

Diving into Mastery



Compare and Order Fractions Less Than 1

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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



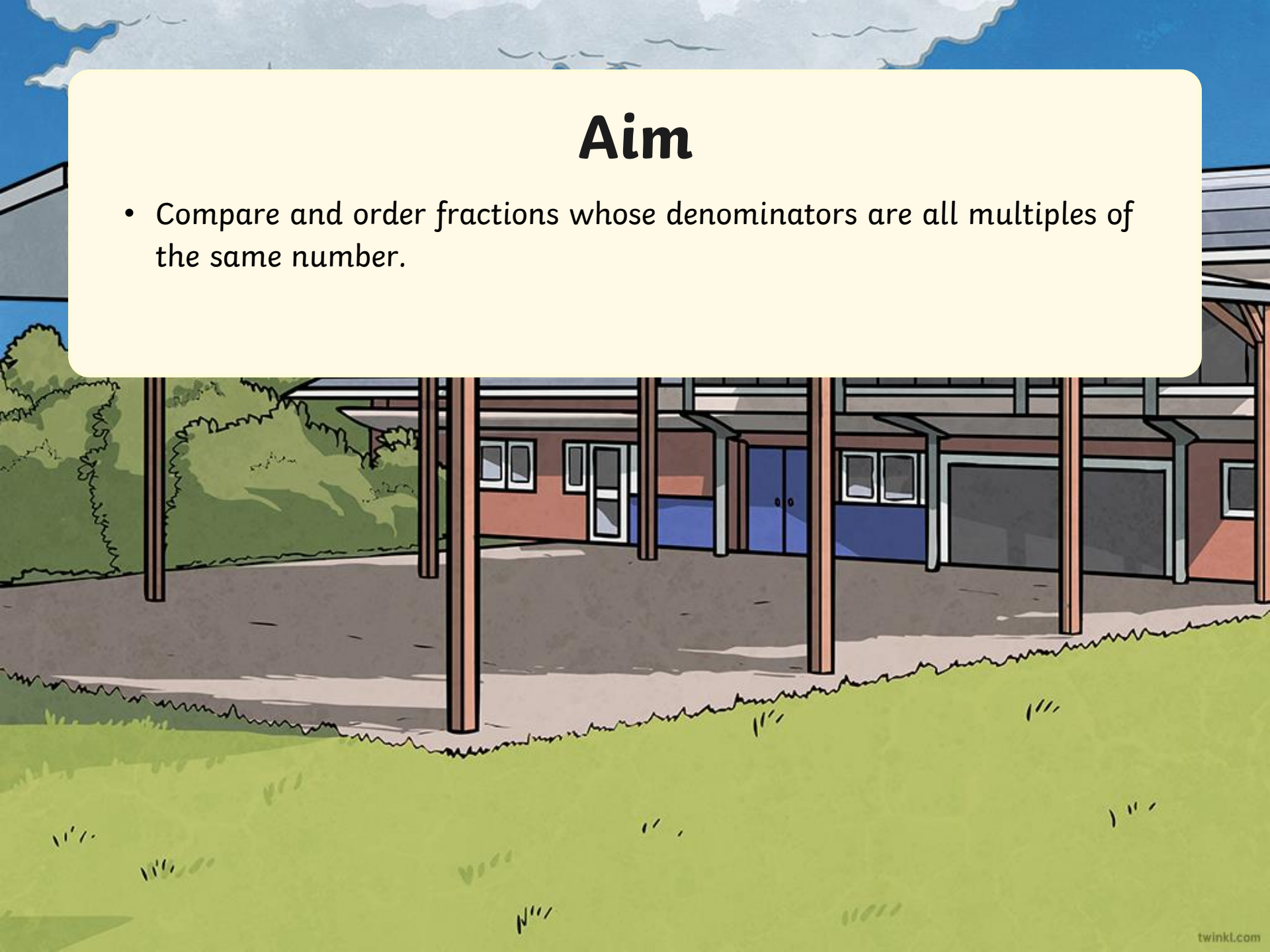
Deepest

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.

