



5 Math Manipulatives for Easy Learning

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All too often, kids find learning boring. Even in the early elementary years, children across the country become disengaged and discouraged after sitting for long hours in a quiet classroom. It's no wonder then, that some kids face mounting difficulties when it comes to meeting state standards in a subject that takes a whole lot of brainpower, like math.

Thankfully, parents and teachers today have many more tools available at their fingertips than ever before to help kids succeed! Instead of sitting behind a desk with only paper and pencil, students can now benefit from using [math worksheets](#) and manipulatives geared towards helping kids build number sense in a hands-on way.



Research has shown that when children learn, they use all their senses. Contrary to traditional teacher-centered methods that were based primarily in teachers imparting information, students are actually more engaged, motivated, and primed to process new information when activities call for movement and talking in addition to listening. Using

manipulatives fits the bill by allowing kids see, touch, and manipulate objects that represent the math skills they're learning.

If you're wondering which math skills are best suited for hands-on activities, the answer is nearly all of them! However, as a parent or a teacher with limited time on your hands, it's helpful to pinpoint specific topics and lessons with a proven track record for success. Keep reading to explore the various math skills and the tools that work best for elementary students!

[When your child is moving from manipulatives to mastery, offer extra practice to reinforce learning! Join today and for a limited time get our very best all-in-one Talented and Gifted app for a low yearly rate of just 49.99!](#)

Essential Math Skills

When kids are young, they build an early foundation for math that will stick with them for the rest of their lives! That's why it's incredibly important to build a strong number sense. In a previous article, we talked about how some math topics, like fractions, can be tricky for little learners because of the concrete way in which they think. Math manipulatives can help make those tough concepts literally tangible, and can come especially in handy for the following concepts:



Place Value

Place value is a necessary step in understanding any number larger than 10. Without this critical concept, children are unable to form a solid grasp on how numbers work. Simply put, place value helps us to understand the meaning of a number and gives us a way to quickly work with large numbers. Moreover, it helps form the basis for mental math. All that said, manipulatives like base blocks can go a long way in helping little ones conceptualize large groupings of numbers.

Fractions

Even though students don't tend to tackle fractions until at least the 3rd or 4th grade, as previously mentioned, learning to work with them can pose quite a challenge without something palpable to work with. Pie charts, fraction wheels, and even food items can work to show any child the concept of a half, quarter, and so on. Since manipulatives also help students visualize the concept, fractions become easier to work with and much less frustrating.

Money Skills

While it's true that most adults' everyday reality includes checking accounts and credit cards, nobody can argue that cash is king! Knowledge and understanding of the value of money must start early since it applies to almost every aspect of daily life. Real money might seem like the best solution when it comes to hands-on learning, but most people don't carry much cash, especially large bills! Play money can be substituted as currency for games and activities.

Geometry

Geometry plays a vital role in the design and building of objects while allowing older kids to understand advanced science and math concepts. Shapes are found all around us in the natural world, and it's necessary for us to choose the right materials or draw the correct plan to achieve our goals. Geometric shapes found in board books are easy enough for toddlers to understand, but a picture of a 3D shape just doesn't do the concept justice! Instead, manipulatives like tangram puzzles, geoboards and colorful pattern blocks all give children a more concrete example of 3D geometrical shapes.

Cool Manipulatives to Use

Any teacher or parent should know what tools to store in his or her toolbox. By shopping online, you might notice a dizzying array of manipulatives available to purchase, without knowing which to choose. Let's dig deeper to find the best to use, including free manipulatives that can be found easily on the web!



Base 10 Blocks

Place value blocks are an indispensable tool in the math classroom. Base ten blocks consist of proportional manipulative blocks that develop a child's conceptual understanding of numeracy. Each set includes individual blocks that represent ones, a row of connected blocks that represent tens, and a larger block that contains one hundred blocks to represent the hundreds place.

While using the set, students can work on more than just place value by practicing counting, addition, subtraction, and even decimals. These blocks are used in activities and lessons at school, but can also be a lifesaver at home when working on homework or enrichment or even remedial activities.

Connecting Cubes

Linking or connecting cubes are small vibrantly colored cubes that connect together, almost like Lego bricks. The cubes can be used for a variety of lessons or skills and are great for preschoolers through upper elementary students. While using linking cubes, students can practice counting, sorting, making patterns, estimating length, and so much more! These manipulatives are usually sold in packs of 100, but if you're interested in making a purchase, be sure to have at least 200 on hand, or more if you have multiple children.

