

## AUTHOR/ ILLUSTRATOR:

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Olivia and Mei have three marshmallows to share.
That's one for Olivia and one for Mei. Their plan for the third marshmallow keeps things fair.

Ages: 2 to 5 years
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## The Last Marshmallow

## What would you do with the third marshmallow?

Topics: counting, fair sharing, division, fractions, mathematical reasoning

## Activities To Do Together:

The Last Marshmallow introduces the concept of fair sharing. Providing children with opportunities to practice fair sharing sets them up for later success with division and fractions.

Before reading the book:

- Look at the book's cover together and ask your child to tell you what they notice. Ask your child, "Do you think the story takes place in the winter, spring, summer, or fall? Why do you think so?"
- Ask your child why they think the book is called The Last Marshmallow.

While you are reading the book:

- Look for clues together that tell in what season the story takes place. Encourage your child to find three clues that suggest the story takes place in cold weather.
- Ask your child what they would do with the left over marshmallow.

When you have finished reading the book:

- Ask your child if they think they correctly predicted the time of year the story takes place.
- Explore dividing an even group of objects between two people so each person gets a fair share.
- Encourage your child to share a favorite food equally with several friends or family members.
- Peel an orange and divide the orange into segments. Count the segments and compare their sizes. Are the segments about the same size? Before eating the orange, try to reassemble the segments to make a sphere.
- Ask your child if they've had to share something with another person before. If so, what did they share and how did it work out?
- Make a list together of important ideas to remember when sharing with other people.


## Conversations During Daily Routines with Toddlers:

1. Snack Time - Encourage your child to share 6 apple slices between two people, giving each person one slice at a time until there are no slices left.
2. Play Time - Talk about ways to divide a group of blocks between two people so each person has the same amount, then encourage your child to share the blocks equally.
3. Meal Time - Ask your child if food has been shared equally. Did everyone get the same amount? If not, ask your child why they think the food was divided differently.
4. Clean Up Time - When it is time to clean up, divide a group of objects into two equal piles with your child so that each of you puts away the same number of objects.

## Questions for Mathematical Thinking:

1. When have you shared something with another person? How did you share fairly?
2. How would you share a cookie with two other people?
3. How would you share a stuffed animal with two other people so it is fair?
4. How do you know if something has been shared fairly?
5. When you share fairly, does everyone always get the same amount? Why or why not?

## Vocabulary

Math words found in the story: big, both, fair, half, last, one, outside, three, two

Related math words: divide, equal, fourths, fractions, thirds, whole

Words to build reading comprehension: cocoa, hooray, marshmallow

Related Books: Luna's Yum Yum Dim Sum by Natasha Yim; The Doorbell Rang by Pat Hutchins; Bean Thirteen by Matthew McElligott

Click this link to the World Catalog or enter https://bit.ly/42rUtq3 to find The Last Marshmallow in the public library.

## Early Math Project Resources:

Visit The Last Marshmallow Activities (earlymathca.org/the-lastmarshmallow)

Follow this link or visit earlymathca.org/external-resources for additional online resources.


## DISCOVERING THE MATH: BOOK GUIDE

## Math Connections:

The Last Marshmallow shows two friends using mathematical thinking and reasoning to find a way to share a snack fairly. Exploring with familiar objects, tasks, and situations supports children's comfort and success with problem solving. For example, setting a table, putting books back on a shelf according to size, discovering what floats, or building a tall block tower encourages children to develop problem-solving strategies and strengthens their mathematical reasoning. Ask your child "How did you build that really tall tower? Why did you stack the blocks that way?" Talk with your child about what they noticed about objects that float in the bathtub. Ask them to use their observations to predict what objects will sink or float and then test their predictions. Asking questions like "Why do you think so?" or "What did you find out?" encourages children to share their thinking and problem solving strategies with you.

Remind your child that mathematicians and scientists often test many strategies before they come up with a solution that works well or works as they hoped. It's okay when a strategy doesn't work as planned. If your child's strategy doesn't work, encourage them to try again and build upon what they learned from their first attempt. Often errors provide valuable information that helps support children's lasting understanding of how something works. If they have figured out the solution, it's more likely to be meaningful and remembered than if someone else provides the solution.

Explore the concept of equal sharing together. Encourage your child to distribute a group of objects so that everyone has the same amount. If the items can't be divided evenly, ask your child to consider what would be a fair way to share. For example, they might suggest using a timer so that each person gets an equal turn when sharing toys. Talk about why you might use different strategies depending on the situation. What solutions would work well for cookie sharing but not for toy sharing?

Explore with your child whether everybody needs to have exactly the same thing for a situation to be fair. Would it make sense or be fair for everyone to have exactly the same size shoes? Would it make sense or be fair to feed your uncle the same amount of food as your pet fish?

The Last Marshmallow is a simple introduction to the concept of fractions. In the story, Mei gets half a marshmallow, and


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Olivia gets the other half. Each of the children have the same amount and the two parts of the marshmallow equal one whole.

Children will sometimes say things like, "I want the bigger half." This indicates that the child doesn't understand the concept of "half" or that when we talk about "half" we mean that one object is divided into two equal pieces. There isn't a bigger half or a smaller half, they are the same. Each half is an equal part of a whole.

With your child, cut a piece of fruit into equal sections. Count how many pieces make up the whole. Discuss what you would call the pieces: halves, thirds, fourths, fifths, sixths, etc. based on the number of equal pieces you've sliced. Notice together what halves, thirds, and fourths look like. Reassemble the fruit one section at a time, counting as you go, one-fourth, twofourths, three-fourths, four-fourths. Notice together that two halves equal one whole, three-thirds equal one whole, and four-fourths equal one whole.

These simple explorations reinforce counting and also set children up for success with division and fractions.

| Age Level | Related Infant Toddler Foundations and <br> Preschool Foundations |
| :--- | :--- |
| Infant/ <br> Toddler | Number Sense The developing understanding <br> of number and quantity Problem Solving The <br> developing ability to engage in a purposeful <br> effort to reach a goal or figure out how <br> something works |
| Preschool/ | Mathematical Reasoning 1.0 Children use <br> TK |
| mathematical thinking to solve problems that <br> arise in their everyday environment. Number <br> Sense 1.0 Children begin to understand <br> numbers and quantities in their everyday <br> environment. |  |

