

Unit Name/Theme: Puzzles—Counting and Comparing with Toddlers

What are we doing? While playing with simple puzzles and books, toddlers will practice counting from 1-5 (working their way up to 10) and 1-1 correspondence (pointing to one item as they say each number in order to figure out the amount.) They will also practice comparing by identifying similarities and differences and by playing with the concept of more or less.

Purpose/Why?

Puzzles are a fun way to introduce early math skills. Puzzles also help children practice persistence, problem-solving, fine motor skills, and hand-eye coordination. Between the ages of 0-36 months, toddlers can learn to count out loud from 1-10, and can keep 1-1 correspondence for five or less objects in a line. Toddlers can understand the idea of more or less for small collections of items, or when there is a large difference between the quantities of items. 1-1 correspondence and the ability to compare groups of items are important early math skills that children need to understand before they can advance to the skills they need to learn to be kindergarten ready. (*Learning Pathways in Numeracy: Addressing Early Numeracy Skills*, Superintendent of Public Instruction for the State of Washington)

Materials provided:

- Melissa and Doug “ABC—123” chunky Puzzle
- Melissa and Doug “Vehicles” jumbo knob puzzle

Materials you provide:

Simple toys or toddler safe objects that can be counted and grouped, such as blocks or Cheerios®.

Books:

- “Count with Little Fish” by Lucy Cousins
- “Hide and Seek” by Taro Gomi
- “Counting Dinosaurs” by Roger Priddy



Vocabulary Builder:

Number words from 1-10, more, less, same, different, bigger, smaller



Quick Start—Counting and 1-1 Correspondence:

Explore the “ABC—123” puzzle together. Take out the number puzzle pieces and count them. Then count them again as you put them back. Do the same steps with the shapes puzzle pieces and the letter puzzle pieces.

Unit Name/Theme: Puzzles—Counting and Comparing with Toddlers

Quick Start—Counting and 1-1 Correspondence, continued:

Each time you count a set of puzzle pieces, point to each puzzle piece one at a time as you say the number and then at the end state the number of puzzle pieces there are. This will help your toddler make the connection between counting and figuring out how many pieces there are. Children need a lot of practice and repetition in order to learn 1-1 correspondence! After you have explored the puzzle together, let your child play with the puzzle on their own.



Ask a Question:

- “How many puzzle pieces are green? How do you know?”
- “Which two puzzle pieces look the most alike? Why?”
- “Which three puzzle pieces are your favorites? Why?”



Deeper Dive:

Now that you have practiced counting objects, read “Counting with Little Fish” and practice counting images. As you read, count the fish on each page. Encourage your child to place their finger on each fish as you count. Count several different ways. Sometimes you can count, “1, 2, 3—there are three fish.” Then count, “one fish, two fish, three fish—there are three fish.” Hearing the same concept different ways can help children begin to understand 1-1 correspondence.

Show Me, Show a Friend:

Take your 1, 2, and 3 puzzle pieces and lay them on the floor in order. Then take out some toys or other objects. Ask your toddler to count out one item to go with the number one. Then 2 items for the number 2, etc.



Deeper Dive:

Read “Counting Dinosaurs” with your toddler and use objects to help you count. For example, on the first page when you are looking for dinosaurs with spots, each time your toddler finds a spotted dinosaur, ask them to grab a block. When you are done finding the spotted dinosaurs, you can count the blocks they have collected. Counting the blocks can also be a good way to see if you’ve found all of the dinosaurs, since it can be hard to keep track of how many you’ve found as you’re looking. If you only have three blocks, then you know you haven’t found all of them yet. Once you have four blocks, you can then re-count the dinosaurs on the page. When you are counting four blocks, and then counting four dinosaurs you are helping your toddler understand that you can use counting to figure out the amount of items you have.

Unit Name/Theme: Puzzles—Counting and Comparing with Toddlers

Other Activities:

- Play with math while you *read books!* You don't need a counting book to count. Get in the habit of looking for items you can count in the pictures of any book you read. If you read several books, count how many you read when you are done.
- Count cars as they drive by your house. You can use your blocks and put one in the bucket each time a car drives by and count them at the end.



Quick Start—Comparing:

Explore the "Vehicles" puzzle together. Talk about how the vehicles are the same and how they are different. Ask them to point to any vehicles that fly. As they do, take those pieces and put them in a pile. Next, ask them to point to the vehicles that drive on the road. Take these pieces and put them together in a pile. Ask your toddler which pile has more pieces. Then count each pile of pieces. If they don't understand the concept of more yet, you can ask them which pile is bigger, and then explain that the pile is bigger because it has more pieces and then count the pieces together. You can repeat this activity with different criteria (vehicles with wheels, vehicles in the sky, vehicles in the water, etc.) Also, try asking which pile is smaller, or which pile has fewer pieces.

Show Me; Show a Friend:

Switch places and play the game again. This time, your toddler will put the pieces into piles and ask you which pile has more or less. Then they can count each pile.



Deeper Dive:

Read "Hide and Seek." This book challenges your toddler to look for similarities and differences. The ability to compare items will help them as they learn more advanced math concepts later on. Ask them, "Which animals look the same?" "Which animal looks different?" As you read, also ask them which group has more or less. For example, "are there more giraffes with candles on their head or more giraffes without candles?" This will be more challenging since they won't be divided into two distinct groups. If needed, you can bring out your counting and grouping objects again. Create piles for giraffes with and without candles, and then compare the groups to see which has more or less.

Other Activities:

- Play with math while you *eat!* Ask if there is more food on your plate or theirs. Let them make piles of Cheerios® or other food and compare which pile has more or less.
- Let your toddler help you sort socks. They will need to compare size, patterns, etc. to find the right matches. At the end, you can sort the piles by family member. Who has the most?