

Unit Name/Theme: Puzzles—Geometry with Toddlers

What are we doing? While playing with simple puzzles and books, toddlers will learn early geometry concepts such as identifying shapes and beginning to understand spatial relationships. They will also learn and play with positional words and phrases such as in, on, and next to.

Purpose/Why?

Puzzles are a fun way to introduce early geometry concepts. Puzzles also help children practice persistence, problem-solving, fine motor skills, and hand-eye coordination. Between the ages of 0-36 months, toddlers are able to recognize and name circles and squares, and sometimes other simple shapes. Toddlers are able to begin putting together simple matching puzzles; they learn to rotate the piece to fit the space. Toddlers can follow simple directions related to position, such as in, on, up, and down. These early geometry concepts lay the foundation for more complex geometry skills that are important for kindergarten readiness. (*Learning Pathways in Numeracy: Addressing Early Numeracy Skills*, Superintendent of Public Instruction for the State of Washington)

Materials provided:

- Melissa and Doug “First Shapes” jumbo knob puzzle (house)
- Melissa and Doug “Farm” chunky puzzle
- Melissa and Doug “Pets” peg puzzle

Optional Materials:

- Box and items to put in, on, under, etc. the box

Books:

- “Shapes” by Jane Cabrera
- “Baby’s Shapes” by Karen Katz
- “Chugga Chugga Choo Choo” by Emma Garcia



Vocabulary Builder:

Circle, square, triangle, rectangle, oval, in, on, under, above, up, down, same, different



Quick Start—Shapes:

Explore the “First Shapes” puzzle together. Look at each piece and name what shape it is. Talk about how many sides each shape has, if it has corners or if it’s smooth. How are the shapes the same or different? Look at the spaces that the pieces fit into and name the shape of each space. Pick one puzzle piece and review that shape and see if

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Quick Start—Shapes, Continued:

they can find the right space to put it in. You can give help by using positional words such as “try moving it *up* a little” and then demonstrating what that looks like. Repeat these steps with another shape, then let your child play with the puzzle on their own for a while. If they ask for help, try prompting them with questions instead of giving them the answer. This gives them a chance to work on their perseverance and problem solving skills.



Ask a Question:

- “What shapes do you see in this puzzle?”
- “What shape is the sun puzzle piece? How do you know?”
- “Which is the triangle puzzle piece? What do triangles look like?”
- “How are the shapes the same? How are they different?”

Show Me; Show a Friend:

After your child has played with the “First Shapes” puzzle for a while, read “Baby’s Shapes” and have your child point out and name the shapes as you read.



Deeper Dive:

Have your puzzle pieces next to you and read the book “Shapes.” As you read, see if your child can choose the puzzle piece that matches the shape on that page. You will not have a matching piece for the last three pages, but you can ask your child which shape they think is the most like that shape and why. Comparing and recognizing similarities and differences between two items are important skills that will help them when they learn to identify more challenging shapes, and when they start to learn more advanced math concepts, such as quantity, addition, and subtraction.



Deeper Dive:

Read “Chugga Chugga Choo Choo.” Before you start, pick a shape your child is good at recognizing, then have your child point out that shape as you read the book. The shapes in this book are less obvious than in the other books, so this will be more of a challenge! Read the book again while they look for a different shape or find as many shapes as they can.

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Other Activities:

- Go on a shape walk in your neighborhood. Pick a shape, and look for that shape during your walk. Begin with squares, rectangles, or circles since they are easier to find.
- Let your child eat their shapes! Cut sandwiches into triangles, give them round crackers with square cheese slices, etc. When you name a shape, they have to find a food that is that shape and eat it!



Quick Start—Positional Words:

Use any of the puzzles to introduce positional words and phrases to your toddler. While your toddler is playing with the puzzle, narrate what they are doing using words such as *in*, *on*, *up*, *down*, *above*, or *below*. For example, “you figured out that piece didn’t fit *in* that space, so you tried the space *below* it” or “you had to move that piece *down* a little to get it to fit *in* the space.” You can also work on positional words by asking questions about the pictures while they play. For example, with the “Pets” puzzle you can ask questions such as, “what animal is *on* the fence?” or “what is *in* the dog’s bowl?” With the “Farm” puzzle you could ask “what animal is *below* the barn?” or “which animal is *under* the goat?”



Deeper Dive:

Read the book “Chugga Chugga Choo Choo,” and as you read the book, use positional words and phrases to talk about what is happening in the pictures. For example, “the train is *on* the bridge,” “the crab is *under* the bridge,” or “the birds are sitting *in* the train car.”

Show Me; Show a Friend:

For more verbal toddlers, have your child retell “Chugga Chugga Choo Choo” using pictures as clues. If they don’t use positional words, prompt them by asking questions such as “what’s *under* the bridge?” or “what is *above* the train?”

Other Activities:

- Use a box and toys to play with positional words and phrases. Start by narrating what you are doing, such as, “I put the toy *in* the box” or “I put the toy *under* the box.” Next, let your child move items around and you narrate what they are doing. Finally, you put the toy somewhere and ask them to tell you where it is. This game is great for learning *in*, *on*, *above*, *under*, and *next to*.

Other Activities:

- Play a simplified version of "Simon Says." Instead of trying to catch them moving when you don't say "Simon Says," just use the phrase every time and give them phrases. Some examples are "put your hand *on* your head," "put your hand *under* your chin," and "put your hand *next to* your other hand."