

Maths Story Time Nrich

The book contains blackline masters of stimulating activities in mathematics.._

A counting book featuring animals with different numbers of feet.

First published in the UK in 1978 by Jonathan Cape.

The book places particular emphasis on adult-initiated, number-focused activities and playful, challenging and sensitive teaching strategies for younger children. The strategies are based on research and work with practitioners, and are illustrated by children's own responses, such as number jokes. It covers key areas of mathematics, including number, shape and space, measures and problem solving, with appropriate common difficulties as well as suggested activities.

Higher Order Thinking with Thinkers Keys

Number

Working Systematically

Mouse Count

Sir Cumference and the First Round Table

Cambridge Primary Mathematics Stage 5 Teacher's Resource with CD-ROM

Ma has made a dozen delicious cookies. It should be plenty for her two children. But then the doorbell rings -- and rings and rings. Each ring of the doorbell brings more friends to share the delicious cookies Ma has made."Refreshing, enjoyable and unpredictable." --

School Library Journal. Also available in a Spanish-language edition, Llaman a la puerta.

A platypus, terrapin and gecko are all at knock down prices. The koalas are 9p a pair. A box of assorted brown things is only 20p. The rat with half his whiskers missing thinks he's the best bargain but what is behind that door ...? .

Jim climbs the beanstalk and discovers a toothless old giant who can no longer eat little boys.

Five in the tent! A camping trip with Maisy turns into a slapstick comedy of errors in this hilarious picture-book adventure (ages 2-5).

When Maisy sets off to go camping in the country, it's only natural that all her friends come along, too. But they soon find that pitching a tent is not an easy thing to do. Even if they do manage to keep the tent up, there's the matter of fitting them all in -- Maisy, Charley, Cyril, Tallulah, and finally, the huge elephant, Eddie. What a squeezey squish-squash! Good night, campers! Uh-oh-what's that popping sound?

Key Ideas in Teaching Mathematics

Teaching Mathematics 3-5: Developing Learning In The Foundation Stage

Understanding Children'S Mathematical Graphics: Beginnings In Play

Mathematical Challenges for Able Pupils in Key Stages 1 and 2

Anno's Counting Book

Problems That Unlock Student Thinking, 6-12

Key features include: --

The Maths Trails teacher books and CD-ROMs introduce, develop and enhance mathematical problem-solving skills.

'Generalising' is part of a series of mathematics enrichment titles developed by the NRICH team at Cambridge University. This Teacher's Guide details 15 problem solving activities arranged in a trail progressing in difficulty. Each activity focusses on a specific skill or strategy that develops a particular aspect of problem solving. Full supporting notes for teachers include clear links to the curriculum, useful questions, prompts and hints for students and possible outcomes for each activity. Links to similar problems on the NRICH website are given and students are encouraged to post their solutions on the site.

This up to date book is essential reading for all those teaching or training to teach primary mathematics. Problem solving is a key aspect of teaching and learning mathematics, but also an area where teachers and pupils often struggle. Set within the context of the new primary curriculum and drawing on research and practice, the book identifies the key knowledge and skills required in teaching and learning problem solving in mathematics, and examines how these can be applied in the classroom. It explores the issues in depth while remaining straightforward and relevant, emphasises the enrichment of maths through problem-solving, and provides opportunities for teachers to reflect on and further develop their classroom practice.

This bestseller is newly revised with updated statistics, new activities and completely new material on food security, energy and health. By shrinking the planet down to a village of just 100 people, children will discover how to grow up global and establish their own place in the world village.

Developing learning in the Foundation Stage

Maths Enrichment

Open Middle Math

Making Marks, Making Meaning

Jim and the Beanstalk

How Many Legs?

Appealing to everyone from college-level majors to independent learners, *The Art and Craft of Problem Solving*, 3rd Edition introduces a problem-solving approach to mathematics, as opposed to the traditional exercises approach. The goal of *The Art and Craft of Problem Solving* is to develop strong problem solving skills, which it achieves by encouraging students to do math rather than just study it. Paul Zeitz draws upon his experience as a coach for the international mathematics Olympiad to give students an enhanced sense of mathematics and the ability to investigate and solve problems.

