

## Visible Maths

Integrate interactive math presentations, build feature-rich quizzes, set online quizzes and tests, incorporate Flash games, and monitor student progress using the Moodle e-learning platform.

This must-have resource provides the theoretical groundwork for teaching number sense. Authored by Chris Shore, this e-book empowers teachers with the pedagogy, lessons, and detailed instructions to help them implement Clothesline Math in K-12 classrooms. Detailed, useful tips for facilitating the ensuing mathematical discourse are also included. At the elementary level, the hands-on lessons cover important math topics including whole numbers, place value, fractions, order of operations, algebraic reasoning, variables, and more. Implement Clothesline Math at the secondary level and provide students with hands-on learning and activities that teach advanced math topics including geometry, algebra, statistics, trigonometry, and pre-calculus. Aligned to state and national standards, this helpful resource will get students excited about learning math as they engage in meaningful discourse.

Going Beyond the Theory/Practice Divide in Early Childhood Education focuses on the use of pedagogical documentation as a tool for learning and transformation. Based on innovative research, the author presents new approaches to learning in early childhood education, shifting attention to the force and impact which material objects and artefacts can have in learning. Drawing upon the theories of feminist Karen Barad and philosophers Gilles Deleuze and Félix Guattari, Hillevi Lenz Taguchi discusses examples of how pens, paper, clay and construction materials can be understood as active and performative agents, challenging binary divides such as theory/practice, discourse/matter and mind/body in teaching and learning. Numerous examples from practice are explored to introduce an intra-active pedagogy. Methodological strategies for learning with children in preschools, and in teacher education, are brought to the fore. For example: the neighbourhood around the preschool and children's homes is explored, using drawing and construction-work on the floor; mathematics is investigated in teacher education, using the body, dance and music to investigate mathematical relationships and problems; taken-for-granted forms of academic writing are challenged by different forms of praxis- and experience-based writings that transgress the theory/practice divide; children, students and teacher educators use pedagogical documentation to understand their own learning, and to critique dominant habits of thinking and doing. Challenging the dominant understanding of 'inclusion' in educational contexts, and making 'difference' actively visible and positive, this book is rooted in the experiences, practices and words of teachers, teacher educators and student teachers. It will appeal to all those involved in early childhood education and also to those interested in challenging educational thinking and practices.

This instructional math framework provides an environment for mathematics that fosters mathematical thinking and understanding while meeting the needs of all students. This updated math resource takes an innovative approach to mathematics instruction and uses the same teaching philosophies for guided reading. Educators will learn how to effectively utilize small-group and whole-group instruction, manipulatives, math warm-ups, and Math Workshop to engage K-12 students in connecting mathematics to their own lives. Maximize the impact of your instruction with ideas for using ongoing assessment and differentiation strategies. This 2nd edition guided math resource provides practical guidance and sample lessons for grade level bands K-2, 3-5, 6-8, and 9-12. Promote a classroom environment of numeracy and mathematical discourse with this essential professional resource for K-12 math teachers!

### Anthem

Going Beyond the Theory/Practice Divide in Early Childhood Education

A practical guide to helping learners with numeracy difficulties

Practical Strategies for FE and Post-16 Tutors

Cases on Inquiry through Instructional Technology in Math and Science

### Inside Mathforum.org

*There exists a wealth of information about inquiry and about science, technology, engineering, and mathematics (STEM), but current research lacks meaningfully written, thoughtful applications of both topics.Cases on Inquiry through Instructional Technology in Math and Science represents the work of many authors toward meaningful discourse of inquiry used in STEM teaching. This book presents insightful information to teachers and teacher education candidates about using inquiry in the real classroom, case studies from which research suggests appropriate uses, and tangible direction for creating their own inquiry based STEM activities. Sections take the reader logically through the meaning of inquiry in STEM teaching, how to use technology in modern classrooms, STEM projects which successfully integrate inquiry methodology, and inquiry problem solving within STEM classrooms with the aim of creating activities and models useful for real-world classrooms.*

