

# Nutty and Wolfy

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.

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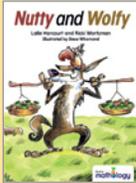
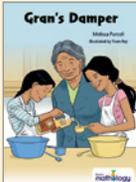
## Mathology Little Books

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.

*Nutty and Wolfy* engages children in conversations, investigations, and activities that help to develop their understanding of the big maths idea that “Symbols and expressions can be used to represent mathematical relations.”

### Big Idea: Symbols and expressions can be used to represent mathematical relations

(Algebra and equality)

TITLE	KEY MATHS FOCUS	MATHS SKILLS	STRATEGIES	ADDITIONAL FOCUS
	<p>Explore equality and inequality</p> <p>Compare quantities to 20</p>	<p>Create sets that are more than, less than, or equal to a given set</p> <p>Recognize equal and unequal sets</p> <p>Model and describe equality and inequality</p> <p>Make unequal sets equal by adding, subtracting, or rearranging</p> <p>Recognize and understand the = symbol</p>	<p>Compare using terms more/less/same, equal/balanced/not balanced</p> <p>Use a ‘yoke’ to check equality</p>	<p>Use positional language to describe location</p> <p>Compare mass</p>
	<p>Model and describe equality and inequality</p> <p>Explore properties of addition and subtraction</p>	<p>Model and describe equality (balance; the same as) and inequality (imbalance; not the same as)</p> <p>Recognize, use, and understand the equal (=) and not equal (<math>\neq</math>) symbols</p> <p>Record different expressions of the same quantity as equalities</p> <p>Decompose and combine numbers to write addition and subtraction equations</p> <p>Investigate addition and subtraction as inverse operations</p> <p>Explore and solve for missing addends and subtrahends</p>	<p>Doubling and halving</p>	<p>Making change</p> <p>Compare mass using balance scales</p> <p>Identify 2-D and 3-D shapes</p> <p>Create tallies and graphs</p>



## Comparing quantities

- Look at the basket on the ground and the basket that Wolfy is holding. Which basket has fewer (more) acorns? (*the basket on the ground has fewer, the basket Wolfy is holding has more*) How do you know?
- Will the basket on the ground still have fewer acorns after Nutty drops the acorn she is holding? (*yes*) Explain how you know.
- How many more acorns does Wolfy's basket have than the basket on the ground? (*4*) Tell us how you figured that out.

## Exploring equality and inequality

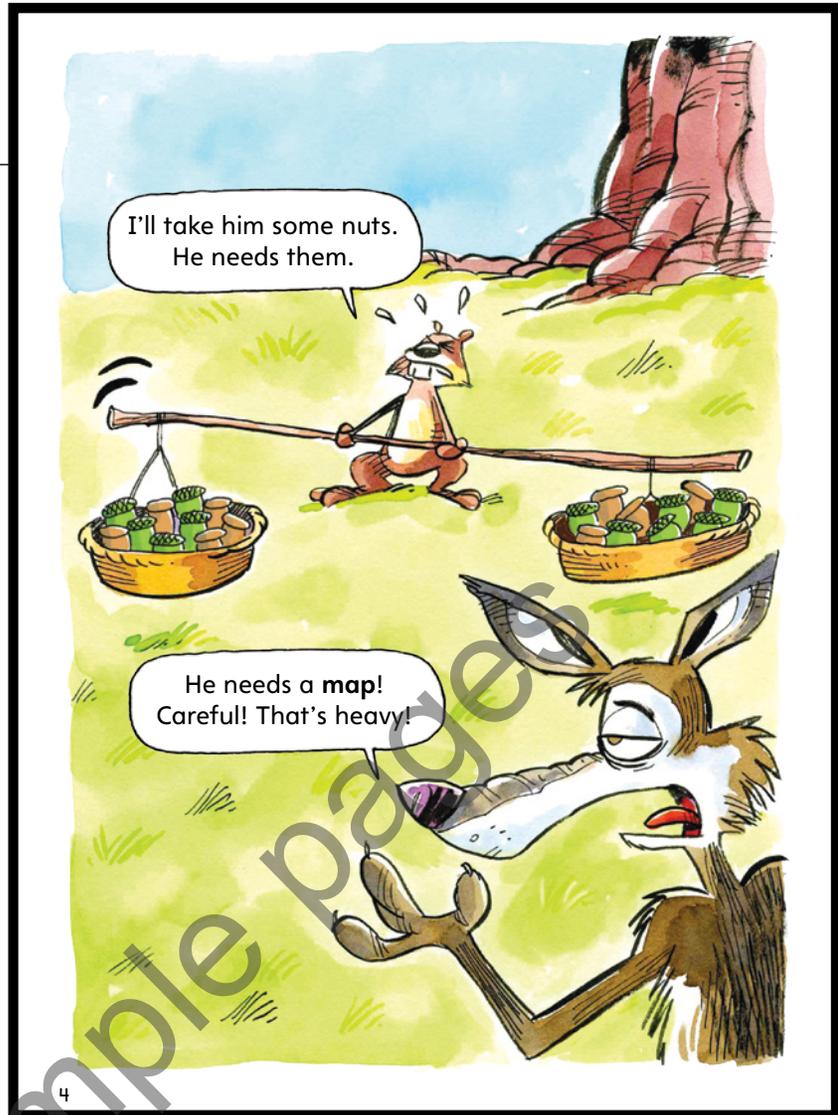
- What could you do to make the baskets have an equal number? (*add acorns to the basket on the ground; subtract or remove acorns from Wolfy's basket; move 2 acorns from Wolfy's basket to the basket on the ground*)

