

# The Best Birthday

Teacher's Guide



Lalie Harcourt and Ricki Wortzman

## Line Masters

This Teacher's Guide includes access to modifiable and PDF line masters.

To access these Mathology Little Book Line Masters, please log in at Pearson Places, [www.pearsonplaces.com.au](http://www.pearsonplaces.com.au) and select the Mathology Little Books icon. The Line Masters can be found in the 'Explore Resources' section.

If the icon doesn't appear or if you are new to Pearson Places, please contact our digital helpdesk at [help@pearson.com.au](mailto:help@pearson.com.au) and we will set up a teacher account for you.

Once you have your Pearson Places account details you can record them below for reference.

Log-in Name \_\_\_\_\_

Password \_\_\_\_\_

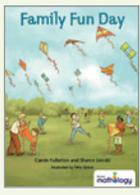
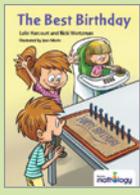
You can use these log-in details to access all your Pearson Places titles.

# Mathology Little Books

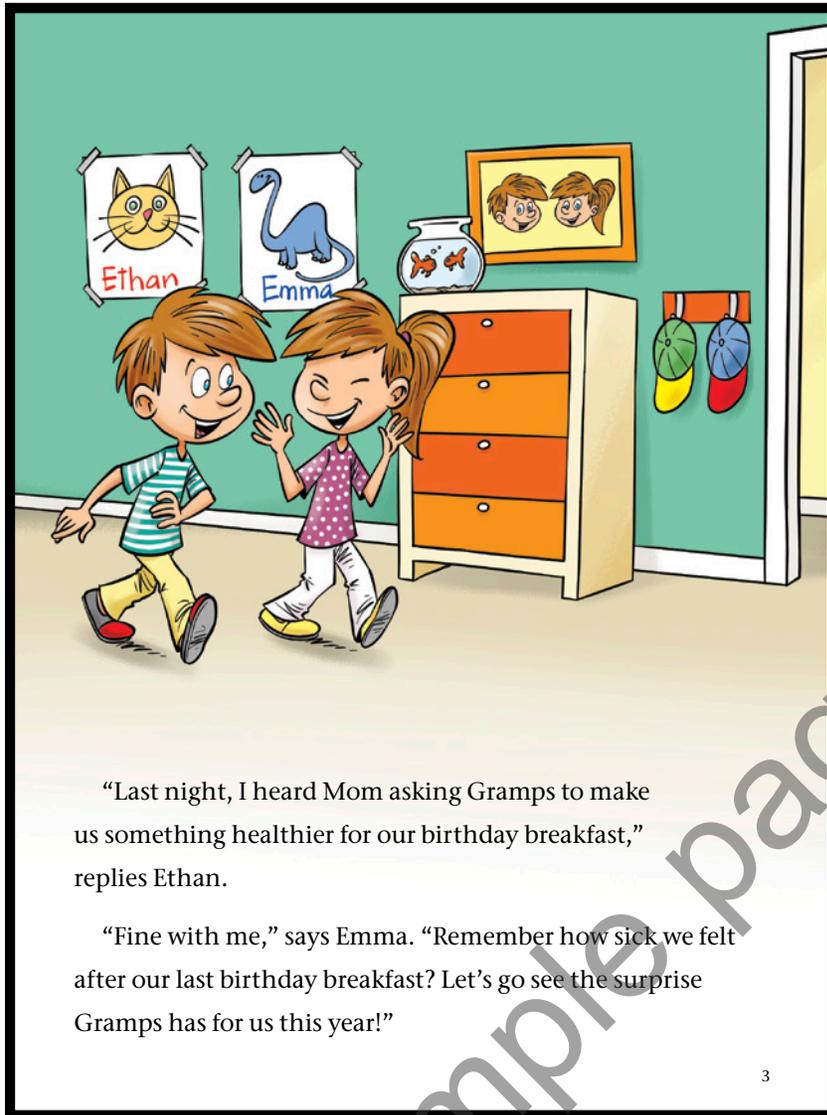
This series recognizes that children’s understanding of maths concepts develops over time, and so the series allows you to choose the book that best matches a child’s or group’s level of mathematical understanding. The books engage children at just the right level in a wide range of mathematical ideas, thinking, and activities in a variety of real world and imaginary contexts.

