Can I convert between units?

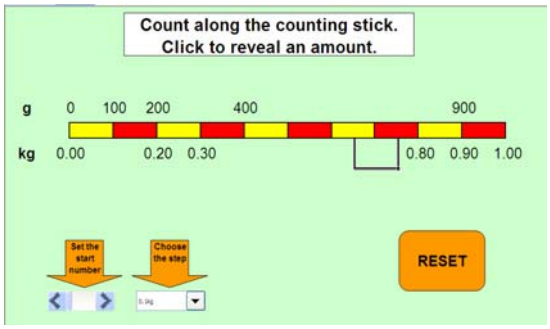
Teaching guidance

Key vocabulary

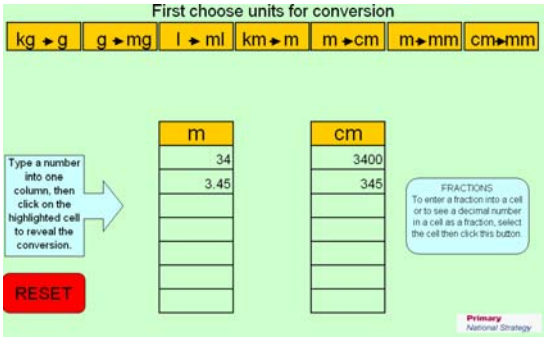
kilometre, metre, centimetre, millimetre, kilogram, gram, litre, millilitre

Models and images

Use the *Converting measures* spreadsheet and the *Converting units of measures* spreadsheet to practise and reinforce the conversion between different measures.

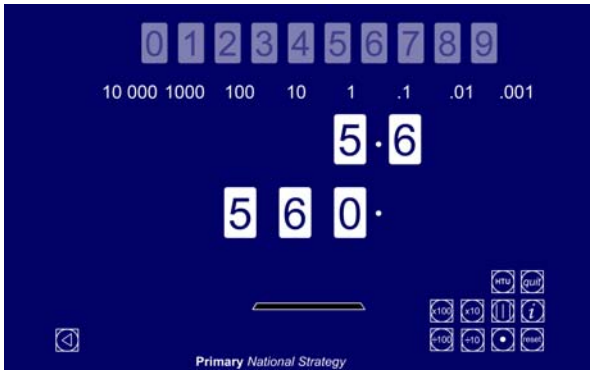


Converting measures spreadsheet



Converting units of measures spreadsheet

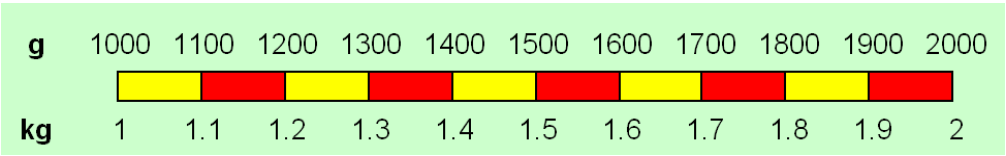
Use the *Moving digits* ITP to model the effect of multiplying and dividing by 10, 100 and 1000.



Moving digits ITP

Teaching tips

- Link converting units of measures to estimating, in order to help children spot where they have made mistakes, for example, '1.5 m cannot equal 15 cm because I know 1.5 m is about my height but 15 cm is half the length of a ruler.'
- Build the rehearsal of converting units into oral and mental starter activities, and as a practical context in lessons focused upon calculation where children are multiplying and dividing by 10, 100 and 1000, for example, converting 1400 m and 200 m to kilometres.
- Ensure children can confidently multiply and divide numbers by 10, 100 and 1000, including decimal numbers with decimal fractions.
- Use a counting stick to count, using equivalent measures, for example, '1000 grams is equivalent to 1 kilogram, 1100 grams is equivalent to 1.1 kilograms, 1200 grams is equivalent to 1.2 kilograms'.



- Explore the language of units, for example:
  - roots from which 'centi' and 'milli' are derived and where else they are used (e.g. century, centurion);
  - kilo as a prefix meaning 1000, hence one kilogram is equal to 1000 grams and one kilometre is equal to 1000 metres.
- Provide regular practical opportunities for children to learn and use the relationship between units in order to reinforce their knowledge and understanding.

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