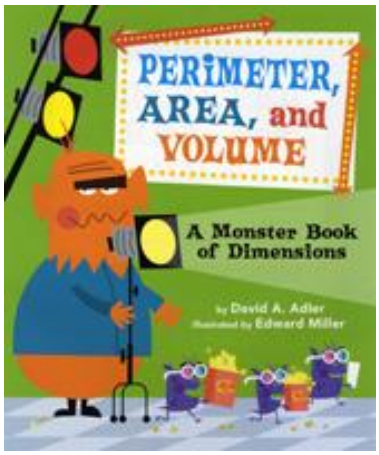

PERIMETER, AREA, AND VOLUME

A Monster Book of Dimensions

by David A. Adler
illustrated by Edward Miller

This book is aligned with the **COMMON CORE STATE STANDARDS** for third-grade, fourth-grade, and fifth-grade Mathematics in Measurement and Data: (3.MD.5-8, (4.MD.2-3), and (5.MD.3-5).

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About the Book

Stamp out Math Phobia! Learning about dimensions has never been so entertaining.

Suggested Classroom Activities

Literature

Fiction vs. Nonfiction—Adler mentions a movie, "Monsters in the Neighborhood," in this book, and later asks whether monsters are real. Discuss with students how an author can use something that isn't real (monsters) to explain something that *is* real (measurement). Students can talk about whether or not they think monsters are real, and why they think so.

Math

Measurement—Students can use the formulas in the book to calculate the ***perimeter, area***, and ***volume*** for many objects in the classroom: books, tables, rugs, bulletin boards, pictures on walls, sheets of paper, desks, chalkboard erasers, and boxes are some examples. The students can probably find many more things to measure. This will help them understand the concept of height (length), width, and depth. They can create an illustrated classroom chart showing the dimensions of everything they have measured. For homework, they can measure five objects at home, and bring back the results to share with the class.

Measurement tools—Ask students to name other tools we use to measure things? Some examples may be clocks, scales, measuring cups for cooking, T-squares, protractors, and many others. (See also "Online Resources" below.)

Math/Art

Create your own monster—Provide squares, rectangles, and circles cut from card stock and let each student select one to use. Have them draw a picture of a monster on one side, and after measuring, they can show the length, width, or radius, on the back. Then, using the formulas in the book they can provide the perimeter and the area. These can be displayed on a bulletin board in a "Monster Dimensions" exhibit.

Rulers—Have a discussion with students about the many different kinds of rulers and other tools that are used for measurement: school rulers, yardsticks, tape measures, measuring cups, and slide rules are some examples. Have students bring any measuring devices they have from home, and create a class exhibit of various measuring devices.

Online Resources

Reading a ruler—www.rickyspears.com/rulergame/ presents a fun timed game that students can play on the computer where they have to "read" a ruler to find various lengths.

History of measurement—http://tinyurl.com/6vamz32 presents extensive details, from Noah's Ark forward, of how measurement and measurement tools have developed over the centuries.

Pictures of rulers—www.google.com/imghp?hl=en&tab=wi Enter "rulers for measuring" for pictures of many different kinds of rulers or "measuring tools" for a variety of additional visuals.

Prepared by Sandy Schuckett, school library consultant

About the Author and the Illustrator

David A. Adler has written more than a hundred books for children. A former math teacher, he lives with his family in New York State. Visit David online at www.davidaadler.com.

Edward Miller has written, illustrated, and designed many books for children, including *Fireboy to the Rescue!: A Fire Safety Book*. Visit his website at www.edmiller.com and become a fan of Edward Miller Designs on Facebook.

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Time Zones
Fun with Roman Numerals
Millions, Billions, & Trillions: Understanding Big Numbers
Money Madness
Mystery Math: A First Book of Algebra
Perimeter, Area, and Volume: A Monster Book of Dimensions
Prices! Prices! Prices! Why They Go Up and Down
Time Zones
Triangles
Working with Factions
You Can, Toucan, Math: Word Problem-Solving Fun