*The Best Birthday* engages children in conversations, investigations, and activities that help to develop their understanding of the big maths idea that “Quantities and numbers can be grouped by units or split into units.”\*

## Big Idea: Quantities and numbers can be grouped by units or split into units (Skip counting, place value, fractions and decimals)

TITLE	KEY MATHS FOCUS	MATHS SKILLS	STRATEGIES	ADDITIONAL FOCUS
	Estimate and group to count to 100  Skip count to 100	Skip count by 2, 5 10 from a given number Estimate and compare quantities Count and group to recount a collection Name, write, and match numerals to quantities	Use benchmarks to estimate Recognise and use skip-counting patterns	Skip count 5c and 10c Identify pattern rules Odd and even numbers
	Split quantities into equal groups to count to 100  Compose/decompose to 100	Skip count using equal-sized units Keep track of number of sets and how many in each set Recognise patterns in repeated units related to 10 Share equally	Skip count to 100 Use benchmarks to make mental comparisons and estimate quantities Add and subtract Count in groups Count on for leftovers	Graph to show preferences Money combinations Describe and continue patterns Estimate area Estimate and calculate length Identify and describe 2-D shapes
	<b>Split wholes into equal parts (fractions)</b>  <b>Model equal grouping/sharing</b>	<b>Split a whole into equal parts</b> <b>Identify the relationship between the number of parts to the whole</b> <b>Share groups equally</b> <b>Create and solve grouping and sharing problems</b>	<b>Compare parts to whole to determine more/less/equal</b>	<b>Non-standard linear units</b> <b>Time: days, weeks, months</b> <b>2-D shapes and their features</b>
	Compose to 1000 based on place-value  Compare/order numbers to 1000	Estimate, compares and orders quantities and numbers to 1000 Write, read, compose and decompose 3-digit numbers as hundreds, tens and ones Determine 10 or 100 more /less than a given number	Use benchmarks to estimate Count on Describe numbers using 100s, 10s and 1s	Use positional language to describe location and direction Duration of time (1min) Comparing and calculating amounts Comparing distance (1m, 100m)

\* This book can also be used to address the big idea that “Quantities and numbers can be multiplied (by grouping units) and be divided (by splitting into units) to determine how many or how much.”



“Last night, I heard Mom asking Gramps to make us something healthier for our birthday breakfast,” replies Ethan.

“Fine with me,” says Emma. “Remember how sick we felt after our last birthday breakfast? Let’s go see the surprise Gramps has for us this year!”

3

## Equal grouping and sharing

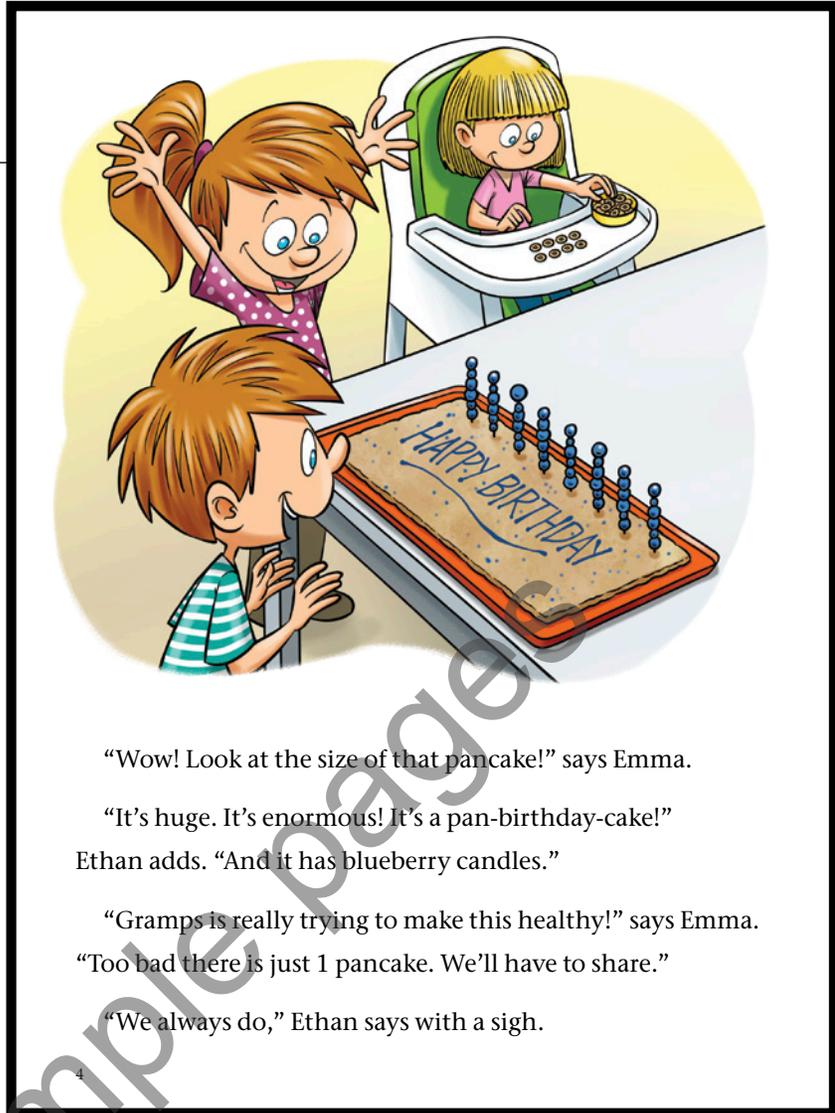
- Suppose Emma and Ethan share the blocks so that they each have the same amount. How many do you think they would each have? (10) How can we check to find out?
- Suppose there were (2) more blocks. How many do you think they would each have? (11)

