Converting Measurements Transcript

This video has been designed to assist your understanding of measurements. It will look at how we use them, and the main method of how to convert measurements.

Each time you ask how big something is, how heavy it is, how long, how deep or how far away something is – you are using units of measurement. You would also use them to build something, take or give somebody medicine, pave your garden, even when you go for a drive. The main units we will look at are metres, grams and litres, and the variants of these. That's where you might have to convert.

Let's look at the most common base units. To measure mass or weight, we use grams or tonnes. For area, we use metres squared, for capacity of fluid use litres, length is in metres and volume is in metres cubed. The metric system works on multiples of 10, which is where we get our other measurements of kilo, centi, milli and so on. Although this video focuses on length and converting between millimetres and metres, the underlying theory is the same for all metric conversions.

That is, if we know the larger unit we multiply to find the smaller unit. And if we know the smaller unit, we divide to get the larger unit.

Let's work through a practice question together. We need some skirting around our lounge room. The room is 6200mm by 4m. So we've been given measurements in both metres and millimetres. We need to convert one to make our sum a lot easier. Seeing as it is usually easier to work in metres as the numbers are smaller, we are going to change from millimetres to metres. To do this we divide by 1000. This is the same as moving the decimal point 3 places to the left. Why 3 places? Because there are 3 zeros in 1000. The process is shown on screen now.

Step 1. Start with 6200mm. Move the decimal point one place to the left. This is the same as dividing by 10. Step 2. One more move to the left is the same as dividing by 100. Step 3. One final move gives us 6200 divided by 1000. Here we get an answer of 6.2m. Now that we have the same unit of measurement, we can find how much skirting we need by finding the perimeter of the room. This can be found by adding all the sides of the room together.

So, what happens when I know how many metres there are and I need to know how many millimetres this is? Put simply, instead of moving the decimal point left, we move it to the right.

The process is on screen. Each move to the right is the same as multiplying by 10, then 100, then 1000. So 3.4m is 3400mm. As mentioned earlier, this method can be used for all units of measurements.

If you would like further support or examples, contact a language and learning advisor by email, on our website or drop in to the library.

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