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625 - JANELLE MARTINEZ

Kaleidocycles are twistable paper creations that are fun to use and even more fun to make! Take your paper craft prowess to the next level with these amazing paper shaping projects. In this book you can make: kaleidocycles, hexaflexagons, paper globes, fortune tellers, and a range of stylish geometric decorations. There are lots of paper projects for you to cut out, color, decorate, fold, and create, plus templates to trace and craft paper to use to make further paper decorations--so get crafting!

Flexagons are made by folding paper in certain ways and when they are flexed, turned and unfolded in different ways, they show puzzling and curious effects. Hidden inside a flexagon are a number of concealed faces and the challenge is to discover how to flex them into view smoothly and with confidence. Some of this extensive collection are in the form of puzzles to be solved, others have rather mysterious properties.

While taking a class on infinity at Stanford in the late 1980s, Ravi Kapoor discovers that he is confronting the same mathematical and philosophical dilemmas that his mathematician grandfather had faced many decades earlier--and that had landed him in jail. Charged under an obscure blasphemy law in a small New Jersey town in 1919, Vijay Sahni is challenged by a skeptical judge to defend his belief that the certainty of mathematics can be extended to all human knowledge--including religion. Together, the two men discover the power--and the fallibility--of what has long been considered the pinnacle of human certainty, Euclidean geometry. As grandfather and grandson struggle with the question of whether there can ever be absolute certainty in mathematics or life, they are forced to reconsider their fundamental beliefs and choices. Their stories hinge on their explorations of parallel developments in the study of geometry and infinity--and the mathematics throughout is as rigorous and fascinating as the narrative and characters are compelling and complex. Moving and enlightening, A Certain Ambiguity is a story about what it means to face the extent--and the limits--of human knowledge.

The wonderful thing about mathematical art is that the most beautiful geometric patterns can be produced without needing to be able to draw, or be 'good at art'. Mathematical art is accessible to learners of all ages: its algorithmic nature means that it simply requires the ability to follow instructions carefully and to use a pencil and ruler accurately. It is engaging, enriching, thoroughly enjoyable and is a great leveller in the classroom. Learners who may not normally shine in mathematics lessons will take your breath away with their creativity. Those who struggle with their mathematics will experience the joy of success through their mathematical art-making. The six Artful Maths activities in this book are hands-on tasks that will develop important skills such as hand-eye co-ordination, manual dexterity and design thinking, which is a valuable form of problem-solving. Decisions need to be made about placement, size and colour, all of which entail thinking about measurements, proportions and symmetry. They can be undertaken alone or with a teacher to draw out the mathematics underlying the patterns and to practice key content in the school curriculum. For ages 9 to 16+. Contents: Curves of Pursuit, Mazes and Labyrinths, Impossible Objects, Epicycloids, Perfect Proportions, Parabolic Curves.

Martin Gardner's Mathematical Games columns in Scientific American inspired and entertained several generations of mathematicians and scientists. Gardner in his crystal-clear prose illuminated corners of mathematics, especially recreational mathematics, that most people had no idea existed. His playful spirit and inquisitive nature invite the reader into an exploration of beautiful mathematical ideas along with him. These columns were both a revelation and a gift when he wrote them; no one--before Gardner--had written about mathematics like this. They continue to be a marvel. This is the original 1983 edition and contains columns published from 1970-1972. It includes three columns on the game of Life.

Murderous Maths: The Magic of Maths is full of incredible tricks to wow children and teachers alike.

Brand new for the relaunch of the primary national curriculum in autumn 2014, children can discover how to use the power of maths to beat the calculator, perform amazing card tricks and even read minds! Illustrated by Rob Davis and presented in a bold, funky and accessible way so children can find out why maths is marvellous, a new generation of Kjartan Poskitt fans will be able to discover the world of MURDEROUS MATHS. Get ready to be amazed!

This manual features 17 easy-to-master projects involving the Platonic solids: the tetrahedron, hexahedron, octahedron, dodecahedron, and icosahedron. Includes detailed diagrams and photos of all the completed models.

Originally published: Tokyo: Shubunsha, 2007.

Here's the revolutionary way to knit -- easy, fun, and foolproof! Beginners and experienced knitters need only master a single stitch to create their own designs with patchwork squares. More than 100 illustrations.

