

Maths - Year 5

Numbers and the Number System 3: Understanding decimals

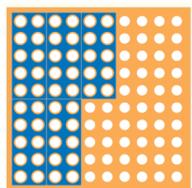
Key Vocabulary		Mathematical Skills
Equivalence	The same value represented in different ways.	<ul style="list-style-type: none"> - Read and interpret decimal numbers shown on digital measuring equipment. - Appreciate that adding 0 to the right of a decimal number does not change its size. - Convert measurements between units, making use of decimal notation. - Read and write numbers with up to three decimal places. - Position decimal fractions on a number line. - Explain the relationship between ones, tenths, hundredths and thousandths. - Explain common fractions and decimal equivalents. - Recognise familiar decimal and common fraction equivalents. - Recognise the relationship between fractions and dividing, including using a calculator to find the decimal equivalent of a common fraction. - Represent decimal fractions with base-ten apparatus. - Give decimal numbers which lie between given consecutive whole numbers, tenths, or hundredths. - Compare and order decimal numbers by looking at the most significant figure.
Ones	Refers to the number of whole ones in a number.	
Tenths	Refers to the number of tenths (one whole one split into 10 equal pieces) in a decimal number e.g. 2.431 has 4 tenths.	
Hundredths	Refers to the number of hundredths (one whole one split into 100 equal pieces) in a decimal number e.g. 2.431 has 3 hundredths.	
Thousandths	Refers to the number of thousandths (one whole one split into 1000 equal pieces) in a decimal number e.g. 2.431 has 1 thousandth.	
Decimal fraction	A fraction represented by a decimal e.g. $\frac{1}{10} = 0.1$.	
Interval	The distance between two points or the numbers between two values	

Mathematical Methods

- Revisiting the use of decimals in measurement e.g.

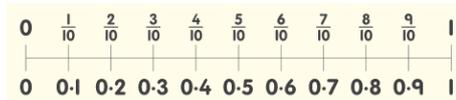
kg	kg and g	g
1.25 kg	1 kg 250 g	1250 g

- Making connections between fractions and decimals—tenths.



$$\frac{1}{2} = \frac{5}{10} = \frac{50}{100}$$

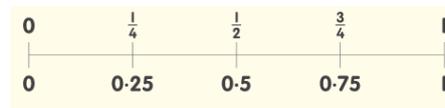
Ones	• tenths	hundredths
•	5	0



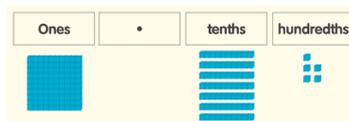
- Making connections between fractions and decimals—hundredths.

E.g. $\frac{1}{4} = \frac{25}{100} = \frac{2}{10} = \frac{20}{100}$ and $\frac{5}{100}$

Ones	• tenths	hundredths
•	2	5



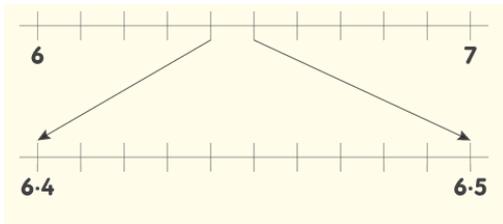
- Representing decimals with base-ten apparatus e.g. 1.75



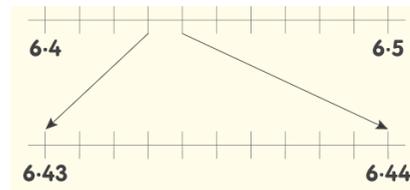
- Decimal number lines e.g.



- Introducing thousandths.



tenths

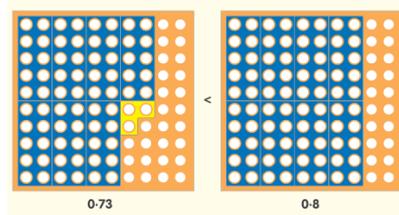


hundredths

hundredths

thousandths

- Comparing decimals e.g.



- Ordering decimals in a list e.g. $2.055 < 2.7 < 2.78 < 3.01 < 3.3 < 3.928$

Can you..?

- Write three decimals that lie between $24\frac{1}{4}$ and $24\frac{1}{2}$.
- How much of the baseboard is covered in blue? Write this as a fraction and as a decimal.
- Write 3.75 as a fraction.
- Which number is bigger 2.343 or 2.398? Explain your answer.

