1 How to teach algebra to kids. Lesson 1: Introducing variables as names

Kids are really smart. They have a great capacity for abstract thought and can be taught some fundamentals of algebra at a young age. First of all, x’s and y’s are scary. It is much better to use common objects and peoples names as variable names. For example, one can start with the equation:

George + George = 2 George.

One then can play the following game with your child. After giving some other similar examples, you can ask her/him:

What is Martha + Martha?

After a little bit of practice, your child will say 2 Martha.

Next, one can simply put numbers in front of your variable

2 Apple + 3 Apple = 5 Apple.

Again, after repeating this with a variety of examples, your child will get the hang of it. If you like, you can also talk about subtraction

7 Orange − 4 Orange = 3 Orange.

Some other things to try are:

Thomas + Thomas + Thomas = 3 Thomas,

If Peach is equal to 1 and Carrot is equal to 3, what is Peach + Carrot?

Notice in this last question we now have two variables. One can ask similar questions with multiplication. The more variety of ways a child sees a concept, such as the introduction of variables as names, the more the idea is reinforced.

Other examples are:

If Watermelon is equal to 5, what is Watermelon + Watermelon?

If Canteloupe is equal to 3, what is 2 Canteloupe + 3 Canteloupe?

If David is 4 and Melissa is 5, what is 2 David + 3 Melissa?