Year 3 Maths – week beginning 18.5.2020					
Theme	**Fractions Lesson 6** **Finding equivalent fractions**	**Fractions Lesson 7** **Finding equivalent fractions**	**Fractions Lesson 8** **Finding equivalent fractions**	**Fractions Lesson 9** **Finding equivalent fractions**	**Fractions Lesson 10** **Finding equivalent fractions**
Factual fluency (to aid fluency)	What fraction does the shape show? Try this activity (10 questions)	Identifying halves, thirds and quarters activity (10 questions)	Identify the fraction activity (10 questions)	Understanding fraction bars activity (10 questions)	Finding equivalent fractions activity (10 questions)
Problem/ activity of the day Remember, just like in class, you can still show the depth of your knowledge Link	**Making links:** In Year 2 you folded a piece of paper to understand that some fractions which are written differently are the same. **Think:**  Madhi and Trish are very excited because Dad is ordering pizza for dinner tonight. Madhi wants to have $\frac{1}{2}$ of the pizza, whilst Trish wants $\frac{2}{4}$ of the pizza. Who will be getting more pizza? Is there any of that pizza left for Dad? **See: (model below)** **See video clip** **Do:** Have a go at making a fraction wall (see this video) and using that wall to answer the questions below.	**Making links:** Yesterday we learned that some fractions can be **equivalent**. **Think:**  Some of Y3 think $\frac{1}{3}$ of the shape is green, whilst the rest of the class think $\frac{2}{6}$ of the shape is green. Who is correct? **See: (model below)** **Do:** Use the fraction walls to solve the problems below.	**Making links:** Yesterday, you learnt that some fractions have different numerators and denominators, but they are equal. They are equivalent fractions. **Think:** Take four strips of paper that are the same size as each other. Fold one piece of paper to show halves, one piece of paper to show quarters, one to show eighths and one to show sixths.  Now can you use your strips of paper to find any equivalent fractions? **See: (model below)** **See video clip** **Do:** Use what you have learnt to answer the questions below.	**Making links:** Yesterday, you used strips of paper and number lines to find equivalent fractions. **Think:** What are the equivalent fractions of $\frac{1}{2}$? Use a piece of paper to help you.  What do you notice about the numerators and denominators of equivalent fractions? Can you spot a pattern? **See: (model below)** **See video clip** **Do:** Use what you have learnt to answer the questions below.	**Making links:** Yesterday, you used pieces of paper and patterns to find equivalent fractions. **Think:** Is it possible to write $\frac{2}{3}$ as $\frac{8}{}$? Use a piece of paper to help you.  What does it mean when the numerator changes from 2 to 8? What operation did I have to do? What do I need to do to the denominator 3? **See: (model below)** **See video clip** **Do:** Use what you have learnt answer the questions below.
Time to check	Check answer sheet below	Check answer sheet below	Check answer sheet below	Check answer sheet below	Check answer sheet below

See below for resources to support you to THINK-SEE-DO

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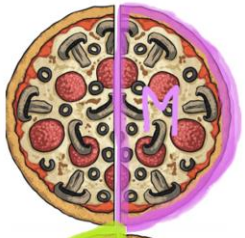
DAY 1 RESOURCES:

THINK:

Madhi and Trish are very excited because Dad is ordering pizza for dinner tonight. Madhi wants to have $\frac{1}{2}$ of a pizza, whilst Trish wants $\frac{2}{4}$ of a pizza. Who will be getting more pizza? Is there any of that pizza left for Dad?

SEE: (see video)



Trish and Madhi had the same amount of pizza, and there was none left for Dad.

This shows that $\frac{1}{2} = \frac{2}{4}$, even though they have different numerators and denominators. We can also say that $\frac{1}{2}$ is **equivalent** to $\frac{2}{4}$.

The fraction wall also shows that $\frac{1}{2} = \frac{2}{4}$ as they are the same size.

Hint: **equivalent** means **equal** or the **same as.**

DO:

Fraction walls help us understand equivalent fractions. See this video to learn how to make one.