*Visible Maths Using representations and structure to enhance mathematics teaching in school**Known House Publishing Ltd*

*Seeing is believing with this interactive approach to math instruction: Do you ever wish your students could read each other's thoughts? Now they can—and so can you! This newest book by veteran mathematics educators provides instructional strategies for maximizing students' mathematics comprehension by integrating visual thinking into the classroom. Included are numerous grade-specific sample problems for teaching essential concepts such as number sense, fractions, and estimation.*

*Among the many benefits of visible thinking are: Interactive student-to-student learning Increased class participation Development of metacognitive thinking and problem-solving skills*

*Learn how to incorporate rigorous activities in your math or science classroom and help students reach higher levels of learning. Expert educators and consultants Barbara R. Blackburn and Abigail Armstrong offer a practical framework for understanding rigor and provide specialized examples for middle and high school math and science teachers. Topics covered include: Creating a rigorous environment High expectations Support and scaffolding Demonstration of learning Assessing student progress Collaborating with colleagues The book comes with classroom-ready tools, offered in the book and as free eResources on our website at [www.rouledge.com/9781138302716](http://www.rouledge.com/9781138302716).*

*How to perform fast calculation in head without a calculator*

*What Works Best to Optimize Student Learning*

*A Cultural History of Reforming Math for All*

*Imagine Math 3*

*How to use thinking skills to help students make sense of mathematical concepts and support numeracy development*

*Burden of Proof: Using Known Concepts to Reveal Eternal Truths*

*Visible Maths*

*The latest magnificent creation from the award-winning author of Cryptonomonicon and the Baroque Cycle trilogy, Erasmus, 'Raz', is a young avout living in the Concert, a sanctuary for mathematicians, scientists, and philosophers. Three times during history's darkest epochs, violence has invaded and devastated the cloistered community. Yet the avout have always managed to adapt in the wake of catastrophe. But they now prepare to open the Concert's gates to the outside world, in celebration of a once-a-decade rite. Suddenly, Erasmus finds himself a major player in a drama that will determine the future of his world - as he sets out on an extraordinary odyssey that will carry him to the most dangerous, inhospitable corners of the planet...and beyond.*

*'900+ practice problems in book and online'-Cover*

*While many accept that math is a universal, culturally indifferent subject in school, this book demonstrates that this is anything but true. Building off of a historically conscious understanding of school reform, Diaz makes the case that the language of mathematics, and the symbols through which it is communicated, is not merely about the alleged cultural indifference of mathematical thinking; rather, mathematical teaching relates to historical, cultural, political, and social understandings of equality that order who the child is and should be. Focusing on elementary math for all education reforms in America since the mid-twentieth century, Diaz offers an alternative way of thinking about the subject that recognizes the historical making of contemporary notions of inequality and difference.*

*Rich talks, collaborative work, number talks, problem-based learning, direct instruction...with so many possible approaches, how do we know which ones work the best? In Visible Learning for Math, six acclaimed educators assert it's not about which one—it's about when—and show you how to design high-impact instruction so all students demonstrate more than a year's worth of mathematics learning for a year spent in school. That's a high bar, but with the amazing K-12 framework here, you choose the right approach at the right time, depending upon where learners are within three phases of learning: surface, deep, and transfer. This results in "visible" learning because the effect is tangible. The framework is forged out of current research in mathematics combined with John Hattie's synthesis of more than 15 years of education research involving 300 million students. Chapter by chapter, and equipped with video clips, planning tools, rubrics, and templates, you get the inside track on which instructional strategies to use at each phase of the learning cycle: Surface learning phase: When—through carefully constructed experiences—students explore new concepts and make connections to procedural skills and vocabulary that give shape to developing conceptual understandings. Deep learning phase: When—through the solving of rich high-cognitive tasks and rigorous discussion—students make connections among conceptual ideas, form mathematical generalizations, and apply and practice procedural skills with fluency. Transfer phase: When students can independently think through more complex mathematics, and can plan, investigate, and elaborate as they apply what they know to new mathematical situations. To equip students for higher-level mathematics learning, we have to be clear about where students are, where they need to go, and what it looks like when they get there. Visible Learning for Math brings about powerful, precision teaching for K-12 through intentionally designed guided, collaborative, and independent learning.*