Aspiring love charm maker Hijiri Kitamura was excited to come back to Grimbaud for her sophomore year-until she learns about the upcoming charm making competition. Grimbaud has just started to recover from the tyranny of Zita's love fortunes and it would be too easy for the winning charm maker to take Zita's place. The only solution is for Hijiri, with the support of her friends and fellow rebels, to win the contest herself. Unfortunately, that's easier said than done, especially when Love itself has decided to meddle in Hijiri's life. Concerned that it's favorite charm maker has given up on finding a boyfriend of her own, Love takes matters into its own hands and delivers the perfect boyfriend to her in a giftwrapped box...literally.

Teaches how to make three-dimensional origami designs using larger illustrations and step-by-step instructions, along with information on basic folds, types of paper, and tools.

Capture the Natural World with Vibrant Works of Art Nature illustrator Rosalie Haizlett has hiked through countless forests with her sketchbook and watercolors, documenting the plants, animals and landscapes that she encounters. She has also taught tens of thousands of students to paint and appreciate nature's beauty through her popular online classes and in-person workshops. In this book, Rosalie provides step-by-step instruction on how to paint 20 realistic insects, fungi, birds, botanicals and mammals in her vibrant wet- on-dry watercolor style. Pick up the skills you need to become a better observer in the outdoors, take your own reference photos and paint a wide variety of subjects so that you can continue to draw inspiration from nature long after you finish the projects in this book. You'll also learn some fun nature facts along the way! Whether you're a total beginner or ready to take your skills to the next level, Rosalie is here to walk you through every step of the process.

Martin Gardner's Mathematical Games columns in Scientific American inspired and entertained several generations of mathematicians and scientists. Gardner in his crystal-clear prose illuminated corners of mathematics, especially recreational mathematics, that most people had no idea existed. His playful spirit and inquisitive nature invite the reader into an exploration of beautiful mathematical ideas along with him. These columns were both a revelation and a gift when he wrote them; no one--before Gardner--had written about mathematics like this. They continue to be a marvel. This volume, originally published in 1959, contains the first sixteen columns published in the magazine from 1956-1958. They were reviewed and briefly updated by Gardner for this 1988 edition.

The entire collection of Martin Gardner's Scientific American columns are on one searchable CD! Martin Gardner's ``Mathematical Games'' column ran in Scientific American from 1956 to 1986. In these columns, Gardner introduced hundreds of thousands of readers to the delights of mathematics and of puzzles and problem solving. His column broke such stories as Rivest, Shamir and Adelman on public-key cryptography, Mandelbrot on fractals, Conway on Life, and Penrose on tilings. He enlivened classic geometry and number theory and introduced readers to new areas such as

combinatorics and graph theory. The CD contains the following articles: (1) Hexaflexagons and Other Mathematical Diversions; (2) The Second Scientific American Book of Mathematical Puzzles and Diversions; (3) New Mathematical Diversions; (4) The Unexpected Hanging and Other Mathematical Diversions; (5) Martin Gardner's 6th Book of Mathematical Diversions from Scientific American; (6) Mathematical Carnival; (7) Mathematical Magic Show; (8) Mathematical Circus; (9) The Magic Numbers of Dr. Matrix; (10) Wheels, Life, and Other Mathematical Amusements; (11) Knotted Doughnuts and Other Mathematical Entertainers; (12) Time Travel and Other Mathematical Bewilderments; (13) Penrose Tiles to Trapdoor Ciphers; (14) Fractal Music, Hypercards, and more Mathematical Recreations from Scientific American and (15) The Last Recreations: Hydras, Eggs, and Other Mathematical Mystifications. A profile and interview with Martin Gardner is included in this collection.

