



BRONZE

School name: _____ **MATHS PLANNING YEAR A**



Teacher: _____

Class: _____

Year: _____

Term: Spring 2

Week Commencing: Week 2

Topic		NC Links: Pupils should be taught to:						
Day	Mental/Oral Starter		Main Lesson				Plenary	Assessment
	Objectives	Activity	Objectives	Teaching	Activities	Key Vocabulary	Activity	
Mon	<u>L.O. Recall 8x table</u> 5248 + 454 = 5000 - 1271 = 752 x 8 = 432 ÷ 8 = 1.2m = ?cm	<u>TMM</u> <u>L.O. To fill in a web</u>	<u>L.O. To recognise equivalent fractions.</u> Must: Identify equivalent fractions Should: Spot odd one out in equivalent fractions. Could: Problem solve using equivalent fractions. <u>Success Criteria</u>	Teach chn how equivalent fractions can be found from Cuisenaire Rods. Show children a fraction wall and move the fractions around to show which are equivalent and which are not.	Chn find equivalents with Cuisenaire rods They experiment with folded paper to find equivalents. Explain how $\frac{2}{3} = \frac{4}{6}$ using diagrams Odd one out exercise Solve problems	Numerator Denominator Equivalent	What do you notice about the numerators and denominators? Do you see any patterns? Can a fraction have more than one equivalent fraction?	Exceeding ARE: At ARE: Below ARE: SEND PPG EAL
					SEN – L.O.			

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Can a fraction have more than one equivalent fraction?

The pink Cuisenaire rod is worth 1 whole.



Which rod would be worth $\frac{1}{4}$?

Which rods would be worth $\frac{2}{4}$?

Which rod would be worth $\frac{1}{2}$?

Use Cuisenaire to find rods to investigate other equivalent fractions.

Use two strips of equal sized paper. Fold one strip into quarters and the other into eighths. Place the quarters on top of the eighths and lift up one quarter, how many eighths can you see? How many eighths are equivalent to one quarter? Which other equivalent fractions can you find?

Using squared paper, investigate equivalent fractions using equal parts. e.g. $\frac{2}{4} = \frac{4}{8}$

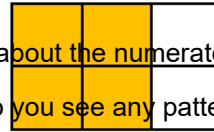
Start by drawing a bar 8 squares along. Label each square $\frac{1}{8}$

Underneath compare the same length bar split into four equal parts. What fraction is each part now?

Explain how the diagram shows both $\frac{2}{3}$ and $\frac{4}{6}$

What do you notice about the numerators and denominators?

Do you see any patterns?

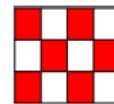


Teddy makes this fraction:



Mo says he can make an equivalent fraction with a denominator of 9

Which is the odd one out? Explain why

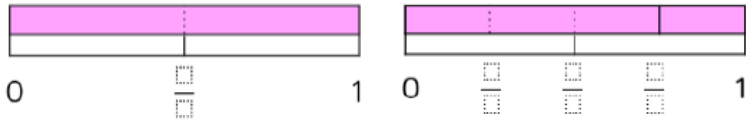


Dora disagrees. She says it can't have a denominator of 9 because the denominator would need to be double 3

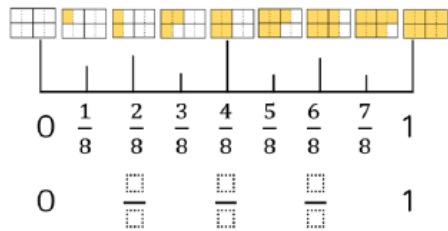
Who is correct? Who is incorrect? Explain why.

