Representation in STEM

Stereotypes about who participates in STEM (Science, Technology, Engineering, Math), lack of role models and access to STEM experiences can make many children feel unwelcome in these fields. Use these research-based activities to help all children feel like STEM is for them too!

STEM for All!

Being actively engaged is an important part of the learning process. Provide hands-on opportunities for all children to build STEM skills.

Often, boys are the ones taken to science museums, gifted with engineering toys, or assumed to be ‘naturally’ good at math. Counter these stereotypes by providing girls and BIPOC children access to fun, hands-on STEM experiences too.

Fitting Cups

Give your child safe containers of different sizes to play with. You can use measuring cups, bowls, or whatever is handy. Encourage them to try placing some of the containers inside others. Talk together about what they’re doing. “Two cups fit inside the big pot.” “Which others fit? Which ones don’t?” Ask questions to keep it going.

Brainy Background

Your child learns ideas like numbers, shapes, and sizes by using them in simple ways like this. Talk about what your child is doing also helps them learn new words. Plus, it motivates them to keep exploring and learning.

Everyday STEM

STEM doesn’t only happen in a lab or office. Exploring, wondering, and experimenting together is the root of all STEM skills. Don’t know the answer? That’s OK. Try to figure it out together.

Talking and wondering with your child builds their confidence. Help children connect these everyday activities to STEM by using specific language. “I like that question. It’s so interesting. Let’s do science together!”

Bye-Bye Bubbles!

While cleaning up, give your child a soapy sponge and a large container with a little water so they can help wash safe kitchen items. Scrub up lots of bubbles together. When you’re ready say, “Bye-bye bubbles!” and show them how to rinse the bubbles away. Encourage them to try it.

Brainy Background

You’re helping your child think like a scientist as they explore the water and bubbles. This kind of play will help them with learning math and science later on. Plus, when you include them in daily chores, you help them feel confident and independent.

Our scientists have put together materials to alert teens about the pernicious nature of STEM stereotypes. This material offers information and exercises about the science of stereotyping. The feedback we’ve received so far is that teens are engaged and motivated to learn about this research that examines how cultural stereotypes and pigeon-holing relates to what they experience every day. See this link for more: https://bit.ly/3FHG3cO