

## [The metric system]

A key feature of the metric system is that conversion between each unit is always based on a power of 10. In the imperial system, we have a different number of inches to feet, feet to yards, yards to miles – so moving between, say, inches and miles becomes a little more difficult. With the metric system, the next unit is always ten times larger, while the next smallest is ten times smaller. Even though we don't often use decimetres, dekametres, hectametres etc, it's still reasonably straight forward how to get from one measure to another. There are also common prefixes, so that we know a kilometre (1000 m) has a similar meaning to a kilogram (1000 grams) and kiloLitre, and even if it's a property we're not that familiar with, so 1000 newtons (force) is a kilonewton. (except bytes!).

Changing between units within a particular property can be thought of in the same way we think about place value. Set out our 230 m, and by changing where we read the units from, we can see that we instantly have 0.23 km, 23000 cm and 230 000 m. Of course, we can always just keep multiplying by 10 or think back to our ratio conversion rules.