Day	Mental/Oral Starter		Main Lesson				Plenary	Assessment
	Objectives	Activity	Objectives	Teaching	Activities	Key Vocabulary	Activity	
Tues	<u>L.O. Recall 6x table</u> $452 \times 8 =$ $836 \div 8 =$ $2049 + 452 =$ $7000 - 4528 =$ $150\text{cm} = ? \text{ metres.}$	<u>L.O. To recognise and show equivalent fractions.</u>	<u>L.O. To recognise and show equivalent fractions.</u> Must: Recognise fraction equivalents Should: Find missing fraction equivalent. Could: Recognise any fraction equivalents and solve problems <u>Success Criteria</u>	Children use Cuisenaire rods and paper strips alongside number lines to deepen their understanding of equivalent fractions. Encourage children to focus on how the number line can be divided into different amounts of equal parts and how this helps to find equivalent fractions e.g. a number line divided into twelfths can also represent halves, thirds, quarters and sixths.	Chn use number lines and bar models to find equivalent fractions. They place missing equivalent fractions on number lines. Spot, rectify and explain errors. Solve problems.	Numerator Denominator Equivalent. Fractions from halves to twelfths.	Look at the number line divided into twelfths. Which unit fractions can you place on the number line as equivalent fractions? e.g. 12, 13,14,15etc. Which unit fractions are not equivalent to twelfths?	Exceeding ARE: At ARE: Below ARE: SEND PPG EAL

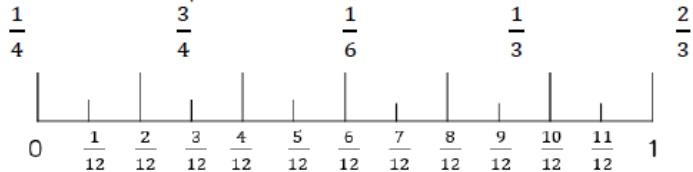
Use the models on the number line to identify the missing fractions. Which fractions are equivalent?



Complete the missing equivalent fractions.

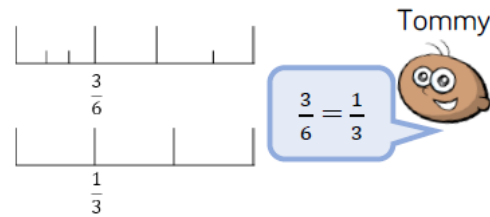
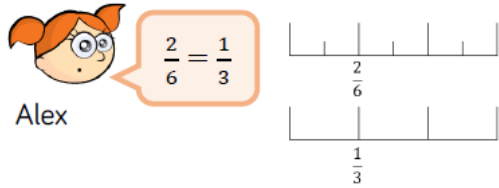


Place these equivalent fractions on the number line.

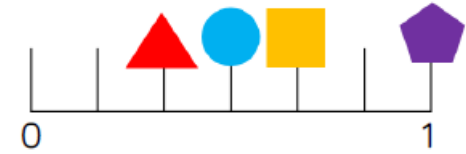


Are there any other equivalent fractions you can identify on the number line?

Alex and Tommy are using number lines to explore equivalent fractions.



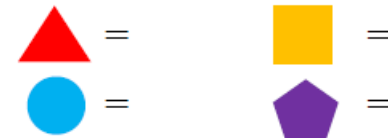
Who do you agree with? Explain why.



Use the clues to work out which fraction is being described for each shape.

- My denominator is 6 and my numerator is half of my denominator.
- I am equivalent to $\frac{4}{12}$
- I am equivalent to one whole
- I am equivalent to $\frac{2}{3}$


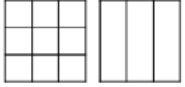
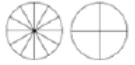

Can you write what fraction each shape is worth? Can you record an equivalent fraction for each one?



