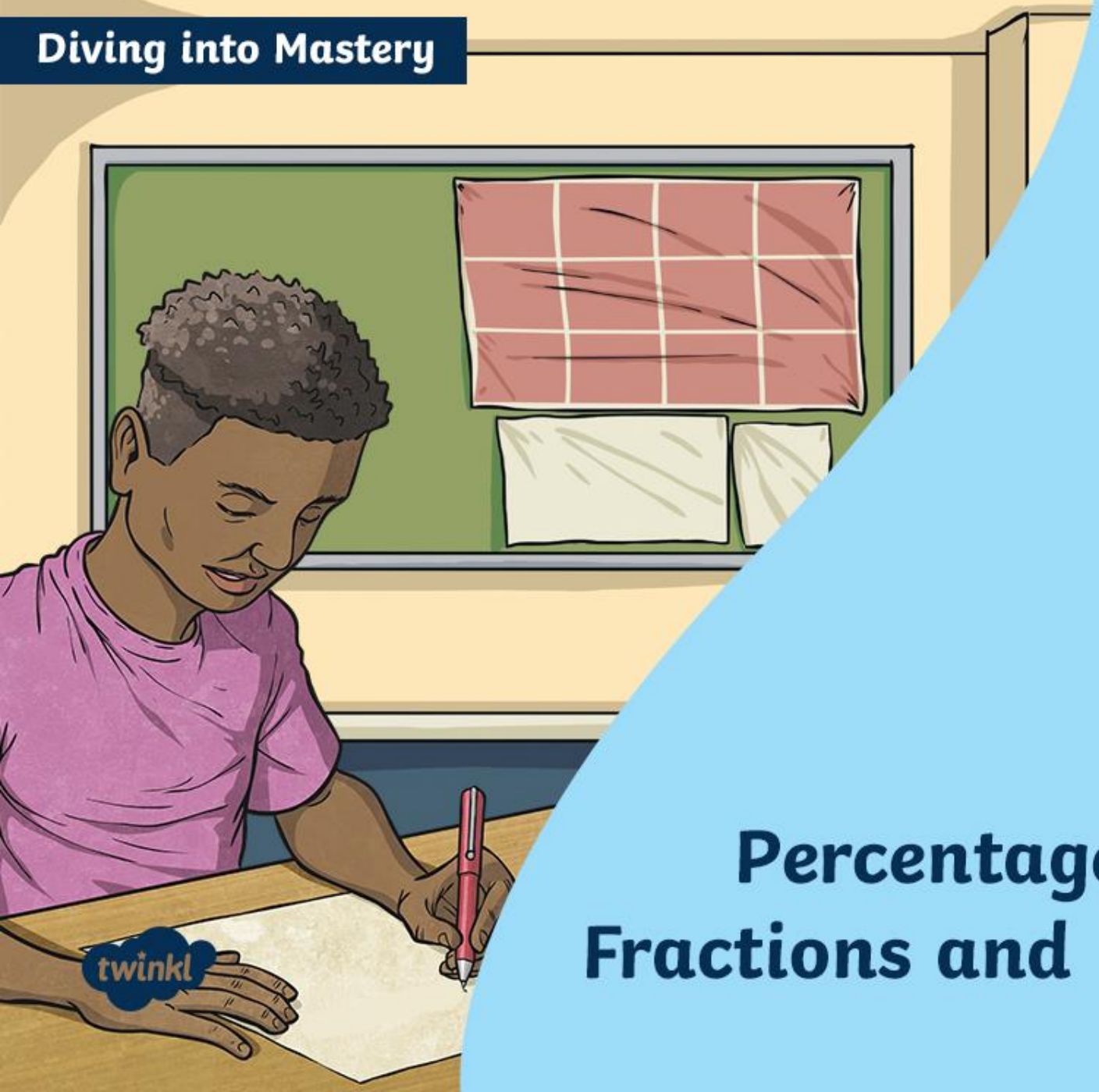
Diving into Mastery



Percentages as Fractions and Decimals

Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:

