



Early Learning Coalition of Seminole

Provider
Newsletter

Spatial Skills: The Secret Ingredient to Children's STEM Success

By Deborah Farmer Kris

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What do reading a map, building a block tower and loading the dishwasher have in common? They are all activities that strengthen spatial reasoning, a skill set that is vital to children's success in math and science.

Research indicates that spatial reasoning skills correlate to children's early achievement in math and "strongly predict" who will pursue STEM careers later in life.

According to Temple University's Dr. Nora Newcombe, spatial thinking is what allows us to mentally "picture the locations of objects, their shapes, their relations to each other and the paths they take as they move." In daily life, we use spatial reasoning to read maps, find our way home from the store, interpret diagrams and charts and understand how objects relate to each other — a skill needed for everything from hitting a tennis ball to building a LEGO structure.

And it turns out that early exposure to spatial skills makes a big difference. As Newcombe said, "There is growing evidence that strong spatial reasoning skills in preschool help support math learning in elementary school."

Read and Draw Maps

Aren't maps becoming obsolete in the age of GPS? Not so fast. Map reading remains a key tool for building children's spatial reasoning skills and helping them make sense of their world. Here are three fun ways to tap into the benefits of mapping.

- **Draw a Map:** After looking at maps together and talking about how they work, grab some paper and work with your child to draw maps of places you both know well. Start with rooms in your home and then branch out to favorite places such as a local park. Use simple shapes to draw and label objects such as furniture or playground equipment. Take a walk around the block together, looking for landmarks to include in a neighborhood map. As kids get more proficient, encourage them to create maps of imaginary worlds or of places in their favorite books or movies.
- **Treasure Map:** After drawing a map of a room together, hide a special object somewhere in the room and then point to its location on the map. If they struggle, use spatial language to give clues, such as "It's under a pillow" or "It's inside a cabinet."
- **Talk about Directions:** As you drive or walk together, ask them to anticipate where you need to go next. "Which way do we turn at this stop sign? Right or left?" or "How many stops are left before we get off the subway? Let's look at the wall map."

When we help kids develop their spatial skills, we give them a mental framework for understanding how the world — this beautiful, mathematical, scientific world — works. And that, in turn, will help them figure out their place within it.

For more information and resources on STEM or STEAM, please visit <http://www.naeyc.org/STEM>

PreK-K: Safety Rules for Summer

Activities to get kids ready for (safe) summer fun from Instructor Magazine and Kim Greene

Mother, May I ... Jump Into the Pool?

What You Need: A large Hula-Hoop, a parent or other adult volunteer

What To Do: PreK teacher Deborah Stewart of the Teach Preschool Children’s Studio in Noblesville, Indiana, has found a way to practice water safety without access to a pool. All you need is a Hula-Hoop, and an adult volunteer. First, talk about pool safety rules, such as no running around the pool and never going in the water unless an adult is nearby. To play the game, says Stewart, lay the Hula-Hoop in the center of the room. Have your volunteer stand on one side of the hoop, and ask a student to stand on the opposite side, about five feet away. Then have the children chant, “Mother, Mother, may I jump into the pool?” The volunteer should say, “Not until I am with you—that’s the rule!” Next, the adult takes a step closer to the hoop and the children repeat the chant. With each repetition, the parent takes one step closer. When the parent gets to the edge of the hoop (or inside of it), he or she modifies the chant to say, “Yes, I am here with you. Hooray! You followed the rule!” At that point, the child can jump into the “pool.”

Paint On the Sunscreen

What You Need: Colored construction paper, markers, paintbrushes, sunblock

What To Do: Before you head to the pool, don’t forget sunscreen! Stewart also suggests an art activity that helps students visualize the importance of protecting themselves from the sun’s rays. Distribute a piece of construction paper to each student. Have them use a marker to draw an outline of themselves on the paper. Then, using sunscreen as “paint,” students should slather it on their figures with the brush. As they work, talk about the importance of wearing sunblock. Invite kids to predict what will happen if they go outside without it. Take a trip outside after students are done painting. Place the paintings in direct sunlight for several hours, then stop by later in the day and take notice of the difference in color. “Anyplace the sunscreen was not painted should be faded by the sunlight,” says Stewart. “I tell kids that the sunscreen protects the original color of the construction paper, just like it protects our skin.”

