Maths

Fractions

Decimal Numbers as Fractions

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Quality Standard Approved

Aim

- I can read and write decimal numbers as fractions.

Success Criteria

- I can explain the place value position of decimal numbers using the vocabulary of tenths and hundredths.
- I can write a decimal number as a fraction.
- I can use Venn and Carroll diagrams to sort decimal numbers.

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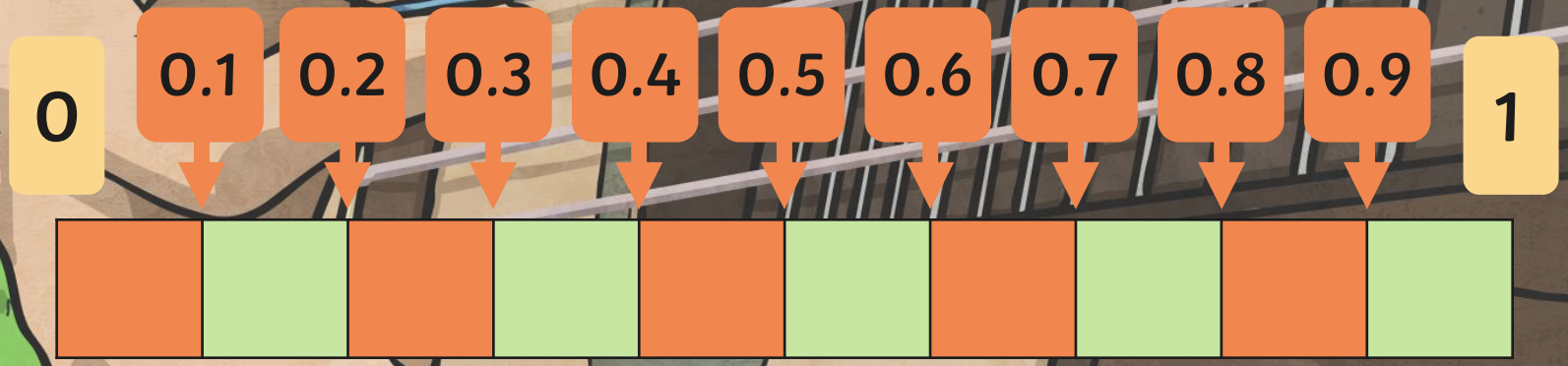
Decimal Tenths

Count forwards and backwards along the decimal tenths counting stick.



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Decimal Tenths Counting Stick

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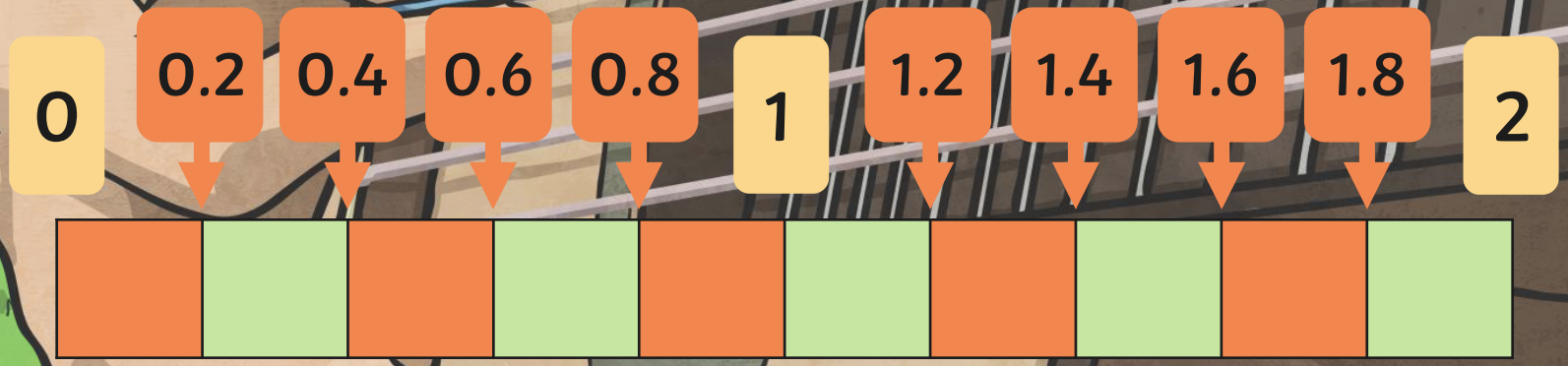

