

How can I Teach my Child about Fractions?

[Fractions](#) are to maths what spelling is to English - the fundamental building blocks to the whole subject. Discussing fractions, and playing games that involve them, are the best ways to get children off to a flying start in mathematics.

Fractions. The very word sounds hard and cold and it strikes terror into the heart of most primary school children! Let's look at why the subject is so important and why it will pay great dividends to devote some quality parental time to it in the early years of a child's life. So, how can you teach your child about fractions? We will suggest some ways of making fractions more palatable to young children.

What is a Fraction?

The word *fraction* is used in many situations to convey a small part or proportion of something. Synonyms for the use of the word in this context are fragment, snippet, segment, section and portion. In maths this is too airy-fairy and we need to drill down to a more precise mathematical meaning. We suggest keeping in mind the best definition we know, courtesy of the Oxford Dictionary:

Fraction (noun) - a numerical quantity that is not a whole number (for example $\frac{1}{2}$ or 0.5)

Bear in mind that 1, 58, 250 and 999 are all whole numbers. That's not what we are talking about here – what we need to focus on (and get the children to focus on) is a **PROPORTION** of something bigger.

A fraction is a numerical quantity that is not a whole number.

Why are Fractions so Important?

Fractions are to maths what spelling is to English – they are fundamental building blocks to the whole of the subject. There is any amount of well-documented evidence to convince us that reading to young children is the best possible grounding that parents can give their children in English. Not so well-recognised is the fact that discussing fractions, and playing games that involve them, are probably the best ways to get children off to a flying start in mathematics.

Maths is all about the relationships of one number to another and these relationships are so often dependent upon fractions. Our challenge is to take the fear out of the topic so that the children move from an easily understood concept like a half ($\frac{1}{2}$) to the somewhat more challenging concept of $E = MC^2$!

How can I Start to Teach my Child about Fractions?

Almost always the first fraction that children encounter is a half. Sharing a chocolate bar with your elder brother so that he has half and you have half is something you probably don't want to do but it is a good introduction to the idea of a numeric relationship – he will have exactly the same amount as you!

Make the most of these very early encounters with the practicalities of fractions. When anything is divided into two equal parts, don't call them parts or portions - make sure that you use the specific term *Half*.

The next step is to demonstrate the more complicated concept of a quarter. Divide a chocolate bar into two equal parts and then divide each of those into two equal parts. It is important that the child sees four portions of **EQUAL** size and knows that each of them is known as a quarter.

Halves and quarters are ideas that can be grasped very early on, even before counting to 10 becomes proficient. Look for real-life opportunities to demonstrate halves and quarters. Your child will become accustomed to looking at quantity relationships and thereby start to understand fractions long before they hear the dreaded word!

At what Age should I Start to Teach my Child Fractions?

With your help, your child will no doubt be learning to count, probably between the ages of 2 and 5 years old. When they are confident with numbers up to 10, you can introduce the concept of parts of the whole. Show examples to children and ask them to identify the fraction involved - the part of a whole circle that is coloured for example. Get them to enunciate the fractions involved e.g. *Half, Quarter, Third, Five-eighths*.

It is extremely important to be patient at this stage. As adults, we become familiar with fractions and the fact that they represent portions of the whole. We instantly visualize these and it is all too easy to forget just how difficult we found the concept when we were children.

Play with fractions in any and every way you can think of. Whenever a few articles are placed together, divide them into two sections and ask the children what proportion of the whole is involved in each of the two sections e.g. *a third* and *two thirds*. Use anything that happens to be to hand – pens, marbles, conkers, sweets, business cards, screws – the more things you use the better. By this means you will teach the child that proportions and fractions can be applied to almost anything.

How can I Teach my Child to Write Fractions?

All of the work above has concentrated on conceptualising fractions and the next step is to learn to write them. Show the child more examples of fractions (a circle with one-third coloured in for example) and ask the child to write down the fraction. If, for example, you showed them two boxes, only one of which was coloured in, explain that as there are two boxes a two must be the 'bottom part' of the fraction. Only one of the boxes is coloured so a one goes in the top half of the fraction. Explain that 1 over 2 is the way we represent a half. Do the same for quarters and thirds. Is it ever too Early to Start Teaching Fractions?

Have you ever tried to explain to a child why the word *knife* starts with a *k* but the *k* serves absolutely no useful purpose? If you have, you will be eternally grateful that maths contains no such unfathomable anomalies; it is absolutely logical and much easier to explain. BUT the concepts take some time to come to grips with. The sooner you start the process of teaching fractions the more likely it is that your child will start at the top of the class for maths and stay there.