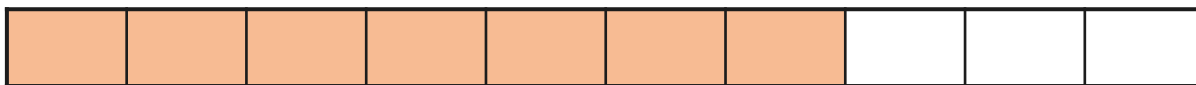
Aim

- Compare and order fractions whose denominators are all multiples of the same number.



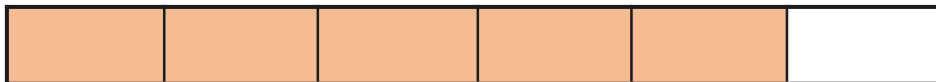


Use these bar models to compare $\frac{4}{5}$ and $\frac{7}{10}$.



$$\frac{7}{10} < \frac{4}{5}$$

Draw two bar models to compare $\frac{2}{3}$ and $\frac{5}{6}$.



$$\frac{5}{6} > \frac{2}{3}$$



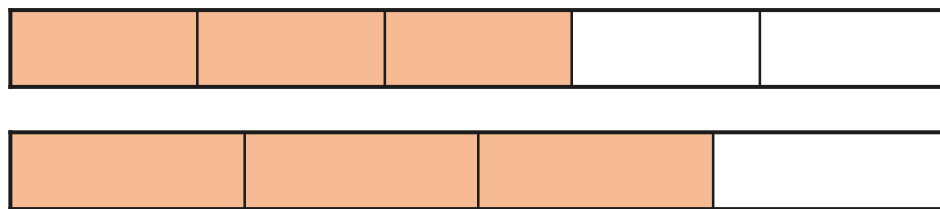
Use common numerators to help you compare $\frac{2}{5}$ and $\frac{2}{7}$.



$$\frac{2}{5} > \frac{2}{7}$$

We can see from the bar model that fifths are bigger than sevenths.

Draw two bar models to compare $\frac{3}{5}$ and $\frac{3}{4}$.



$$\frac{3}{5} \text{ is smaller than } \frac{3}{4}$$



Compare these fractions by finding a common numerator.

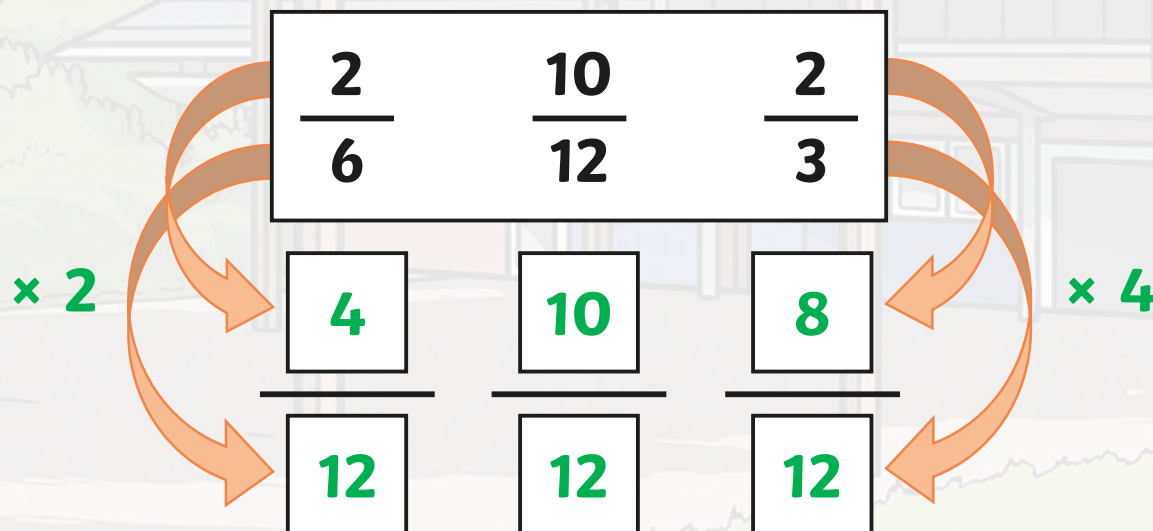
$$\frac{\textcircled{4}}{5} > \frac{4}{\cancel{16}}$$

