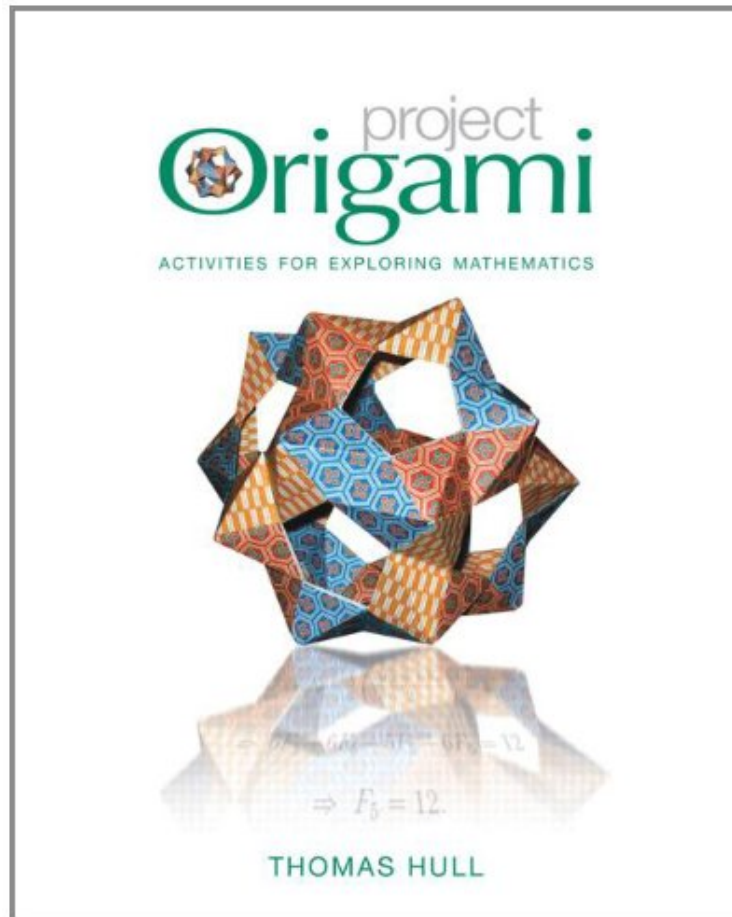


Project Origami: Activities for Exploring Mathematics

Thomas Hull

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Thomas Hull : Project Origami: Activities for Exploring Mathematics before purchasing it in order to gage whether or not it would be worth my time, and all praised Project Origami: Activities for Exploring Mathematics:

3 of 3 people found the following review helpful. Great math book that uses origami for instructing. By Speach60 This is a math text book using origami for teaching. If you want to understand math better, or teach students, this is a pretty good book. Not a lot of origami ideas, but that's not what the book was intended for. Well presented material and seems to be very thorough in the subject matter. Got to be interested in math if you want to read this book. 2 of 2 people found the following review helpful. Fun and illustrating exercises for an origami workshop for 10-15 year olds By angelanana Fun and illustrating excercises for an origami workshop for 10-15 year olds. Dr. Robert Lang, who makes sophisticated structures that inspired me to get into origami when I was you, recommended it. (langorigami.com) I used the "hyperbolic paraboloid," "self similar wave," "2-dimensional twist," and "miura map fold" - a fold Japanese scientists used for solar panels that were deployed in space! I made the advanced 3-4 hour versions of these, and taught the youth the simple version in the workshop. I also showed them examples of modular origami and crease

patterns for some of the more complex insects, forest animals, etc, of Dr. Lang. I even used the tetrahedron to make dice for someone else's group theory workshop! 1 of 1 people found the following review helpful. WorthyBy Kaleb I bought this book because I had made Tom Hull's FIT previously off the internet directions and wanted to support his work in Origami. I also wanted to see how he was going to connect mathematics to this work. I've only done some of the stuff and it has been excellent. Thanks to Tom for all the hard work to put this together.

When it comes to mathematics, paper isn't just for pen and pencil any more! Origami, the art and science of paper folding, can be used to explain concepts and solve problems in mathematics—and not just in the field of geometry. The origami activities collected here also relate to topics in calculus, abstract algebra, discrete mathematics, topology, and more. Using origami, learn about: - Solving Cubic Equations - Bucky Balls and PHiZZ units - Matrix models for folds - Gaussian Curvature and much more! These activities, which can enhance the classroom experience, also make great independent student projects and are perfect for math clubs or math circles. To provide readers of Project Origami with as much flexibility as possible, we have made all of the handouts in the book available online.

For anyone who wants to enliven their class activities, this book gives wonderfully clear instructions for hands-on paper-folding activities, and specific suggestions as how to encourage students to ask questions, and to answer them, in the spirit of really doing mathematics I will use it next time I teach the Polyva Enumeration Theorem. Mathematical s, February 2008 Is it possible to use origami in the higher level mathematics classroom? An affirmative answer is given by Thomas Hulls book Project Origami: Activities for Exploring Mathematics. Based on Hulls extensive experience of combining origami and mathematics teaching over the last fifteen years, it aims to help the teacher bring origami into the mathematics classroom, at the high school, college, and university level. Helena Verrill, AMS Notices, May 2007 Thomas Hull is one of the countrys foremost researchers in origami mathematics a subject making the slow transition from the ghetto of recreational math, where Sudoku and Rubiks Cube dwell, to the rarified air of legitimate research topic The fun part is watching the mash-up of intellectual analysis and paper creativity but what really drives him, he says, is understanding whats happening underneath each figure. David Brooks, Nashuatelegraph.com, May 2007 In his efforts to collect everything that he could find linking origami and math (and in his own research efforts), Hull has discovered not only the obvious links between origami and geometry but also intriguing intersections of origami with other fields of mathematics, such as algebra, number theory, and combinatorics. Ivars Peterson, Science News, June 2006 Overall, this book is an excellent resource for mathematics educators who would like to include some hands-on experimentation in their teaching. Steven Frankel, MAA s, July 2006 This is probably the most comprehensive study of mathematical paperfolding produced in book form to date. Along with theorems and formulas, there are copious notes for instructors, making the book more a teachers manual than a recreational pursuit. Even so it will reward a study even by those wishing solely to produce decorative forms. John Cunliffe, ELFA and British Origami Society This book shows you how and explains how! The book is neatly presented and is designed to work as a sourcebook for teachers wishing to use origami in the classroom, but is easily accessible to anyone. Dennis Walker, British Origami Society Thomas Hull has written a truly wonderful book Project Origami is full of surprises and depth. Hull is passionate about his work and it shines through in this text Concrete connections to curriculum (upper high-school levels, undergraduate levels) are made clear, highlighting the relevance and importance of this material to mathematics education. Every teacher should take a hold of this book Hull shares the joy of doing and exploring real mathematics and provides a route that all can pursue. James Tanton About the Author Thomas Hull earned his PhD in Mathematics from the University of Rhode Island in 1997. He is currently an associate professor in the Department of Mathematics at Western New England University in Springfield, MA. He has invented many popular origami models, and his Five Intersecting Tetrahedra model (which is contained in this book) was named by the British Origami Society as one of the Top Ten Origami Models of All-time.