Use your own fraction wall, or the one above, to solve the problems below.

a) $\frac{1}{4} = \frac{\quad}{8}$

b) $\frac{2}{4} = \frac{\quad}{8}$

First find one quarter on the fraction wall.
Now look at eighths.
How many eighths are the same as (or equivalent to) one quarter? You could draw a line on your wall to help you.

c) Two quarters is equivalent to one half. **True or False?**

d) Four quarters is equivalent to two eighths. **True or False?**

e) $\frac{1}{2} = \frac{\quad}{8}$

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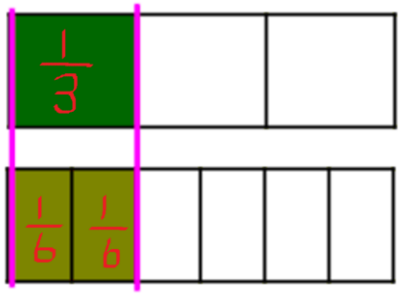
DAY 2 RESOURCES:

THINK:

Some of Year 3 think $\frac{1}{3}$ of the shape is green, whilst the rest of the class think $\frac{2}{6}$ of the shape is green. Who is correct?

SEE:



Hint: Remember the **denominator** tells us how many equal parts the whole has been divided into. The **numerator** tells us how many of the equal parts we have.

This is another example of equivalent fractions. All the Year 3 children are correct, firstly because both bars are green but also because the fractions are equivalent.

The first bar has $\frac{1}{3}$ (1 out of the 3 equal parts) shaded in dark green.

The second bar has $\frac{2}{6}$ (2 out of the 6 equal parts) shaded in light green.

The pink lines show that they are equal in size so must be equivalent. Even though the numerator and denominator are different, the fractions represent the same amount of the shape. This is because when the shape is cut into 6 equal parts, each part is smaller but more of the parts are shaded.

There are more equivalent fractions to $\frac{1}{3}$.

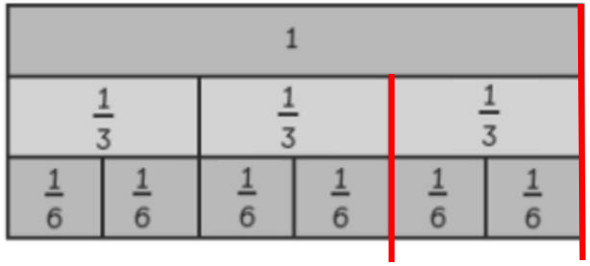
$$\frac{1}{3} = \frac{2}{6} = \frac{4}{12}$$

Can you spot a pattern with how the numbers are increasing?

Hint: **equivalent** means **equal** or the **same as.**

DO:

Make your own fraction wall of use the fraction walls below to solve the problems. Remember you could draw a line on your fraction wall to help you.



a) $1 = \frac{\square}{3}$

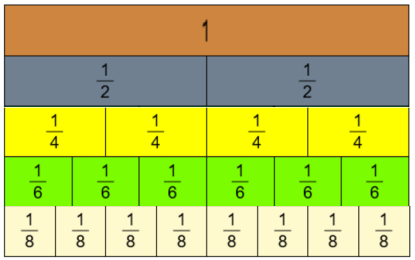
b) $\frac{2}{3} = \frac{\square}{6}$

a) $1 = \frac{\square}{4}$

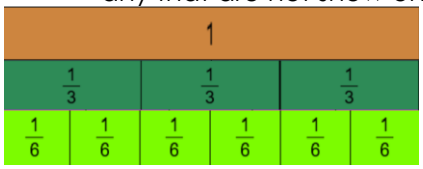
b) $\frac{2}{4} = \frac{\square}{8}$

c) $\frac{2}{4} = \frac{\square}{12}$

a) How many equivalent fractions of $\frac{1}{2}$ can you think of?



b) How many equivalent fractions of $\frac{1}{3}$ can you think of? Can you think of any that are not show on this wall?