*Modeling Mathematical Ideas*

*Great Math Tricks*

*Geometric and Harmonic Analysis on Homogeneous Spaces and Applications*

*Between Culture and Mathematics*

*Education for Mathematics in the Workplace*

*How Math Works*

*TUC 2015, Monastir, Tunisia, December 18-23*

Focus on “moving” the teaching and learning of mathematics by shifting instruction and assessment practices. This unique book uses critical thinking skills – inferring and interpreting, analyzing, evaluating, making connections, synthesizing, reasoning and proving, and reflecting – to help students make sense of mathematical concepts and support numeracy.

"This book speaks to me as one of those texts that will become seminal in mathematics education. It is original, refreshing, and despite a complicated plot, points to some ways forward. It is engagingly written, if at times perhaps a little bit no-nonsense in tone. It will be of interest to teachers and teacher educators, as well as providing a theoretical stance that should inform future research." Review from BERJ, 2007 The study of mathematics, together with other 'gendered' subjects such as science and engineering, usually attracts more male than female pupils, particularly at more advanced levels. In this book Heather Mendick explores this phenomenon, addressing the important question of why more boys than girls choose to study mathematics. She combines new research with an original theoretical approach to argue that 'doing mathematics is doing masculinity'. The book illuminates what studying mathematics means for both students and teachers and offers a broad range of insights into students' views and practices. In addition to the words of young people learning mathematics, the masculinity of mathematics is explored through historical material and cinematic representations. Heather Mendick discusses the ways in which the alignment of mathematics with masculinity creates tensions for girls and women doing the subject. These tensions are sensitively explored through interviews with young men and women, to show how doing mathematics fits or conflicts with their gender identities. Finally, the book explores the implications for teachers, including ways to promote gender equity in mathematics education. This is key reading for students on courses in gender and education, mathematics education, gender and curriculum, and social justice.

Imagine mathematics, imagine with the help of mathematics, imagine new worlds, new geometries, new forms. This volume in the series "Imagine Math" casts light on what is new and interesting in the relationships between mathematics, imagination and culture. The book opens by examining the connections between modern and contemporary art and mathematics, including Linda D. Henderson's contribution. Several further papers are devoted to mathematical models and their influence on modern and contemporary art, including the work of Henry Moore and Hiroshi Sugimoto. Among the many other interesting contributions are an homage to Benoît Mandelbrot with reference to the exhibition held in New York in 2013 and the thoughts of Jean-Pierre Bourguignon on the art and math exhibition at the Fondation Cartier in Paris.

An interesting part is dedicated to the connections between math, computer science and theatre with the papers by C. Bardainne and A. Mondot. The topics are treated in a way that is rigorous but captivating, detailed but very evocative. This is an all-embracing look at the world of mathematics and culture.

From ancient mathematicians to modern trailblazers, join television legend Johnny Ball on an incredible and exciting adventure as he teaches you maths! Numbers are used in everyday life for many vital functions, from making scientific breakthroughs to equally dividing that last piece of pie. Mathematics need not be seen as a dull subject, and this book will help you see exactly that. Adding a fun and wonderful twist to regular modes of learning, Mathmagicians will give you puzzles to solve, conundrums to crack, and cool tricks to show off to friends.

Using fascinating experiments, funky illustrations, and easy-to-follow language, the book narrates the story of how the field of mathematics developed, and shows you why the world cannot function without it. What makes Pi one of the weirdest numbers in the world? How can you weigh your head without chopping it off? How can you build your own cool sundial? Find answers to these questions and much more as you go about becoming a whizz with numbers. Flip through the bright and colourful pages of Mathmagicians to discover how numbers enable us to explore, plan, and build just about everything.