This series is for maths teachers who want to develop their maths teaching skills. This book is for teachers and educators who want to develop their maths teaching skills where English is the language of instruction. It has been written by the international group of educators based at AIMSSEC, The African Institute for Mathematical Sciences Schools Enrichment Centre. The book provides practical classroom activities underpinned by sound pedagogy and recent research findings. The activities are designed for teachers working alone or in 'self-help' teachers' workshops. They are designed to develop mathematical

thinking and offer immediate practical tools to help deliver this approach. This series is endorsed by Cambridge International Examinations and is part of Cambridge Maths. From the award winning creators of Oi Frog! comes an hilarious counting picture book about our four-legged - and two-legged and eight-legged - friends! How many legs would there be if a polar bear came for tea? How high would the leg count go if a squid rode in on a buffalo? As more and more animals join in the fun, count along if you can! Praise for Oi, Frog! also by Kes Gray and Jim Field: 'An absolute treat.' - Daily Mail Kes Gray is a bestselling, multi award-winning author of more than 70 books for children. He eats Ideafakes for breakfast, spreads silliness on his toast and lives in a place called Different. Jim Field is a lead-driven, pencil-pushing, 25-frames-per-second Led Zeppelin fan. He is also a hugely talented illustrator and animation director. His first picture book Cats Ahoy! won the Roald Dahl Funny Prize. Oi Frog!, Oi Dog! and Oi Cat! are a top ten bestselling series. Oi Dog! was shortlisted for the Sainsbury's Children's Book Award and the British Book Awards in 2016, amongst others. It also won the Teach Primary New Children's Fiction Award, MadeForMums Award, Bishop's Stortford Picture Book Award and Portsmouth Picture Book Award. Oi Cat! was the Independent Booksellers Children's Book of the Season and Oi Goat! is a World Book Day book in 2018.

Maisy's Bus

How Families Can Learn Math Together—and Enjoy It

Would You Rather ...

Children's Mathematics

Understanding and Enriching Problem Solving in Primary Mathematics

Tabitha is worried about a special visitor coming to her school. "She wanted to impress the Head Witch but sometimes, her spells went wrong." When Tabitha comes up with a brainy idea, will she dazzle or disappoint? Find out in this fun story about magic and friendship. Download the full eBook and explore supporting teaching materials at www.twinkl.com/originals Join Twinkl Book Club to receive printed story books every half-term at www.twinkl.co.uk/book-club (UK only).

Every year, thousands of students go to university to study mathematics (single honours or combined with another subject). Many of these students are extremely intelligent and hardworking, but even the best will, at some point, struggle with the demands of making the transition to advanced mathematics. Some have difficulty adjusting to independent study and to learning from lectures. Other struggles, however, are more fundamental: the mathematics shifts in focus from calculation to proof, so students are expected to interact with it in different ways. These changes need not be mysterious - mathematics education research has revealed many insights into the adjustments that are necessary - but they are not obvious and they do need explaining. This no-nonsense book translates these research-based insights into practical advice for a student audience. It covers every aspect of studying for a mathematics degree, from the most abstract intellectual challenges to the everyday business of interacting with lecturers and making good use of study time. Part 1 provides an in-depth discussion of advanced mathematical thinking, and explains how a student will need to adapt and extend their existing skills in order to develop a good understanding of undergraduate mathematics. Part 2 covers study skills as these relate to the demands of a mathematics degree. It suggests practical approaches to learning from lectures and to studying for examinations while also allowing time for a fulfilling all-round university experience. The first subject-specific guide for students, this friendly, practical text will be essential reading for anyone studying mathematics at university.

