you transform your math class and show your child God's handiwork in math! Revealing Arithmetic will help you: Teach math from a biblical worldview. Worship the Lord in math. Help your child really understand concepts. Train your child to think mathematically. Transform everyday activities and objects into math lessons. Teach your child to use math as a real-life tool. Explore historical methods and symbols. This book is designed for homeschool parents needing a simple math guide to use alongside their curriculum and help them teach arithmetic to elementary students, older students needing a review of math basics before moving on to advanced mathematics, or Christian school or co-op teachers (or future teachers) wanting ideas on how to modify the curriculum to better reveal the truth of a Creator God.

A commonsense, self-contained introduction to the mathematics and physics of music; essential reading for musicians, music engineers, and anyone interested in the intersection of art and science. "Mathematics can be as effortless as humming a tune, if you know the tune," writes Gareth Loy. In Musimatics, Loy teaches us the tune, providing a friendly and spirited tour of the mathematics of music—a commonsense, self-contained introduction for the nonspecialist reader. It is designed for musicians who find their art increasingly mediated by technology, and for anyone who is interested in the intersection of art and science. In Volume 1, Loy presents the materials of music (notes, intervals, and scales); the physical properties of music (frequency, amplitude, duration, and timbre); the perception of music and sound (how we hear); and music composition. Calling himself "a composer seduced into mathematics," Loy provides answers to foundational questions about the mathematics of music accessibly yet rigorously. The examples given are all practical problems in music and audio. Additional material can be found at http://www.musimatics.com.

Far from a run-of-the-mill readings book, Getting into the Mathematics Conversation is an outstanding compendium of the very best of the NCTM school journals' offerings on the broad subject of communication in the mathematics classroom. It spans all grade levels and targets all communication forms - listening and speaking, reading, writing, and multiple forms - that a teacher might wish to develop in students.

Multimodal Learning for Multicultural Students

Learning Experiences to Promote Mathematics Learning

Mathematics

Musimatics, Volume 1

Is God a Mathematician?

This sixth volume, in the series of yearbooks by the Association of Mathematics Educators in Singapore, entitled Learning Experiences to Promote Mathematics Learning is unique in that it focuses on a single theme in mathematics education. The objective is for teachers and researchers to advance the learning of mathematics through meaningful experiences. Several renowned international and Singapore scholars have published their work in this volume. The fourteen chapters of the book illustrate evidence-based practices that school teachers and researchers can experiment with in their own classrooms to bring about meaningful learning outcomes. Three broad themes, namely fundamentals for active and motivated learning, learning experiences for developing mathematical processes, and use of ICT tools for learning through visualizations, simulations and representations, shape the ideas in these chapters. The book makes a significant contribution towards the learning of mathematics. It is a good resource for mathematics teachers, educators and research students. Contents:It Matters How Students Learn Mathematics (Berinder)jeet KAUR)M_Crest: A Framework of

Motivation to Learn Mathematics (WONG Khooon Joong)Designing Learning Experiences for Effective Instruction in Secondary Mathematics (TOH Tin Lam)Providing Students' Authentic Learning Experience Through 3D Printing Technology (Oh Nam KWON, Jee Hyun PARK and Jung Sook PARK)What Do Teachers Need to Know to Teach Secondary Mathematics (Kin BESWICK)Defining, Extending, and Creating: Key Experiences in Mathematics (Yoshinori SHIMIZU)Teaching for Abstraction through Mathematical Learning Experiences (CHENG Lu Fien)Making Sense of Number Sense: Creating Learning Experiences for Primary Pupils to Develop Their Number Sense (EEO Kai Kow Joseph)Learning Experiences Designed to Develop Algebraic Thinking: Lessons From the ICCMS Project in England (Jeremy HODGEN, Dietmar KÜCHEMANN and Margaret BROWN)Learning Experiences Designed to Develop Multiplicative Reasoning; Using Models to Foster Learners' Understanding (Margaret BROWN, Jeremy HODGEN and Dietmar KÜCHEMANN)Learning Mathematical Induction Through Experiencing Authentic Problem Solving (TAY Eng Guan and TOH Pee Choon)Scaffolding and Constructing New Problems for Teaching Mathematical Proofs in the A-Levels (ZHAO Dongsheng)Learning Number in the Primary School Through ICT (Barry KISSANE)Learning Algebra and Geometry Through ICT (Marian KEMP) Readership: Graduate students, researchers, practitioners and teachers in mathematics. Key Features:Firstly it has a focused theme: Learning Experiences that Promote Mathematics Learning, which is of prime concern of mathematics educators in the 21st centurySecondly it is written by university scholars who work closely with classroom mathematics teachers thereby drawing on their research knowledge and classroom experiencesLastly, the book is rich resource, of tried and tested practical know-how of approaches that promote mathematics learning, for mathematics educators in Singapore schools and

elsewhereKeywords:Mathematics;Pedagogy;Learning Experiences;Singapore;Teachers;Instruction

