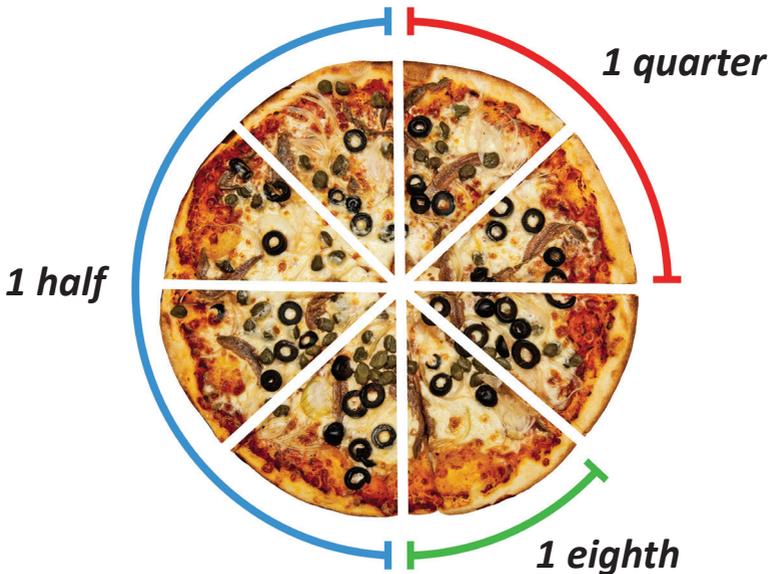




Fractions

What's Your Favourite Food?

Number and Algebra



Written for the Australian Curriculum: Mathematics

Sara MacDonald | Randall Hall | Richard John

AUSTRALIAN CURRICULUM: MATHEMATICS

Strand:	Number and Algebra
Sub-strand:	Fractions and decimals
Descriptor:	Recognise and interpret common uses of halves, quarters and eighths of shapes and collections

MATHS WORDS

Whole, half, halves, quarters, eighths, pieces, two, four, eight

INFORMATION FOR PARENTS OR CAREGIVERS

Helping your child learn to read is a rewarding and enjoyable experience for both you and your child. Here are some ways you can help your child with their reading.

BEFORE READING

- Introduce the book, read the title and look at the pictures. Ask your child if they know about fractions and in particular if they know about halves, quarters and eighths.
- Refer to the maths words above. Discuss each word and its meaning. These words will appear in this book.

DURING READING

- At this level, your child should attempt to read their home reader on their own. They may be unsure of some words. Encourage them to break these words down into their individual sounds, blending them from left to right.
- Stop your child on the pages where Millie the Mathematician appears. Discuss the maths vocabulary and interesting mathematical information presented.

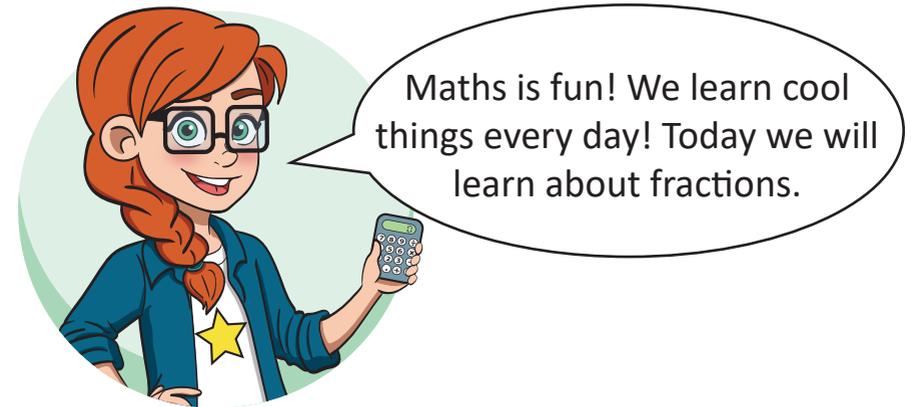
MATHS CONCEPTS IN THIS BOOK

This book addresses the *Number and Algebra* strand of the *Australian Curriculum: Mathematics*. In this strand, students are introduced to fractions; initially halves, and then quarters and eighths. They recognise that two halves, four quarters and eight eighths are equivalent to a whole and therefore equivalent to one another.

