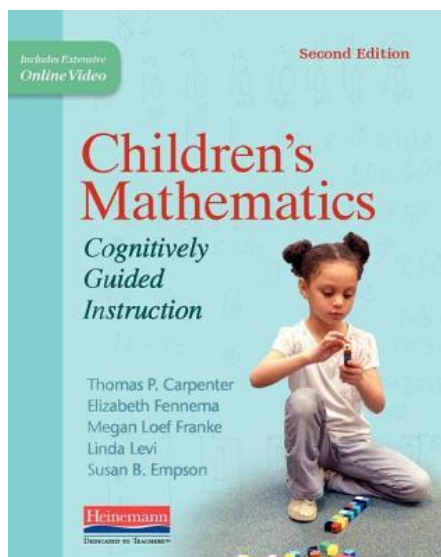




Children's Mathematics: Cognitively Guided Instruction

Thomas P. Carpenter , Elizabet Fennema , Megan L. Franke , Linda Levi , Susan B. Empson

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The bestselling first edition of *Children's Mathematics* helped hundreds of thousands of teachers understand children's intuitive mathematical thinking and use that knowledge to help children learn mathematics with understanding. The highly anticipated Second Edition provides new insights about Cognitively Guided Instruction based on the authors' research and experience in CGI classrooms over the last 15 years. Highlights include:

how children solve problems using their intuitive understanding of addition, subtraction, multiplication, and division the development of children's mathematical thinking throughout the primary grades instructional practices that promote children's active engagement in mathematics connections between children's strategies and powerful mathematical concepts A new expanded collection of over 90 online video episodes illustrating children's mathematical thinking, interactions between students and teachers, and classroom instruction that builds on children's mathematical thinking.

Together, the Second Edition and videos provide a detailed research-based account of the development of children's mathematical thinking and problem solving, and how teachers can promote this development in ways that honor children's thinking.

Save money when you buy all three books in the Cognitively Guided Instruction series together: *Children's Mathematics*, *Extending Children's Mathematics*, and *Thinking Mathematically*

Children's Mathematics: Cognitively Guided Instruction Details

Date : Published October 27th 2014 by Heinemann Educational Books (first published March 17th 1999)

ISBN : 9780325052878

Author : Thomas P. Carpenter , Elizabet Fennema , Megan L. Franke , Linda Levi , Susan B. Empson

Format : Paperback 240 pages

Genre : Education, Teaching, Science, Mathematics

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From Reader Review Children's Mathematics: Cognitively Guided Instruction for online ebook

Kelly Stuart sickle says

This is a must read for all teachers!!

Lori says

This is an excellent book for any teacher who wants to understand how math concepts progress developmentally in children. It serves as a guide to understand their thinking so instruction can match and move them forward. Excellent!

Katy says

Excellent resource for elementary math teachers, even beyond primary years.

Shon says

This book is a text book that teaches the reader how to teach math based on children's cognitive development. This book read like a text book; it made use of various math based terminology and examples. The book helped the reader to evaluate the way they view math and how it is taught. Some of the content was hard to understand, and needed a more concrete explanation from someone that had expertise in that field. The book is broken down into addition, subtraction, multiplication, and division which are broken down into sub categories. The book itself is not a difficult read, but some of the concepts are hard to grasp. Overall the book is extremely informative, and if read along with instruction and practice with the various methods, the book becomes easier to understand and digest. I believe the book achieves what it was set out to do, which is inform reader of cognitively guided math instruction. The book provides information to help you understand what that exactly cognitively guided instruction (CGI) is and how it benefits students, and it also gives step-by-step instructions on how to implement lessons in the classroom. The book has the feel of a instructional text and a manual. This is not a book I would use to teach a class, simply because I had a lot of difficulty understanding the text myself, and would not feel comfortable using this book as a teaching tool. However this book would be good when talking about the various ways information are presented in a text. This book provides information in a very formal manner, and there is not much that you can glean from the authors except that they are experts in this particular field. There is no sense of the authors actual personalities coming through the words in this book; you would not know if there was one author or 5 if they were not listed in the book.

Megan says

This book discusses the CGI strategy. The CGI strategy is to approach mathematics from a

discovery/problem solving angle. The goal is to get students to explore through metacognition and become life long problem solvers. CGI teachers prompt students to discover their own understanding of mathematics and apply these to problem solving.

Maya says

a little too basic, good for readers new to cognitively guided instruction

Sarah says

elemetary school mathematics with a freirian twist... think five-year-olds can't solve complex division problems? think again. but more importantly, here's a methodology that embraces non-hierarchical and anti-oppressive learning techniques.

when public school math education is typically about placing children into boxes, and when math knowledge is cultivated for the purposes of amassing capital and war technology, it is refreshing to be exposed to a framework that is about communal learning, disrupting authority, and children's empowerment. the text is not explicitly radical, but nevertheless has the potential to rock my future fourth grade classroom... i'll just have to tweak it a little bit here.... add a few gay penguins there...

Jamie says

This book should be required reading for all educators teaching math (and their coaches)! As children enter school, we typically see them using manipulatives to begin learning a concept and quickly move them into using standard algorithms. Carpenter et. al posit that, to truly have an understanding of numbers and mathematics we should tell stories and let children work through the phases of learning (with manipulatives, drawings, invented algorithms, and standard algorithms) at their own pace. Children who are given multiple opportunities to solve story problems in ways of their own choosing are better able to describe their actions and thinking, leading to better understanding. This is true of prekindergarten through high school-aged students. The authors show how students move along a continuum of learning from simple addition and subtraction stories, through an understanding of the base ten system, and into more advanced concepts such as multiplication and division. This book provides QR codes that link to video examples of the practices being described, as well as exercises to help teachers create their own math stories that are appropriate to their students' levels of learning.