This book is intended to help candidates prepare for entrance examinations in mathematics and scientific subjects, including STEP (Sixth Term Examination Paper). STEP is an examination used by Cambridge colleges as the basis for conditional offers. They are also used by Warwick University, and many other mathematics departments recommend that their applicants practice on the past papers even if they do not take the examination. Advanced Problems in Mathematics is recommended as preparation for any undergraduate mathematics course, even for students who do not plan to take the Sixth Term Examination Paper. The questions analysed in this book are all based on recent STEP questions selected to address the syllabus for Papers I and II, which is the A-level core (i.e. C1 to C4) with a few additions. Each question is followed by a comment and a full solution. The comments direct the reader's attention to key points and put the question in its true mathematical context. The solutions point students to the methodology required to address advanced mathematical problems critically and independently. This book is a must read for any student wishing to apply to scientific subjects at university level and for anybody interested in advanced mathematics.

The Maths Trails teacher books and CD-ROMs introduce, develop and enhance mathematical problem-solving skills.

'Working Systematically' is part of a series of mathematics enrichment titles developed by the NRICH team at Cambridge University. This Teacher's Guide details 18 problem solving activities arranged in a trail progressing in difficulty. Each activity focusses on a specific skill or strategy that develops a particular aspect of problem solving. Full supporting notes for teachers include clear links to the curriculum, useful questions, prompts and hints for students and possible outcomes for each activity. Links to similar problems on the NRICH website are given and students are encouraged to post their solutions on the site.

Excel at Problem Solving

Teaching Number Sense

Making Numbers

Maths for Mums and Dads

Advanced Problems in Mathematics: Preparing for University

Maisy Goes Camping

Making Numbers shares exemplars of good practice drawing on the latest research on using manipulatives to develop understanding of arithmetic. Focusing initially on the teaching of numbers from 1-12, Making Numbers progresses to 200 and beyond, including ideas for teaching partitioning, arrays, and times tables.

Whether driving over land or sailing across the sea, Maisy takes her friends all over the place in two shaped board books. It's a beautiful, sunny day, and Maisy knows just how to spend it - at the beach with her friends! Maisy arrives with her bus to pick up her pals. Cyril has food for the picnic, and Tallulah brings her pink float. After Charley and Eddie squeeze on board, it won't be long at all until they're at the seaside!

Join Sir Cumference, Lady Di of Ameter, and their son Radius for wordplay, puns, and problem solving in this geometry-packed

math adventure. King Arthur was a good ruler, but now he needs a good ruler. What would you do if the neighboring kingdom were threatening war? Naturally, you'd call your strongest and bravest knights together to come up with a solution. But when your conference table causes more problems than the threat of your enemy, you need expert help. Enter Sir Cumference, his wife Lady Di of Ameter, and their son Radius. With the help of the carpenter, Geo of Metry, this sharp-minded team designs the perfect table conducive to discussing the perfect plan for peace. The first in Sir Cumference series, Sir Cumference and the First Round Table makes math fun and accessible for everyone.

Part of the 'Rising Stars Maths' series, this title gives clear guidance on how to teach key problem solving and reasoning concepts so that pupils can use reasoning in every lesson.