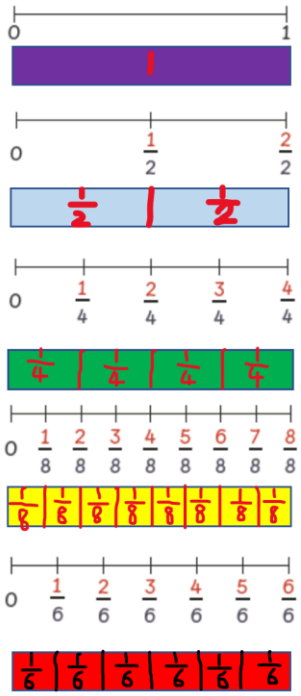
DAY 3 RESOURCES:

THINK:

Take four strips of paper that are the same size as each other.
Fold one piece of paper to show halves. Hint: In halves there are 2 equal parts, so fold your paper to make 2 equal parts.
Fold one piece of paper to show quarters.
Fold one piece of paper to show eighths
Fold one piece of paper to show sixths.
Now can you use your strips of paper to find any equivalent fractions?

SEE: See video

We can use our strips of paper to help us to show fractions on a number line.
These can help us to identify equivalent fractions.



We can see from comparing the paper strips and number lines that:

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

These are equivalent fractions. They are equal.

We can also see that:

$\frac{1}{2} = \frac{3}{6}$

and

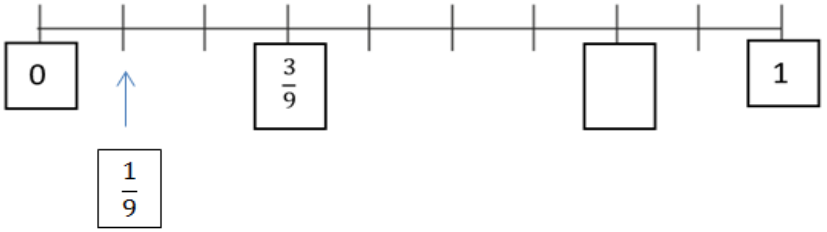
$\frac{1}{3} = \frac{2}{6}$

Can you find any more?

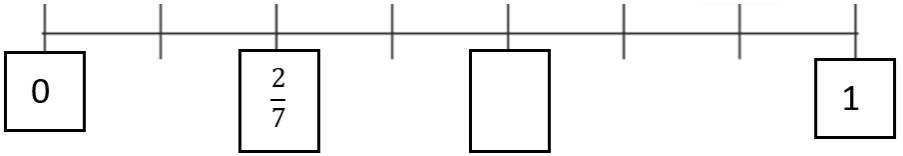
DO:

1. Complete each of the number lines below.

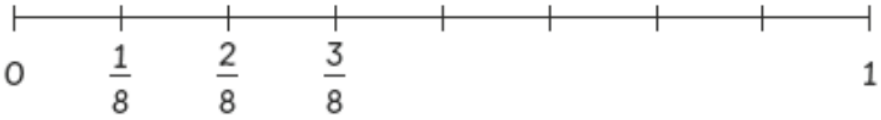
a)



b)



2. Label the fractions below on the number line.



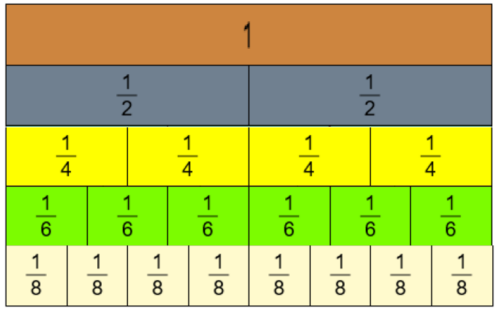
a) $\frac{7}{8}$

b) $\frac{4}{8}$

c) $\frac{1}{2}$

d) $\frac{3}{4}$

To add these fractions to the number line, you need to think about them as eighths. How many eighths is equivalent to $\frac{1}{2}$? How many eighths is equivalent to $\frac{3}{4}$? Use the fraction wall or your strips of paper to help you.

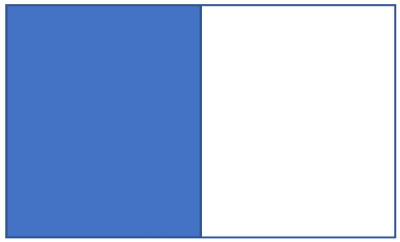


Answer sheet below.

DAY 4 RESOURCES:

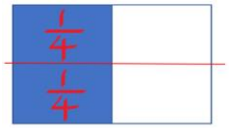
THINK:

What are the equivalent fractions of $\frac{1}{2}$?
Use a piece of paper to help you.
What do you notice about the numerators and denominators of equivalent fractions?
Can you spot a pattern?