A dissection involves cutting a polygon into pieces in such a way that those pieces form another polygon; for a hinged dissection, the pieces must be attached by hinges. A piano hinge is "a long narrow hinge with a pin running the entire length of its joint." So, unlike regular hinged dissections, which swing or twist (around single point of hinge)

Oriland Magic Star will show you how to create mesmerizing action origami - fabulous variations of the one and only Magic Star of Oriland! The Magic Star is a star-like shaped polyhedral torus that can be rotated, so its surface constantly transforms with sections squeezing in the center and straightening at the 'equator', while you see the changing pattern of folds and colors that has a mesmerizing effect! Watch Oriland Magic Star in action in this video http://www.youtube.com/watch?v=cjfYLS1lc5U Do-It-Yourself - fold these fantastic action models, originally designed by Yuri and Katrin Shumakov, and experience the mystery of The Oriland Magic Star firsthand! On 90 pages of this book there are 360 detailed step-by-step colorful vector- and photo-diagrams with thorough written instructions and photos of examples of completed projects that will guide you through folding the 6 original origami designs including the one-piece Magic Star and modular Magic Stars. In each article, there are recommendations on paper type and size with indication of the size of the completed model, as well as suggestions on color schemes to get rainbow, hypnotic rings, chess, yin-yang effects on your Magic Stars. The designs are intermediate and complex level of folding and are a good challenge for the experienced folder and the expert alike. Folding the modules is easy, though the assembly of the star might be challenging, but the result is oh! how satisfying! Have a creative and fun time with this book making mesmerizing Oriland Magic Stars! Happy folding!For more details on this book and the model menu, please visit our website at http://www.oriland.com/store/books/oriland_magic_star/main.php Action Origami Series: Volume 1 (this book): http://www.amazon.com/dp/1497383994/ Volume 2: http://www.amazon.com/dp/1500603619/

The history of mathematics is filled with major breakthroughs resulting from solutions to recreational problems. Problems of interest to gamblers led to the modern theory of probability, for example, and surreal numbers were inspired by the game of Go. Yet even with such groundbreaking findings and a wealth of popular-level books, research in recreational mathematics has often been neglected. The Mathematics of Various Entertaining Subjects now returns with a brand-new compilation of fascinating problems and solutions in recreational mathematics. This latest volume gathers together the top experts in recreational math and presents a compelling look at board games, card games, dice, toys, computer games, and much more. The book is divided into five parts: puzzles and brainteasers, geometry and topology, graph theory, games of chance, and computational complexity. Readers will discover what origami, roulette wheels, and even the game of Trouble can teach about math. Essays contain new results, and the contributors include short expositions on their topic's background, providing a framework for understanding the relationship between serious mathematics and recreational games. Mathematical areas explored include combinatorics, logic, graph theory, linear algebra, geometry, topology, computer science, operations research, proba-

bility, game theory, and music theory. Investigating an eclectic mix of games and puzzles, The Mathematics of Various Entertaining Subjects is sure to entertain, challenge, and inspire academic mathematicians and avid math enthusiasts alike.

Diagrams and folding instructions for 24 devilishly delightful creatures -- everything from a troll (23 steps) to a high-flying witch on a broomstick (141 steps).

Of course origami is popular, it's irresistible, it's ingenious, it's... so infuriatingly tricky! And the reason for this is that it's so damn small, what with those miniature scraps of paper that you have to fold and fiddle to create something that's barely big enough to be noticed. Until now... THE BIGGEST EVER BOOK OF ORIGAMI changes all that. It's the giant dragon of the paperfolding world, holding at its heart twelve beautiful pull-out templates in intricate designs for instant enormous models. Designed to supersize your origami obsession, this book contains everything you could possibly need to create the mammoths and monsters of the origami oeuvre. There is a manual of full folding instructions, with step-by-step illustrations that suddenly all make sense because they can all fit on the same page. What could be more user friendly? And we haven't even mentioned the giant poster photographs of Japanese art. So, stop fiddling and start folding. If you think the book looks impressive, wait till you see the models!

"...a bizarre Internet phenomenon: an "immersive" online experience—part mystery, part game, part who knows what—known as both the Incunabula Papers and Ong's Hat. The Incunabula Papers/Ong's Hat was, or is, a "many-threaded, open-ended interactive narrative" that "weds an alternate history of chaos science and consciousness studies to conspiracy theories, parallel dimensions, and claims that computer-mediated environments can serve as magical tools.... the documents provoked a widespread "immersive legend-trip" in the late 1990s. Via Web forums, participants investigated the documents—manifestos—which spun up descriptions of brilliant but suppressed discoveries relating to paths that certain scientists had forged into alternate realities. Soon, those haunted dimensions existed in the minds and fantasies of Ong's Hat's many participants. That was evident as they responded to the original postings by uploading their own—all manner of reflections and artifacts: personal anecdotes, audio recordings, and videos—to augment what became "a really immersive world, and it was vast".