Diving

Deeper

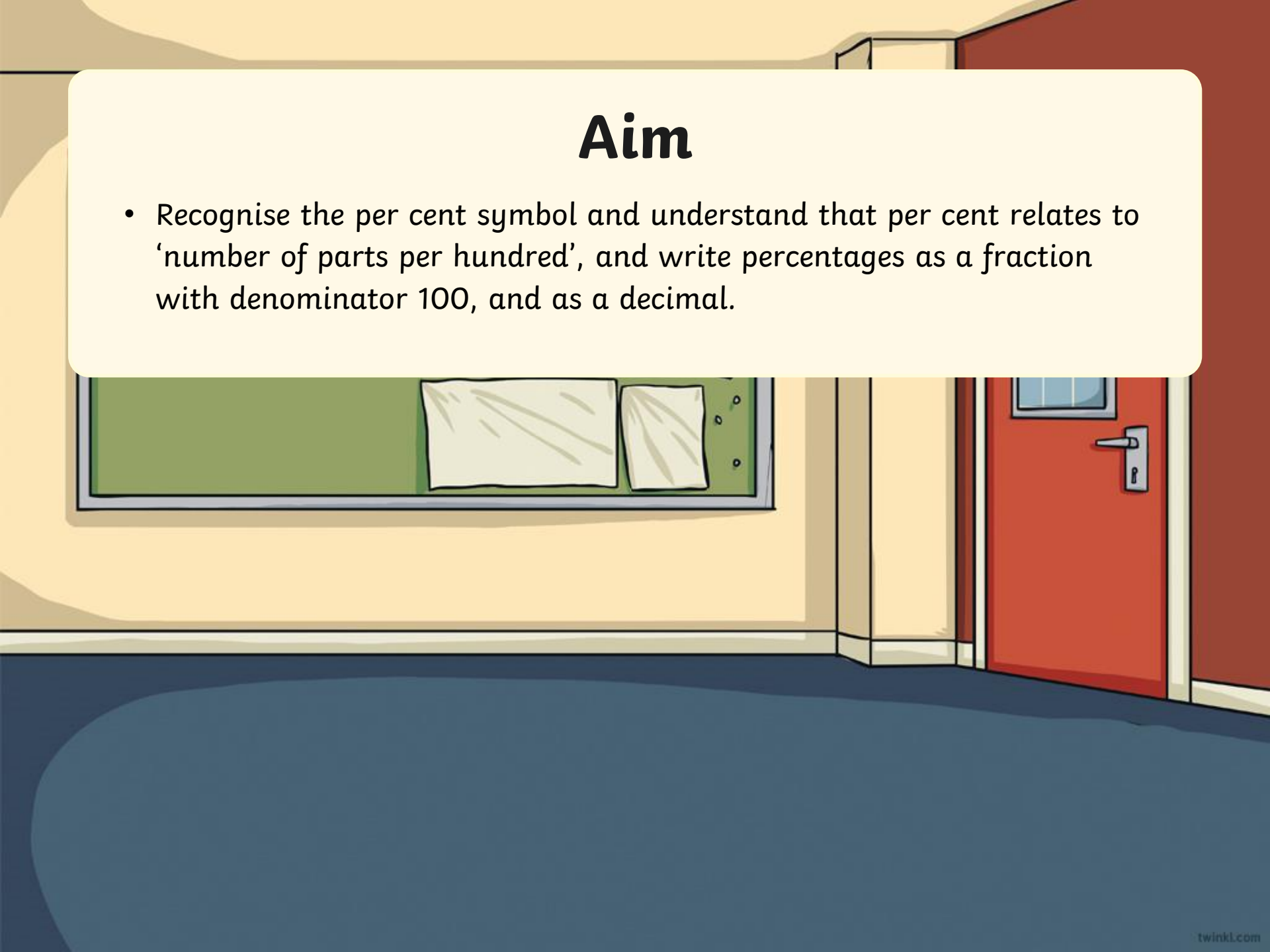
Deepest

These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

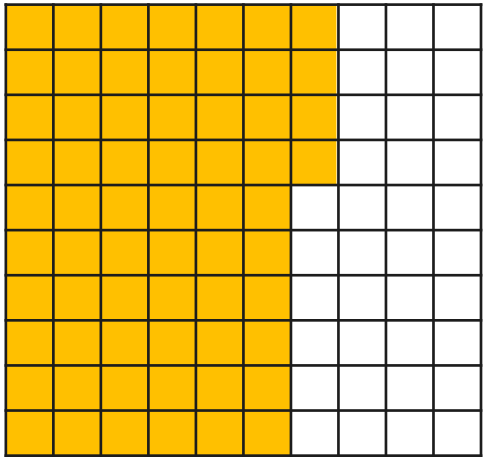
Aim

- Recognise the per cent symbol and understand that per cent relates to ‘number of parts per hundred’, and write percentages as a fraction with denominator 100, and as a decimal.