Day	Mental/Oral Starter		Main Lesson				Plenary	Assessment
	Objectives	Activity	Objectives	Teaching	Activities	Key Vocabulary	Activity	
Wed	<u>TMM Recall 8x table</u> $321 \times 8 =$ $504 \div 8 =$ $2881 + 3889 =$ $7050 - 5589 =$ $180\text{cm} = ? \text{ metres.}$	<u>TMM</u> <u>L.O. Solve a multiplication pyramid problem</u>	<u>L.O. To recognise and show equivalent fractions.</u> Must: recognise equivalent fractions Should: find equivalent fractions Could: Solve problems <u>Success Criteria</u>	Children use proportional reasoning to link pictorial images with abstract methods to find equivalent fractions. They look at the links between equivalent fractions to find missing numerators and denominators. Children look for patterns between the numerators and denominators to support their understanding of why fractions are equivalent e.g. fractions equivalent to a half have a numerator that is half the denominator.	Complete a table of equivalent fractions represented pictorially, in words and fractions. Use a fraction wall to find equivalent fractions Always sometimes never Solve problems	Numerator Denominator Equivalent. Proportional reasoning. Fractions	If we add the same number to the numerator and denominator, do we find an equivalent fraction? Why?	Exceeding ARE: At ARE: Below ARE: SEND PPG EAL

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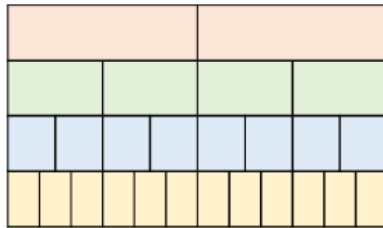
Complete the table. Can you spot any patterns?

Pictorial representation	Fraction	Words
	$\frac{6}{8} = \frac{3}{4}$	Six eighths is equivalent to three quarters
	$\frac{1}{3} = \frac{\square}{9}$	_____ is equivalent to _____
	$\frac{\square}{4} = \frac{\square}{12}$	Three twelfths is equivalent to _____ quarters
	$\frac{4}{12} = \frac{\square}{\square}$	_____ is equivalent to _____

Use the fraction wall to complete the equivalent fractions.

$$\frac{1}{2} = \frac{\square}{4} = \frac{\square}{8} = \frac{6}{\square}$$

$$\frac{1}{4} = \frac{2}{\square} = \frac{3}{\square}$$



Always, sometimes, never.

If a fraction is equivalent to one half, the denominator is double the numerator.

Prove it.

Can you find any relationships between the numerator and denominator for other equivalent fractions?

Dora has shaded a fraction.



She says,

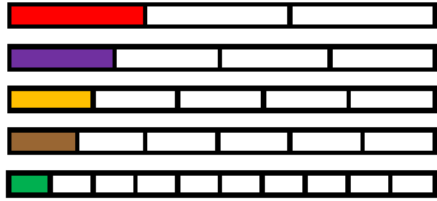


I am thinking of an equivalent fraction to the shaded fraction where the numerator is 9

Is this possible?
Explain why.

Day	Mental/Oral Starter		Main Lesson				Plenary	Assessment
	Objectives	Activity	Objectives	Teaching	Activities	Key Vocabulary	Activity	
Thurs	<u>L.O. Recall 8x table</u> $459 + 1547 =$ $800 - 398 =$ $458 \times 8 =$ $744 \div 8 =$ $170\text{mm} = ?\text{cm}$	<u>TMM</u> <u>L.O. To Explain Errors</u>	<u>L.O. To compare fractions.</u> <u>Must:</u> identify fractions greater than or less than $\frac{1}{2}$. <u>Should:</u> Identify the larger of two fractions. <u>Could:</u> Identify largest and smallest of 3 fractions. <u>Success Criteria</u>	Children compare unit fractions or fractions with the same denominator. For unit fractions, children's natural tendency might be to say that $\frac{1}{2}$ is smaller than 14, as 2 is smaller than 4. Discuss how dividing something into more equal parts makes each part smaller.	Chn use inequality symbols to compare fractions Identify, correct and explain errors Find largest and smallest fractions in a group. SEN – <u>L.O.</u>	Numerator Denominator Equivalent. Greater than Less than	Can you think of a unit fraction that is smaller than $\frac{1}{10}$? Can you think of a unit fraction that is larger than $\frac{1}{3}$?	Exceeding ARE: At ARE: Below ARE: SEND PPG EAL

Use $>$, $<$ or $=$ to compare the fractions.



$$\frac{1}{10} \bigcirc \frac{1}{4}$$

$$\frac{1}{3} \bigcirc \frac{1}{6}$$

$$\frac{1}{5} \bigcirc \frac{1}{4}$$

When the numerators are the same, the _____ the denominator, the _____ the fraction.