Fill It Up!

What You Need: Water bottles or cups, glue, decorations

What To Do: The summer heat can be dangerous, especially for very young kids. Laura Anderson, a prekindergarten teacher at Franklin Special School District in Tennessee, has found a way to beat the heat. She begins by reading the book *Today Is Hot* by Martha Rustad, using the book as a jumping-off point to discuss the importance of staying hydrated. “I tell students that we have to take precautions by drinking lots of water before we go out. We should drink more water while we’re outside, and we need to drink even more after we come inside,” she says. (The emphasis is on water, as sugary drinks have the opposite effect, removing water from the body.) As a fun reminder, Anderson allows students to decorate their own cups or bottles and makes kids responsible for filling up when they run low.

Community Safety Helpers

What You Need: Volunteers from your community

What To Do: Berg’s students learn about a different kind of safety each day of the week for one week. To try this with your class, tap into the summer safety helpers in your community. For bike safety day, you might contact your police department about hosting a bike clinic. For water safety day, reach out to the [YMCA](https://www.ymca.org/) to see if a lifeguard can visit your class and talk about the rules of the pool. For sun safety day, invite a nurse or EMT to talk about the importance of sunscreen and hydration. To encourage a home-school connection, send a letter home in advance of summer safety week to see if families can connect you with any community helpers who would be willing to visit your class.

For more information, please visit the following website: <https://www.scholastic.com/teachers/home/>

Easy Summer Recipes

Strawberry Blueberry Frozen Yogurt Bark

Ingredients

- 1 cup – yogurt, plain
- 1 tablespoon – maple syrup, pure
- $\frac{1}{4}$ cup – blueberries
- $\frac{1}{4}$ cup – strawberries

Directions

1. Mix the yogurt with maple syrup and place onto a parchment lined cookie sheet.
2. Top yogurt with blueberries and strawberries.
3. Freeze for 6-8 hours or overnight. Break up and serve.



Coconut Lime Energy Bites

Ingredients

- 1 medium – lime
- 2 cup – dates, pitted
- 1 cup – coconut flakes
- $\frac{1}{2}$ cup – pumpkin seed kernels
- $\frac{1}{4}$ teaspoon – vanilla extract

Directions

1. Zest and juice one lime.
2. Place all ingredients into a food processor. Pulse to roughly break up the ingredients.
3. Continue to process until mixture comes together into a large ball.
4. If, after 1 minute your mixture still isn't coming together, add water one teaspoon at a time until mixture comes together.
5. Roll mixture into 1" balls and place on a plate or baking sheet. (You should get approximately 20-24 balls)
6. Refrigerate 10-15 minutes to chill slightly, then transfer to an airtight container or bag and store in the refrigerator.



Red, White, & Blue Berry Banana Smoothie

Ingredients

- 2 cup – strawberries, frozen, sweetened, whole
- 1 cup – raspberry juice
- 1 tablespoon – honey
- 2 medium – banana
- 1 cup – almond milk, unsweetened
- 2 cup – blueberries
- 1 $\frac{1}{4}$ cup – almond milk, unsweetened
- 2 tablespoon – flaxseed, ground

Directions

1. If you do not want the separate layers, just blend everything together at once in a high-powered blender.
2. If you DO want layers, start by blending the red layer ingredients together. Pour into individual glasses, about $\frac{1}{3}$ full. Set glasses in freezer for 10 minutes.
3. Rinse out the blender jar to remove any remaining red layer mixture. Then, add in your white layer ingredients. Blend until smooth. Pour the white layer over the frozen red layer, filling about $\frac{2}{3}$ full. Set glasses back in freezer for 15 minutes.
4. Rinse out the blender jar to remove any remaining white layer mixture. Then, add in your blue layer ingredients. Blend until smooth. Pour the blue layer over the frozen white layer, filling to the top.
5. Serve layered with a straw.



For more recipes, go to <http://www.superhealthykids.com/>