

# Preschool Summer STEAM Saturdays

## Juggling

**Do you want to learn how to juggle?** The easiest way to start is not by juggling balls, but using floaty scarves or plastic grocery bags (please monitor young children).

### Materials Needed:

- 3 grocery bags OR sheer, floaty scarves

### Instructions:

Sit cross-legged on the ground holding a bag in each hand; place the third on the ground in front of your left hand. Toss the bag from your left hand into the air diagonally up and across your body, picking up the bag off the ground in front of that hand. Toss the bag in your right hand up into the air diagonally so it falls in front of the left. Allow the bags to just fall to the ground; no need to try to catch them yet.

Repeat the process over and over again. Eventually, as you get faster and faster, begin to catch the bags before they fall to the ground, until you are juggling the bags.

### How does juggling work?

As you watch the scarves moving through the air, your brain is instinctively calculating the force of gravity, air resistance, speed, velocity, parabolic arcs, and acceleration - all while prompting your muscles to respond as you learn a new skill.

### Books:

*The Juggle Puzzle* by Sindy McKay

*Junie B Jones, One-Man Band* by Barbara Park

*The Most Excellent Book of How To Be a Juggler* by Mitch Mitchelson

*DIY Circus Lab for Kids: A Family-Friendly Guide for Juggling, Balancing, Clowning, and Show-Making* by Jackie Leigh Davis

For more information on the incredible math and science behind juggling, please visit How Stuff Works: <https://entertainment.howstuffworks.com/juggling8.html>