Use paper strips to compare the fractions using $>$, $<$ or $=$

$$\frac{3}{4} \bigcirc \frac{1}{4}$$

$$\frac{1}{6} \bigcirc \frac{5}{6}$$

$$\frac{3}{8} \bigcirc \frac{5}{8}$$

When the denominators are the same, the _____ the numerator, the _____ the fraction.



I know that $\frac{1}{3}$ is larger than $\frac{1}{2}$ because 3 is larger than 2

Do you agree with Dora?
Explain how you know.

Complete the missing denominator.
How many different options can you find?

$$\frac{1}{2} > \frac{1}{\square} > \frac{1}{10}$$

Here are three fractions.

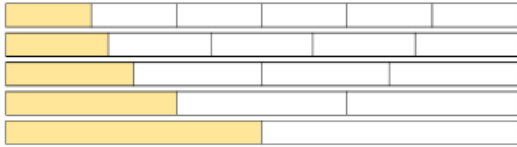
$$\frac{3}{8} \quad \frac{3}{5} \quad \frac{1}{8}$$

Which fraction is the largest? How do you know?

Which fraction is the smallest? How do you know?

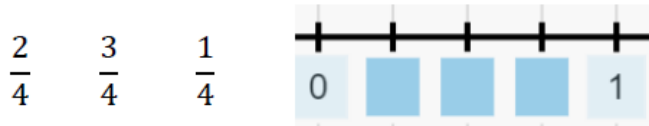
Day	Mental/Oral Starter		Main Lesson				Plenary	Assessment
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Fri	<u>L.O. Recall 7x table</u> $732 \div 7 =$ $475 \times 7 =$ $500 - 145 =$ $4991 + 512 =$ $1.8m = ?cm$	<u>TMM</u> <u>L.O. To fill in a Venn Diagram</u>	<u>L.O. To order fractions.</u> Must: Order fractions of the same denominator. Should: Order halves, thirds and quarters. Could: Order any fraction. <u>Success Criteria</u>	Children order unit fractions and fractions with the same denominator. They use bar models and number lines to order the fractions and write them in ascending and descending order. Continue to encourage children to use stem sentences to explain why they can compare fractions when the numerators or the denominators are the same.	Divide strips of paper into halves, thirds, quarters, fifths and sixths and colour in one part of each strip. Now order the strips from the smallest to the largest fraction. Place fractions on number lines Order fractions Chn shade shapes so they are ordered correctly.	Numerator Denominator Equivalent. Ascending Descending	Which is the largest fraction? Which is the smallest fraction?	Exceeding ARE: At ARE: Below ARE: SEND PPG EAL
					SEN – L.O.			

Divide strips of paper into halves, thirds, quarters, fifths and sixths and colour in one part of each strip.
Now order the strips from the smallest to the largest fraction.



When the numerators are the same, the _____ the denominator, the _____ the fraction.

Place the fractions on the number line.



Order the fractions in descending order.

$\frac{3}{8}$ $\frac{5}{8}$ $\frac{1}{8}$ $\frac{8}{8}$ $\frac{7}{8}$

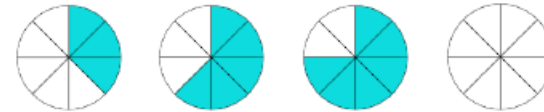


When the denominators are the same, the larger the numerator, the smaller the fraction.

Is Jack correct?
Prove it.

Shade the blank diagrams so the fractions are ordered correctly.

Fractions in ascending order



Fractions in descending order