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Decimal Tenths Counting Stick

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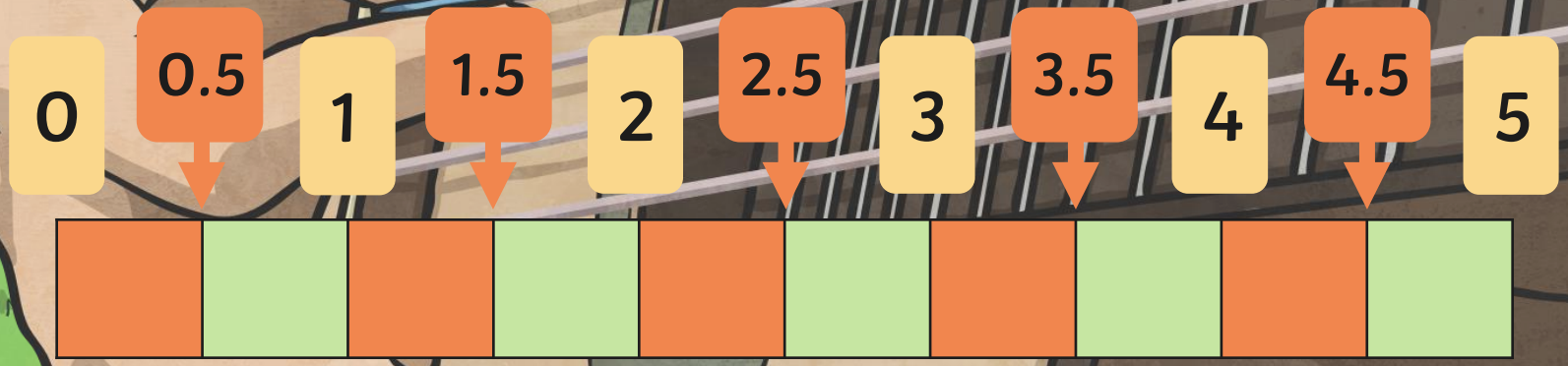

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Decimal Numbers

Whole Class

Not all numbers are whole numbers. Numbers that have digits to the right of a decimal point are numbers between whole numbers.

