

TEACH LANGUAGE ARTS AND MATH WITH BUILDING BLOCKS

Building block toys can be a perfect way for your kids to have fun and grow in their education.

Even without lesson plans, these toys can help your kids grow in:

- Hand-eye coordination and motor skills
- Spatial awareness
- A capacity for creating vision
- Social skills through play with others
- Language skills through reading and understanding instructions
- Creative problem solving

This guide contains eleven lessons on how parents and teachers can use building blocks to help kids have fun while practicing their school lessons.

MATH LESSONS:

Graphing

Have your child take a handful of blocks from the box. Choose four or five colors and have them separate the handful into those colors, throwing back any blocks that were not in those four or five colors.

Next, have your child count the different colors and find different ways that they can represent the number of each color using blocks. You can see that we created two types of bar graphs, one 2D and the other 3D.

See if your kids can come up with ideas on how to represent the numbers. You may be surprised with how creative they will get.



Multiplication

Use the studs on the blocks as numbers to be multiplied. The kids will figure out pretty quickly that if there is a 4 stud and a 6 stud, all they have to do is stack (6) 4 stud blocks or (4) 6 stud blocks. Use this to your advantage to teach the associative properties of multiplication, where $4 \times 6 = 24$ and $6 \times 4 = 24$. This is a valuable lesson that will make multiplication much easier to grasp.

Addition

For the younger kids, have them add the studs of two, three, or four legos to come up with a total. You can make it a bit more challenging by making the rule that they have to come up with a different combination of blocks for their answer. Otherwise, they will realize that if they are adding a 4 stud and a 6 stud, all they have to do is find identical blocks and put them together. This is also an excellent opportunity to teach the associative property of addition where you can have a 4 stud added to a 6 stud and the answer will be the same as a 6 stud added to a 4 stud.

Fractions

Building blocks are ideally suited to teach fractions. Make a simple shape out of two or three different color and sized blocks and ask for the ratio of different aspects. Questions can include:

What fraction are color x?

What fraction are color y?

What fraction are 2 dot?

What fraction are 4 dot?

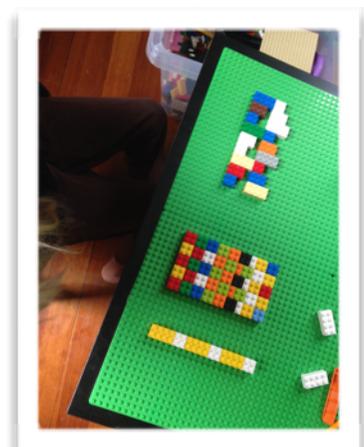
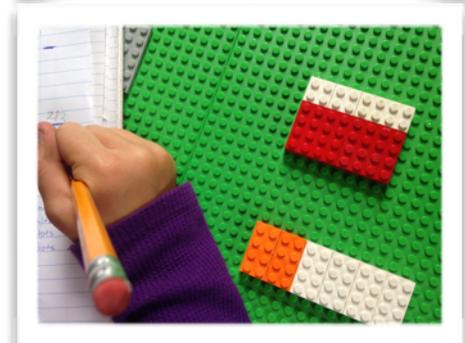
Older grade schoolers can try to turn the fractions into percentages; this may require a calculator if the percentages are not whole numbers.

Don't forget that you can have the kids reduce their answers too.

Patterns

You can teach your young kids how to create patterns and discover the patterns that are around them too. This is a great way to teach creative problem solving to a kindergartener.

- Ask them to create a pattern by number, color or both.
- Ask them to arrange by size and you can teach ascending and descending order.
- Ask them to find patterns around the room and recreate them as best they can in both color and size.
- Get complex and ask them to create a pattern with four different colors and three different sizes.



Greater than or less than

Simply cut pieces of paper with the $<$, $>$ and $=$ symbols on them and lay out some blocks with a separation between them and let your kids tell you which is which.

When they get the hang of it, mix it up by making long strings of 16 and 18 studs that are only two off (the longer you make the line, the harder it is to tell which one is greater if any).

You can also make it more of a challenge by building on top of blocks in odd combinations of numbers which will make your little one think a bit harder about which has more studs. Make one taller but with more gaps so it has less studs; that will challenge those little brains.



Symmetry

Teach symmetry by putting a random arrangement of blocks on your base and asking your kid to make it into a symmetrical pattern. They can mirror your arrangement vertically or horizontally, which helps them understand possibilities in different dimensions.



Language Arts

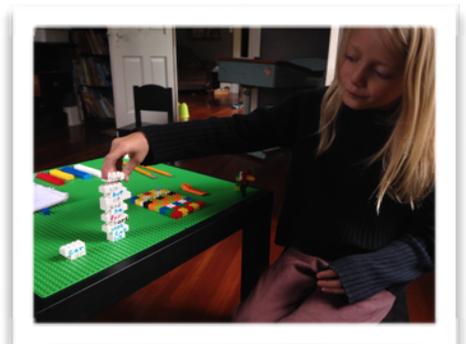
Spelling words

Start with spelling! It sounds boring but your kids will love getting to write on their blocks.

Get your finest tipped dry erase marker or get some sticker labels and have them write the last several weeks of spelling words on a pile of white blocks.

You can then practice alphabetical order by having the kids stack the words in alphabetical order.

You can also use them to practice reading sight words by having them name the words on the blocks as you point to them.



Creative writing

When they are have finished their spelling words, check their work and then work with them to create a series of other words to get a good collection for a creative writing assignment.

We suggest you create

- 10 nouns (ex. man, cat, dog...)
- 10 verbs (ex. jumped, ran, sat...)
- 10 adjectives (ex. three, smelly, large...)
- 10 adverbs (ex. quickly, loudly, softly...)
- 3 article adjectives (ex. the, a, an...)

Now see what sentences your kids can come up with using only those words. Stay strong and don't let them make more blocks just to make the sentence make sense or be funnier. They need to try and use what they have. This is a creative problem solving activity.

You may or may not love how creative they will be (look at that face, you know that she is being ornery making silly sentences).



Simple Sentence Diagraming

Once they have made their sentence, color code blocks as nouns, verbs, adjectives, adverbs, and articles and have your kid label all of the different parts of speech involved.

Once this is finished, you can take it apart and do it all over again.

As an additional challenge, you can challenge your kids to create a story with the words or better yet, create a poem for mom or dad.



Create a Comic Book

This is just good old fashioned dorky fun.

Have your kids create scenes and vehicles and then take pictures of the characters acting out their own play. You can create speech bubbles for your characters in MS Word by using Callouts:

- On the *Insert* tab, click *Shapes* (in the *Illustrations* group) > *Oval Callout*. The *Oval Callout* shape is in the *Callouts* section near the bottom of shapes.

This is a way to have a great time with your kids and in the end you have a "comic book" that they can show their friends.