The History of Mathematics: A Source-Based Approach is a comprehensive history of the development of mathematics. This, the second volume of a two-volume set, takes the reader from the invention of the calculus to the beginning of the twentieth century. The initial discoverers of calculus are given thorough investigation, and special attention is also paid to Newton's Principia. The eighteenth century is presented as primarily a period of the development of calculus, particularly in differential equations and applications of mathematics. Mathematics blossomed in the nineteenth century and the book explores progress in geometry, analysis, foundations, algebra, and applied mathematics, especially celestial mechanics. The approach throughout is markedly historiographic: How do we know what we know? How do we read the original documents? What are the institutions supporting mathematics? Who are the people of mathematics? The reader learns not only the history of mathematics, but also how to think like a historian. The two-volume set was designed as a textbook for the authors' acclaimed year-long course at the Open University. It is, in addition to being an innovative and insightful textbook, an invaluable resource for students and scholars of the history of mathematics. The authors, each among the most distinguished mathematical historians in the world, have produced over fifty books and earned scholarly and expository prizes from the major mathematical societies of the English-speaking world.

During the first half of the 20th century, mathematics became an international discipline that led to major advances in science and technology. Modern Mathematics: 1900 to 1950 provides an eye-opening introduction to those five historic decades by analyzing the advancement of the field through the accomplishments of 10 significant mathematicians. From David Hilbert and Emmy Noether, who introduced the infinite dimensional vector spaces and algebraic rings that bear their names, to Norbert Wiener, the founder of cybernetics, this in-depth volume is an excellent choice for libraries aiming to provide a range of resources covering the history of mathematics.

"Critically acclaimed and commercially successful, this resource helps parents overcome their residual math anxiety and assists them in showing children how to enjoy the subject and excel at it. Packed with useful information and instruction, the book features proven teaching techniques, games, and other activities. Suitable for home schoolers and other parents of children from preschool to age 10. 2006 edition"--

The Loss of Certainty

The Thirteen Books of Euclid's Elements

40 Strategies for K-8 Classrooms

Significant Figures

Resources for Preparing Middle School Mathematics Teachers

The Lives and Work of Great Mathematicians

Mathematicians are People, TooStories from the Lives of Great MathematiciansDale Seymour Publication

Classroom-tested strategies to help new and experienced math teachers thrive Math teachers must not only instruct their students in basic mathematical skills and concepts, they must also prepare them for standardized tests, provide instruction in the use of technology, and teach problem-solving and critical-thinking skills. At the same time, they must also manage their other responsibilities – taking attendance, planning, grading, record-keeping, disciplining, and communicating with parents and administrators. This book provides efficient and practical information on the management skills necessary to succeed in this most challenging profession. Offers realistic suggestions and strategies for planning and delivering effective math instruction Helps math teachers achieve excellence and continue to be enthusiastic and successful in their teaching careers Includes reproducible forms to help math teachers stay on top of everything they need to do The Math Teacher's Survival Guide contains a wealth of useful tools and strategies that can help any math teacher succeed in the classroom.

A celebrated mathematician traces the history of math through the lives and work of twenty-five pioneering mathematicians In Significant Figures, acclaimed mathematician Ian Stewart introduces the visionaries of mathematics throughout history. Delving into the lives of twenty-five great mathematicians, Stewart examines the roles they played in creating, inventing, and discovering the mathematics we use today. Through these short biographies, we get acquainted with the history of mathematics from Archimedes to Benoit Mandelbrot, and learn about those too often left out of the cannon, such as Muhammad ibn Musa al-Khwarizmi (c. 780-850), the creator of algebra, and Augusta Ada King (1815-1852), Countess of Lovelace, the world's first computer programmer. Tracing the evolution of mathematics over the course of two millennia, Significant Figures will educate and delight aspiring mathematicians and experts alike.

Mathematics and Science Across the Curriculum

Revealing Arithmetic

Getting Into the Mathematics Conversation

Men of Mathematics

Math Power

1800 to 1900