A whiteboard with a black border and a silver base. It displays the equation $\frac{2}{8} = \frac{4}{16}$. Two orange curved arrows point from the number 2 in the numerator of the first fraction to the number 4 in the numerator of the second fraction. A second orange curved arrow points from the number 8 in the denominator of the first fraction to the number 16 in the denominator of the second fraction. The text $\times 2$ is written in green above the top arrow and below the bottom arrow. An equals sign is centered between the two fractions.

$$\frac{2}{8} = \frac{4}{16}$$



Use the boxes given to write equivalent fractions with a common denominator to help you compare the three fractions. Then, order the fractions from smallest to largest.

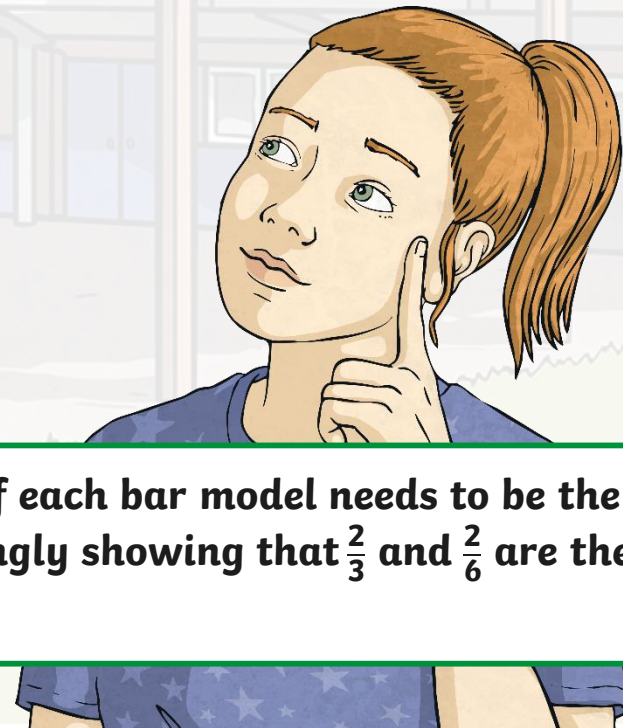
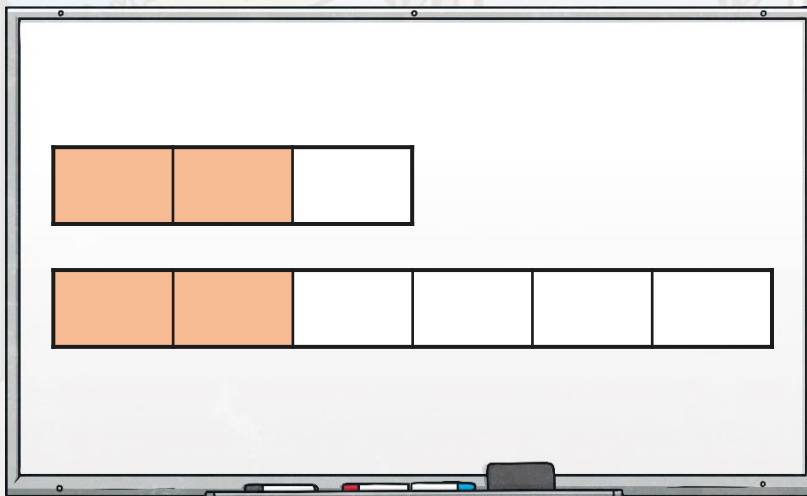


$$\frac{2}{6}, \frac{2}{3}, \frac{10}{12}$$

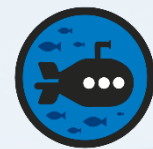


Georgia has drawn two bar models to compare $\frac{2}{3}$ and $\frac{2}{6}$.

Explain the mistake she has made.



Georgia has not understood that the whole of each bar model needs to be the same size. This has led to her bar model wrongly showing that $\frac{2}{3}$ and $\frac{2}{6}$ are the same size.