Play Money

How can anyone learn to work with money if one doesn't even have any? While pictures of coins and dollars on [kids worksheets](#) can be a quick and effective way to practice money math, nothing can beat the tactile experience of working with play money! If you have a large variety and number of real coins available, feel free to use actual pennies, nickels, dimes, or quarters, but most of us do not carry around a lot bills these days. Invest in a set of play money and play games with your child that involve currency.

Virtual Math Manipulatives

The availability of free math manipulatives online have exploded in the last decade or so. If your family has a tight budget or for any tool you skip out on at the teacher supply store, a free website exists to fill the gap! Online options include a plethora of manipulatives that kids can play with using your laptop or family computer. Most sites include colorful blocks, counters, number lines, factor tiles, number boards, and more!

Fraction Wheels or Cubes

There is no shortage of options for buying fraction wheels or cubes online. Some of these products will also help your child learn to work with decimals as well. They can be used while kids are working out lessons at home, or they can be put to use when working on homework or classwork. If you're looking to save some money, look for [kids math printable worksheets](#) that offer instructions for making your own!

Foam Dice

Blank foam dice are versatile tools that can be used in many ways! Grab a permanent marker and make your own set of dice to meet your child's needs. From traditional dice with up to six dots, to those with operation symbols, a different set of dice can be used for every game no matter the skill your child is working on next! Try other [math games](#).

Activity Ideas

As you can see, there are many different types of math manipulatives which can be used for a wide range of math lessons! Now that we've uncovered some of the best to use, see the creative activities below to make the most of your new manipulatives:



Base Ten Towers

All you'll need for this activity is a set of base ten blocks! This exciting game requires kids to understand that each block represents a number. Simply challenge your child to make a building out of their set of blocks. There are no set rules, meaning kids can use any combination of blocks, the ones, tens, or hundreds, to create their structure. Watch as your child goes to work constructing a masterful tower!

The next step is what contains the real challenge. After the building is finished, give your child the tricky task of determining the value of the structure based upon the number and types of blocks used for its construction. Students should then write out the value in standard form, expanded form, and using words. If working with siblings, friends, or in a classroom, have kids trade places to determine the value of a friend's creation!

Making Graphs with Connecting Cubes

Using connecting or linking cubes like those mentioned above, go to work creating bar graphs! One great idea for little learners would be to watch the weather over the course of a month and recording observations by creating a graph of how many days are sunny, cloudy, rainy, or snowy.

Set up location around the house where the graph will not be disturbed and lay out paper and label the bottom of the graph with the possible observations. Each day at the same time observe the weather and add a linking cube to the graph. Be sure to choose a different color for each row on the graph! For example, mark sunny days using a yellow block. At the end of the month, review the results and discuss!

For older children, bring in more advanced concepts like fractions. Challenge children to analyze the data to create fractions for the amount of the month that was sunny versus the days that saw precipitation. For instance, if $\frac{1}{4}$ of the month was cloudy, determine the amount of days out of the month that were sunny or cloudy. You can even use the graph to introduce the relationship between fractions and percentages!

Make a “How To” YouTube video using Virtual Manipulatives

If your kids are like most, chances are they love to watch YouTube Kids! You might have noticed the recent boom in [learning videos](#) available in virtually any topic. Teenagers today are watching other teens play video games on countless YouTube channels! Why not get in on the fun and make a few homemade videos instructing other kids how to use virtual manipulatives to solve problems?

Research has long shown that the best way to internalize and learn a concept is for a student to teach the skill to another. So, make a series of videos that include your child talking through viewers how to use each type of online manipulative and working out example problems. Don't worry, if you're wary about privacy concerns, simply make your YouTube videos private under your account settings.

Play the Price is Right!

We all remember the classic game show from our childhoods, and it's even still around today! After watching at home, play a round for yourself! All you need to play are products from around the house, dry erase boards or notecards, an internet-enabled device, and play money.

Determine ahead of time a system you would like to use to award play money for correct answers. When you're ready to play gather the items and place on a table or in a basket. The products should include canned food, snacks, toiletries like shampoo or soap, and household cleaning products. For each round, the players view or select a product. Players take turns guessing the value of the items and can write down their guesses. Check the prices online to see the real answers. The player that matches or the price or is the closest to the correct value wins the item and a set amount of play money! The player with the most money at the end of the game wins!

If your child enjoys playing games, try showing them [learning games](#).

With the endless types of math manipulatives available both in stores, and online, it's certain that your child will spend countless hours exploring and mastering various math skills while having a lot of fun! As kids get older, learning can start to seem boring when the focus turns from playing to hard work.

