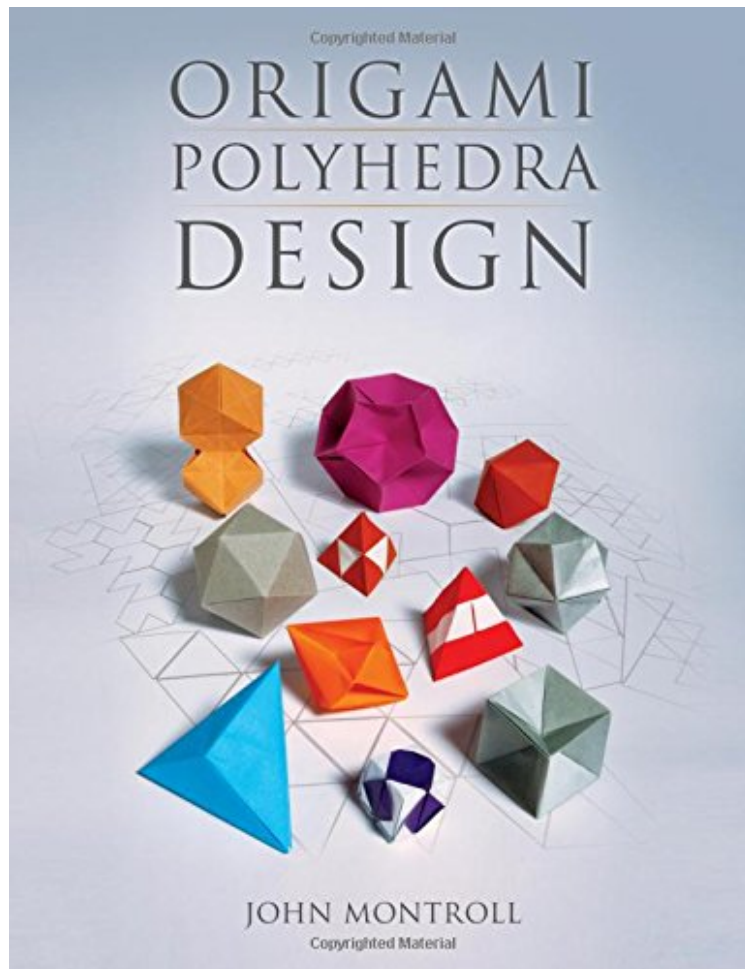


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Origami Polyhedra Design

John Montroll

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John Montroll : Origami Polyhedra Design before purchasing it in order to gage whether or not it would be worth my time, and all praised Origami Polyhedra Design:

10 of 10 people found the following review helpful. the weaving of origami and mathamaticsBy Harry HollowayThis book is a phenomenal display of making a single sheet of paper 3-dimensional. It involves a lot of pre-creasing and like many of Mr. Montroll's other polyhedral books I at least find his last tucks and locks very challenging. I had to start with large sheets to see what was happening. But where this book excels is in its connections to mathematics. Mostly it is creative applications of the Pythagorean theorem and basic trigonometry. In some ways this book is a great resource for the geometry/ Trig teacher, if for no other reason than to see the extensive way the that mathematics can be applied to origami. Even with no interest in origami, John Montroll's clear derivations of dividing a side into different fractional parts displays the power of euclidean geometry in a way that even our calculator generation can appreciate.0 of 0 people found the following review helpful. Lots of fun - uses college level mathBy Candice RBought

this as a resource for the Math Art class I teach locally to middle schoolers. Many of the folds were too advanced for middle school, but I was able to incorporate a few of them into my class. I enjoyed folding many of the more difficult ones on my own. As a math teacher, I love that it included the mathematical proofs of why each fold worked and how it was created. The math included is college-level math. 4 of 7 people found the following review helpful. Interesting, but not exciting. By DonB! John Montroll knows his stuff when it comes to origami. Maybe too well for simple folk like me. Montroll has assembled a folding procedure for 70+ models of geometry, and that's amazing. The sad part, for me, is that they all start to look similar after the 10th one, and I find myself asking why I am learning these. Don't get me wrong, I love mathematics and especially geometry (that's why I bought this book) but as an origami hobbyist, I find much more satisfaction in folding figures and items that ordinary people (my friends) can look at and appreciate. That's all, really. It is a matter of taste. If you WANT shapes then this IS the book for you. If not, then not.

This book unravels the mystery of Geometry in Origami with a unique approach: 64 Polyhedra designs, each made from a single square sheet of paper, no cuts, no glue; each polyhedron the largest possible from the starting size of square and each having an ingenious locking mechanism to hold its shape. The author covers the five Platonic solids (cube, tetrahedron, octahedron, icosahedron and dodecahedron). There are ample variations with different color patterns and sunken sides. Dipyrramids and Dimpled Dipyrramids, unexplored before this in Origami, are also covered. There are a total of 64 models in the book. All the designs have an interesting look and a pleasing folding sequence and are based on unique mathematical equations.