

What We Can Continue to Learn from Fred Rogers



Math Isn't Just Numbers – It's Words!



I heard a teacher offer a reassuring note -- and a math lesson -- when she told a three-year-old that it was time for her group to go to the bathroom. She said that she'd put the stuffed animal the child was holding "up high on the shelf so no one would get it."

The teacher told me no one would go to the bathroom if she didn't do that! That was her reassurance, but did you also hear the math lesson? It was in her words, "...*up high...*" Those are some of the everyday words in the

category of **spatial relations**, one of the Common Core Math Standards in early childhood.

While we usually think of math as numbers, spatial relations is more about words...words like *over, under, through, heavy, far, near, up, down, inside, outside, next to, in front of*, etc.

An easy way to understand spatial relations is to think of words that help us know where something is in space, in relation to other things. These words tell us about the position or distance or movement of things, so they're especially useful for all kinds of STEAM learning (Science, Technology, Engineering, the Arts and Math).

Most likely you use these math words all the time, just as Fred does in this *Neighborhood* video. When you are aware of how important spatial relations words are, you may be surprised to see how naturally you've been using them in your interactions with the children.



Here are some ways we can help children learn about spatial relations:

With our words

There are lots of opportunities to use these math words all through the day. On the playground you might call out to a child, “*Down* the slide you go.” When you write a child’s name on a drawing, you might say, “I’ll write it at the *bottom* of the page,” or at clean-up time, suggest “Let’s put all the pieces *inside* this box.”

And you can even use them with infants. Magda Gerber, one of the leaders in infant care, helped us know how important it is to say to a baby something like, “I’m going to pick you *up* now and take you *across* the room to change your diaper,” or “I’m going to put you *down* in your crib for a nap.” Not only are you showing you care by letting the baby know what’s coming (instead of just being unexpectedly swept up or put down), you’re also providing a rich language environment -- for literacy and math!

With their body

A while ago at my STEAM workshop, a teacher gave me a great suggestion. She

asks the children to stand, sit or move with a partner in a way that shows “over.” Then she asks them to show another way, adding creative thinking -- and an understanding that there’s more than one way. Here are more examples of words for this activity: *under, through, heavy, light, huge, tiny, next to, in front of, near, far.*

With this activity children can feel what these abstract terms mean in a physical, concrete and personal way. Imagine how helpful that is especially for children who are kinesthetic learners.

Another way is to set up an obstacle course. Think about how many spatial relations words we use when we give directions like, *in front of* the line, *around* the hoop, *under* the table, *behind* the chair, etc. We usually think of using this activity to develop self-control and the ability to follow directions, but maybe you didn’t think about it as a way to also help children learn basic math words.

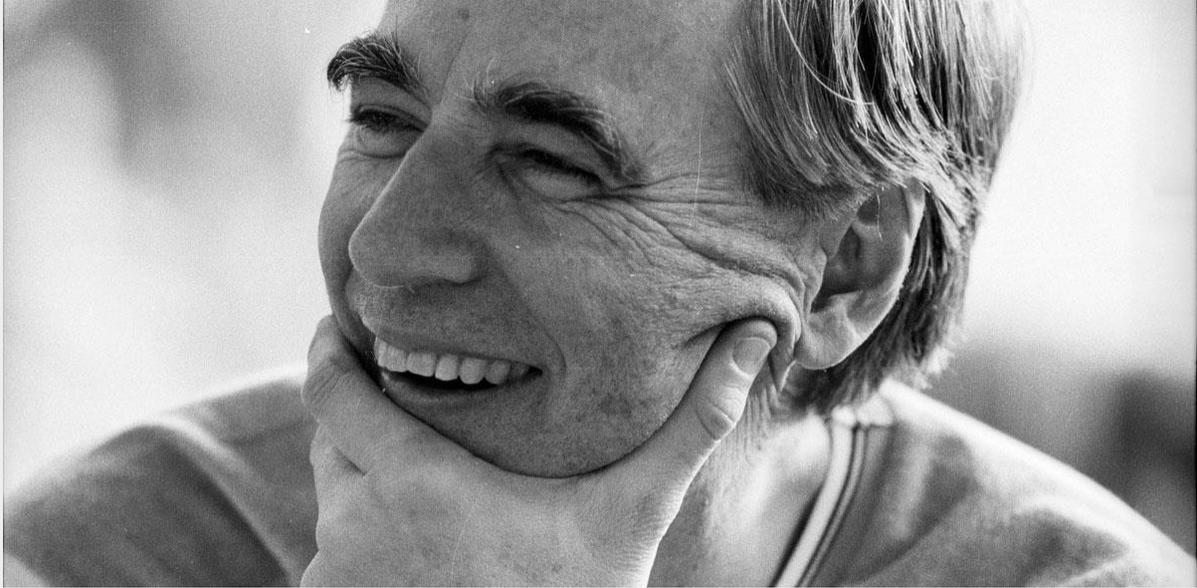
When you realize how important spatial relations words are for all kinds of learning, I have a hunch that you’ll find more places in the day to use them with the children. And so will they.

Thank you for being our neighbor,



Hedda Sharapan
M.S. Child Development
PNC Grow Up Great Senior Fellow
hedda.sharapan@stvincent.edu

Timeless Wisdom from Fred Rogers



"Young children may spend a lot of time practicing about the inside and outside of things, over and over putting a block in a box and taking it out again. How else is a child to understand the difference between the inside and outside of things?"

[MORE QUOTES](#)

[Subscribe](#) | [Forward](#) | [View past issues](#)
[Update your profile](#) | [Unsubscribe](#)