



Growing Patterns

Fibonacci Numbers in Nature

Sarah C. Campbell

Photographs by
Sarah C. Campbell
and Richard P. Campbell



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BOYDS MILLS PRESS
Honesdale, Pennsylvania

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For Graeme, Nathan, and Douglas

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Boyd's Mills Press, Inc.
815 Church Street
Honesdale, Pennsylvania 18431
Printed in China

Library of Congress Cataloging-in-Publication Data

Campbell, Sarah C.
Growing patterns : fibonacci numbers in nature / Sarah C. Campbell ;
photographs by Sarah C. Campbell and Richard P. Campbell.
p. cm.
ISBN 978-1-59078-752-6 (hardcover : alk. paper)
1. Fibonacci numbers—Juvenile literature. 2. Mathematics in nature—
Juvenile literature. I. Campbell, Richard P., ill. II. Title.
QA246.5.C36 2010
512.72—dc22

2009024075

First edition
The text of this book is set in 20-point Minion.

10 9 8 7 6 5 4 3

Acknowledgments

The inspiration for a book may happen in a moment—in this case, it was during a portfolio critique with an art director at an SCBWI conference. The making of a book, however, is a long and collaborative process. I had help along the way from many people.

First, I thank Richard, my partner in life and in creative pursuits. I appreciate your interest, support, advice, technical expertise, and artistic eye.

I thank my editor, Andy Boyles, for his deft hand with explanatory prose for young readers. For reviewing the manuscript, I thank Dr. Pau Atela, professor of mathematics at Smith College in Northampton, Massachusetts; Dr. Connie Campbell, professor of mathematics at Millsaps College in Jackson, Mississippi; and Dr. Matthew Bardoe, mathematics teacher at Latin School of Chicago. I thank my parents, Dave and Patty Crosby, for creating a homeplace perfect for photographing wildflowers, for lending me the books to identify them, and for reading many drafts. I thank my aunt Kathy Welde, who gave us the nautilus shell.

Finally, I thank the young people who read drafts along the way and gave me invaluable feedback: Susanna and Charley Blount, Sophia Bowley, and Mary Emerson Owen. I also thank Beth West's second-grade class at Davis Magnet School in Jackson, Mississippi, especially Ruben Banks and Bryce Winn, who together wrote a full page of comments.

—S.C.C.

A seed grows into a plant.
When it is all grown up, it might be
a tuft of grass, a daisy, or a tree.
The seed has built-in instructions for how
the plant will grow.
What shape will it be?
What size?
What color?



This peace lily has white flowers—
always with one petal.

The number of petals on a flower and the
shapes and patterns they make come from
two things: the plant's instructions and its
growing conditions.



This is a crown of thorns.
Count the petals.



This is a spiderwort.
Count the petals.



This is a flowering quince.
Count the petals.



This is a cosmos.
Count the petals.

The numbers go higher and higher,
always following the same rule.

The number after 8 is:
5 plus 8, which equals 13.

$$1 + 1 = 2$$

$$1 + 2 = 3$$

$$2 + 3 = 5$$

$$3 + 5 = 8$$

$$5 + 8 = 13$$

$$8 + 13 = 21$$

$$13 + 21 = 34$$



$$5 + 8 = 13$$