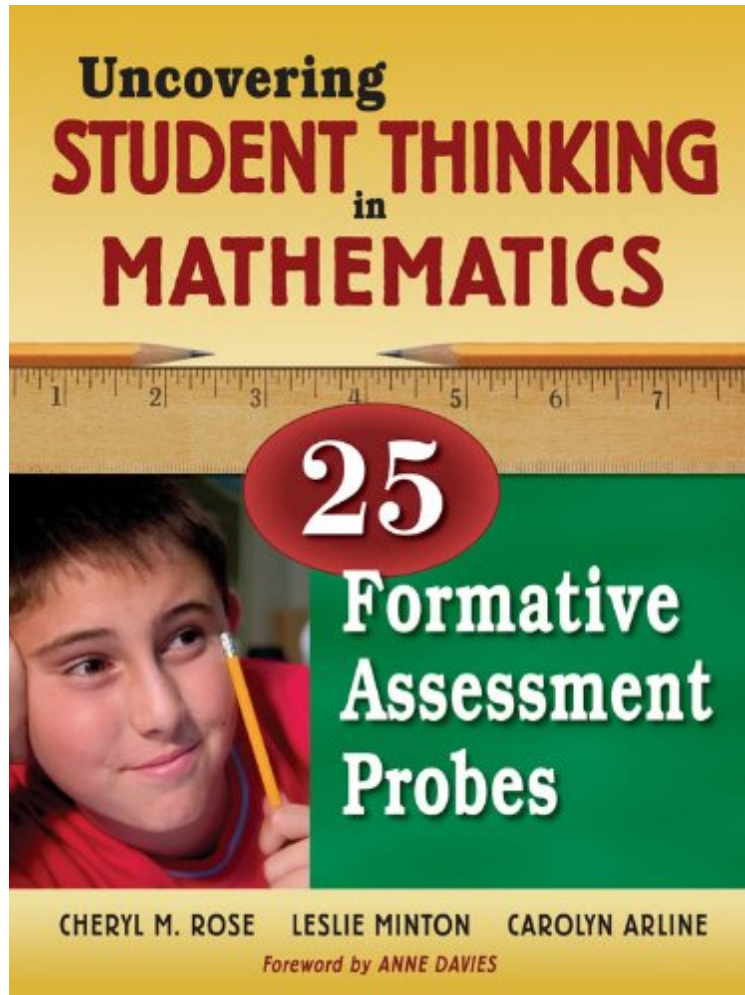


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## Uncovering Student Thinking in Mathematics: 25 Formative Assessment Probes

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**From Corwin : Uncovering Student Thinking in Mathematics: 25 Formative Assessment Probes** before purchasing it in order to gauge whether or not it would be worth my time, and all praised Uncovering Student Thinking in Mathematics: 25 Formative Assessment Probes:

8 of 8 people found the following review helpful. Excellent Assessment for Student Learning in Mathematics By Math E. Matters Uncovering Student Thinking in Mathematics: 25 Formative Assessment Probes is one of the best mathematics assessment books I have read! In addition to well-crafted assessments and alternative versions, the authors provide detailed information as to what conceptual or procedural gaps students may have based on distractor choices. The assessments can be used with all levels of students from kindergarten through high school. Gradeband scales associated with each assessment make it easy to determine when students would probably be introduced to skills covered by an assessment, and in what grade levels students usually still struggle with those skills. I found this

an easy book to read, and I would recommend this book to any teacher who wishes to increase usage of assessment for learning to determine next instructional steps for students. 10 of 12 people found the following review helpful. Activities designed to identify and correct such discrepancies. By Midwest Book Review Cheryl M. Rose, Leslie Minton and Carolyn Arline's UNCOVERING STUDENT THINKING IN MATHEMATICS offers teaches over twenty assessment strategies for identifying fallacies in students' preconceived ideas. These are mathematical probes which help teachers at all levels probe for conceptual understanding and common problems: chapters offer activities designed to identify and correct such discrepancies.

Appropriate for all grade levels, these 25 field-tested, easy-to-use mathematics assessment probes help teachers modify instruction by determining students' understanding of core mathematical concepts.