### WATCH FOR...

- Does the child compare sets and use the terms *more* and *fewer* to communicate the comparison?
- Does the child identify how many more (fewer) are in one set than are in another set?
- How does the child suggest adjusting sets to make them equal?

## Exploring equality and inequality

- How many nuts are in each basket? (10; the same number)  
Why do you think Nutty put the same number of nuts in each basket? (so that the baskets would balance and be easier to carry; accept other reasonable answers) Show me with your hands what you think the yoke will look like when Nutty lifts it.



# Large Group Options

If you read *Nutty and Wolfy* to a large group or whole class, you might project the book to facilitate reading aloud and better engage children in discussion. These activities engage children in exploring and communicating their understanding of equality and inequality; adjust numbers and choose the activities that best address your children's learning needs.

## MAKE BOTH SIDES EQUAL

### ENGAGE

Display page 9 of *Nutty and Wolfy*. Ask:

- **Do you think there is the same number of acorns in each basket?** (no) **Why do you think that?** (e.g., baskets aren't balanced; 13 is more than 7; 7 is less than 13; there are more in one basket than in the other)
- **Let's check using linking cubes (acorns) and the pans on a balance scale (baskets). How many acorns are in the basket on the left?** (7) **If I put 7 cubes in one pan, show with your hands what you think will happen to the balance scale.** Snap and place the cubes and discuss what happens. **Why did this pan drop?** (e.g., there are more on this side; this pan is empty and this pan isn't; the two sides don't have the same number of cubes)

Count the number of acorns in the other basket on page 9. Say:

- **If I put 13 cubes in the other pan, show with your hands what you think will happen to the balance scale.** Snap and place the cubes. **Is the same number of "acorns" in each "basket"?** (no)

Remove the cubes and hold them up next to each other to establish and confirm that 7 is not the same as 13, 13 is more than 7, and 7 is less than 13. You might introduce and discuss the  $\neq$  symbol by recording  $7 \neq 13$ .

### WORK ON IT

Have children create their own trains of 13 and 7 linking cubes.

- **Hold up your cube trains. We know they are not equal. We know they don't balance. How can you change them so they do balance?**

Provide access to a balance scale and paper or Balance Scale (LM 4).

