

Hands-on Math Helps

What is a kinetic learner? How do I know if I have one? Most people have heard of auditory and visual learners; they learn best through either listening or viewing what they are supposed to learn.

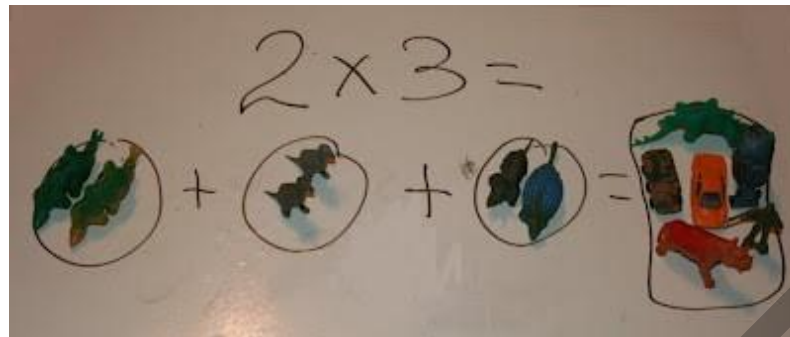
Kinetic learners are people who learn best with hands-on activities. Our ten year old son is a kinetic learner. This has prompted up to either find or create hands-on activities to teach him. We have been doing this since he was four about years old. Thankfully, I have always been pretty creative if I have the time to think through what I need to make. Homeschooling is a family effort and sometimes my husband will come up with a solution to a problem I just can't seem to come up with a way to teach our son something that he's having problems understanding. I also belong to several homeschooling groups where I can post a problem we're dealing with and usually get many ideas that help us figure out how to teach a topic.

We use so many hands-on activities it was hard to decide what topic to start with, but let's start with mathematics. It is one of the basic subjects that every child needs to learn. People often wonder how a kinetic learner can learn math. The answer is, they can learn mathematics with hands-on activities and manipulatives. Here is how we use those tools to teach our son.

The Concept of Multiplication

Our son had no problem learning his numbers or addition and subtraction, but when we got to the concept of multiplication it was like hitting a brick wall. We did a page or two of his math curriculum a couple times, but he just wasn't understanding the concept. Even my husband and one of our older sons tried to teach our son the new concept, and it just wasn't working. After trying to explain how to multiply several times and in several different ways (and even trying workbooks), I had to step back and think about a different way to teach our son how to multiply. One day, I had an epiphany and started to find the materials to try something new. I started by telling our son to find as many of his small toys he could, dinosaurs, cars, soldiers, you name it. Then, I went looking for our dry erase board and a marker while he was getting the toys out. When all the items had been gotten together, I laid our dry erase board on the floor and put the toys next to it in a pile. Our son was so excited because he thought mom was going to play with him but, instead he got a math lesson!

On the dry erase board, I wrote the first problem on our son's assignment, it was $2 \times 3 = \underline{\quad}$. Next, I drew three circles with an addition sign in between each circle on the dry erase board below the problem with an equal sign, then a larger circle. Then, I asked my son put two toys in each circle. We added up the toys in each circle, and he placed 6 toys in the large circle as his answer. Then we completed the problem again with three toys in two circles, to show that we could have the same answer. This is how it looked:



Now, this can be done with addition, subtraction, and I think division too, we haven't gotten there yet. If you don't have a dry erase board, I have created several sheets that can be used instead that are available to [download](#). You will need to print and cut them out.

Our version of the problem looked like the printed problems in our son's curriculum, we just made did it with manipulatives. Even though they looked similar to the problems in our son's curriculum, he wasn't understanding it from the paper alone. After working out a couple problems on the board with his toys our son was suddenly understanding multiplication. I believe it's because it's using a hands-on approach. He was the one that put the manipulatives in each of the circles, not me. We worked the problems out together and he put the toys in the larger circle too. After working several problems out together, our son suddenly understood the concept and was able to finish his assignment on his own that day with very little help.

Next week I will share with you a few ways to help your kinetic learner memorize some of the trickier multiplication tables.