4.5

509.005

2.54

0.1

19.01

8.505

0.4

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Decimal Numbers

Whole Class

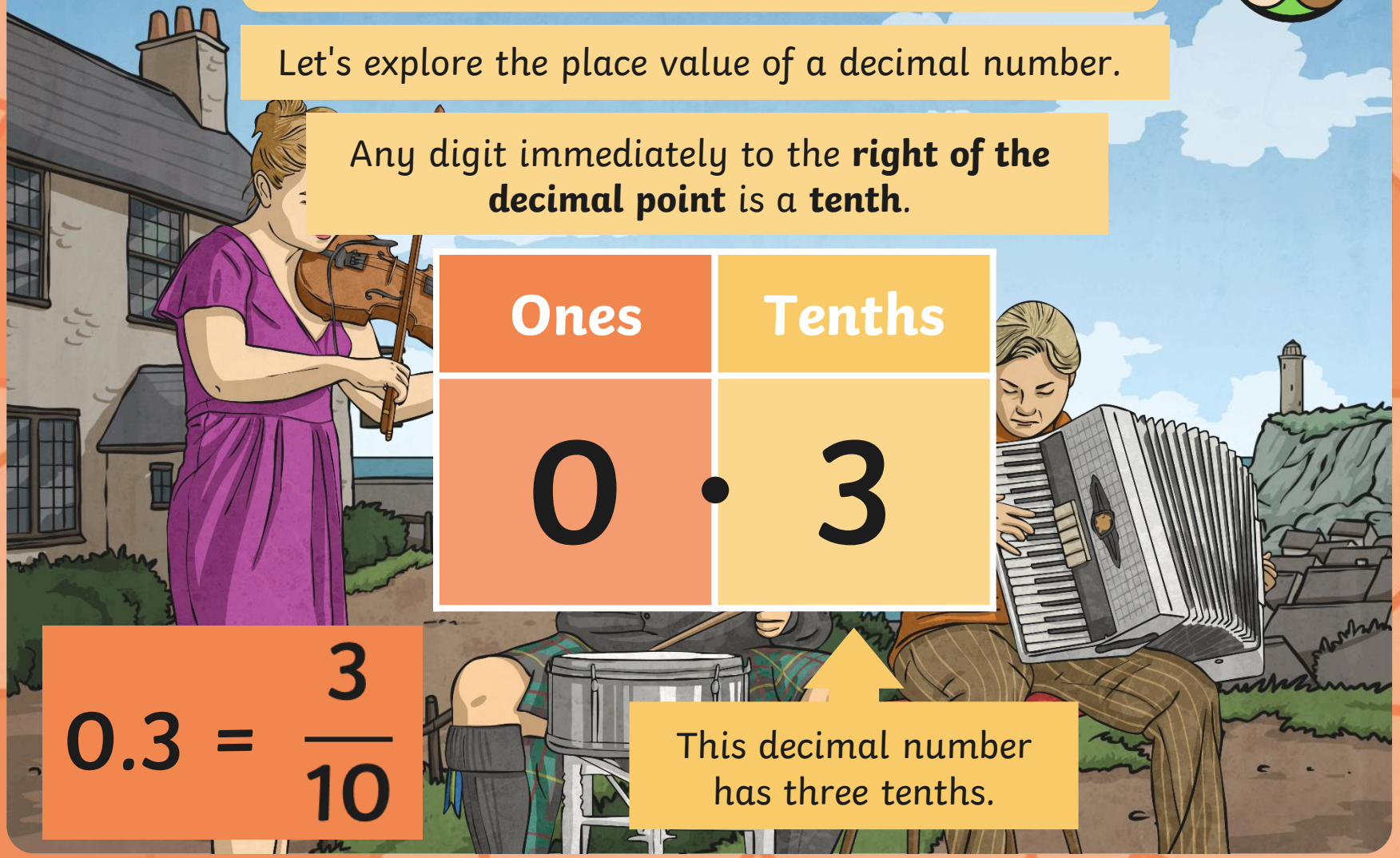
Let's explore the place value of a decimal number.

Any digit immediately to the **right of the decimal point** is a **tenth**.

Ones	Tenths
0 •	3

$$0.3 = \frac{3}{10}$$

This decimal number has three tenths.



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Decimal Numbers

Whole Class

Let's explore the place value of a decimal number.

Any digit immediately to the **right of the decimal point** is a **tenth**.

Ones	Tenths
0	8

$$0.8 = \frac{8}{10}$$

This decimal number has eight tenths.

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Decimal Numbers

Whole Class

Let's explore the place value of a decimal number.

Any digit immediately to the **right of the decimal point** is a **tenth**.

Ones	Tenths
0	2

$$0.2 = \frac{2}{10}$$

This decimal number has two tenths.

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Decimal Numbers

Whole Class

Let's explore the place value of a decimal number.

Any digit immediately to the **right of the decimal point** is a **tenth**.

Ones	Tenths
0	9

$$0.9 = \frac{9}{10}$$

This decimal number has nine tenths.

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Decimal Numbers

Whole Class

Let's explore the place value of a decimal number.

Any digit immediately to the **right of the tenth column** is a **hundredth**.

Ones	Tenths	Hundredth
0	3	5

$$0.35 = \frac{35}{100}$$

This decimal number has three tenths.

This decimal number has five hundredths.