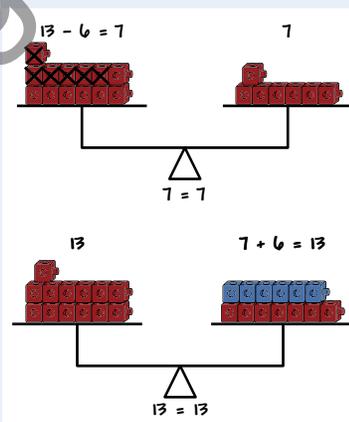
### SHARE AND REFLECT

Meet as a group. You might emphasize and model the use of the = symbol to record equality as children discuss and demonstrate solutions.

- **What did you do to make the sets equal? Who did it a different way?** (added 6 to 7 so  $13 = 13$ ; subtracted 6 from 13 so  $7 = 7$ ; took 3 from the 13 and added them to the 7 so  $10 = 10$ )
- **How can you convince us that  $(10 = 10)$ ?** (use the balance scale)
- **When are the pans balanced?** (when both pans hold the same number of cubes) **When are the pans not balanced?** (when one pan holds more (less) than the other pan; when the number of cubes is not the same)

**MATHS FOCUS:** recognize and describe equality and inequality; explore adding and subtracting to create equality

**MATERIALS:** *Nutty and Wolfy*, p. 9; linking cubes (same shape and mass); balance scale; blank paper or Balance Scale (LM 4)



### WATCH FOR...

- Does the child compare and describe quantities as *more than*, *less than*, *the same as* or *equal to*?
- How does the child create equality?
- Does the child understand how a balance scale can help determine (prove) equality and inequality?

# Line Masters

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**Nutty and Wolfy** Line Master 1  
(Assessment Master)

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

Reading and Writing	Maths	Language	Reasoning
Recognises and uses capital and lowercase letters	Recognises and uses number words	Recognises and uses punctuation	Recognises and uses symbols
Recognises and uses the alphabet	Recognises and uses numbers	Recognises and uses punctuation	Recognises and uses symbols
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Next Steps: \_\_\_\_\_

**Line Master 1**  
Assessment Master

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

NOTE TO THE TEACHER  
This may wish to send home a Nutty and Wolfy letter outlining a letter activity or task that can do at home with their children.  
Create a letter using the template and send one or two copies home for suggestions on the next page. Simply delete these instructions and cut and paste the activities you have selected, adapting them to fit your needs.

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

**Nutty and Wolfy Maths Mat** Line Master 3

**Line Master 3**  
Nutty and Wolfy Maths Mat

**Balance Scale** Line Master 4

**Line Master 4**  
Balance Scale

**Make It Balance** Line Master 5

**Line Master 5**  
Make It Balance

**Make Equal Sets** Line Master 6

**Line Master 6**  
Make Equal Sets

**Ten-Frames** Line Master 7

**Line Master 7**  
Ten-Frames

**Are They Equal?** Line Master 8

Name:	Name:	Are They Equal?
		Yes
		No
		Yes
		No
		Yes
		No
		Yes
		No
		Yes
		No

**Line Master 8**  
Are They Equal?

**Path to the Chicken House Gameboard** Line Master 9

**Line Master 9**  
Path to the Chicken House Gameboard

**Statement Cards** Line Master 10-1

5 ○ 5	8 ○ 3 + 3	12 ○ 4 + 8
14 ○ 20	9 ○ 5 + 5	13 ○ 6 + 6
7 ○ 5 + 4	20 ○ 10 + 10	15 ○ 10 + 3
15 ○ 12	3 + 3 ○ 4 + 2	4 + 2 ○ 2 + 6
3 + 3 ○ 5 + 1	4 + 3 ○ 3 + 4	7 + 3 ○ 3 + 7

**Line Master 10**  
Statement Cards

**My Yoke Book** Line Master 11-1

**Line Master 11**  
My Yoke Book

**Make True Statements** Line Master 12

\_\_\_\_\_ is equal to \_\_\_\_\_

\_\_\_\_\_ is not equal to \_\_\_\_\_

\_\_\_\_\_ is more than \_\_\_\_\_

\_\_\_\_\_ is less than \_\_\_\_\_

\_\_\_\_\_ is the same as \_\_\_\_\_

**Line Master 12**  
Make True Statements