

Marta! Big & Small

by Jen Arena and Angela Dominguez

AGE LEVEL 4–6 YEARS

About the Story

Exploring the jungle, Marta meets a bug and an elephant. The bug sees her as very big, while to the elephant, Marta is very small. Then she meets more animals. Marta is both slower than a horse and faster than a turtle. She is quieter than a lion and noisier than a rabbit. After escaping a nasty snake, Marta manages to become the same size, speed, and loudness as the other animals. How does she do that? Marta is very clever! This bilingual book introduces both English and Spanish comparison words in an enjoyable way.



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Words to Learn

niña (small girl), grande (big), pequeña (small), lenta (slow), rápida (fast), tranquila (quiet), ruidosa (loud)

About the Math

This book involves informal measurement (comparison) among several dimensions: size, speed, and loudness. Children can learn that:

- An object can be simultaneously more and less than other objects on the same dimension. For example, Marta is louder than a rabbit and at the same time quieter than a lion.
- An object can change its position on a dimension. For example, Marta can become as quiet as the rabbit or as loud as the lion (well maybe not *quite* as loud!).



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Math Talk During Reading

THE GOAL OF ALL THESE QUESTIONS IS TO HELP CHILDREN THINK ABOUT COMPARISONS ALONG DIFFERENT DIMENSIONS

“In how many different ways is Marta bigger than the bug?” (She is taller, heavier, louder.)
“In what way is Marta smaller than the elephant?” (Many ways!)

“Which object—elephant, bug, or Marta—weighs the very least? Which is of medium weight? Which is the heaviest?”

“Which is bigger than Marta: the horse or the turtle? Which is smaller?”

“Marta is louder than the rabbit. Is the rabbit quieter than Marta? Is it quieter than the lion?”

Try to come up with some of your own questions and comments, too!

Activity After Reading

HELP YOUR CHILD DRAW PICTURES SHOWING RELATIVE SIZE

Choose an object like a banana. Find another object at home that is shorter than the banana and a different object that is longer than the banana. Draw a picture of the three objects to show the size differences. Discuss how the banana is both shorter and longer at the same time.

Mathical

BOOK PRIZE

The Mathical Book Prize recognizes math-inspiring literature for kids ages 2-18. Prize-winning books are selected by a committee of teachers, librarians, mathematicians, and others. To get the Mathical List, plus reading guides, book reviews, and more, see mathicalbooks.org

PreK WINNERS:

Again, Essie? by Jenny Lacika
Baby Goes to Market by Atinuke
Crash! Boom! A Math Tale by Robie H. Harris
8: An Animal Alphabet by Elisha Cooper
Have You Seen My Dragon? by Steve Light
Lia & Luis: Who Has More? by Ana Crespo
One Fox: A Counting Book Thriller by Kate Read
1 Smile, 10 Toes by Nelleke Verhoeff
ONE Very Big Bear by Alice Brière-Haquet

GRADES K-2 WINNERS:

Absolutely One Thing: Featuring Charlie and Lola by Lauren Child
The Animals Would Not Sleep by Sara Levine
Max's Math by Kate Bank
Nothing Stopped Sophie: The Story of Unshakable Mathematician Sophie Germain by Cheryl Bardoe
One Big Pair of Underwear by Laura Gehl
Pigeon Math by Asia Citro
Sheep Won't Sleep: Counting by 2s, 5s, and 10s by Judy Cox
Uma Wimple Charts Her House by Reif Larsen and Ben Gibson
Zero Zebras: A Counting Book about What's Not There by Bruce Goldstone

PreK HONOR TITLES:

Animal Shapes by Christopher Silas Neal
Circle Under Berry by Carter Higgins
Count the Monkeys by Mac Barnett
Count with Maisy, Cheep, Cheep, Cheep! by Lucy Cousins

Goodnight, Numbers

by Danica McKellar
I Know Numbers by Taro Gomi
Marta! Big and Small by Jen Arena
A Mousy Mess by Laura Driscoll
Numbers Everywhere by Linda Leopold Strauss
One Happy Tiger by Catherine Rayner
100 Bugs! A Counting Book by Kate Narita

One Is a Piñata: A Book of Numbers by Roseanne Greenfield Thong
Over in a River: Flowing Out to the Sea by Marianne Berkes
Press Here by Hervé Tullet
Round by Joyce Sidman
Shape Up, Construction Trucks by Victoria Allenby
Usha and the Big Digger by Amitha Jagannath Knight
What Will Fit? by Grace Lin

GRADES K-2 HONOR TITLES:

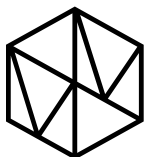
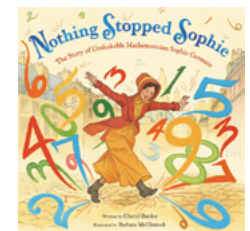
Billions of Bricks: A Counting Book about Building by Kurt Cyrus
Bird Count by Susan Edwards Richmond
The Boy Who Loved Math by Deborah Heiligman
Cao Chong Weighs an Elephant by Songju Ma Daemicke
Counting on Katherine:
How Katherine Johnson Saved Apollo 13 by Helaine Becker

Counting the Stars: The Story of Katherine Johnson, NASA Mathematician by Lesa Cline-Ransom
Count on Me by Miguel Tanco
The Girl With a Mind for Math: The Story of Raye Montague by Julia Finley Mosca

How Many Jelly Beans? A Giant Book of Giant Numbers! by Andrea Menotti
Is 2 a Lot?: An Adventure with Numbers by Annie Watson
Lemonade in Winter: A Book About Two Kids Counting Money by Emily Jenkins
Lifetime: The Amazing Numbers in Animal Lives by Lola M. Schaefer
One Boy Watching by Grant Snider
Shapes, Reshape! by Silvia Borando
3x4 by Ivan Brunetti
Too Many Pigs and One Big Bad Wolf by Davide Cali
We Are One: How the World Adds Up by Susan Hood
When Sophie Thinks She Can't by Molly Bang
Zero the Hero by Joan Holub

HALL OF FAME TITLES:

Anno's Counting Book Mitsumasa Anno
Hippos Go Berserk! by Sandra Boynton
One Grain of Rice: A Mathematical Folktale by Demi
The Very Hungry Caterpillar by Eric Carle



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