Harvey has ordered these fractions from smallest to largest.

Is he correct? Explain your reasoning using a common denominator.

$\frac{1}{3}$	$\frac{3}{6}$	$\frac{5}{12}$	$\frac{2}{3}$	$\frac{10}{12}$
↓	↓	↓	↓	↓
$\frac{4}{12}$	$\frac{6}{12}$	$\frac{5}{12}$	$\frac{8}{12}$	$\frac{10}{12}$

Harry is not correct.

$\frac{3}{6}$ is equivalent to $\frac{6}{12}$ so $\frac{5}{12}$ should come before $\frac{3}{6}$.



How many different ways can you correctly fill in the missing numerator?

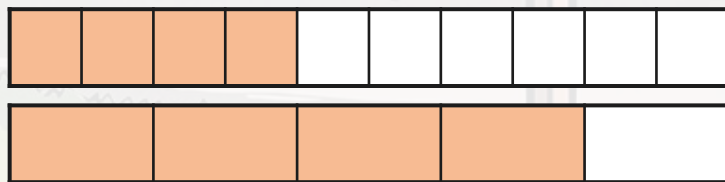
Your fraction needs to be less than 1. Prove your answers are correct using either bar models or your knowledge of equivalent fractions.

$$\frac{4}{10} < \frac{\boxed{4}}{5}$$

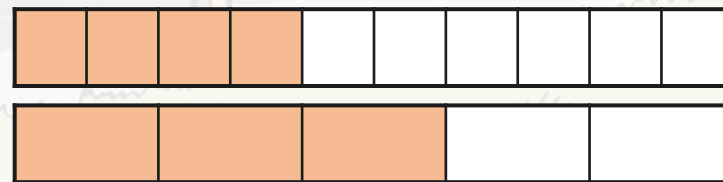
$$\frac{4}{10} < \frac{\boxed{}}{5}$$

$$\frac{4}{10} < \frac{\boxed{3}}{5}$$

There are two possible solutions:



$$\frac{4}{5} = \frac{8}{10}$$



$$\frac{3}{5} = \frac{6}{10}$$



Harriet is thinking of a fraction that is larger than $\frac{1}{4}$ but smaller than $\frac{5}{8}$.
The denominator is a multiple of 2.

What fraction could it be? Draw three bar models to prove your answer.

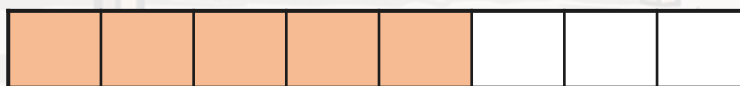
Harriet's fraction could be $\frac{4}{8}$.