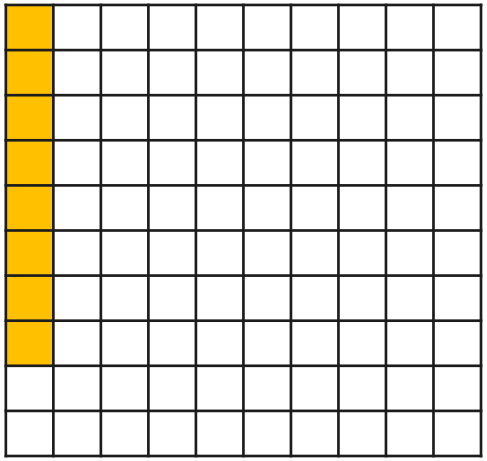


Percentages as Fractions and Decimals | Diving

Complete the statements.

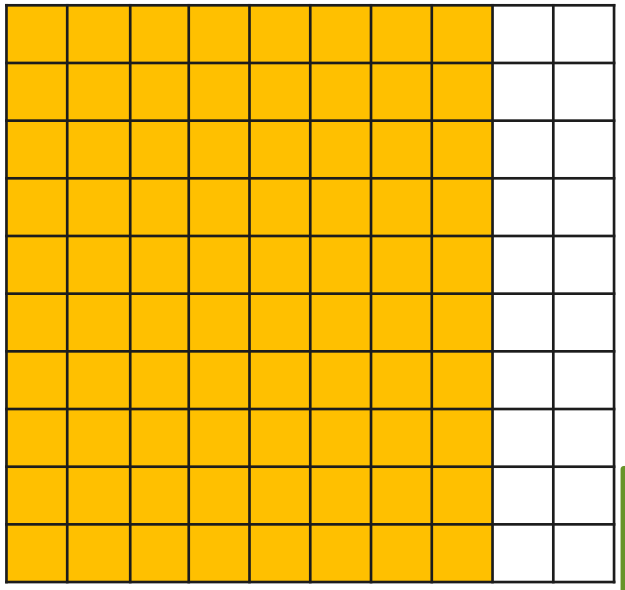


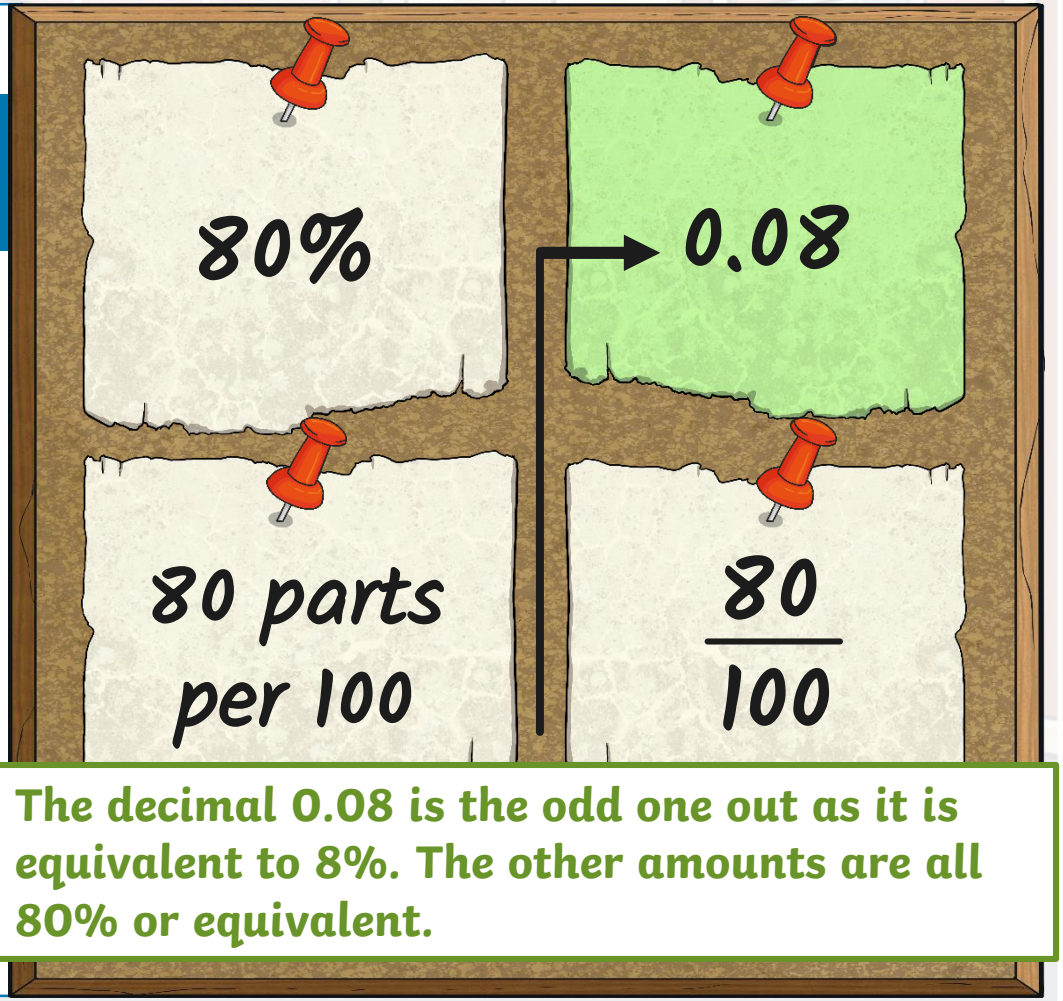
= 64 parts per 100 coloured in. = 64 % = $\frac{64}{100}$ = 0.64