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Decimal Numbers

Whole Class

Let's explore the place value of a decimal number.

Any digit immediately to the **right of the tenth column** is a **hundredth**.

Ones	Tenths	Hundredth
0 •	7	4

$$0.74 = \frac{74}{100}$$

This decimal number has seven tenths.

This decimal number has four hundredths.

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Decimal Numbers

Whole Class

Let's explore the place value of a decimal number.

Any digit immediately to the **right of the tenth column** is a **hundredth**.

Ones	Tenths	Hundredth
0 •	1	8

$$0.18 = \frac{18}{100}$$

This decimal number has one tenth.

This decimal number has eight hundredths.

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Decimal Numbers

Whole Class

Let's explore the place value of a decimal number.

Any digit immediately to the **right of the tenth column** is a **hundredth**.

Ones	Tenths	Hundredth
0	0	5

$$0.05 = \frac{5}{100}$$

This decimal number has zero tenths.

This decimal number has five hundredths.

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What's My Number?

Sit back to back with your partner, so that one of you can see the whiteboard and the other one can't.

The person facing the whiteboard will have 30 seconds to describe the decimal number shown on the board using the language of tenths and hundredths.

Score 1 point if the other person writes the correct fraction equivalent on their individual whiteboard.

Swap roles for the next round.

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What's My Number?

Round 4

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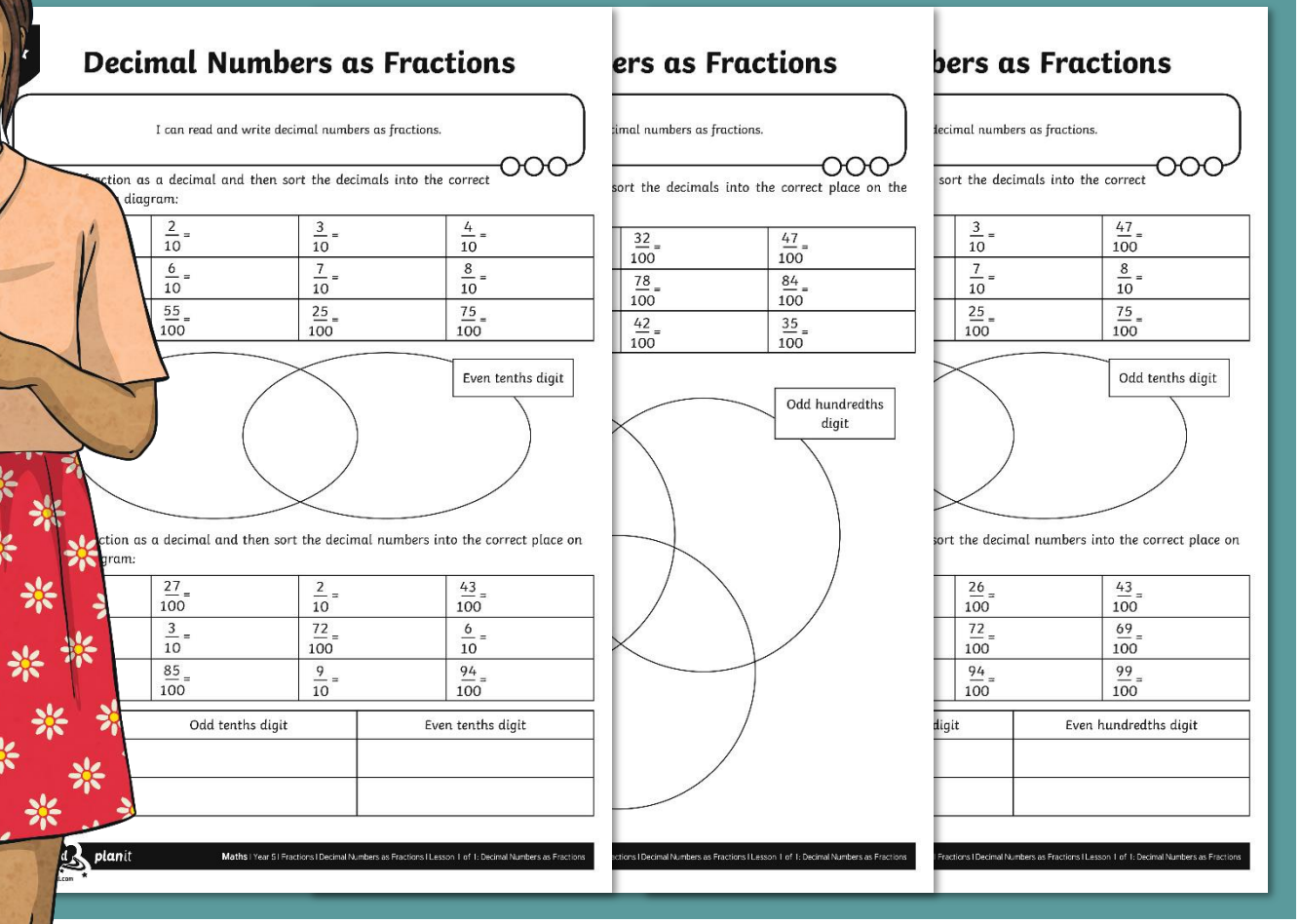
Decimal Numbers as Fractions