The Doorbell Rang

Using Manipulatives to Teach Arithmetic

Extension Mathematics

Generalising

A Counting by Feet Book

Billy's Bucket

The Maths Trails teacher books and CD-ROMs introduce, develop and enhance mathematical problem-solving skills. 'Excel at Problem Solving' is part of a series of mathematics enrichment titles developed by the NRICH team at Cambridge University. This Teacher's Guide details 23 problem-solving activities arranged in a trail progressing in difficulty. Each activity focuses on a specific skill or strategy that develops a particular aspect of problem solving. The full supporting notes and CD-ROM for teachers include useful questions, prompts and hints for students and possible outcomes for each activity. Imagine that you assign a math problem and your students, instead of getting discouraged after not solving it on the first attempt, start working harder--as if on a quest to figure out the answer. They talk to each other and enthusiastically share their discoveries. What could possibly make this fantastic scenario come true? The answer is: the Open Middle math problems and strategies in this book. Open Middle Math by Robert Kaplinsky gives middle and high school teachers the problems and planning guidance that will encourage students to see mathematics in an entirely different light. These challenging and rewarding Open Middle math problems will help you see your students build genuine conceptual understanding, perseverance, and creativity. Inside, you'll learn how to: Implement Open Middle math problems that are simultaneously accessible for both students who are struggling and those looking for more challenge. Select and create Open Middle math problems that will help you detect students' misconceptions and strengthen their conceptual understanding. Prepare for and facilitate powerful classroom conversations using Open Middle math problems. Access resources that will help you continue learning beyond this book. With these practical and intuitive strategies, extensive resources, and Robert's own stories about his journey learning to use Open Middle math problems successfully, you will be able to support, challenge, and motivate all your students.

This is a practical anthology of some of the best elementary problems in different branches of mathematics. Arranged by subject, the problems highlight the most common problem-solving techniques encountered in undergraduate mathematics. This book teaches the important principles and broad strategies for coping with the experience of solving problems. It has been found very helpful for students preparing for the Putnam exam.

This text uses a balance of theory and practice to help teachers deal with the problems and issues they will encounter in mathematics teaching, including examples for use specifically in the classroom. This edition includes a new chapter on numbers in context, which includes some measuring and money related ideas.

Problem-Solving Through Problems

The Art and Craft of Problem Solving

A Book about the World's People

One Is a Snail, Ten Is a Crab Big Book

Maths Trails

Research-based Guidance for Ages 9-19

Ten mice outsmart a hungry snake.

International research is used to inform teachers and others about how students learn key ideas in higher school mathematics, what the common problems are, and the strengths and pitfalls of different teaching approaches. An associated website, hosted by the Nuffield Foundation, gives summaries of main ideas and access to sample classroom tasks.

*Looking for a practical maths guide to help with home schooling? Maths for Mums and Dads is the solution. Maths for Mums and Dads guides you through the basics of primary school maths and covers the dilemmas and problems you are likely to be confronted with, including: * number bonds, place value and decimals * long multiplication and division * fractions, percentages and decimals * basic geometry, shapes, symmetry and angles * data-handling, combinations and chance Complete with sample questions, mock exam papers and examples of children's errors, Maths for Mums and Dads will challenge and reassure in equal measure.*

This book is addressed to people with research interests in the nature of mathematical thinking at any level, to people with an interest in "higher-order thinking skills" in any domain, and to all mathematics teachers. The focal point of the book is a framework for the analysis of complex problem-solving behavior. That framework is presented in Part One, which consists of Chapters 1 through 5. It describes four qualitatively different aspects of complex intellectual activity: cognitive resources, the body of facts and procedures at one's disposal; heuristics, "rules of thumb" for making progress in difficult situations; control, having to do with the efficiency with which individuals utilize the knowledge at their disposal; and belief systems, one's perspectives regarding the nature of a discipline and how one goes about working in it. Part Two of the book, consisting of Chapters 6 through 10, presents a series of empirical studies that flesh out the analytical framework. These studies document the ways that competent problem solvers make the most of the knowledge at their disposal. They include observations of students, indicating some typical roadblocks to success. Data taken from students before and after a series of intensive problem-solving courses document the kinds of learning that can result from carefully designed instruction. Finally, observations made in typical high school classrooms serve to indicate some of the sources of students' (often counterproductive) mathematical behavior.

Beginnings in Play

A Magical Muddle

How to Study for a Mathematics Degree

The Great Pet Sale

Mathematical Problem Solving

Maths at Home

'An excellent introduction to number systems that is a beautiful wordless picture book as well. . . Over the course of a year (each picture represents a different month and time of day) a little town grows up with viewers witnessing the building of bridges, streets, and railroads. . . . Extraordinary lovely art work.' 'SLJ.

