

ESTIMATION

Estimation is one of the key areas in maths and yet it is often one that we take for granted. It can help us to quickly find approximate answers to problems that often will suffice. For example, if I needed to arrive at work before 9 o'clock and I estimated that it would take me 20 minutes to travel there, leaving my house at half past 8 should mean that I do not arrive late.

Estimation can also help us to check the reasonableness of our solutions. For example, if we are adding three numbers less than 100, we know that our solution cannot be more than 300. This knowledge can help us to notice simple calculation errors.

Even though we do not often say the word (I estimate that...), we use estimation to complete a range of daily tasks.

- Preparing food
- Cooking
- Getting ready in the morning
- Driving the car
- Giving directions
- Stacking a shelf
- Packing a bag
- Telling the time
- Discussing the weather
- Calculating cost (e.g. shopping items or restaurant bill)
- Predicting size
- Making comparisons



Discover Benchmarks

Talk to your child about estimating. Help them become aware of some common benchmarks, including their height, their handspan and the length of a step. For example, a large step is about 1 metre, the length of your arm (from your wrist to your elbow) is about 30 cm (or 1 foot), and the width of your little finger is 1 cm. Use a tape measure to help children discover their own measurements so they can use this information to predict other heights or distances, for example, if I am 160 cm tall then the door is more than 200 cm or 2 metres.

Using Estimation

Before starting to try and solve a problem begin by making a prediction – you can then compare results later. Remember to also **ask children why** they think that. Repeat the process the next day, learning from what you discovered. For example, if you were trying to calculate how many lollies are in a small jar, you may guess 100. Once you have discovered that there were 150 lollies in that jar, tomorrow you might use this information to find out how many lollies fit in a larger jar.



Getting Better

The tip is with estimation is that over time it is something that you get better at with practise. Think about the shop assistant at the deli who can slice exactly 100 grams of ham or the TV chef (or Nona) who can estimate a cup of flour just by feel. We can all improve our estimating skills – we just need to remember that we are doing maths when we use these skills. The website, *Estimation 180*, has a huge range of images to help children develop their estimation and justification skills. <http://www.estimate180.com/>

For more information to support your child, download the **AMSI Schools Finding the Maths Parent Booklet**. <https://calculate.org.au/2017/11/21/finding-the-maths/>