The first of fifteen updated editions of the collected Mathematical Games of Martin Gardner, king of recreational mathematics.

A flexagon is a motion structure that has the appearance of a ring of hinged polygons. It can be flexed to display different pairs of faces, usually in cyclic order. Flexagons can be appreciated as toys or puzzles, as a recreational mathematics topic, and as the subject of serious mathematical study. Workable paper models of flexagons are easy to make and entertaining to manipulate. The mathematics of flexagons is complex, and how a flexagon works is not immediately obvious on examination of a paper model. Recent geometric analysis, included in the book, has improved theoretical understanding of flexagons, especially relationships between different types. This profusely illustrated book is arranged in a logical order appropriate for a textbook on the geometry of flexagons. It is written so that it can be enjoyed at both the recreational mathematics level, and at the serious mathematics level. The only prerequisite is some knowledge of elementary geometry, including properties of polygons. A feature of the book is a compendium of over 100 nets for making paper models of some of the more interesting flexagons, chosen to complement the text. These are accurately drawn and reproduced at half full size. Many of the nets have not previously been published. Instructions for assembling and manipulating the flexagons are included.

Paper is incredible stuff. It's easy to cut, but incredibly strong. It's disposable, but can last for centuries. It can stand as stiff as a board, pop up like a spring, or float like a leaf. And its invention changed the world forever. Perfect for kids, parents, and educators, Paper Inventions is a project-based book with full color illustrations, step-by-step instructions, supply lists, and templates that allow you to follow along with the book or devise something entirely new. Each chapter features new projects that will challenge and intrigue everyone, from beginning to experienced Makers. In this book, you'll learn to make: A light-up paper cat that shows how switches and sensors work An

action origami robot worm Edible rice paper perfect for secret messages A space rover that moves thanks to paper machinery A paper generator that creates electricity when you tap or rub it Heat-activated paper models that fold themselves A geodesic dome big enough to crawl into--from newspaper!

Beautiful, full-color photographs accompany step-by-step instructions and diagrams for 20 functional boxes, which range from conventional squares to those in the form of a bird, basket, cat's head, flower, and more.

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Original single-sheet origami box designs for gift-worthy mementos and containers for your treasures.

Flexagons are hinged polygons that have the intriguing property of displaying different pairs of faces when they are flexed. Workable paper models of flexagons are easy to make and entertaining to manipulate. Flexagons have a surprisingly complex mathematical structure and just how a flexagon works is not obvious on casual examination of a paper model. Flexagons may be appreciated at three different levels. Firstly as toys or puzzles, secondly as a recreational mathematics topic and finally as the subject of serious mathematical study. This book is written for anyone interested in puzzles or recreational maths. No previous knowledge of flexagons is assumed, and the only pre-requisite is some knowledge of elementary geometry. An attractive feature of the book is a collection of nets, with assembly instructions, for a wide range of paper models of flexagons. These are printed full size and laid out so they can be photocopied.

Cut and Fold Techniques for Promotional Materials is a unique collection of over 40 attention-grabbing cut-and-fold designs that when printed and illustrated form memorable give-aways to promote and advertise services and products. The book provides a one-stop source for novelty promotional materials, many appearing in print for the first time. Some designs are interactive toys that turn inside out or reveal hidden faces when played with, others are more practical, offering ingenious ways to fold-up letters, brochures and posters, or to create novelty envelopes and leaflets. All the designs will achieve a message or presentation, grabbing attention in ways that simple printing can never achieve. Following the elegant, easy-to-follow style of Paul Jackson's other titles for Laurence King, Cut and Fold Techniques for Promotional Materials is an essential resource for marketing professionals and design students, and an inspirational guide to anyone looking to enhance the presentation of their product or service.

