Fractions: Compare Fractions

Aim: Compare and order unit fractions, and fractions with the same denominators. To compare fractions.	Success Criteria: I can compare unit fractions. I can compare fractions with the same denominator. I can compare fractions using a fraction wall.	Resources: Lesson Pack
	Key/New Words: Unit fractions, denominator, numerator, greater than, less than, compare.	Preparation: Compare Fraction Activity Sheets – one per child Diving into Mastery Activity Sheets – as required

Prior Learnin	g: It will be helpful if children understand what unit fractions and non-unit fractions are and understand t 'numerator' and 'denominator'.	he terminology									
Learning Seq	uence										
	Remember It: Children match the models on the Lesson Presentation to an equivalent model. They record the fractions as numbers.										
Vince Class	Comparing Unit Fractions: Children use models shown on the Lesson Presentation to compare the size of unit fractions, using < or >. Encourage children to reason about the size of the denominator in unit fractions: the smaller the denominator, the greater the fraction. There is a slide on the Lesson Presentation to help explain this. Can children compare unit fractions?										
TURNALE CLASS	Comparing Fractions with the Same Denominator: Children use models shown on the Lesson Presentation to compare the size of fractions which have the same denominator, using < or >. Encourage children to reason about the size of the numerator in fractions with the same denominator: the greater the numerator, the great the fraction. Can children compare fractions with the same denominator?										
Whole Class	Fraction Wall: Children use a fraction wall shown on the Lesson Presentation to compare the size of a variety of fractions, using <, > or =. Can children compare fractions using a fraction wall?										
	Comparing Fractions: Children complete the differentiated Comparing Fractions Activity Sheet, comparing a range of fractions.Children compare unit fractions and fractions with the same denominator using ready drawn models and drawing their own models. They shade the bars on a fraction wall to help compare the fractions. They use <a>, > or = to compare fractions. Children compare unit fractions and fractions with the same denominator, drawing their own models. They shade the bars on a fraction wall to help compare fractions.Children compare unit fractions and fractions and fractions with the same denominator, drawing their own models. They shade the bars on a fraction wall to help compare the fractions. They use <a>, > or = to compare fractions. They use the fractions, using <, > or =. They use the fractions wall to help compare the fractions wall to help compare the fractions statements true, by giving two possible answers.Children compare unit fractions Activity Sheet, comparing a comparing fractions and fractions with the same denominator, drawing their own models. They shade the bars on a fraction. They use the fractions, using <, > or =. They use the fractions wall to make comparison statements true, by giving two possible answers.Children compare two fractions and fractions.										

		Diving int These sha and in fac applying t	ving into Mastery: Schools using a mastery approach may prefer to use the following as an alternative activity. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section d 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.										
			Children practise their fluency skills of comparing unit fraction and fractions with the same denominator.										
			Children answer reasoning questions identifying whether they agree or disagree with statements about comparing fractions. They explain their reasoning with words and using models.										
			Children show their depth of understanding by answering an open-ended word problem and whether they agree or disagree with statements about comparing fractions, explaining their reasoning.										
		Challenge examples	e : Children use digits shown on the Lesson Presentation to make comparing statements. Ask for s and discuss with the class whether the statements are true or not and how they know.										
	Exploreit												
I	Drawit: Ch	nildren work	k in pairs. One person draws a model of a fraction less than one. They say either 'greater than' or smal	ller than'. The									
	ot	her person	has to write a fraction which would be either greater or smaller than the fraction drawn.										

Learnit: Children will find this superb ______ an excellent tool for strengthening their knowledge of fractions.

Maths Fractions

Maths | Fractions | Compare and Order Fractions | Lesson 1 of 2: Compare Fractions

Compare Fractions



Aim

• To compare fractions.

Success Criteria

- I can compare unit fractions.
- I can compare fractions with the same denominator.
- I can compare fractions using a fraction wall.



Remember It

Match these models to show equivalent fractions.



Comparing Unit Fractions

Which of these fractions are unit fractions? How do you know?







Comparing Unit Fractions Jas was correct. Why? The unit fractions Let's compare two with the smaller fractions to prove it. denominator are greater. Jas In $\frac{1}{2}$, there are 2 equal parts. How many How many In $\frac{1}{4}$, there are 4 equal parts. equal parts equal parts does the whole does the whole If we compare the parts, we can need to be need to be see that 1 equal part in $\frac{1}{2}$ is divided into? divided into? greater than 1 equal part in $\frac{1}{4}$. The unit fraction with the smaller denominator is greater.

Comparing Fractions with the Same Denominator

Group these fractions into pairs with the same denominator.