$\frac{1}{4}$



$\frac{4}{8}$

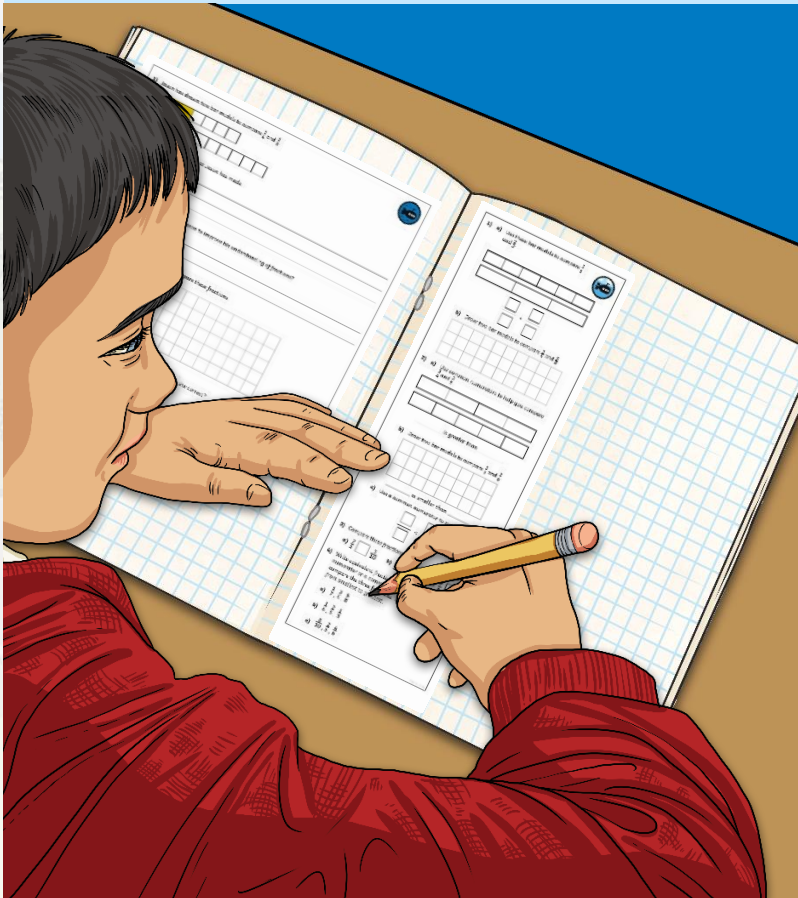
$\frac{5}{8}$



Harriet's fraction could also be $\frac{3}{8}$ or fractions equivalent to $\frac{4}{8}$ (such as $\frac{2}{4}$ or $\frac{1}{2}$).

Compare and Order Fractions Less Than 1

Dive in by completing your own activity!



1) How many... Your fraction knowledge... $\frac{3}{5} > \frac{1}{4}$

1) Jason has $\frac{2}{5}$ of a pizza and $\frac{3}{10}$ of a pizza.

a) Explain to Leo why $\frac{2}{5} > \frac{3}{10}$.

b) Draw two bar models to compare $\frac{2}{5}$ and $\frac{3}{10}$.

2) a) Use common numerators to help you compare $\frac{3}{4}$ and $\frac{2}{3}$.

b) Draw two bar models to compare $\frac{3}{4}$ and $\frac{2}{3}$.

3) Compare these fractions.

a) $\frac{2}{5} > \frac{3}{10}$ b) $\frac{4}{9} > \frac{1}{3}$ c) $\frac{2}{5} > \frac{4}{7}$

2) Pearl has $\frac{1}{4}$ of a pizza and Leo has $\frac{3}{4}$ of a pizza.

Show you know $\frac{1}{4} < \frac{3}{4}$.

a) $\frac{1}{2} > \frac{3}{4} > \frac{5}{8}$

b) $\frac{1}{6} > \frac{2}{5} > \frac{1}{3}$

c) $\frac{8}{10} > \frac{2}{5} > \frac{4}{6}$

4) In the boxes, write equivalent fractions with either a common numerator or a common denominator to help you compare the three fractions. Then, order the fractions from smallest to largest.

a) $\frac{1}{2} > \frac{3}{4} > \frac{5}{8}$

b) $\frac{1}{6} > \frac{2}{5} > \frac{1}{3}$

c) $\frac{8}{10} > \frac{2}{5} > \frac{4}{6}$

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Need Planning to Complement this Resource?

National Curriculum Aim

Compare and order fractions whose denominators are all multiples of the same number.