Math, Grade 2

Teaching Mathematics in the Visible Learning Classroom, Grades 3-5

Moodle 1.9 Math

Online + Book

A Guide to Grade School Arithmetic for Parents and Teachers

The Trouble with Maths

Mathmagicians

*Any high school student preparing for the American Mathematics Competitions should get their hands on a copy of this book! A major aspect of mathematical training and its benefit to society is the ability to use logic to solve problems. The American Mathematics Competitions (AMC) have been given for more than fifty years to millions of high school students. This book considers the basic ideas behind the solutions to the majority of these problems, and presents examples and exercises from past AMC exams to give some insight into how to solve the problems. The book also shows how different kinds of mathematical conversations and interactions become possible through the digital media. Unlike many other educational uses of digital media, the Math Forum's community has provided online resources and sustained support for teachers and students, and it leads the way in showing the power of digital media for education.*

*Now in third edition, with updates to reflect developments in our understanding of learning difficulties in maths, this award-winning text provides vital insights into the often confusing world of numeracy. By looking at learning difficulties in maths and dyscalculia from several perspectives, including the vocabulary and language of maths, thinking styles and the demands of individual procedures, this book provides a complete overview of the most frequently occurring problems associated with maths teaching and learning. Drawing on tried-and-tested methods based on research and Steve Chinn's years of classroom experience, it provides an authoritative yet accessible one-stop classroom resource. Combining advice, guidance and practical activities, this user-friendly guide will help you to: develop flexible thinking styles use alternative strategies to replace an over-reliance on rote learning for pupils trying to access basic facts understand the implications of underlying skills, such as working memory, on learning implement effective pre-emptive measures before demotivation sets in recognise the manifestations of maths anxiety and tackle affective domain problems find approaches to solve word problems select appropriate materials and visual images to enhance understanding. With useful features such as checklists for the evaluation of books and a comprehensive overview of resources, this book will equip you with essential skills to help you tackle your pupils' maths difficulties and improve standards. This book will be useful for all teachers, classroom assistants, learning support assistants and parents.*

*Teaching Maths to Pupils with Different Learning Styles*

*GMAT Foundations of Math*

*EBOOK: Masculinities in Mathematics*

*Developing Strategic Competence in Elementary and Middle School*

*The Paradox of Making Inequality*

*Moving Math*

*3D graphics, machine learning, and simulations with Python*

This book provides the latest competing research results on non-commutative harmonic analysis on homogeneous spaces with many applications. It also includes the most recent developments on other areas of mathematics including algebra and geometry. Lie group representation theory and harmonic analysis on Lie groups and on their homogeneous spaces form mathematical research. These areas are interrelated with various other mathematical fields such as number theory, algebraic geometry, differential geometry, operator algebra, partial differential equations and mathematical physics. Keeping up with the fast development of this exciting area of research, Ali Baklouti (University of Sfax) and Takaaki Nomura (Kyushu University) have edited this book. The book looks at the strengths, and flaws, of each representation so that both primary and secondary school teachers of maths can make informed judgements about which representations will benefit their pupils. The exploration operation, and extends all the way through to how the representations apply to algebraic expressions and manipulations. As well as sharing his expert knowledge on the subject, Peter draws on relevant research and his own experience of using the representations in order to support teachers in understanding how these representations can be implemented effectively covering the key mathematical terms, as well as a chapter dedicated to answering some of the questions that may arise from the reading of the book. Furthermore, the accompanying diagrams and models are displayed in full colour to illustrate the conceptual takeaways and teaching techniques discussed. Suitable for teachers of maths in primary and secondary schools

"This book is about how to create invitations for young children to play with math ideas through art, literacy, and outdoor play. The focus of her book is really on math that occurs OUTSIDE of math time. How can we create space for children to play in our classrooms that builds on their own questions as well as the math they are studying in the curriculum? How can we create math that children feel like mathematical thinkers with valuable ideas from the very start? How can we create connections between math and children's lives so that they see math as creative and purposeful instead of just learning "school math"?--