Comparing Fractions with the Same Denominator

4		3	
8	-	8	

Leona

$$\frac{1}{3} < \frac{2}{3}$$

$$\frac{2}{9} < \frac{6}{9}$$

Katy

When you compare fractions with the same denominator, the greater the numerator the greater the fraction.

When you compare fractions with the same denominator, the greater the numerator the smaller the fraction.

Who do you agree with? Why?

Comparing Fractions with the Same Denominator

Leona was correct. Why?

Let's compare two fractions to prove it.

<u>4</u> 5



When you compare fractions with the same denominator, the greater the numerator the greater the fraction.

In $\frac{4}{5}$, 4 of the 5 equal parts have been coloured.

Leona

In $\frac{2}{5}$, 2 of the 5 equal parts have been coloured.

As both fractions have been divided into the same amount of equal parts, the fraction with the greater numerator is the greater fraction.

Fraction wall

A fraction wall is very useful to compare a range of fractions.











Comparing fractions

Use the skills you have learned to complete the activity sheet.



Diving into Mastery

Dive in by completing your own activity!

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 E) LODIEST OF EXP TRANSPORT, WITH PPAREARE PERMITS (REAL). <	

Challenge

Use these digits to make each statement true.

$$\begin{array}{c} 1 \\ 3 \\ 3 \\ 6 \end{array} \begin{array}{c} 5 \\ 7 \\ 7 \\ 5 \end{array}$$

Aim

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Aim: To compare fractions.	Aim: To compare fractions.									
				Deli	ivered B	y:	Support:			
Success Criteria	Me	Friend	Teacher	т	РРА	s	I	AL	GP	
I can compare unit fractions.				Notes/Evidence						
I can compare fractions with the same denominator.										
I can compare fractions using a fraction wall.										
Next Steps										
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т	Teacher	I	Independent
PPA	Planning, Preparation and Assessment	AL	Adult Led
S	Supply	GP	Guided Practice

Aim: To compare fractions.		Date:							
				Deli	ivered B	By:	Support:		
Success Criteria	Me	Friend	Teacher	т	РРА	S	I	AL	GP
I can compare unit fractions.				Not	es/Evid	ence			1
I can compare fractions with the same denominator.									
I can compare fractions using a fraction wall.				_					
Next Steps									
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Т	Teacher	I	Independent
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S	Supply	GP	Guided Practice

Comparing Fractions

To compare fractions. 1) Use < or > to compare the pairs of unit fractions. Use the models to help. a) $\frac{1}{6}$ $\frac{1}{3}$ $\frac{1}{6}$ $\frac{1}{3}$ b) $\frac{1}{4}$ $\frac{1}{5}$ $\frac{1}{6}$ $\frac{1}{3}$ c) $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{6}$ $\frac{1}{3}$ $\frac{1}{4}$

2) Use < or > to compare the pairs of unit fractions. Draw your own models to help.







3) Use < or > to compare the pairs of fractions with the same denominators.Use the models or draw your own to help.



4) Shade the bars in the fraction wall to help compare the fractions. Use <, > or =.

				1 w	hole						
	1 2				$\frac{1}{2}$						
<u>1</u> 3				-	1	$\frac{1}{3}$					
$\frac{1}{4}$		$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$			
$\frac{1}{5}$	$\frac{1}{5}$ $\frac{1}{5}$			-	1		$\frac{1}{5}$		<u>1</u> 5		
$\frac{1}{6}$	$\frac{1}{e}$	<u> </u> 5		$\frac{1}{6}$	$\frac{1}{6}$		$\frac{1}{\epsilon}$	 	$\frac{1}{6}$		
a) $\frac{1}{2}$ $\frac{3}{6}$ b) $\frac{1}{6}$ $\frac{1}{5}$											
c)	$\frac{3}{4}$	$\frac{5}{6}$				ď	$\frac{3}{5}$	$\frac{1}{2}$			

Comparing Fractions

To compare fractions.

1) Use < or > to compare the pairs of unit fractions. Draw models to help.



2) Choose the correct word to complete each sentence.



smaller

The unit fractions with the greater denominator are ______ fractions.

The unit fractions with the smaller denominator are ______ fractions.

3) Use < or > to compare the pairs of fractions with the same denominators. Draw your own models to help.





4) The fraction wall has been partially labelled. label the whole fraction wall.

						1 w	hole					
		1	- -									
								-	<u>1</u> 4			
$\frac{1}{8}$												

5) Shade the bars in the fraction wall to help compare the fractions. Use <, > or =.



6) Use the fraction wall to make these statements true. Write 2 answers for each.



Comparing Fractions

 $O \cap \cap$

To compare fractions.

1) Use < or > to compare the pairs of unit fractions. Draw models to help.