Decimal Numbers as Fractions

I can read and write decimal numbers as fractions.

ction as a decimal and then sort the decimals into the correct diagram:

$\frac{2}{10}$ =	$\frac{3}{10}$ =	$\frac{4}{10}$ =
$\frac{6}{10}$ =	$\frac{7}{10}$ =	$\frac{8}{10}$ =
$\frac{55}{100}$ =	$\frac{25}{100}$ =	$\frac{75}{100}$ =

Even tenths digit

ction as a decimal and then sort the decimal numbers into the correct place on gram:

$\frac{27}{100}$ =	$\frac{2}{10}$ =	$\frac{43}{100}$ =
$\frac{3}{10}$ =	$\frac{72}{100}$ =	$\frac{6}{10}$ =
$\frac{85}{100}$ =	$\frac{9}{10}$ =	$\frac{94}{100}$ =

Odd tenths digit	Even tenths digit

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ers as Fractions

imal numbers as fractions.

sort the decimals into the correct place on the

$\frac{32}{100}$ =	$\frac{47}{100}$ =
$\frac{78}{100}$ =	$\frac{84}{100}$ =
$\frac{42}{100}$ =	$\frac{35}{100}$ =

Odd hundredths digit

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bers as Fractions

decimal numbers as fractions.

sort the decimals into the correct

$\frac{3}{10}$ =	$\frac{47}{100}$ =
$\frac{7}{10}$ =	$\frac{8}{10}$ =
$\frac{25}{100}$ =	$\frac{75}{100}$ =

Odd tenths digit

sort the decimal numbers into the correct place on

$\frac{26}{100}$ =	$\frac{43}{100}$ =
$\frac{72}{100}$ =	$\frac{69}{100}$ =
$\frac{94}{100}$ =	$\frac{99}{100}$ =

digit	Even hundredths digit

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Place Value Disco

Placed around the room are four different place value posters:
Tens, Ones, Tenths and Hundredths.

We are going to use these place value posters to play a game.

The whole class should stand in the centre of the room.

When the music plays, you can move around the room.

When the music stops, you should move to stand at one of the place value posters.

When the music stops a decimal number will be shown on the board. If the highlighted digit in this number is in the place value column of the station you chose to stand at, you score a point. Keep track of your own points.

Who will earn the most points?