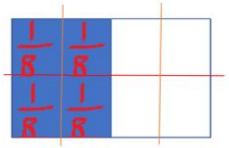


SEE: See video

$\frac{1}{2}$ of the shape is shaded.



When the shaded part becomes 2 equal parts, each part is a quarter or a fourth. I can see that $\frac{1}{2} = \frac{2}{4}$

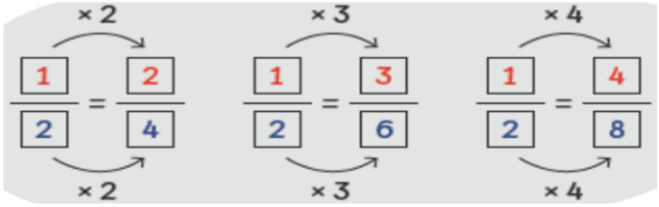


When the shaded part becomes 4 equal parts, each part is an eighth. I can see that $\frac{1}{2} = \frac{4}{8}$

When the shaded part becomes 3 equal parts, each part is a sixth. I can see that $\frac{1}{2} = \frac{3}{6}$

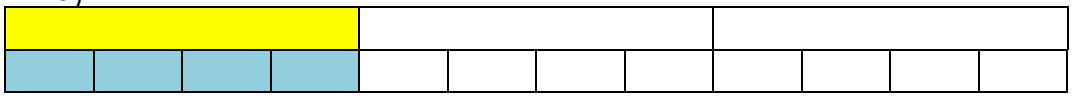
I spotted a pattern involving multiplication.

If I multiply the numerator and the denominator by the same number, it gives me an equivalent fraction.



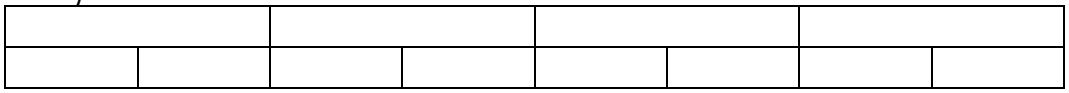
1. Find the equivalent fraction. Shade the rectangles to help you.

a)



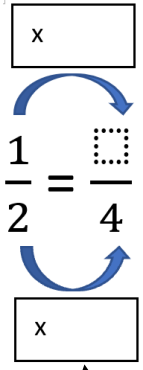
$\frac{1}{3} = \frac{}{12}$

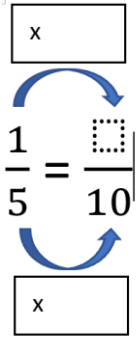
b)



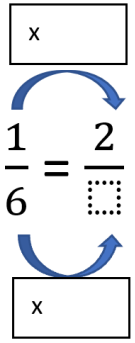
$\frac{1}{4} = \frac{}{8}$

2. Fill in the blanks.





b)



c)

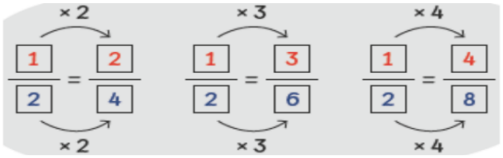
What has the denominator, 2, been multiplied by to get 4? Multiply the numerator by the same number.

DAY 5 RESOURCES:

THINK: Is it possible to write $\frac{2}{3}$ as $\frac{8}{\quad}$? Use a piece of paper to help you.

What does it mean when the numerator changes from 2 to 8?
What has the numerator, 2, been multiplied by to get to 8?
What do I need to do to the denominator 3?

Remember: If I multiply the numerator and the denominator by the same number, it gives me an equivalent fraction.



Remember: The **denominator** tells us how many equal parts the whole has been divided into. The **numerator** tells us how many of the equal parts we have.

SEE: See video

With a piece of paper, divide it into 3 parts and shade in 2 of those parts – or you could draw a bar model using a ruler and shade in 2 parts.

$\frac{2}{3}$ of the shape is shaded.

To change the numerator from **2** to **8** we have to change the 2 parts into **8 parts.** We can change the numerator from **2** to **8** by splitting each part into **4 parts.** I know this because **2 x 4 = 8.**

The 2 parts become **8 equal parts.** Each part is a **twelfth.**

$$\frac{2}{3} = \frac{8}{12}$$

The numerator is now a bigger number which means more equal parts are shaded. The whole shape has now been split into more equal parts so the denominator is now a bigger number. This means that each of the equal parts is smaller. As the fractions are equivalent, the amount of paper shaded is still the same.