= 8 parts per 100 coloured in. = 8 % = $\frac{8}{100}$ = 0.08

Which is the odd one out? Why?

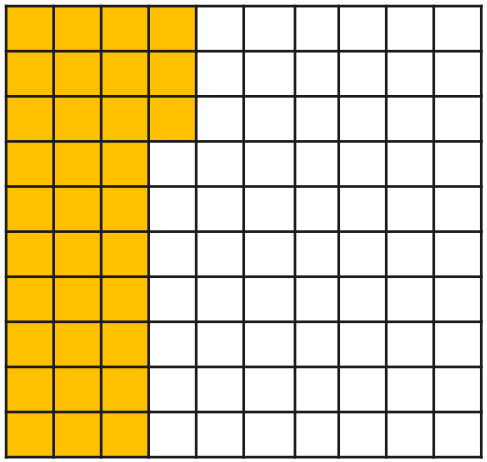




The decimal 0.08 is the odd one out as it is equivalent to 8%. The other amounts are all 80% or equivalent.

Percentages as Fractions and Decimals | **Diving**

True or false?

$\frac{42}{100}$ < 0.8 > 14%	True.
30 parts per hundred > 4% > 0.3	False. 4% = 0.04 which is not greater than 0.3 so this is false.
18% <  < 0.5	True.

Percentages as Fractions and Decimals | Diving

Which numbers fill the table to make it correct?

Fraction	Fraction with a Denominator of 100	Percentage	Decimal
$\frac{40}{50}$ (×2) = $\frac{80}{100}$ (×2)		80 %	0.8 or 0.80
$\frac{30}{50}$ (×2) = $\frac{60}{100}$ (×2)		60 %	0.6 or 0.60
$\frac{80}{200}$ (÷2) = $\frac{40}{100}$ (÷2)		40 %	0.4 or 0.40
$\frac{130}{200}$ (÷2) = $\frac{65}{100}$ (÷2)		65 %	0.65

Percentages as Fractions and Decimals — Deeper

Three children are describing a different percentage.

Give two possible percentages that each child could be describing.

The fraction equivalent to my percentage is between $\frac{20}{100}$ and $\frac{20}{50}$.

Sammy

Sammy's percentage is any between 20% and 40%.

As a decimal, my percentage is between 0.15 and 0.2.

Ethan

Ethan's percentage is any between 15% and 20%.

My percentage is between 0.13 and $\frac{70}{100}$.