2) 'The unit fractions with the greater denominators are smaller fractions.' Explain why this is true.

3) Use < or > to compare the pairs of fractions with the same denominators. Draw your own models to help.





4) Label the fraction wall.



5) Shade the bars in the fraction wall to help compare the fractions. Use <, > or =.



6) I am thinking of a fraction. It is greater than $\frac{2}{5}$ but smaller than $\frac{3}{4}$. Write three fractions from the fraction wall that I could be thinking of.





Compare Fractions Answers





Compare Fractions Answers



2)

The unit fractions with the greater denominator are <u>smaller</u> fractions. The unit fractions with the smaller denominator are <u>greater</u> fractions.



	1 whole														
	$\frac{1}{2}$														
	<u>1</u> 3				$\frac{1}{3}$							$\frac{1}{3}$			
<u>1</u> 4		<u>1</u> 4	$\frac{1}{4}$					$\frac{1}{4}$				$\frac{1}{4}$			
1 5	$\frac{1}{5}$ $\frac{1}{5}$					1	5			<u>1</u> 5			<u>1</u> 5		
<u>1</u> 6		<u>1</u> 6	-		<u>1</u> 6		<u>1</u> 6				<u>1</u> 6			<u>1</u> 6	
$\frac{1}{7}$		<u>1</u> 7		$\frac{1}{7}$		1	7	$\frac{1}{7}$			$\frac{1}{7}$			1 7	
$\frac{1}{8}$	$\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$				$\frac{1}{8}$			<u>1</u> 8		<u>1</u> 8		<u>1</u> 8		$\frac{1}{8}$	
a) $\frac{3}{5}$ >	a) $\frac{3}{5} > \frac{1}{4}$ b) $\frac{2}{3} > \frac{3}{7}$														



6) Multiple answers possible. Accept any of the following.

a)	<u>1</u> 2	<u>1</u> 4	<u>2</u> 4	<u>1</u> 5	2 5	<u>3</u> 5	<u>1</u> 6	<u>2</u> 6	<u>3</u> 6	b)	<u>1</u> 2	<u>2</u> 2	<u>2</u> 3	<u>3</u> 3	<u>2</u> 4	<u>3</u> 4	4 4	<u>3</u> 6	<u>4</u> 6	<u>5</u> 6	<u>6</u> 6
	1 7	2 7	<u>3</u> 7	4 7	<u>1</u> 8	<u>2</u> 8	<u>3</u> 8	<u>4</u> 8	<u>5</u> 8		<u>3</u> 7	4 7	5 7	<u>6</u> 7	7 7	<u>4</u> 8	<u>5</u> 8	<u>6</u> 8	<u>7</u> 8	<u>8</u> 8	

4)

Compare Fractions Answers



2) Dividing a whole into more equal parts makes each part smaller and so the fraction will be smaller.



						1 wl	nole						
$\frac{1}{2}$							<u>1</u> 2						
$\frac{1}{3}$					1	 				1 3			
$\frac{1}{4}$				<u>1</u> 4				$\frac{1}{4}$ $\frac{1}{4}$				<u>1</u> 4	
1 5			<u>1</u> 5		15			<u>1</u> 5			<u>1</u> 5		
<u>1</u> 6		$\frac{1}{6}$			<u>1</u> 6			<u>1</u> 6		<u>1</u> 6		$\frac{1}{6}$	
$\frac{1}{7}$	$\frac{1}{7}$ $\frac{1}{7}$			1 7		1			1 7	1		$\frac{1}{7}$	
$\frac{1}{8}$ $\frac{1}{8}$		$\frac{1}{8}$	1 8		1 8		1 8		$\frac{1}{8}$		<u>1</u> 8	$\frac{1}{8}$	

5)

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



c) $\frac{1}{2} = \frac{3}{6}$ d) $\frac{1}{2} < \frac{6}{8} = \frac{3}{4}$

6) Any 3 fractions from:

 $\frac{1}{2} \ \frac{2}{3} \ \frac{2}{4} \ \frac{3}{5} \ \frac{3}{6} \ \frac{3}{6} \ \frac{4}{7} \ \frac{3}{7} \ \frac{4}{7} \ \frac{5}{7} \ \frac{4}{8} \ \frac{5}{8}$





2) Shen is correct. $\frac{2}{6}$ is equivalent to $\frac{1}{3}$.

smaller the fraction.

- 3) a) The bar model should be the same length as the original, separated into equal proportions and should show a fraction greater than $\frac{3}{8}$. One example would be:
 - b) If children have drawn a bar separated into eighths, their answer should explain that they have shaded more than 3 parts of the bar. If they have used a bar separated differently, their answer should explain that the fraction they have shaded is equivalent to more than $\frac{3}{8}$.