We can see how to find the equivalent fraction using to $\frac{2}{3}$ using our times table knowledge here:

x 4

$$\frac{2}{3} = \frac{8}{12}$$

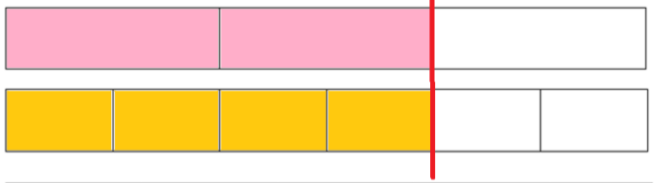
x 4

When finding equivalent fractions, we **multiply** the **numerator** and the **denominator** by the **same number.**

DO:

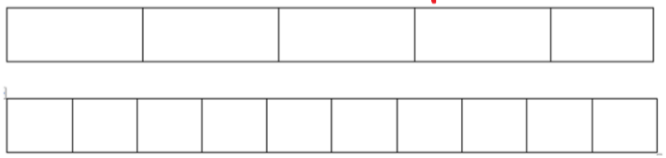
1. Find the missing denominators. **Shade the bars** to find the answers.

a)



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

b)

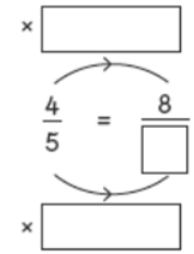


$\frac{2}{5} = \frac{4}{\square}$

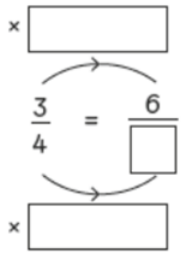
2. Fill in the blanks.

What has the numerator, been multiplied by? Multiply the denominator by the same number.

(a)



(b)



(c) $\frac{5}{6} = \frac{10}{\square}$

(d) $\frac{2}{3} = \frac{8}{\square}$

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ANSWERS:

Day 1

a) $\frac{1}{4} = \frac{2}{8}$

b) $\frac{2}{4} = \frac{4}{8}$

c) Two quarters is equivalent to one half. **True**

d) Four quarters is equivalent to two eights. **False**

e) $\frac{1}{2} = \frac{4}{8}$

Day 2

a) $1 = \frac{3}{3}$

b) $\frac{2}{3} = \frac{4}{6}$

c) $1 = \frac{4}{4}$

d) $\frac{2}{4} = \frac{4}{8}$

e) $\frac{2}{4} = \frac{6}{12}$

f) $\frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{6}{12}$

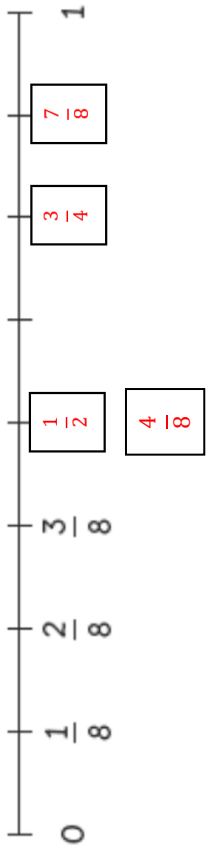
g) $\frac{2}{6}, \frac{3}{9}, \frac{4}{12}, \frac{5}{15}$

Day 3

1. a) $\frac{7}{9}$

b) $\frac{4}{7}$

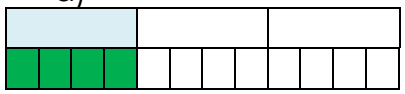
2.



Day 4

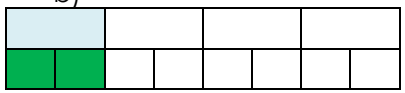
1.

a)



$\frac{1}{3} = \frac{4}{12}$

b)



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

2.

a) $\frac{1}{2} = \frac{2}{4}$ (×2)

b) $\frac{1}{5} = \frac{2}{10}$ (×2)

c) $\frac{1}{6} = \frac{2}{12}$ (×2)

Day 5