### CONNECTING TO MEASUREMENT

Time: The text points out that there are 365 days in a year. You can ask children to identify other units of time. For example, ask: **How many days are in 1 week?** (7; 5 if thinking school week) **How many days are in 1 month?** (28 or 29 in February, and 30 or 31 in other months) **How many days are in a leap year?** (366) Enjoy discussing what happens to the birthday of a person born on February 29 of a leap year!

## Equal grouping and sharing

- Suppose Emma and Ethan decide to share the candles. What would you tell them to do? *(answers will vary)*
- How many blueberry candles would they each get if they share fairly? *(4)*
- When you share something such as candles, how do you know you have shared fairly? *(each person has the same number)*
- What does it seem that the baby PJ is doing with the cereal pieces? *(making 2 equal groups)*



“Wow! Look at the size of that pancake!” says Emma.

“It’s huge. It’s enormous! It’s a pan-birthday-cake!”

Ethan adds. “And it has blueberry candles.”

“Gramps is really trying to make this healthy!” says Emma.

“Too bad there is just 1 pancake. We’ll have to share.”

“We always do,” Ethan says with a sigh.

### CONNECTING TO GEOMETRY

2-D Shapes: Draw attention to the shape of the pancake. Ask: **What shape is it? What shape are pancakes usually? What do you think is easier to share: a pancake that is a rectangle or a pancake that is a circle? Why?**

# Large Group Options

If you read *The Best Birthday* to a large group or whole class, you might project the book to facilitate reading aloud and better engage children in solving problems. These activities engage children in making fair shares, as well as modelling and solving equal sharing and grouping problems; choose the activities that best address your children's learning needs.

## FAIR SHARES

### ENGAGE

Invite children to look closely at the illustration on pages 6–7 of *The Best Birthday*. Discuss how the plan was to fold and gently rip the pancake to make 2 pieces that are the same size, to make fair shares.

Ask:

- **How do Emma and Ethan know that they do not have shares that are fair?** (*the pieces don't match; they are not the same size*)
- **Why do you think it was so difficult to make 2 parts the same size?**
- **When have you tried to share something fairly? How did you try to make shares fair?**

### WORK ON IT

Provide pairs of children with items to share fairly. Items with different attributes present different challenges. For example, each pair might receive a piece of ribbon/string, a lump of modelling clay, a sheet of paper, different Shape Cutouts (LM 3).

You might provide different lengths of string, amounts of clay, or sizes of paper to pairs of children to prompt discussion about why, if everyone has a half, the halves are not the same length or size.

- **You have some different things to share with your partner. Each of you should get a piece that is the same size so you have shares that are fair. Let me know if there are any tools that will help you to make your shares fair.**

### SHARE AND REFLECT

Meet and invite children to demonstrate how they went about sharing the items. Ask questions such as:

- **How did you share the (ribbon)? Who did it a different way?**
- **Why are your fair shares of ribbon different (longer) than (Jordie and Ray's) pieces of ribbon?**
- **Which of the things was the easiest (most difficult) to share? What would you do differently next time you had to share fairly?**
- **How did you check to make sure the parts were fair shares? Who has another way to show us?**

Through discussion, you might introduce the words *two halves* and *one half* and the idea that there can be no bigger or smaller half.

**MATHS FOCUS:** make and describe fair shares

**MATERIALS:** *The Best Birthday*, pp. 6–7; string or ribbon; modelling clay; paper; Shape Cutouts (LM 3)

### WATCH FOR...

- Do children work collaboratively and communicate their ideas about fair shares as they work?
- Do children check to make sure that the parts are the same size, that each piece is half of the whole?
- Do children use the term *half* appropriately as they describe their work?