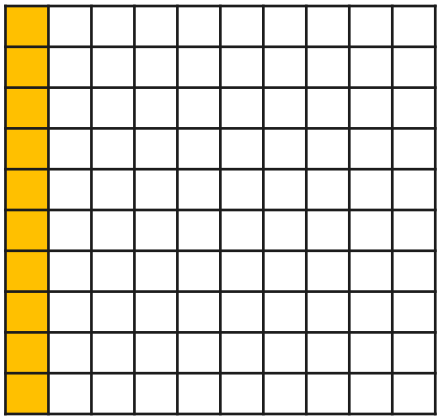
Nadia

Nadia's percentage is any between 13% and 35%.

Percentages as Fractions and Decimals

Deeper

Read each child's statement. Explain and correct any mistakes they have made.



There is between 0.2 and 30% of the 100 square coloured in.

Ada

If I coloured in another 0.9 of this 100 square it would be 100% coloured in.

Leo

The fraction of the 100 square coloured in is $\frac{10}{50}$.

Oscar

Oscar is incorrect.

The fraction of the square coloured in is $\frac{10}{100}$. This is equivalent to $\frac{5}{50}$ not $\frac{10}{50}$.

coloured in for Ada's statement to be accurate. There is actually only 10% of the squares coloured in.

Percentages as Fractions and Decimals — Deepest

Tao has driven 178 miles of a 200 mile journey.

Eva has driven 320 miles of a 400 mile journey.

James has driven 210 miles of a 300 mile journey.

Give each person's journey as a fraction, percentage and decimal.

Which person has completed the greatest proportion of their journey? Give the remainder of their journey as a decimal.

Tao: $\frac{178}{200} = \frac{89}{100} = 89\% = 0.89$

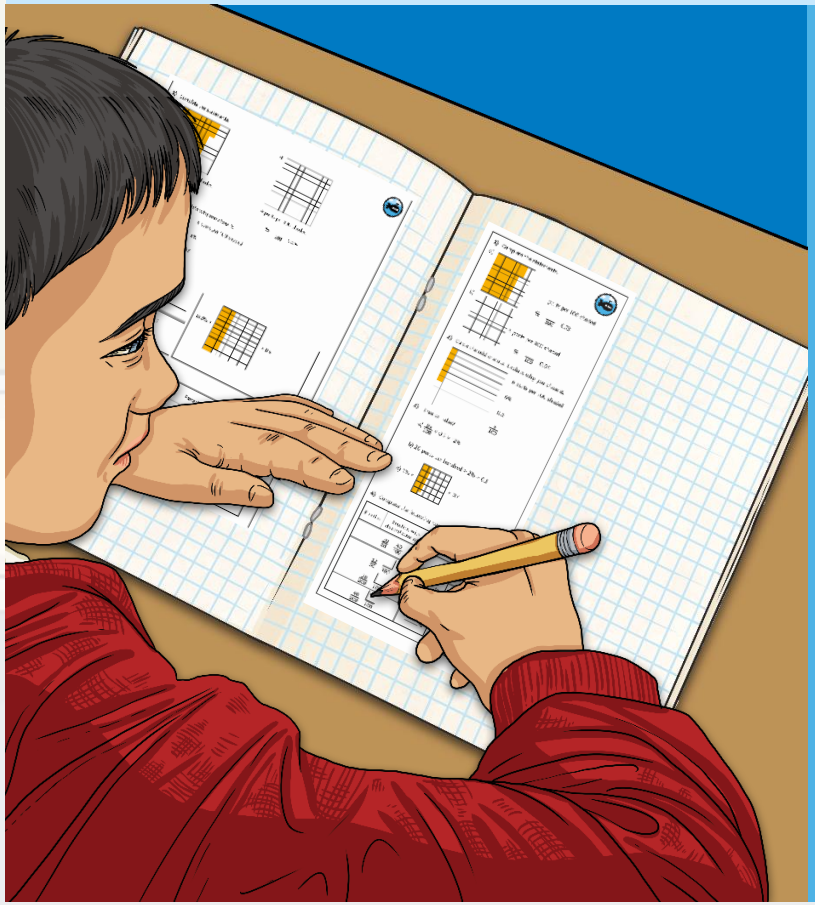
Eva: $\frac{320}{400} = \frac{80}{100} = 80\% = 0.8$

