



Topic: Fraction decimal and percentage equivalence

Year: 7

NC Strand: number

What should I already know?

- How to Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places
- How to write decimals as fractions and fractions to decimals

What will I know by the end of the unit?

- How to represent tenths and hundredths as diagrams
- How to represent tenths and hundredths on a number line
- How to interchange between fractional and decimal number lines
- How to convert fractions to decimals and vice versa (tenths and hundredths)
- How to convert fractions to decimals and vice versa (fifths and quarters)
- How to convert fractions to decimals and vice versa (eighths and thousandths)
- How to use a number square to understand what percentage means
- How to convert between simple fractions decimals and percentages
- How to use and interpret pie charts
- How to represent any fraction as a diagram
- How to represent fractions on a number line
- How to identify and use simple equivalent fractions
- I understand fractions as division
- How to convert fluently between fractions, decimals and percentages
- How to explore fractions above one, decimals and percentages

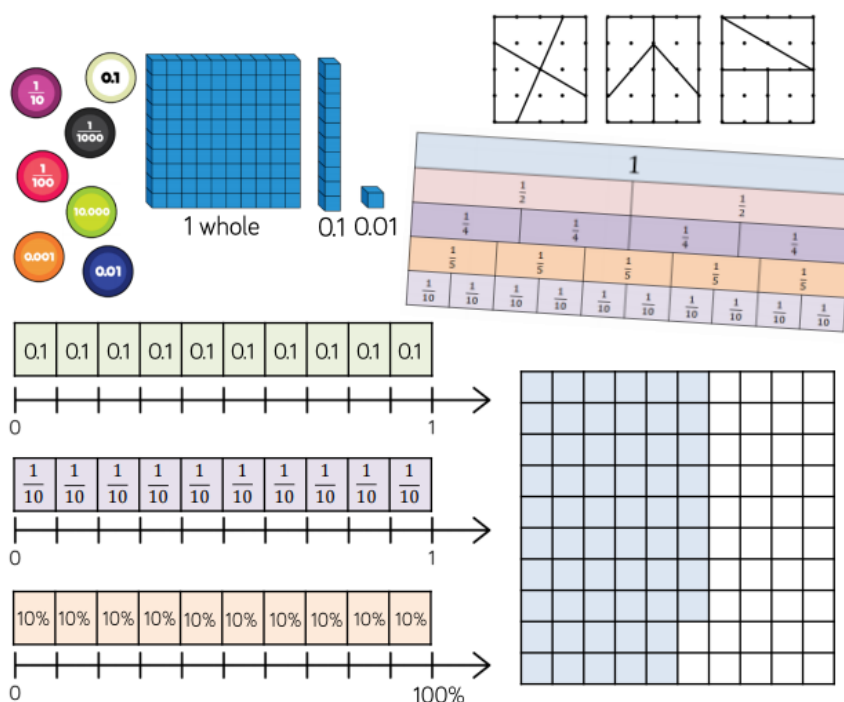
Vocabulary

Place value	Quarter	Three quarters	Part
Digit	Fifth	Half	Equivalence
Place holder	Quarter	Pie chart	Division
Tenths	Equivalent	Fraction	Quotient
Hundredths	Eighth Thousandth	Equal parts	Operator
Interval	Equal	Sector	Improper
Fraction	Percent	Denominator	Rational
Decimal	Percentage	Numerator	Mixed Number
Number Line	Out of Hundred	Whole	Convert

Investigate/Homework tasks

- Homework will be set by your teacher
- You should complete at least 30 minutes of maths tasks on Maths Whizz (not games). Please attend help sessions if you do not have access to the internet at home
- Additional work you could complete:
 - Find out more about the meaning of the vocabulary list using <http://www.amathsdictionaryforkids.com/>
- To challenge yourself: Answer the key questions to deepen your knowledge

Diagram / Key Information



Key skills/Timeline/Topic Questions

- How can you show fractions and decimals on the same number line?
- How can we easily convert tenths to hundredths?
- Why might it not be so easy to convert hundredths to tenths?
- Can you write fifths as tenths and hundredths?
- Can you write quarters as tenths? Hundredths? Why?
- Why are we unable to write eights in tenths?
- Can we write one eighth in hundredths? Thousandths? Explain your answer.
- Is it possible to 110% effort?
- Is it possible to find 110% of an amount?
- What's the same about 30% and 3%?
- How is a fraction related to a decimal?
- How is a percentage related to a fraction?
- How is 100% represented as a fraction? As a decimal?
- Why is it impossible to compare quantities by looking at two pie charts? What can we compare?
- Does a diagram have to be split into equal parts in order to identify the fraction shaded or not shaded?
- How can we represent the "whole" on a number line?
- What makes a fraction equivalent to another fraction?
- Why are equivalent fractions useful in making comparisons?
- When are fractions used as quotients?



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Why do we use all three representations of fractions, decimals and percentages?