

Dr Fog Presents

**Using percentages
as a way of comparing
different fractions.**

Year 6 (National Numeracy Strategy)
(Based on DFEE Sample Lessons)



Resources

- 20 mental arithmetic question test with question 7 or 8 being a really difficult problem with few likely to get it right.



Mental Learning Objective

- Understanding percentage as a fraction of 100.



Mental Learning Task

- Today you are going to be working on fraction and percentage equivalents.



Mental Learning Task

- Can you give me the fraction equivalent of...

100%



Mental Learning Task

- Can you give me the fraction equivalent of...

50%



Mental Learning Task

- Can you give me the fraction equivalent of...

10%



Mental Learning Task

- Can you give me the fraction equivalent of...

50%



Mental Learning Task

- Can you give me the fraction equivalent of...

25%



Mental Learning Task

- Can you give me the fraction equivalent of...

40%



Mental Learning Task

- Can you give me the fraction equivalent of...

55%



Mental Learning Task

- 55% is the same as

55



100



Mental Learning Task

- What is the fraction equivalent of?

150%



Mental Learning Task

- Now we are going to find the percentage equivalents for various fractions.



Mental Learning Task

- Solve these problems

Fraction	Percentage
$\frac{1}{2}$	
$\frac{3}{4}$	
$\frac{1}{10}$	
$\frac{2}{10}$	
$\frac{1}{20}$	
$\frac{14}{20}$	



Mental Learning Objective

- Understanding percentage as a fraction of 100.



Main Learning Objective

- Express simple fractions as percentages and vice versa.



Key idea

**Percentages and fractions
are equivalent ways
of writing a number.**



Main Learning Task

- Divide the class into two halves.
- Give a mental arithmetic test of 20 questions with written answers.
- Group 1 stops after 10 questions.
- Group 2 stops after 20 questions.



Main Learning Task

- Mark your own scores.
- Pick a pupil from each group who has done well.
- Write up the different scores on the board.



Main Learning Task

- Write the scores as fractions.
- Write the scores as percentages.
- Who got a higher percentage?



Main Learning Task

- Now solve this problem...
- If Jane plays a game and wants to compare score.
- When she plays first she gets 14 points out of 20 and the next day she gets 30 points out of 40.
- Has she improved?



Main Learning Task

- Who can write the scores on the board and change them into percentages?



Main Learning Task

- Now solve these problems.
- Which of the fraction pair is larger?
- You can convert it to percentages or use any other method.

$\frac{12}{25}$	$\frac{14}{25}$
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$\frac{3}{10}$	$\frac{30}{100}$
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$\frac{12}{20}$	$\frac{23}{40}$
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$\frac{14}{25}$	$\frac{12}{20}$
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Main Learning Objective

- Express simple fractions as percentages and vice versa.



Plenary

- How did you do each one?
- Can you work out what the percentage of each one was?



Plenary

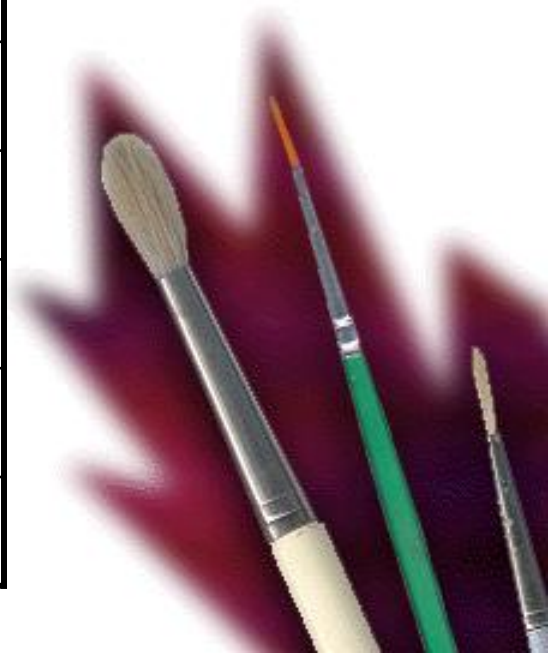
- Finish with a quick class activity.
- Say a simple fraction and everyone in the class calls out the equivalent percentage.
- Say a percentage and everyone calls out an appropriate fraction equivalent.



Plenary

- For homework - solve these problems.

Change these into percentages	Change these into fractions
$\frac{1}{2}$	50 %
$\frac{3}{4}$	7 %
$\frac{2}{10}$	18 %
$\frac{1}{50}$	75 %
$\frac{9}{50}$	60 %
$\frac{3}{25}$	3 %
$\frac{15}{20}$	30 %
$\frac{3}{5}$	95 %



Review of Key Idea

- Percentages and fractions are equivalent ways of writing a number.
- Did you learn this today?



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