



Early Ed Checkout Kits: Junior Science



In addition to the activities you'll find in the book, here are a few of our favorite ways to use the materials in this kit!

***Ice Melt:** Freeze letters, numbers, plastic animals or other themed objects inside an ice tray and challenge your kids to “rescue” them from the ice. Experiment with different melting methods such as rock salt, a hair dryer and adding warm water with the droppers (be sure to include methods that won't work as well, like sugar or cold water so you can compare results). Freeze colored water and melt different colors together for a hands-on lesson in color mixing!

***Acid/Base Indicator:** Make an at-home acid-base indicator using red cabbage or turmeric (find tutorials online). Add some household acids (such as vinegar, lemon juice) and some household bases (baking soda, milk of magnesia) each to their own container and add a few drops of the indicator substance to each one. What happens? Compare the intensity of the color change for different substances (the color change will be greater the stronger the acid or base). Ask your child what they think will happen if you add the indicator to something that is neither an acid, nor a base -- such as water -- then try it!



Early Ed Checkout Kits: Patterns & Shapes



***Simple Stacking:** Build fine motor skills making towers with the 3D shapes. See how many shapes you can stack on top of one another. This is a great game for toddlers just starting to practice their pincer grasp and problem solving skills!

***Shape Pictures:** Use the stencils to trace shapes on old magazine pages or construction paper. Help your child to cut out the shapes, then arrange the shapes on pieces of paper to make pictures. Try houses, castles, animals, cars or whatever you can imagine! Once you're happy with the picture, glue the shapes in place.

***Shape Build:** Challenge older children to build more complex free-standing structures using the 3D blocks. You can make connections between this and the previous activity, which both involve making objects out of shapes in different ways. The shapes and the pictures in the first activity are flat, or two-dimensional (2D), and the blocks and structures in this activity are three-dimensional (3D). You can even try building a 3D structure that mimics the 2D picture you made!



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***Oil & Water Play:** Place a small amount of oil in a dish or cup. Set out one or more cups of colored water and invite kids to add drops of the water to the oil. Oil is less dense than water and oil and water don't mix, so the colored droplets will stay intact as they sink to the bottom of the cup. Add oil and water to one of the tubes, tighten the cap, and give it a shake for 2-3 seconds. Do the oil and water stay mixed or do they separate? Why?

***Reactions:** Use the included droppers to set off a reaction! Freeze plastic dinosaurs in a paste of baking soda and colored water; invite your child to add drops of vinegar to help them "hatch." Fill a shallow dish with milk and add a few drops of food coloring, then have your child add a drop of dish soap to the center. The colors will swirl around as the soap molecules separate the water and fat molecules in the milk.

***Explore Liquid Volume:** The markings on the graduated cylinders are a good way to introduce your child to the idea of "how much" liquid. Work together to fill one cylinder to 20 mL and the other to 50 mL. Which one has more? How do you know? Experiment with pouring the same amount of water into several differently-shaped containers. Does it still look like the same amount?



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***Copycat:** If your child isn't ready to try building on their own just yet, have them try to copy a structure that you've created. Every block in the set has an identical match, which means that your child can practice creating the exact same structure as you -- down to the stripes and polka-dots! Just be mindful not to use two of the same kind in the original.

***Challenge Cards:** Looking for even more ways to play with the 3D blocks? Check out the set of challenge cards included with the set. Each features a different activity for you and your child to try.

***Pattern Games:** Use the stencils to trace patterns of shapes on a piece of paper. Explore different types of patterns (try reproducing the different types of patterns explored in Pattern Bugs!). Color in the shapes to add an extra element of pattern play. Build patterns into your structures with the 3D blocks (i.e. all the blocks in the bottom row have stripes; all corner blocks have the color green, etc.)