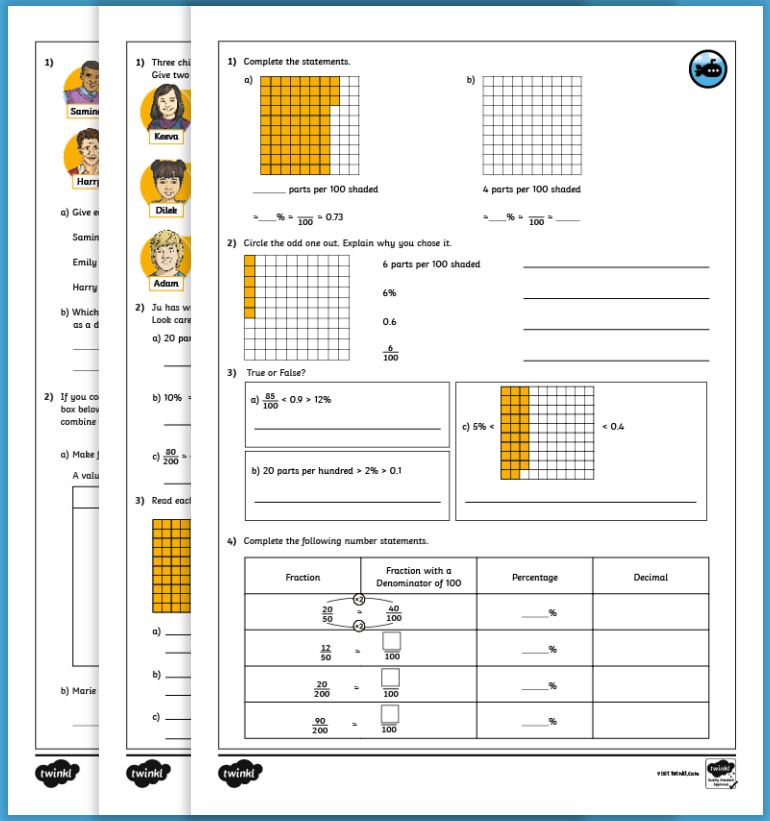
James: $\frac{210}{300} = \frac{70}{100} = 70\% = 0.7$

Tao has completed the greatest proportion of the journey. He has 0.11 of his journey remaining.

Percentages as Fractions and Decimals

Dive in by completing your own activity!



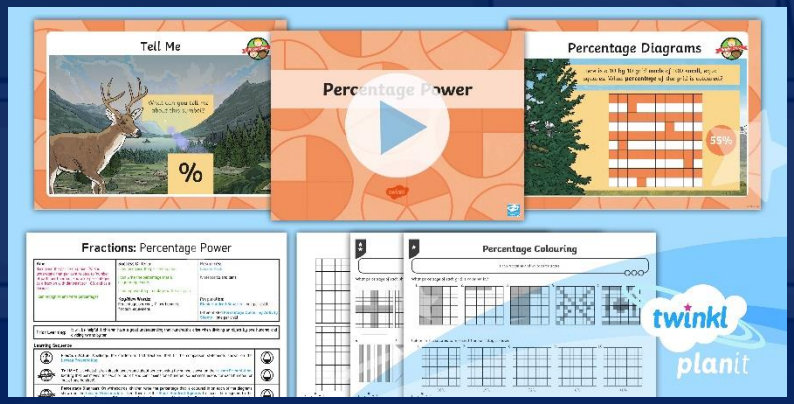


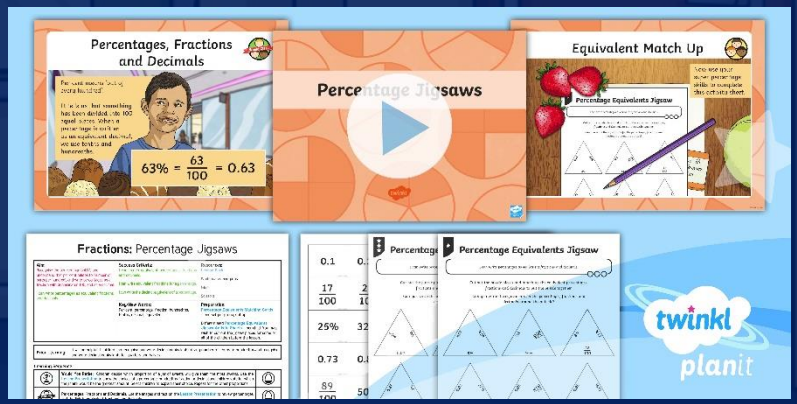
Need Planning to Complement this Resource?