**DIFFERENTIATE:** Pairs can meet to create groups of 4. Children work together to share items fairly among 4 and discuss how sharing is the same as and different from working in pairs. That is, when sharing a whole with more people, you need more parts and the parts are smaller.

# Line Masters

To access the Mathology Little Book Line Masters, please log in at Pearson Places, [www.pearsonplaces.com.au](http://www.pearsonplaces.com.au) and select the Mathology Little Books icon. The Line Masters can be found in the 'Explore Resources' section.

If the icon doesn't appear or if you are new to Pearson Places, please contact our digital helpdesk at [help@pearson.com.au](mailto:help@pearson.com.au). 

**The Best Birthday** Line Master 1  
(Assessment Master)

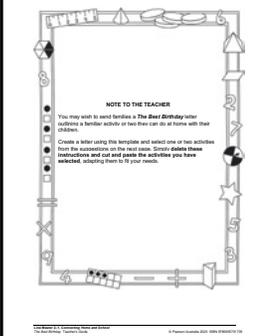
Name: \_\_\_\_\_

Best Fair Share	Not Shared	Shared	Comments
Give a whole into each part.			
Give a whole into two halves.			
Give a whole into three equal parts.			
Give a whole into four equal parts.			
Give a whole into five equal parts.			
Give a whole into six equal parts.			
Give a whole into seven equal parts.			
Give a whole into eight equal parts.			
Give a whole into nine equal parts.			
Give a whole into ten equal parts.			

Next Step: \_\_\_\_\_

**Line Master 1**  
Assessment Master

**Connecting Home and School** Line Master 2-1



**NOTE TO THE TEACHER**  
You may wish to send families *The Best Birthday* letter explaining a familiar activity or how they can do at home with their children.  
Create a letter using this template and select one or two activities from the suggestions in the next page. Clearly describe these instructions and cut and paste the activities you have selected, selecting them to fit your needs.

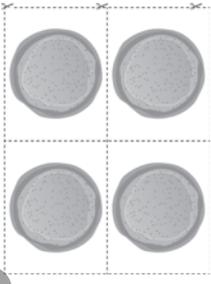
**Line Master 2**  
Connecting Home and School  
Letter Template

**Shape Cutouts** Line Master 3-1



**Line Master 3**  
Shape Cutouts

**Pancake Shapes** Line Master 4-1



**Line Master 4**  
Pancake Shapes

**Pancake Halves** Line Master 5

Name: \_\_\_\_\_

How can you share each pancake with one friend?  
Cut and paste the pancake shapes to show how you share.

This is how I share the circle pancake.

This is how I share the square pancake.

This is how I share the rectangular pancake.

**Line Master 5**  
Pancake Halves

**Pancake Fair Shares** Line Master 6

Name: \_\_\_\_\_

I am sharing 1 pancake fairly among \_\_\_\_\_ people.

Here are the fair shares.

**Line Master 6**  
Pancake Fair Shares

**Numerals Cards** Line Master 7



**Line Master 7**  
Numerals Cards

**Sharing Muffins** Line Master 8

Name: \_\_\_\_\_

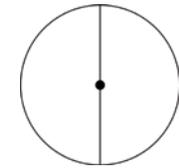
How many muffins?	How many each?	How many for P2?

**Line Master 8**  
Sharing Muffins

**Fair Share Spinner** Line Master 9

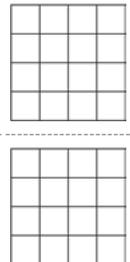
**What You Need:**  
- 2 colours of crayons  
- A paper clip and pencil to make the spinner work  
- game board grid

**How to Play:**  
1. Colour each half of the spinner a different colour.  
2. Choose a colour. Take turns to spin the spinner.  
3. Colour in squares to match the colour you spin.  
4. When all squares are coloured, the round is over.  
5. If 1 player's colour is on more squares, then that player scores a point.  
6. Score no points if the grid is coloured fairly.



**Line Master 9**  
Fair Share Spinner

**Fair Share Game Board** Line Master 10



**Line Master 10**  
Fair Share Game Board

**How to Make a Fair Share** Line Master 11

Title: How to Share a \_\_\_\_\_

Materials You Need: \_\_\_\_\_

Steps to Take:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Line Master 11**  
How to Make a Fair Share

**Fair Share Problems** Line Master 12

Here is a half of a pancake!



Here is a pancake!



What do you think the whole pancake looks like?  
Draw to show what you think.

How many whole pancakes?  
How many whole muffins?



How would you share them fairly between 2 people?  
How would you share them fairly among 4 people?

**Line Master 12**  
Fair Share Problems