

Is 2 a Lot?

An Adventure with Numbers

Annie Watson

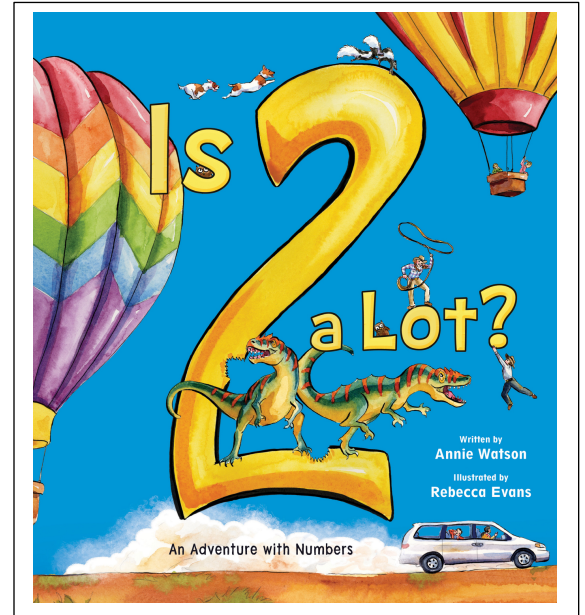
Illustrated by Rebecca Evans

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Ages 4-7



Summary

Two is not a lot of pennies, but it *is* a lot of smelly skunks. Ten is not a lot of popcorn pieces, but it *is* a lot of chomping dinosaurs. One thousand is not a lot of grains of sand, but it *is* a lot of hot air balloons! While Joey's mom explains the context of numbers in vivid ways, Joey's imagination transforms their ordinary car ride into a magical odyssey through a land of make-believe.

Is Two a Lot? is a wonderfully charming and authentic exchange between mother and child. Annie Watson's story makes numbers tangible, and Rebecca Evans's illustrations bring them to life.

From Kirkus Reviews:

"A picture book that accurately depicts how children think about numbers and values in a fun and engaging way... Children who are learning the meaning of value and numbers will both learn from this book, with its whimsical examples of what "a lot" means and find much to enjoy."

This book will lead to discussions about

- The contextual meaning of numbers
- The relativity of numbers
- Comparisons of quantities
- Extrapolating to the world

After You Read

IDEAS FOR WORKING ON NUMBER SENSE WITH YOUR CHILD:

TO EXAMINE THE CONTEXTUAL MEANING OF NUMBERS ...

1. Search for things that likely can't be counted with natural numbers. Natural numbers are the mathematical term for counting numbers like 1, 2, 3, 4, and 5, but certain measurements cannot be "counted," ex: my height, my weight, parts of wholes.
2. Have your kids identify other countable quantities of numbers, such as body parts, ex: 2 eyes, 2 ears, 10 toes.
3. Create more than / less than statements using quantities that they can count, ex: I have more toes than ears. We have less cats than dogs.
4. Discuss with your child(ren) the concepts of numbers for counting and numbers for measuring. Then, search for everyday examples when a measuring number is appropriate, like cooking units, heights, weights, and temperature. Then, search for everyday examples when a counting number would be appropriate, like number of students in a classroom. You can also examine the difference between the two (countable vs. measurable). Ex: number of students in the classroom vs. test scores of students in the classroom.

TO EXAMINE THE RELATIVITY OF NUMBERS ...

1. Look at objects in your house, backyard, and car-- and create your own statements about "a lot" and "not a lot."
2. Have your child make a list of things that would be easy to count and things that would be *impractical* to count. This is different than countable vs. measurable (see #4 above). This is countable vs. impractical to count. ex: trees in the backyard vs. blades of grass, trees in the park vs. leaves in the park, arms on a saguaro cactus vs. needles on a saguaro cactus, pets in the house vs. hairs on the cat, slides on the playground vs. wood chips on the playground, pages in a book vs. letters in a book.

3. Draw a map or look at a map with your child(ren) to examine distances, ex: Is it farther to Grandma's house or the store? Is it farther to your school or to the moon? Use relative lengths to show how these distances compare. Grandma's house is 255 miles away; the store is 2 miles away. Discuss the time it takes to travel to these places. It takes 5 hours to get to Grandma's house, but it only takes 5 minutes to get to the store. The distance from the Earth to the moon is about 240,000 miles. The distance from the Earth to Mars is about 40 million miles. It took the Apollo astronauts about 4 days to travel to the moon. It would take about 150 days to travel to Mars.

TO COMPARE QUANTITIES OF DIFFERENT SIZE AND UNITS ...

1. For older children [ages 8-10], compare quantities that have varied size, weight, or shape, ex: How many cups of water does it take to fill a bucket? How many ice cubes fill up the bucket? Is 2 pounds of ice cream more than 20 ice cream scoops? Answers for these questions will vary. The idea is for kids to explore different ways of measuring different quantities and go between measuring numbers (ex: pounds) to counting numbers (ex: scoops).
2. Quiz your children to help them recognize and know related units. Ask them if they would rather have a dime or a quarter. Ask them if a teaspoon is less than or greater than a tablespoon. Ask them if they would rather have 12 inches of gummy bears or a foot of gummy bears.
3. Do a science experiment with your kids to explore area and volume with different units, ex: Find out how much sand it takes to cover a surface vs. how much paint. Find out how much flour it takes to cover a counter vs. how much cookie dough it takes to spread over that same surface. Which takes up more space when stored in equal sized containers? There are many variables in this experiment that would change the results, but it is useful for exploring the relationships between areas, space (volumes) and mass. These are basic spacial/dimensional quantities that we typically refer to as "size." The end goal here is for children to develop the concept that size itself is a relative term and can have many quantitative and qualitative meanings.

Activity:

When are 2 pets not a lot?	When are two pets a lot?
When are 6 ice cream cones not a lot?	When are six ice cream cones a lot?
When are 8 shoes not a lot?	When are eight shoes a lot?
When are 20 hairs not a lot?	When are twenty hairs a lot?

When are 60 candles not a lot?	When are sixty candles a lot?
When are 200 cookies a not lot?	When are two hundred cookies a lot?
When are 100 blades of grass not a lot?	When are one hundred blades of grass a lot?
When are 1000 pieces of paper not a lot?	When are one thousand pieces of paper a lot?

For Further Discussion

- When is yelling in a loud voice okay and when is it not?
- When is whispering okay and when is it not?
- When is playing with just one friend okay and when is it not?