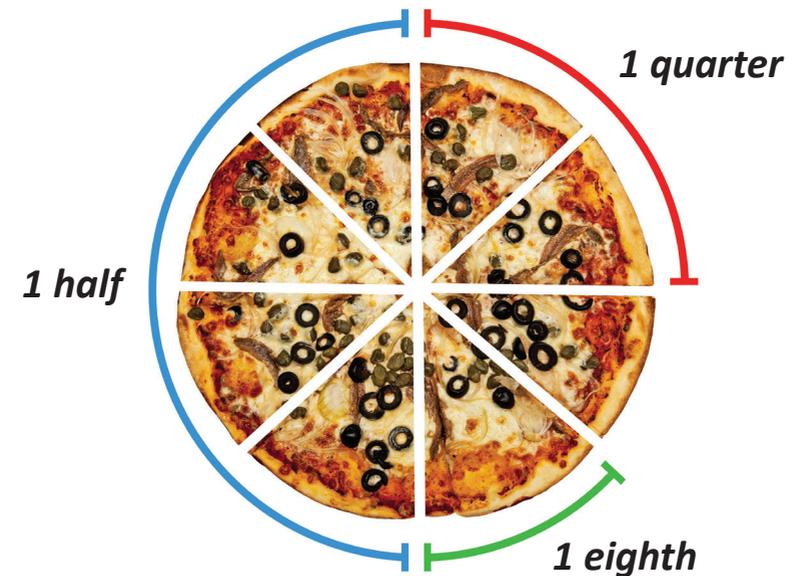
They are also introduced to the concept that one-half, one-quarter and one-eighth can be represented numerically as $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$. They further learn that one-half, two-quarters and four-eighths are all equal quantities.

This book introduces students to these fundamental concepts of fractions using everyday examples of common foods being cut into smaller and smaller pieces to represent halves, quarters and eighths.

In later years, the concept of fractions is linked with decimals as students begin to understand that $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$ are equal to 0.5, 0.25 and 0.125 respectively.



What's Your Favourite Food?



Written for the Australian Curriculum: Mathematics

Sara MacDonald | Randall Hall | Richard John

“What’s your favourite food, Tom?” asked Millie the Mathematician.

“Apples!” said Tom. “I like red apples the best,” he added.

“And I like to eat them **whole.**”



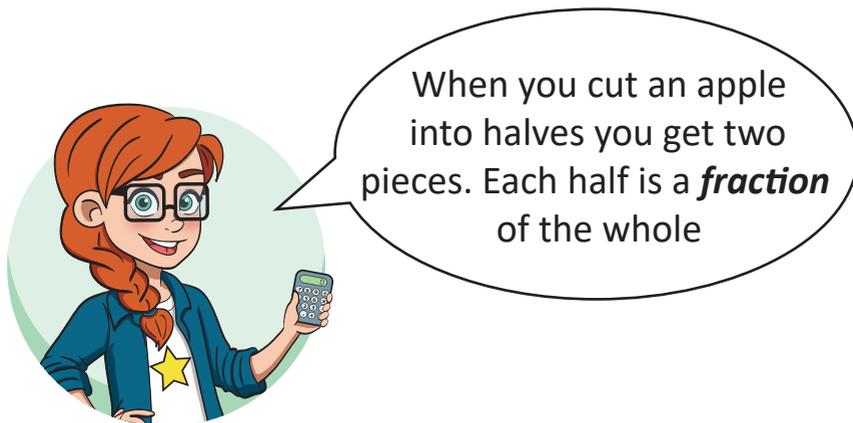
1 whole apple

"I like red apples too," said Millie.