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Place Value Disco

Round 1

Hundredths

90.65

Reveal Number

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Place Value Disco

Round 2

Tens

21.74

Reveal Number

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Place Value Disco

Round 3

Tenths

15.19

Reveal Number

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Place Value Disco

Round 4

Ones

43.03

Reveal Number

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Place Value Disco

Round 4

Tenths

5 4 . 8 0

Reveal Number

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Place Value Disco

Round 4

Hundredths

41.44

Reveal Number

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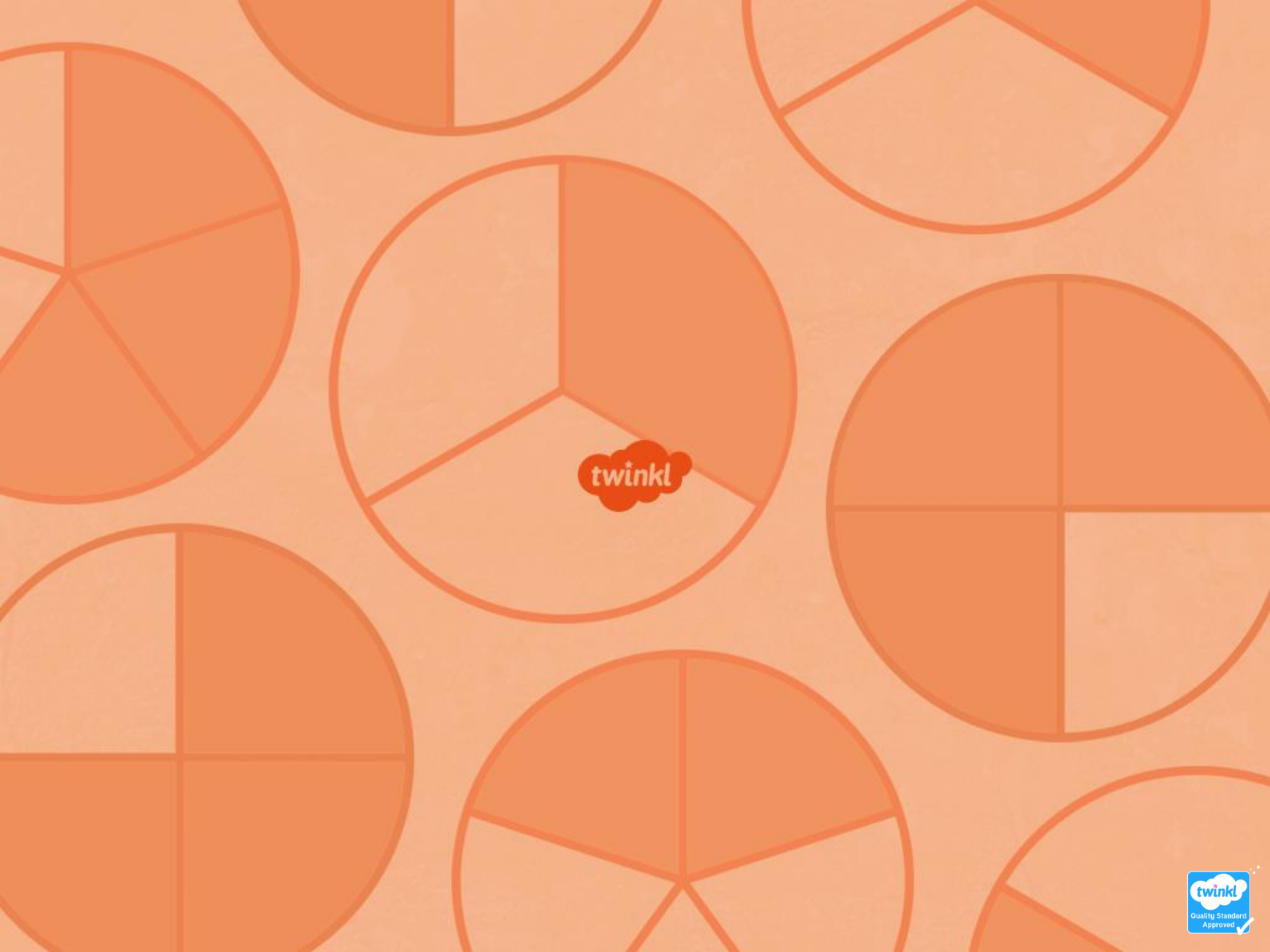
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