National Curriculum Aim

Recognise the per cent symbol and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal

For more planning resources to support this aim, click here.





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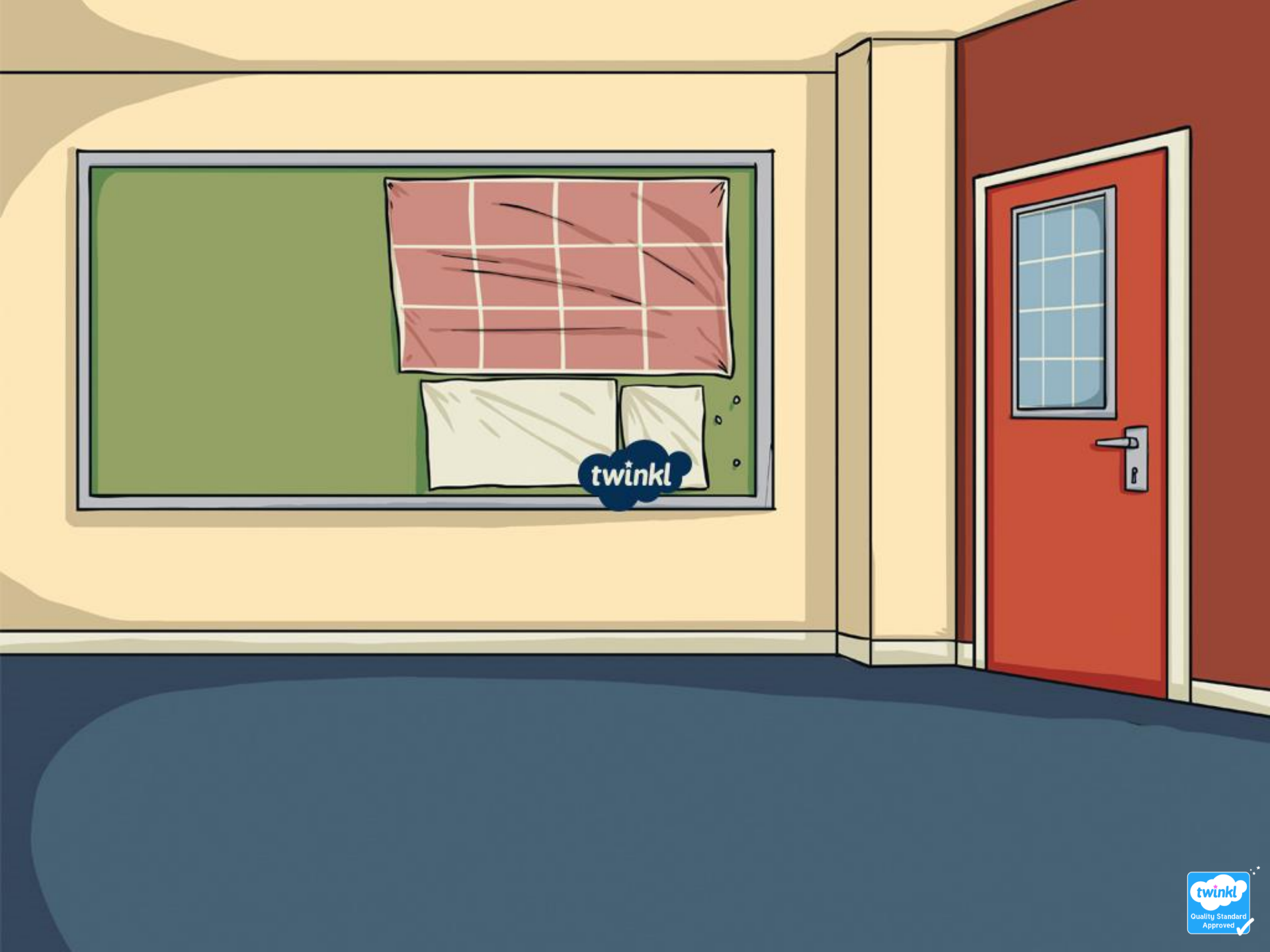
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