This book is aimed at gifted and talented students in year 7, although it can also be used in the primary curriculum for highly able year 6 students. It consists of tightly focused sets of problems, with each set devoted to core ideas from the Framework but approached in a way that cultivates more profound mathematical thinking. The book is structured into a number of sections, which comes in three varieties: tasters, core, and extensions, thus recognising differentiation within the gifted spectrum. The materials can be used within ordinary lessons for top sets.

Visit the author's own website here! Children's Mathematics Network 'In Case Study 5 (a grassroots 'Children's Mathematics Network group') the initiative supported the participants in their professional change by giving them a space for the detailed and joint consideration of children's mathematical thinking. Another significant feature of this initiative is its focus on careful consideration and analysis of children's mathematics, and the ways in which professionals can support and encourage the children's mathematical thinking and reasoning... The standard of the mathematical understanding, thinking and reasoning that the displays revealed was far higher than the specified curriculum objectives for children of this age...' - Researching Effective CPD in Mathematics Education (RECME) project: (NCETM, 2009) 'The review also plays great score by play-based learning of a mathematical nature, and makes specific recommendations regarding early mark-making as a precursor to abstract mathematical symbolism'. Section 115 features children's mathematical graphics and emphasises: 'The role of mark-making in children's cognitive development is set out in the taxonomy (Carruthers and Worthington, 2006)'. The report recommends that 'local authorities, leaders, managers and head teachers should provide a culture with a significant focus on mathematical mark-making' and 'a learning environment that encourages children to choose to use their own mathematical graphics to support their mathematical thinking and processes' - The Williams Maths Review: (DCSF, 2008) 'At the very heart of the success of the book is the authors' ability to see mathematics through young children's eyes by listening to and reflecting on the constant efforts made by children to make sense of their world. This is a liberating book which proposes that the teaching of mathematics could and should be a highly creative and enjoyable process' - Branwen Llewelyn Jones, Early Years Consultant at PACE Ltd / TACTYC 'Ground breaking... To single out any one chapter would be unfair because there is something thought-provoking and inspirational throughout. If you want to expand your understanding upwards and outwards then get a copy soon' - Times Educational Supplement 'I first read Children's Mathematics, Making Marks, Making Meaning a couple of years ago and it had an immediate impact on my own thinking and teaching, and the work I do with trainee teachers. I'm sure you will find it compelling reading too. I think it has the potential to change, in a fundamental way, how we think about early mathematical development' - Lynne McClure, Editor, Math Co-ordinator's File, Mathematics Association 'In their exceptionally readable and informative book, Children's Mathematics, Making Marks, Making Meaning Carruthers and Worthington (2006) draw attention to one of the main goals of early years teaching, that is, to help children make links between the mathematics they have already encountered (and continue to engage with) at home and the more abstract mathematics of the school. These authors suggest that by encouraging children to represent mathematical ideas in their own ways and, crucially, by talking to the pupils about the marks they have made, we are given a "window" onto their thinking that may otherwise be inaccessible' - Liz Pumphrey, NRICH This book draws on the authors' many years of teaching children aged three to eight years and also on their extensive research with children in the home, nursery and school. The authors explain the development and range of young children's mathematical marks and visual representations, showing how children make mental connections between their own early marks and subsequent abstract mathematical symbolism, and go on to develop their own written methods. Combining theory and practice, this acclaimed book demonstrates how children's own mathematical graphics are highly creative and show deep levels of thinking. The authors show how this is the key to success in school mathematics and to higher levels of achievement. The authors are winners of TACTYC's (2003) Jenefer Joseph Award for the Creative Arts (3 - 8) - awarded for their innovative work with children on mathematical graphics.

The Doorbell Rang Harper Collins

Engaging Maths

Let's Play Math

AIMSSEC Maths Teacher Support Series Mathematical Thinking in the Lower Secondary Classroom

Problem Solving and Reasoning

If the World Were a Village

Despite his parents' protests, Billy wants nothing for his birthday but a very special bucket and all goes well until the bucket is borrowed without his permission.