

Manipulatives: Tactile Learning on a Budget

This past summer I embarked on a quest for a great Kindergarten mathematics program for my daughter. I soon discovered that finding a math workbook is easy, but choosing a level of “hands-on” material can be difficult. Some programs come with nothing at all for your tactile learner, while others mandate a \$60 manipulative kit. If you aren’t prepared to shell out that kind of money, but still want to provide an option to straight workbooks, here are some ideas:

Student Clocks: Cut circles out of cardstock. Use a protractor to locate numbers every 30° around the circle. Have your child decorate, then laminate and assemble with a paper fastener.

Counters and Sorters: Anything small and “sortable” works well... think seeds, paper clips, LEGOs, beans, buttons, cookies...

Sorting Tray: Anything divided works well... think muffin tins, clean egg cartons, even small shoeboxes.

Unit Blocks: LEGOs. The LEGO catalog (www.lego.com) sells blocks in large, specific batches that you can fill out your stock on hand. They also make gears, pulleys, and other mechanical components to supplement your science curriculum.

Hundred’s Chart: Make your own using graph paper, then laminate it onto a slightly bigger piece of cardstock.

Dominoes: These are inexpensive, and excellent for recognizing dot patterns and attributes.

Dice: These are great for probability studies. Plan ahead by keeping old dice from destroyed 4, 5, and even 20 sided dice can be purchased at your local comic or gaming store.

Money: I use real coins for that great clinking sound and tactile sensation. Play money is fairly cheap in toy stores, and it’s legal to photocopy real cash if it is reduced by 74% or more, or blown up by 151% or more. You need to keep the copy one sided as well, but this is a nice way for them to recognize “real” money.

Flashcards: These are easily printed onto card stock then traced with colored glue, fabric paint, or glitter for an extra tactile dimension. Magnetic letters are another nice, tactile option.

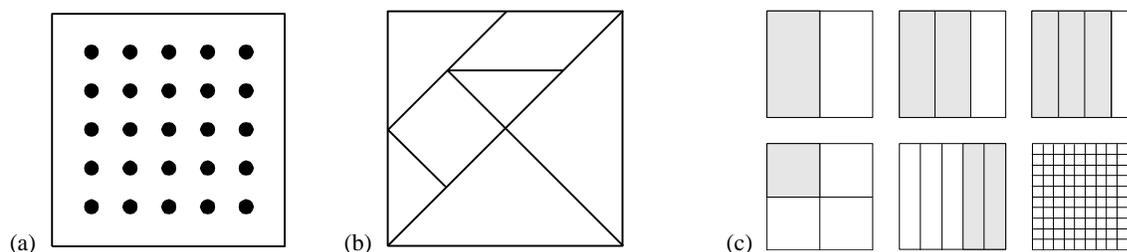
Volume Containers: Any measuring cup or container you have that’s marked in mL can be used in metric volume tasks. Just remember that 1 cubic centimeter = 1 mL.

Number Frame: String 10 beads (or buttons) on each of 6-10 wires (or pipe cleaners). Then attach them to the back of an old picture frame for an instant abacus! (adapted from Bob Jones’ K5 Math)

Geoboard: Make your own with a 6” x 6” board, multicolored rubber bands, and 25 finishing nails (See figure (a) below). A “computer kid” might enjoy an electronic version from www.mathclub.com or other websites.

Tangrams: Make 2-4 sets in different colors out of cardboard, felt, cardstock, or foam. Start with a square and cut into the seven pieces shown in figure (b) below.

Fraction Overlays: These translucent squares can be very useful in visualizing fractions and percents. Use clear transparency sheets (or plexiglass if you’re super-handy) and permanent marker. Fill in some of the fractions with colorful “stained glass” paint from your local craft or department store. See figure (c) below for some ideas.



Personally, I purchased Bob Jones’ Math K5 Student Materials Packet for an amazing \$7. This includes a variety of manipulatives geared toward their math program, and works well with the things I’ve come up with at home.