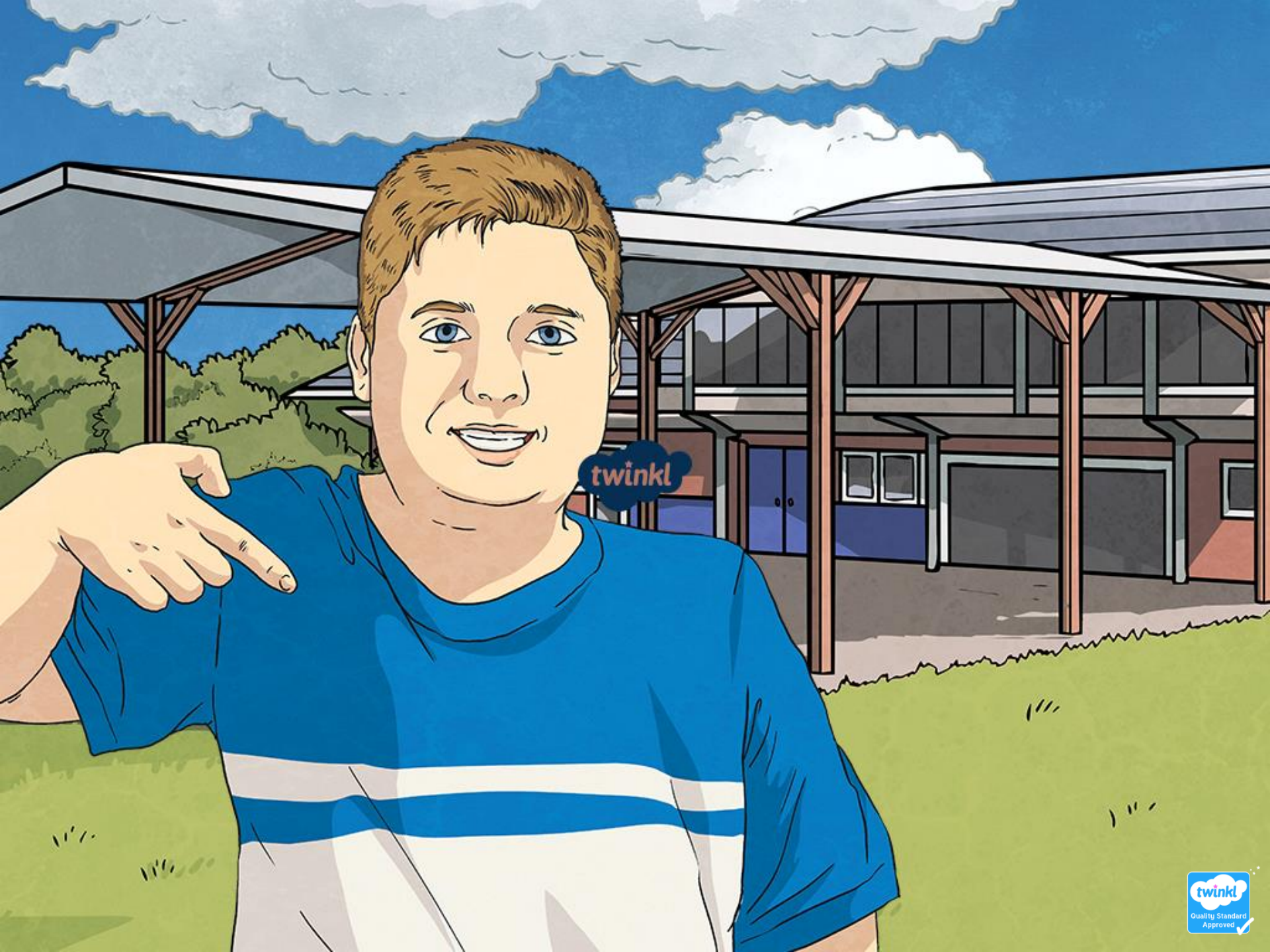
For more planning resources to support this aim, [click here](#).

This screenshot shows a Twinkl Planit resource for 'Comparing Fractions'. It includes a video player with a play button, a 'Denominator Multiples' section with instructions and a number line, and a worksheet titled 'Fractions: Comparing Fractions'. The worksheet contains a table with columns for 'Aim', 'Success Criteria', 'Resources', 'Key/No. Words', 'Prior Learning', and 'Activities'. Below the table are several sections for 'Comparing Fractions' with examples of fractions and a 'twinkl planit' logo.

This screenshot shows a Twinkl Planit resource for 'Ordering Fractions'. It includes a video player with a play button, a 'Denominator Multiples' section with instructions and a number line, and a worksheet titled 'Fractions: Ordering Fractions'. The worksheet contains a table with columns for 'Aim', 'Success Criteria', 'Resources', 'Key/No. Words', 'Prior Learning', and 'Activities'. Below the table are several sections for 'Ordering Fractions' with examples of fractions and a 'twinkl planit' logo.

Twinkl Planit is our award-winning scheme of work with over 4000 resources.





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