How I Wish I Had Taught Maths

How to Teach Maths

MCAT Physics and Math Review 2020-2021

Clothesline Math: The Master Number Sense Maker

Understanding Learners' Needs

Primary Maths Teacher's Resource

3D Math Primer for Graphics and Game Development

Taking the reader on a wondrous journey through the invisible universe that surrounds us—a universe made visible by mathematics—Devlin shows us what keeps a jumbo jet in the air, explains how we can see and hear a football game on TV, allows us to predict the weather, and the behavior of the stock market, and the outcome of elections. Microwave ovens, telephone cables, children's toys, pacemakers, automobiles, and computers—all operate on mathematical principles. Far from a dry and esoteric subject, mathematics is a rich and living part of our culture.

How to Teach Maths challenges everything you thought you knew about how maths is taught in classrooms. Award-winning author Steve Chinn casts a critical eye over many of the long-established methods and beliefs of maths teaching. Drawing from decades of classroom experience and research, he shows how mathematics teaching across the whole ability range can be radically improved by learning from the successful methods and principles used by the bottom quartile of achievers: the outliers. Chinn guides readers through re-adjusting the presentation of maths to learners, considering learners' needs first, and explains the importance of securing early learning to create a conceptual foundation for later success. This highly accessible book uses clear diagrams and examples to support maths teachers through many critical issues, including the following: The context of maths education today Topics that cause students the most difficulty Effective communication in the mathematics classroom Addressing maths anxiety The perfect resource for maths teachers at all levels, this book is especially useful for those wanting to teach the foundations of mathematics in a developmental way to learners of all ages and abilities. It has the potential to change the way maths is taught forever.

A Simon & Schuster eBook. Simon & Schuster has a great book for every reader.

Modeling Mathematical Ideas combining current research and practical strategies to build teachers and students strategic competence in problem solving.This must-have book supports teachers in understanding learning progressions that addresses conceptual guiding posts as well as students' common misconceptions in investigating and discussing important mathematical ideas related to number sense, computational fluency, algebraic thinking and proportional reasoning. In each chapter, the authors opens with a rich real-world mathematical problem and presents classroom strategies (such as visible thinking strategies & technology integration) and other related problems to develop students' strategic competence in modeling mathematical ideas.

Using Lesson Observation to Improve Learning

Invitations to Play and Explore in the Early Childhood Classroom

First Steps for Math Olympians: Using the American Mathematics Competitions

Introducing an Intra-Active Pedagogy

Analysis of an Internet-Based Education Community

The Math Gene

Rigor in the 6–12 Math and Science Classroom

**Kaplan's MCAT Physics and Math Review 2020-2021 is updated to reflect the latest, most accurate, and most testable materials on the MCAT. A new layout makes our book even more streamlined and intuitive for easier review. You'll get efficient strategies, detailed subject review, and hundreds of practice questions—all authored by the experts behind the MCAT prep course that has helped more people get into medical school than all other major courses combined. Efficient Strategies and In-Depth Review High Yield badges indicate the most testable content based on AMC materials Concept summaries that boil down the need-to-know information in each chapter, including any necessary equations to memorize Chapter Profiles indicate the degree to which each chapter is tested and the testmaker content categories to which it aligns Charts, graphs, diagrams, and full-color, 3-D illustrations from Scientific American help turn even the most complex science into easy-to-visualize concepts Realistic Practice One-year online access to instructional videos, practice questions, and quizzes Hundreds of practice questions show you how to apply concepts and equations 15 multiple-choice "Test Your Knowledge" questions at the end of each chapter Learning objectives and concept checks ensure you're focusing on the most important information in each chapter Expert Guidance Sidebars illustrate connections between concepts and include references to more information, real-world tie ins, mnemonics, and MCAT-specific tips Comprehensive subject review written by top-rated, award-winning Kaplan instructors who guide you on where to focus your efforts and how to optimize your review. All material is vetted by editors with advanced science degrees and by a medical doctor. We know the test: The Kaplan MCAT team has spent years studying every MCAT-related document available, and our experts ensure our practice questions and study materials are true to the test**

