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Taking care of five ducks is a lot of work. When five ducks are joined by five friends, it's twice the work.

Ages: 2 to 5 years

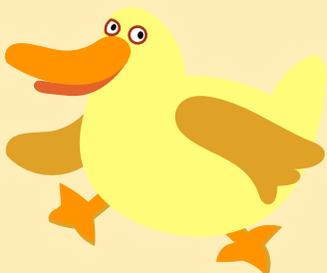
ATOS Reading Level:

2.2

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Double the Ducks

How would you take care of a duck?

Topics: counting, doubling, mathematical reasoning, addition, multiplication

Activities To Do Together:

Before you read the book *Double the Ducks* with your child:

- Look at the book cover together and read the title of the story. Ask your child what they think will happen in this story.
- Talk about what it means to double something.

As you read *Double the Ducks* with your child:

- Count the ducks. Point out how numbers are written as numerals and spelled as words.
- Describe what the ducks are doing and where they are located using words like “on,” “beside,” “behind,” and “under.”

When you are done reading *Double the Ducks*:

- Talk about the boy’s daily routine caring for his ducks. What does he do first, second, next?
- Encourage your child to lead a finger doubling game by holding up any number of fingers from one to ten. Follow along by holding up the same number of fingers your child is showing. For example, if your child holds up four fingers, you will also hold up four fingers. Ask your child to count the total fingers shown and tell you the doubled amount.
- Use a mirror to explore doubling. Collect a small group of objects. Place them in front of a mirror. Count the objects and their reflections in the mirror to figure out how many you would have if the objects were doubled.
- Use two dice to practice doubling. Roll one of the dice. Ask, “What is double that number?” To find out, arrange the other dice to show the same number as on the first dice. Count the spots on both dice to find the doubled number.
- Place a collection of pennies in a bag. Remove some pennies. Count them. Then remove enough additional pennies from the bag to have double the original amount taken from the bag. How many total did you remove from the bag?



Conversations During Daily Routines with Infants and Toddlers:

1. Snack time - When your child asks for more, give them double. "You had one strawberry slice. Can you eat double the slices? One, two."
2. Bed time - "It's bedtime! Thanks for the hug. Would you give me double the hugs?"
3. Clean up time - "We put two books back on the shelf. Let's put away double the books. Two more books. Now there are four on the shelf. One, two, three, four."
4. Outside time - "You collected three maple leaves. Let's collect double the leaves and count them together."

Questions for Mathematical Thinking:

1. Why does the boy in the story end up taking care of double the ducks?
2. What did the boy have to do differently when his flock of ducks doubled from five to ten ducks?
3. If five ducks have ten feet, how many feet do ten ducks have? (Hint: if your child isn't sure, find a page with ten ducks and count their feet)
4. Would you rather be responsible for taking care of 5 ducks or 10 ducks? Why?
5. Describe how you would make a cozy nest for a duck. What would you use to make it? What would you do first?
6. Do you think the boy needs a friend to help him take care of the ducks? Why or why not?

Early Math Project Resources:

[Double Time Duck Nap](#)

[Double Time Game Board](#)

[Double Up](#)

[Thirty-Six](#)

Follow this [link](#) for additional online resources.

Vocabulary

Math words found in the story: double, each, five, four, little, one, six, ten, three, two

Related math words: multiply by two, ratio, twice

Words to build reading

comprehension: bundle, cozy, flock, glide, sacks

Spanish Title: not available

Related Books: *Two of Everything* by Lily Toy Hong; *Minnie's Diner: A Multiplying Menu* by Dayle Ann Dodds; *Sixteen Runaway Pumpkins* by Dianne Ochiltree

This link to the [World Catalog](#) will help you find *Double the Ducks* in the public library.



Math Connections:

The word “double” has more than one meaning. “Double” can be used to indicate something looks like something else or that something has been folded or bent. When we talk about doubling in math, we mean that we have twice the amount that we started with. Are there similarities in the different meanings for the word “double?”

Depending on your child’s readiness, the concept of doubling can be reinforced verbally, visually, through counting, through addition, and/or through multiplication.

Families and teachers can introduce the idea of doubling to infants and toddlers with foods or toys. These can be simple observations like, “You have two feet. I have two feet too. Together we have four feet. One, two, three, four. Four feet is twice as many as two feet.”

Older toddlers and preschool children may enjoy exploring the idea of doubling by observing or counting the objects that are reflected in a mirror. For example, they might hold up one finger, notice that the finger is reflected in the mirror and count two fingers.

Ask children who have started to learn about addition to show how each of the numbers 0 through 10 added to itself doubles the value of the number.

For example:

$$0 + 0 = 0$$

$$1 + 1 = 2$$

$$2 + 2 = 4$$

$$3 + 3 = 6$$

$$4 + 4 = 8$$

$$5 + 5 = 10$$

$$6 + 6 = 12$$

$$7 + 7 = 14$$

$$8 + 8 = 16$$

$$9 + 9 = 18$$

$$10 + 10 = 20$$

Ask your child to share the patterns they notice.



An even number is a whole number (0,1,2,3,4, etc.) that can be divided by two into two equal whole numbers. The numbers 0, 2, 4, 6, 8, 10, 12, 14, 16, and 18 are the first 10 even numbers. Ask your child to tell you about the patterns they notice in the sequence of even numbers. Ask your child to come up with a way to predict whether a number is even. Ask them to explain their theory to you.

Ask children who have begun to learn about multiplication to prove whether doubling a number, adding a number to itself, and multiplying a number by two all mean the same thing.

Do some “doubling” problem solving. Ask your child to figure out how old they will be when they are double their age. Ask your child to figure out how much money they would have if they had double the money in their piggy bank. Encourage your child to invent some of their own “doubling” problems.

Do some backward “doubling” problem solving. Figure out how a group of objects can be divided so that two people get an equal share. You might also try choosing any even number and figuring out the pair of doubles that were added together to total that number.



DISCOVERING THE MATH: BOOK GUIDE

Age Level	Related Infant Toddler Foundations , Preschool Foundations and CA State Standards
Infant/ Toddler	<p>Number Sense The developing understanding of number and quantity</p> <p>Attention Maintenance The developing ability to attend to people and things while interacting with others and exploring the environment and play materials</p>
Preschool/ TK	<p>Number Sense 1.0 Children begin to understand numbers and quantities in their everyday environment</p> <p>1.2 Begin to recognize and name a few written numerals</p> <p>2.0 Children expand their understanding of number relationships and operations in their everyday environment.</p> <p>2.3 Understand that putting two groups of objects together will make a bigger group and that a group of objects can be taken apart into smaller groups.</p> <p>Mathematical Reasoning 1.0 Children expand their use of mathematical thinking to solve problems that arise in their everyday environment.</p>
Kindergarten	<p>Counting and Cardinality K.CC.4; K.CC.5; Count to tell the number of objects</p>
First	<p>Operations and Algebraic Thinking 1.OA.5; Relate counting to addition and subtraction</p>