

# Spatial Skills

We use spatial skills and reasoning throughout the day. We can improve our spatial skills with practice.



## GO ON A SHAPE HUNT

Understanding the names and features of shapes is an important school readiness skill. One of the best ways for children to learn about shapes is through experience.



### TRY THIS!

Go on a shape hunt in the house or through the neighborhood. Ask children to look around and name and find shapes with four sides. Shapes are everywhere from the books you read to the food you eat!

## TALK ABOUT IT

When adults use spatial language like *down* and *up*, children tend to use more spatial words too. Spatial language helps children learn math concepts.

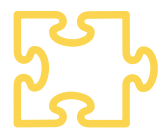


### TRY THIS!

Add spatial language and gestures to your daily activities. Talk about driving *under* a bridge, putting fruits *in* your grocery cart, or that you are sitting *next to* your child. Add gestures to bring the spatial words to life.

## PLAY WITH PUZZLES

Young children's early experiences with spatial concepts shape their later spatial skills. We can improve spatial skills with practice at any age!



### TRY THIS!

Bring out the blocks and puzzles! During puzzle play, let children explore where a piece should go, rather than placing it for them if they get stuck. Children practice spatial thinking with every piece they rotate and place.

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# Math and Play

Children naturally explore and practice math skills as they play.



## BE PLAYFUL & CURIOUS

Act as play partners and curious onlookers. Children are more likely to learn math concepts when taught in a playful way.



### TRY THIS!

What activities do you like to do with your child? How can you add math in a more playful way? While stacking cups, count or sort the cups by size. Talk about spatial concepts as you hide a toy *under* or *behind* a cup.

## FOSTER EXPLORATION

Make space and time for children to be active explorers. Children learn more when they are hands on, compared to just listening or memorizing concepts.



### TRY THIS!

Instead of repeating math concepts like one plus one equals two, ask a child to show you. "You have one red crayon. How many more crayons do you need to make two?"

## FOLLOW THEIR LEAD

Play changes and children engage in math in new ways as they grow. Follow a child's lead and interests, and offer suggestions as their play changes over



### TRY THIS!

Watch as a child explores, then add some math! With a baby, talk about the shape or size of an object they have in their mouth. With a toddler, trace and count the number of sides on each shape together.

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# Math Stereotypes

Math stereotypes develop early but we can change how children think about math.



## ENCOURAGE MATH PLAY

Boys often have more opportunities to build math skills compared to girls. This can lead to boys showing more interest in math than girls.



### TRY THIS!

Encourage girls to play with toys that boost math skills, like building sets, as often as you encourage boys. Talk about math concepts as you build. Ask math-related questions, like “What size piece fits here?”



## MAKE IT HANDS-ON

Being actively engaged is an important part of the learning process. Provide hands-on opportunities for girls and boys to build math skills.



### TRY THIS!

The next time your child wants to help out with a measuring task or building project at home, let them! Even a younger child can help hold a ruler or find the right size screw.



## SET AN EXAMPLE

Children develop stereotypes about ‘who does math’ from a young age. We can help change these stereotypes through our own words and actions.



### TRY THIS!

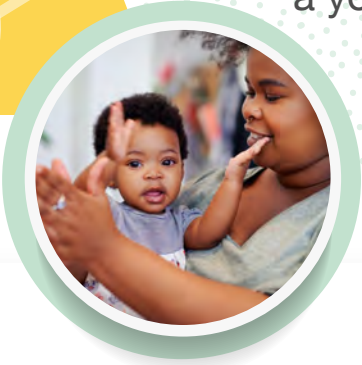
Be confident in your own math ability. Remember, you use math every day! When your child has a math problem you’re not sure about, don’t make a big deal about it. Work through the problem together!

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# Early Numeracy

Children have a natural interest in math. Adults can help children learn numeracy skills from a young age.



## FIND THE MATH

You don't need to create new opportunities for children to support their early math skills. You can find the math in the activities and routines they do every day.



### TRY THIS!

Look for patterns around the house from the floor to your clothes. Make patterns together with blocks or by clapping to music. Ask what comes next during a step in your bedtime routine.



## BE THEIR GUIDE

Adults can use scaffolding and language to help children learn math concepts. Children will also pick up math concepts from watching you!



### TRY THIS!

Compare and contrast as you get ready for the day. "Daddy's shoes are big, but your shoes are little." Bring your hands close together to show "little" and stretch your arms wider to show "big."



## COUNT TOGETHER

Counting is more than reciting numbers in order. Children need to learn one-to-one correspondence, counting each object in a set one time.



### TRY THIS!

Add counting to your daily routines. Touch each baby toe as you count '1, 2, 3...' during bath time. Ask your toddler to count how many ladybugs are on the page in a book or the number of apples on their plate.

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