

MATHEMATICS

GRADE

LEVEL

TITLE

AUTHOR

Book

HIGH SCHOOL

K-12	Architecture in Education: The concepts in this program reflect three broad areas of study: perceptual, social and technological. This is a comprehensive approach to learning and forms the basis for the interdisciplinary, sequential character of the program.	Foundation of Architecture Philadelphia	M-51
9-12	Balanced Assessment for Mathematics This package offers a wide range of assessment tasks that allow students to demonstrate their ability to reason and communicate mathematically. Mathematics content covered is geometry; data analysis; statistics and probability; patterns, functions and algebra; and measurement and computation.	Dale Seymore Publishing	M-16 M-17
9-12	Developing and Applying Probability Concepts A professional development module developed with support from the Michigan Department of Education Goals 2000 Benchmarks Clarification Project – MI CLIMB in collaboration with Macomb ISD and the Michigan Council of Teachers of Mathematics.	Timothy Husband, Ph.D.	M-54
9-12	Every Minute Counts: Making Your Math Class Work Provides secondary teachers with ideas for engaging students for every minute of a math class.	David R. Johnson	M-43
9-12	Exploratory Problems in Mathematics Open-ended problems that introduce students to the creative side of mathematics. Offers problems that are specific yet have ample room for proper mathematical exploration.	Frederick W. Stevenson	M-2
K-9	Family Math Hands-on activities using household supplies that parents and their children can do to together to enhance mathematical skills.	Jean Kerr Stenmark, Virginia Thompson Ruth Cossey	M-42
4-9	Finding Your Bearings <i>Finding Your Bearings</i> contains activities that integrate geography, math, and science. Students problem solve as they study maps and globes through hands-on activities such as <i>Fire on the Mountain</i> , <i>Surf and Sand Toss</i> , <i>Global AdVENNtures</i> , <i>The Forecast for Today</i> , <i>Shrinking Boundaries</i> , <i>Navigating Numerically</i> , <i>Bird's Eye View</i> , <i>Physically Featured</i> , and <i>I've Got the World on a String</i> .	AIMS	M-22
9-12	From the Beginning A World of Story Problems Through Time This is a collection of classroom ready historical story problems whose origins are credited to notable mathematicians and philosophers.	David Buhl Robert McGinty	M-50
9-12	Groups and Symmetry Guides students to experiment with ideas relating to pattern and symmetry. Rich in exploratory mathematics, the book looks at the concepts applied in the real world, such as in wallpapers, nature, or art and architecture. All you need is enthusiasm and a knowledge of basic high school mathematics.	David W. Farmer	M-4

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3-12	Making the Connection	WEPAN	M-41
	<p>This unit has students design, build and test solutions to problems. The goal is for students to understand the basics of engineering associated with the construction and packaging of items to preserve, market, and safely deliver products; exploring energy conversions and needs; handling large system based problems; test a method of transferring information securely.</p>		
5-9	Math + Science , A Solution	AIMS	M-26
	<p><i>Math + Science. A Solution</i> consists of more than 25 innovative activities that integrate math and science. The investigations use a variety of readily available and easily understood materials from marbles and M&M's™ candies to old shoes and rubber balls and provides a great sampling of experiences that strengthen process skills.</p>		
5-12	The Mathematics of Microgravity	NASA	M-62
	<p>This publication identifies the underlying mathematics and physics principles that apply to microgravity.</p>		
6-10	Paper Folding – For the Mathematics Class	Donovan A. Johnson	M-10
	<p>Illustrated and loaded with hands -on activities that show how how to fold basic constructions and explores geometric concepts, circle relationships, products and factors, polygons, and much more.</p>		
5-12	Paper Square Geometry: The Mathematics of Origami	AIMS	M-36
	<p>This guide offers students a hands -on, discovery-based approach to learning geometry through origami. As they construct three-dimensional origami models, students will increase their spatial awareness, look at specific geometric concepts such as the properties of polyhedral, and create their own understanding of the imbedded mathematical concepts. Students will also be introduced to the language of mathematics as they learn to describe their discoveries using appropriate geometric terminology and notation. Includes 30 six -inch squares of paper in assorted colors.</p>		
6-9	Proportional Reasoning	AIMS	M-31
	<p>This guide includes activities which use interesting contexts to approach proportional reasoning. Proportional reasoning is a unifying idea that encompasses many mathematical subjects - ratios, proportions, percents, scale, similarity, linear functions, etc. This publication pursues these subjects not in isolation but through their connectedness.</p>		
3-12	Writing to Learn Mathematics	Joan Countryman	M-35
	<p>Writing to Learn Mathematics demonstrates the use of journals, learning logs, letters, etc. to improve the reasoning abilities of students of all grade levels. It can help students develop concepts and thinking skills as well as free them to recognize what they know and what they want to explore further about mathematics.</p>		