"This resource for K-12 mathematics educators is exactly what the title suggests: It contains 25 formative assessment probes that can be used to drive instruction. This book is easy to read and implement." -- Mathematics Teaching in the Middle School, February 2008, Vol. 13(6)"The probes in this book give teachers a basis for beginning assessments as well as a guide for assessing manipulatives and activities, not just paper-and-pencil tasks. The guide helps teachers understand student thinking and welcomes deeper understanding and mastery of topics. It is also easy to use with parents to show students' thinking and to justify grades." -- Teaching Children Mathematics, February 2008, Vol. 14(6)"A fresh and unique resource for mathematics teachers who recognize the importance of carefully establishing the starting points of instruction in terms of what students already know. The collection of assessment probes is inventive, engaging for students, and invaluable for teachers."--Richard H. Audet, Associate Professor (05/23/2006)"Shows us ways to listen and observe children and their mathematical understandings so we can find better ways to help them take their next learning steps. This book is a gift to educators who 'seek to understand before being understood.'--From the Foreword by Anne Davies (08/03/2006)This resource for K 12 mathematics educators is exactly what the title suggests: It contains 25 formative assessment probes that can be used to drive instruction. This book is easy to read and implement. --Mathematics Teaching in the Middle School, February 2008, Vol. 13(6) (03/06/2008)"The probes in this book give teachers a basis for beginning assessments as well as a guide for assessing manipulatives and activities, not just paper-and-pencil tasks. 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Audet, Associate Professor 2006-05-23)"Shows us ways to listen and observe children and their mathematical understandings so we can find better ways to help them take their next learning steps. This book is a gift to educators who prime;seek to

understand before being understood." (From the Foreword by Anne Davies 2006-08-03) This resource for 12 mathematics educators is exactly what the title suggests: It contains 25 formative assessment probes that can be used to drive instruction. This book is easy to read and implement. (Mathematics Teaching in the Middle School, February 2008, Vol. 13(6) 2008-03-06) The probes in this book give teachers a basis for beginning assessments as well as a guide for assessing manipulatives and activities, not just paper-and-pencil tasks. The guide helps teachers understand student thinking and welcomes deeper understanding and mastery of topics. It is also easy to use with parents to show students' thinking and to justify grades. (Teaching Children Mathematics, February 2008, Vol. 14(6) 2008-05-28)

**About the Author** Cheryl Rose Tobey is a senior mathematics associate at Education Development Center (EDC) in Massachusetts. She is the project director for Formative Assessment in the Mathematics Classroom: Engaging Teachers and Students (FACETS) and a mathematics specialist for Differentiated Professional Development: Building Mathematics Knowledge for Teaching Struggling Students (DPD); both projects are funded by the National Science Foundation (NSF). She also serves as a director of development for an Institute for Educational Science (IES) project, Eliciting Mathematics Misconceptions (EM2). Her work is primarily in the areas of formative assessment and professional development. Prior to joining EDC, Tobey was the senior program director for mathematics at the Maine Mathematics and Science Alliance (MMSA), where she served as the principal investigator of the mathematics section of the NSF-funded Curriculum Topic Study, and principal investigator and project director of two Title IIa state Mathematics and Science Partnership projects. Prior to working on these projects, Tobey was the principal investigator and project director for MMSA's NSF-funded Local Systemic Change Initiative, Broadening Educational Access to Mathematics in Maine (BEAMM), and she was a fellow in Cohort 4 of the National Academy for Science and Mathematics Education Leadership. She is the coauthor of six published Corwin books, including seven books in the Uncovering Student Thinking series (2007, 2009, 2011, 2013, 2014), two Mathematics Curriculum Topic Study resources (2006, 2012), and Mathematics Formative Assessment: 75 Practical Strategies for Linking Assessment, Instruction and Learning (2011). Before joining MMSA in 2001 to begin working with teachers, Tobey was a high school and middle school mathematics educator for ten years. She received her BS in secondary mathematics education from the University of Maine at Farmington and her MEd from City University in Seattle. She currently lives in Maine with her husband and blended family of five children.

**Leslie Minton** is currently a mathematics consultant for Math Matters 2, Portland, Maine. She is currently providing individualized mathematics professional development to area schools and districts PK-8, as well as, teaching Math Methods courses at the University of Southern Maine. Previously, Leslie was a Project Director for the Maine Mathematics and Science Alliance, Augusta, Maine. She provided technical assistance to schools as well as designed a professional development course and diagnostic materials designed to support numeracy understanding. She is a fellow of the second cohort group of Governor's Academy for Science and Mathematics Educators. She has taught regular and special education for grades 4-12. Leslie received her B.S. in elementary and special education from the University of Maine at Farmington and her M.Ed in curriculum, instruction and assessment from Walden University. Currently she is completing a M.Ed program, Educational Design and Media Technology, Full Sail University.

**Carolyn B. Arline** is a secondary mathematics educator, currently teaching high school students in Maine. Carolyn also works as a teacher leader in the areas of mathematics professional development, learning communities, assessment, systematic school reform, standards-based teaching, learning and grading, student-centered classrooms, and technology. She has previously worked as a mathematics specialist at the Maine Mathematics and Science Alliance (MMSA) and continues her work with them as a consultant. Carolyn is a fellow of the second cohort group of the Governor's Academy for Science and Mathematics Educators and serves as a mentor teacher with the current cohort. She participated as a mathematics mentor in the NSF-funded Northern New England Co-Mentoring Network (NNECN) and continues her role as a mentor teacher. She serves as a board member of the Association of Teachers of Mathematics in Maine (ATOMIM) and on local curriculum committees. Carolyn received her B.S. in secondary mathematics education from the University of Maine.