*and exercises freely become I have never taught mathematics better, and my students have never learned more. I just wish I had known all of this twelve years ago."***Craig Barton is one of the UK's most respected teachers of mathematics. In his remarkable new book, he explains how he has delved into the world of academic research and emerged with a range of simple, practical, effective strategies that anyone can employ to save time and energy and have a positive impact on the long-term learning and enjoyment of students. Craig presents the findings of over 100 books and research articles from the fields of Cognitive Science, Memory, Psychology and Behavioural Economics, together with the conversations he has had with world renowned educational experts on his Mr Barton Maths Podcast, and subsequent experiments with his students and colleagues.**

**This resource book will help teachers with providing activities, practice and worksheets for students.**

**If people are endowed with a "number instinct" similar to the "language instinct" -- as recent research suggests -- then why can't everyone do math? In The Math Gene, mathematician and popular writer Keith Devlin attacks both sides of this question. Devlin offers a breathtakingly new theory of language development that describes how language evolved in two stages and how its main purpose was not communication. Devlin goes on to show that the ability to think mathematically arose out of the same symbol-manipulating ability that was so crucial to the very first emergence of true language. Why, then, can't we do math as well as we speak? The answer, says Devlin, is that we can and do -- we just don't recognize when we're using mathematical reasoning.**

**Joyful Math**

**Limit of a Discontinuous Function**

**Math for Programmers**

**Reflections on research, conversations with experts, and 12 years of mistakes**

**Visible Thinking in the K-8 Mathematics Classroom**

**Using representations and structure to enhance mathematics teaching in schools**

**The Language of Mathematics**

This book presents ways to perform fast calculations. Chapter 1 - Introduction. Chapter 2 – Time Table – This chapter presents the times table up to 25. Chapter 3 – Square – This chapter presents the squares of numbers up to 25. Then, it presents how square of numbers ending with 0, starting with 1 and ending with all 0's, comprising of all 1's, comprising of all 9's and ending with 5. Chapter 4 – Divisibility – This chapter presents ways to detect divisibility up to number 11.

Explore important mathematical concepts through hands-on coding. Purchase includes free PDF and ePub versions from Manning Publications. Filled with graphics and more than 300 exercises and mini-projects, this book unlocks the door to interesting – and lucrative! – careers in some of today's hottest fields. As you tackle the basics of linear algebra, calculus, and machine learning, you'll master the key Python libraries used to turn them into real-world software applications. Summary To score a job in data science, machine learning, computer graphics, and cryptography, you need to bring strong math skills to the party. Math for Programmers teaches the math you need to be these hot careers, concentrating on what you need to know as a developer. Filled with lots of helpful graphics and more than 200 exercises and mini-projects, this book unlocks the door to interesting – and lucrative! – careers in some of today's hottest programming fields. About the technology Skip the mathematical jargon: This one-of-a-kind book uses Python to teach the math you need to build games, simulations, 3D graphics, and machine learning algorithms. Discover how algebra and calculus come alive when you see them in code! What's inside Vector geometry for computer graphics Matrices and linear transformations Core concepts from calculus Simulation and optimization Image and audio processing Machine learning algorithms for regression and classification About the reader For programmers with basic skills in algebra. About the author Paul Orland is a programmer, software entrepreneur, and math enthusiast. He is co-founder of Tachyus, a start-up building predictive analytics software for the energy industry. You can find him online at [www.paulorland.com](http://www.paulorland.com). Table of Contents 1 Learning math with code PART 1 - VECTORS AND GRAPHICS 2 Drawing with 2D vectors 3 Ascending to the 3D world 4 Transforming vectors and graphics 5 Computing transformations with matrices 6 Generalizing to higher dimensions 7 Solving systems of linear equations PART 2 - CALCULUS AND PHYSICAL SIMULATION 8 Understanding rates of change 9 Simulating moving objects 10 Working with symbolic expressions 11 Simulating force fields 12 Optimizing a physical system 13 Analyzing sound waves with a Fourier series PART 3 - MACHINE LEARNING APPLICATIONS 14 Fitting functions to data 15 Classifying data with logistic regression 16 Training neural networks

