

STEM

starts now

Exploring Newton

Recommended Age: 53–60 Months

STEM concepts: Science (life science, physical science), Technology (simple tools), Engineering (Engineering), Math (patterns and classification)

Materials: three opaque (non-see through) containers filled with rocks, uncooked macaroni and crumbled paper, cotton ball, straw, cutting board, large eraser, small stone, small wooden block, ice cube, glue stick, the book *Move It! Motion, Forces and you.* by Adrienne Mason

What to do: Prepare the three containers and gather all of the materials. Set up the cutting board flat on a table and have your child pull each container. Then have them push each container. After you are done, prop the cutting board up like a ramp and repeat the push and pull steps. Discuss what they noticed. Next push the cotton ball, eraser, small stone, ice cube and glue stick. Then pull them. Are any of them harder or easier? Use the straw to see if they can blow the items. What did they notice?

Language and Communication: during the push and pull activities ask your child, “What container is harder to pull?” “What container was harder to push?” After the ramp is set up repeat these questions and explore if the answers are different. During the second push and pull experiment with the ice cube, cotton ball, eraser, stone and glue stick, talk about the different materials these items are made out of. Discuss how that changed their ability to move them. Were they soft? Smooth? Bumpy? Using the straw, discover what they notice about trying to blow the items.

Expand the Activity: Add literacy to this lesson by reading the book *Move it! Motion, Forces and you.* By Adrienne Mason. This book is interactive and provides opportunities for your child to try what you are reading.