In this ground-breaking book, Shaun Best analyses the intellectual knowledge production of Zygmunt Bauman and his rise to academic stardom in the English speaking world by evaluating the relation between his biography, the contexts in which he found himself, and why his intellectual creativity is admired by so many people. Bauman has an interesting 'contested' biography and underwent a number of intellectual shifts from the early stages of his academic career as Marxist. Bauman moved on and for almost ten years he was associated with 'postmodernity' (from 1989-1997) but in 2000 he decided to distance himself from postmodernism and rebrand his approach to understanding the contemporary world as 'liquid modernity'. Best shows how Bauman developed his canonised status becoming an intellectual guru in the UK and in Australia despite being largely ignored by the academic community in the United States and Central Europe. Rather than investigating Bauman's academic output as a demonstration of his 'creative genius', Best argues that most academic output involves the interplay of multiple factors and this book evaluates the influences on both intellectual choices and the social factors or contexts that led Bauman to attach himself to different sets of ideas during his academic career.

Modular origami is the latest craze in paper folding! These three-dimensional models are created

from a number of small pieces of paper that are easily folded and then cleverly fit together to form a spectacular shape. They range from paper polyhedra to bristling buckyballs that are reminiscent of sea urchins—to ornate flower-like spheres. Each piece of paper is held by the tension of the other papers—demonstrating the remarkable hidden properties of paper, which is at the same time flexible but also strong! Author Byriah Loper has been creating modular origami sculptures for just five years, but in that time, he's pushed the upper limits of the art form with some of the largest, most complex geometric paper constructions ever assembled. While many geo-modular origami artists focus on creating dense floral spheres, Byriah has pioneered the open, linear "wire frame" approach, which results in a very complex-looking model that reveals the interior of its form. He exhibits his sculptures annually at the Origami USA convention in New York, and was recently a featured artist at the "Surface to Structure" exhibition at the Cooper Union gallery in the East Village. A great way to learn origami, the easy-to-follow diagrams and step-by-step instructions in this book show you how to fold the paper components and then assemble them to create 22 incredible models. Each model is a new challenge, and the paper sculptures you create look fantastic on your desk or shelf!

This is a modern, stylish and practical guide to the traditional craft of bookbinding, written by the founders of the London Centre for Book Arts, a destination workshop space that attracts visitors from all over the world. Accessible enough for complete beginners, while full of inspiration for those with more experience, this is the ultimate guide to making beautiful books by hand. Starting with an introduction to the bindery and a useful inventory of necessary tools and equipment, you'll also learn about different paper types, and special finishes such as cloth coverings, headbands and ribbon markers. You'll then find clear step-by-step instructions for six different hand-made book types, from simple pamphlets and concertinas to more elaborate multi-section bindings. Each project includes ideas for variations, resulting in over 20 different possible outcomes. There are also details about more advanced techniques and specialist bindings, as well as handy layout and design advice. A combination of practical and inspirational photography will guide readers clearly through each stage of the process, while showcasing the unique results that can be achieved and offering an exclusive peek into the workings of the authors' studio.

Provides instructions on creating handmade books and book-related art pieces, including information on developing pop-up books, flip books, and origami art.

Origami is the art of paper folding without the use of either scissors or glue. Each of the beautiful and fundamental mathematical shapes described in this book is achieved by folding sheets of standard A4 paper. It is remarkable what can been done and David Mitchell gives clear step by step instructions for each. This new second edition extends the selection massively and has been split into two volumes.

Provides step-by-step instructions for folding paper kites, boats, hats, boxes, butterflies, cups, fans, flowers, spiders, and mobiles and includes little known facts about origami

Are you ready to flip out? Hexaflexagons are six-sided, flat paper models that can be made to reveal hidden images through a series of flexes and folds. Flexagons were first introduced in a column written by Martin Gardner for Scientific American. From there, people started folding and figuring out creative ways to craft these interesting origami-like objects. Included in this delightful book are instructions and material to create hexaflexagons, tri-tetra flexagons, cubes, flexacubes, and more! Flexing kaleidocycles are shapes formed by taking several tetrahedra (four-sided 3D shapes) and joining their edges to form a ring, which can then be rotated so that it turns inside out to display a multitude different colors, shapes, and designs! This book contains: • A brief introduction on the history of hexaflexagons • Instructions on how to make 13 different fun flexagon models • 40 pages of easy tear-out pages with pieces to assemble your hexaflexagons People are still discovering new ways to innovate with these enjoyable creations—so with some study and practice, you may be able to come up with a unique design and enter the pages of flexagon history! All you need to do is to cut out and assemble the various models in this book to create the most intriguing and entertaining designs available. Start folding your flexagons now!