An exploration of conceptual foundations and the practical applications of limits in mathematics, this text offers a relating to what the Customary limits cannot do over to generalized limits, which use "composite" values carrying sets of multiple values. It analyzes the idea of a generalized limit and explains to those for whom intuition (discontinuous) functions the definition of limit is generalized. The limit of discontinuous functions does not exist. However, it is possible for us to make it exist, as in the case of the mathematicians from the sixteenth century who introduced non-existing root of-1. Viewing the maths lesson as an opportunity for pupils to develop a deep understanding of mathematical concepts and relationships, rather than to follow fixed processes that lead to the 'answer', is increasingly recognized as the pinnacle of best practice in maths education. The exploration extends through to how the representations apply to complex expressions and manipulations. Visible Maths also includes a chapter dedicated to answering some of the questions that may arise from the reading of the book. Furthermore, the accompanying diagrams and models are displayed to illustrate the conceptual takeaways and teaching techniques discussed Suitable for teachers of maths in college settings. In addition to presenting the year's most memorable math writing, this must-have anthology includes Much of the research in generalized limits. This is a must-read for anyone interested in where math has taken us from - and where it is headed.

This book focuses on the most common areas for improvement in teaching, learning and assessment that are regularly identified in lesson observations, including beginning and ending lessons, differentiation, assessment for learning, giving feedback and effective questioning. Many of the observations about these key topics are not fully understood by teachers, who remain unclear about what can they can do to improve. Specifically written for use within vocational contexts, Sharrock helps you to fully understand these common areas for improvement, unpicks what good and poor practice might look like, and provides practical activities and strategies for you to use and adapt in your teaching. It therefore addresses the strong government drive to improve standards and the need to help FE colleges and other post-16 providers achieve this aim.

MCAT Physics and Math Review 2019-2020

900+ Practice Problems in Book and Online

How Maths Applies to Everything

A Teacher Toolkit

Visible Learning for Mathematics, Grades K-12

A Generalization for the Arbitrary Case

How Mathematical Thinking Evolved And Why Numbers Are Like Gossip

Math is a subject many people find intimidating. But many don't understand the history of math and how it came to be what it is today. Here, G. Arnell Williams illuminates, in plain and simple terms, how we got the math we use today, the math our children learn, and the math we struggle at times to explain.

Some pupils find even basic concepts in mathematics difficult to grasp so making lessons accessible to all can be challenging. This book provides practising teachers a range of approaches that can help struggling students. By following its advice, you can make maths visible and tangible - not something that just lies flat on the page. The book looks at different ways of teaching maths in order to stimulate pupils with different learning styles. It includes: ideas for lesson activities - suggestions for teaching visual ways to teach basic concepts - lots of practical advice and guidance. It will encourage you to use a variety of methods to teach the subject, showing ways to unlock mathematics for all your learners. This useful resource will appeal to maths teachers in primary and secondary schools, SENCOs and teaching assistants. Tandi Clausen-May is a Principal Researcher at the National Foundation for Educational Research, where she is responsible for the development of a range of curriculum and assessment materials. She contributes regularly to the Times Educational Supplement, and delivers popular workshops around the UK on teaching mathematics.

This timely volume raises issues concerning the nature of school mathematics and mathematics at work, and the challenges of teaching valuable mathematics in school and providing appropriate training for a variety of careers. It offers lively commentaries on important 'hot' topics; transferring knowledge and skill across contexts; 'authentic mathematics'; transparency of different types of assessment; and analyses of research methods.

Guided Math: A Framework for Mathematics Instruction Second Edition

Making the Invisible Visible