Answers

1) There are 8 possible answers: $\frac{1}{3} > \frac{1}{5}$ $\frac{1}{4} > \frac{1}{5}$ $\frac{3}{6} > \frac{1}{5}$ $\frac{3}{8} > \frac{1}{5}$ $\frac{3}{4} > \frac{1}{5}$ $\frac{6}{8} > \frac{1}{5}$ $\frac{4}{6} > \frac{1}{5}$ $\frac{4}{8} > \frac{1}{5}$ 2) There are 6 possible answers: $\frac{1}{6} < \frac{2}{12}$ $\frac{1}{10} < \frac{2}{12}$ $\frac{1}{9} < \frac{2}{12}$ $\frac{2}{6} < \frac{2}{12}$ $\frac{2}{9} < \frac{2}{12}$ $\frac{2}{10} < \frac{2}{12}$ 3) Neither child is correct because $\frac{3}{4}$ is equivalent to $\frac{6}{8}$ so they will both eat the same amount of sweets. Children may have drawn a bar model to prove their answer.

1)	Cir A	rcle the fractior 15	ns which o	are smaller	than	С						
2)	Cir A	rcle the fractior 2 4	ns which o	are greater	than $\frac{1}{4}$?	С)			
3)	α)	Look at the b	ar models	below. Wr	ite the gr	eatest j	fractior	ı show	n.			
	b)	Look at the bo	ar models	below. Wri	te the sm	allest fr	raction	shown				
	A											
	B C											
4)	D	hich fraction is	the areat	est? Prove		wer usi	na bar	model	5			
	<u>1</u> 8	<u>1</u> 2	<u>1</u> 4		5		5					
	_											

1)	Do you agree with Sophia? Explain your reasoning.
2)	Two children are comparing fractions. $\frac{4}{2}$ $\frac{3}{2}$ $\frac{5}{2}$ $\frac{2}{2}$
	6 6 6 6 None of the fractions are equivalent to $\frac{1}{3}$. I think that one of the fractions is equivalent to $\frac{1}{3}$. Hassan I think that one of the fractions is equivalent to $\frac{1}{3}$. Who do you agree with? Use a bar model to explain your answer.
3)	A bar model is shaded to show a fraction.
	a) On the bar model below, draw and shade a greater fraction.
	b) Explain how you know that your fraction is greater than the original.

1)	Choose two of the following digits to make the number sentence true. (The fraction you make must be less than 1 whole.) How many number sentences can you create?
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
2)	Choose two of the following digits to make the number sentence true. (The fraction you make must be less than 1 whole.) How many number sentences can you create?
	$\begin{bmatrix} 6 \\ 1 \end{bmatrix} \begin{bmatrix} 10 \\ 2 \end{bmatrix} \begin{bmatrix} 9 \\ 0 \end{bmatrix} = \begin{bmatrix} 2 \\ 12 \end{bmatrix} < \frac{2}{12}$
3)	Two friends each have a bag of sweets and discuss who will eat the most.
	If I eat $\frac{3}{4}$ of the sweets, I will eat the most. If I eat $\frac{6}{8}$ of the sweets, I will eat the most because 6 is greater than 3.
	Which of the two friends is correct? Use reasoning to explain your answer.





greater than the original.

1) Do you agree with Sophia? Explain your reasoning. $\frac{1}{12}$ is smaller than $\frac{1}{6}$. Sophia 2) Two children are comparing fractions. <u>5</u> 6 <u>3</u> 6 <u>2</u> 6 6 None of the fractions are equivalent to $\frac{1}{3}$. I think that one Hassan of the fractions is equivalent to $\frac{1}{3}$. Shen Who do you agree with? Use a bar model to explain your answer. 3) a) A bar model is shaded to show a fraction. Copy the model then, underneath it, draw and shade another bar model to show a greater fraction.



b) Explain how you know that your fraction is greater than the original.

 Choose two of the following digits to make the number sentence true. (The fraction you make must be less than 1 whole.) How many number sentences can you create?





2) Choose two of the following digits to make the number sentence true. (The fraction you make must be less than 1 whole.) How many number sentences can you create?



3) Two friends each have a bag of sweets and discuss who will eat the most.



 Choose two of the following digits to make the number sentence true. (The fraction you make must be less than 1 whole.) How many number sentences can you create?



2) Choose two of the following digits to make the number sentence true. (The fraction you make must be less than 1 whole.) How many number sentences can you create?



3) Two friends each have a bag of sweets and discuss who will eat the most.



Avery Template: Name Badge Label, 8 per sheet | Compatible Products: 15395, 25395, 42395, 45395, 48395, 5395, 8395, 88395, 85395.

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