"Would you like to share my apple?"
asked Tom.

"I can cut it into **halves**," he said.

"This will give us **two pieces** - one **half** for
you and one **half** for me."



1 whole apple

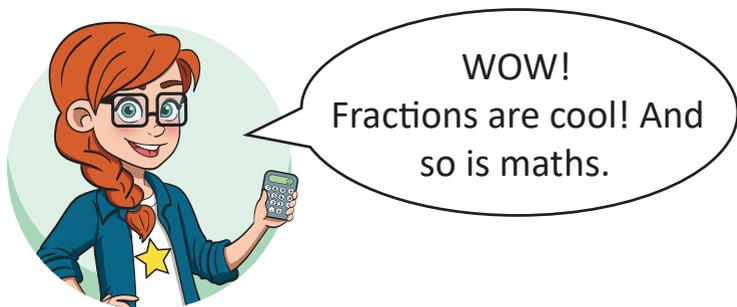


1 half of an apple



2 halves = 1 whole

“That’s perfect,” says Tom. “Yum!”



AFTER READING

Ask your child what the book was about and encourage them to re-tell it in the order in which it appeared.

Discuss the following with your child to assist them to understand the content of the book:

- If you cut an apple in half, how many pieces will you have? When you cut a sandwich into four equal triangles, have you cut it into halves, quarters or eighths?
- How many eighths is equal to one quarter? How many eighths are equal to one half?
- If you wanted to share a pie equally with three other friends, into how many pieces would you cut it?
- When you cut your sandwiches in half, which way do you cut them? What shape do you end up with?

First published in Australia in 2018
Griffith University

Copyright © Sara MacDonald, Randall Hall, Richard John 2018

Reproduction and communication

Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the Act, no part of this book may be reproduced, stored in a retrieval system, communicated or transmitted in any form or by any means without prior written permission. Inquiries should be addressed to the publisher.

National Library of Australia Cataloguing-in-Publication data:

MacDonald, Sara; Hall, Randall; John, Richard

What’s your favourite food?

ISBN: 978-0-6484079-7-3

Printed in Australia

Acknowledgements

Series Illustrators: Carissa Harris, James Elms, Gemma Duffill

Series Graphic Artist: Carissa Harris

Cover Design: Sam Dunn

Series Consultants: Samantha Hutchinson, Gayle Brent, John Robertson

Images: Shutterstock

Community Partners

The authors gratefully acknowledge the support of the following people and organisations for their assistance in the production and distribution of this series:

Jock and Beverly McIlwain, Mermaid Waters, Queensland, Australia

Griffith University, Queensland, Australia

Rotary International, Australia, District 9640

P&Cs Qld



What's Your Favourite Food?

Number and Algebra

Book 17 of 24

In this book, Millie the Mathematician helps us learn about fractions and in particular halves, quarters and eighths. We learn that two halves equals a whole, that four quarters equals a whole and that eight eighths also equals a whole. Millie links familiar foods, cut into familiar shapes, to the concept of fractions.

Australian Curriculum: All books in the 'Millie the Mathematician' series are written for the *Australian Curriculum: Mathematics* and align directly to what children learn in the classroom. This book addresses content from the *Number and Algebra* strand within the *Fractions and decimals* sub-strand. The specific Australian Curriculum content descriptor addressed is: "Recognise and interpret common uses of halves, quarters and eighths of shapes and collections."



WOW!
Fractions are cool! And so is maths.

PARENTS, READ ALONG WITH MILLIE!

Throughout this book Millie the Mathematician tells us interesting mathematical facts. Use these prompts to encourage further interest and discussion about **fractions** with your child.

Suggested Reading Level:



16-20, Fountas and Pinnell I-K

Rotary
District 9640



Griffith
UNIVERSITY
Queensland, Australia

P&CQld
Supporting State Schools

ISBN 978-0-6464079-7-3



9 780648 407973

Griffith University | Queensland, Australia
www.milliethemathematician.com.au