

Kindergarten Readiness

MATH



Number Sense

Algebraic Thinking

Geometry

Measurement

Data Analysis & Probability



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NUMBER SENSE

- Play the card game *War* to compare numbers.
- Tell your preschooler a number. Ask them to tell you which number is one more & which is one less.
- Get outside with a bucket of water. Have your preschooler roll a die and scoop that many cups of water into a separate container.
- Write numbers 0-10 on the sidewalk with chalk. Call out a number. Have your preschooler smash that number with a water balloon or squirt it with a squirt bottle.

1. NUMBER SENSE

Number Sense is having a deep and thorough understanding of numbers and how they work in relationship to one another.

The pre-k exit goals related to number sense include:

- Rote counts to 10 and beyond
- Identifies numeral 0 to 10 & beyond
- Uses a variety of materials to form numerals
- Compares 2 sets of objects using greater than, less than, & equal to
- Identifies quantities of 3-5 by subitizing
- Matches numerals to quantities using manipulatives
- Demonstrates rational counting & cardinality up to 10
- Demonstrates one-to-one correspondence
- Understands that adding increases the number in a group (addition)
- Understands that taking away decreases the number in a group (subtraction)
- Differentiates between numbers and letters

Here are some ways you can build your preschooler's number sense:

- Draw circles on a big sheet of paper and write numbers inside each circle. Have your child roll a dice and color in the matching circle.
- Using playing cards, you & your child will each choose a card. Ask them which number is bigger. Whoever has the bigger number gets to keep both cards.
- Using half sheets of paper, write one number per half (very large). Have your child use stickers or do-a-dot markers to make the shape of the number.
- Write numbers 0-10 on a large piece of paper, but leave some numbers out. Have your child add those numbers in.
- Write numbers 0-10 in sidewalk chalk outside. Have your child jump to the number you call out, then either smash that number with a water balloon or use a spray bottle to erase the chalk.
- Get outside with a bucket of water. Have your child roll a dice and scoop that many cups of water into a separate container.

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ALGEBRAIC THINKING

- Have your preschooler make patterns out of colorful pom poms, blocks, gems, or snacks.
- Play *Simon Says* with your preschooler and a stuffed animal. Give them commands such as, "Simon says put the stuffed animal on top of your head."
- Gather a group of toys and ask your preschooler to sort the toys into different groups. Then ask them to explain their reasoning.

2. ALGEBRA

Our preschoolers can learn *algebraic thinking* even at this age since it's related to spatial relationships and patterns.

The pre-k exit goals related to algebra include:

- Recognizes, duplicates, & fixes patterns
- Extends & creates own patterns
- Compares objects
- Uses & responds to spatial language
- Sorts objects by similarities

Here are some ways you can build your preschooler's number sense:

- Have your child make colorful patterns out of pom poms, legos, gems, or snacks (start with AB & ABC patterns, then add in more complicated ones like AAB, ABB, ABBCC, etc.)
- Draw a circle for a sun. Have your child make patterns out of the sun's rays, alternating between yellow and orange.
- Play *Simon Says* with your child and a stuffed animal. Give commands such as, "Simon says put your stuffed animal on top of your head. Simon says put your stuffed animal behind your back."
- Gather a group of toys. Have your child sort the toys into different groups and explain their reasoning to you.

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GEOMETRY

- Draw or print 2D shapes and tape them to the wall. Call out a shape, and have your preschooler toss a beanbag or soft ball at that shape on the wall.
- Use shape cards to play *Memory* or *Go Fish*.
- Make 2D shapes out of play dough or by using marshmallows & toothpicks.
- Have your preschooler find objects around the room that match different shapes.
- Go on a shape scavenger hunt outside.

3. GEOMETRY

Geometry is all about shapes and lines and their relationships in space.

The pre-k exit goals related to geometry include:

- Knows & creates basic 2D and 3D shapes

Here are some ways you can build your preschooler's geometry skills:

- Print 2D shapes to review shapes. Tape them to the wall, and have your child toss a beanbag at the shape you call out.
- You can also use those cards to play *Shape Memory* or *Go Fish*.
- Make 2D shapes out of marshmallows and toothpicks, or form each shape out of play dough.
- Have your child find objects around the house that match different shapes.
- Go on a shape scavenger hunt outside

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MEASUREMENT

- Choose 5 different toys. Have your preschooler put them in order from tallest to shortest.
- Choose 5 different books. Have your preschooler put them in order from smallest to biggest.
- Have your preschooler measure their favorite stuffed animal using paperclips. Then have them measure it with a ruler. Talk about why they got different answers.
- Have your preschooler help you bake in the kitchen and use measuring spoons & cups.

4. MEASUREMENT

Measurement is all about recognizing and defining the size or amount of something. Preschoolers LOVE to measure, and this is the perfect area of math for hands-on learning.

The pre-k exit goals related to measurement include:

- Uses standard & nonstandard units of measurement

Here are some ways you can build your preschooler's measurement skills:

- Choose 5 toys. Have your child measure each one with a ruler. Then have them put the toys in order from tallest to shortest.
- Gather 5 different-sized books. Have your child put them in order from smallest to biggest.
- Have your child measure their favorite stuffed animal using paperclips. Then have them measure it using their foot. Talk about how the two answers are different.
- Have your child help you bake something in the kitchen. Baking is a wonderful way to practice measurement.

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DATA ANALYSIS & PROBABILITY

- Help your preschooler keep track of the weather for a month and turn that data into a bar graph.
- Help your preschooler keep track of how they're feeling for a month and turn that data into a tally chart.
- Have your preschooler ask their family & friends a question (such as "What's your favorite season?") and use that information to create a bar graph.
- Have your preschooler answer questions about their bar graph or tally chart.

5. DATA ANALYSIS & PROBABILITY

In preschool, data analysis & probability is all about graphing, which is such a fun skill for our children to master.

The pre-k exit goals related to data analysis & probability include:

- Asks questions to gather data
- Displays data & answers questions about it

Here are some ways you can build your preschooler's data analysis & probability skills:

- Have your child keep track of the weather each day & record it on a bar graph.
- Have your child keep track of their feelings each day & record it on a tally chart.
- Have your child ask friends & family their favorite season, fruit, vegetable, candy, ice cream, or anything else you can think of! Then show the results on a bar graph.
- Ask your child questions about their bar graphs or tally charts (ex: Which had the most? Which had the least?)