




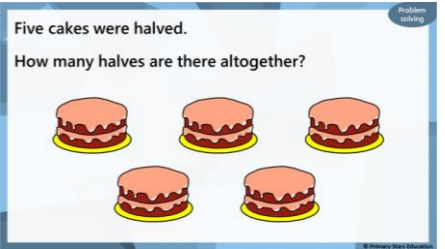
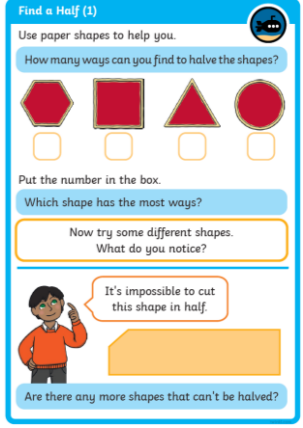

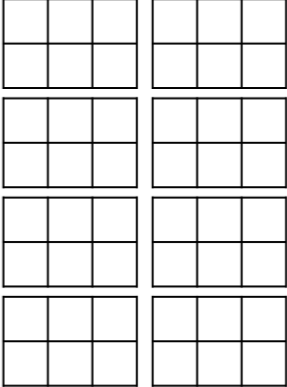







MATHS MEDIUM TERM PLANNING

Year 1 – Fractions (Approximately 2 weeks)	
Objectives from Progression Document	<p>recognise, find and name a half as one of two equal parts of an object, shape or quantity</p> <p>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</p> <p>recognise the equivalence of two halves and four quarters, using objects or shapes</p> <p>recognise that two halves, or four quarters, make a whole</p>
Previous Learning	recognise that a group of objects can be shared equally between two people (ELG)
Vocabulary	whole, equal parts, four equal parts, one half, two halves, a quarter, two quarters
Key fact(s)	<p>To know that a half is something split equally in to two parts</p> <p>To know that a quarter is something split equally in to four parts</p>
Number facts for fluency	<p>$\frac{1}{2} + \frac{1}{2} = 1$ whole, $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = 1$ whole</p> <p>Revision of counting in twos</p>
DfE Ready to Progress Guidance Pages https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/897806/Maths_guidance_KS_1_and_2.pdf	Not applicable
NCETM Ready to Progress Exemplification https://www.ncetm.org.uk/classroom-resources/exemplification-of-ready-to-progress-criteria/	Not applicable
Problem Solving and Reasoning Skills Objectives	check the answer in the context of the problem to be sure it makes sense
Pre-assessment:	EYFS - recognise that a group of objects can be shared equally between two people (ELG)

Sequence of Learning						
White Rose Small Steps	Learning Intention	Key Questions	Sentence Stems	Problem-solving links	Comments	Extension and Greater Depth Opportunities
Recognise a half of an object or a shape	To recognise half of an object or shape	What is the whole? How many parts are there? Are the parts equal? Is this a half? How do you know? How does this show half? Is this a half or a whole?	The whole is split into ____ equal parts. There are ____ halves in a whole. This is/is not a half because ...	Happy Halving (maths.org) Consolidates understanding of a half; develops visualisation Halving (maths.org) consolidates understanding of a half; develops idea of proof	Children may talk about a “bigger” or “smaller” half due to prior experiences of sharing, so it is important to reinforce that a half is one of two equal parts. Children may struggle to recognise halves when they are shown in non-standard ways – ensure shown half in different ways e.g. square can be split in half vertically, horizontally or diagonally.	Eva and Jack are both attempting to split a rectangle in half.  Eva Jack thinks he can find three more ways.  Jack Find Jack's three examples.  The bear can be split in half in two different ways. True or false? Explain your answer.
Find a half of an object or a shape	To find half of an object or shape	How many halves make a whole? Are the parts equal? How do you know? How do you know that you have found a half? How can you find a half of this object/shape? Is there more than one way to show half of this shape? How can you tell if an object or shape has not been split in half?	To find a half, I need to split the whole into ____ equal parts. If the whole is split into two equal parts, each part is called a ____. The shape is/is not split in half because ...	Fair Feast (maths.org) Practical context for halving.	Children may think that if they split something into two parts, they have split it in half. They may not remember that the two parts must be equal. Children may not recognise that they can split some shapes/objects in half in a number of ways, instead only using horizontal or vertical divisions.	How many different ways can this rectangle be split in half?   All the above objects have been split in half correctly. Do you agree? Explain your answer.
Recognise a half of a quantity	To investigate finding a half of a quantity by splitting it into 2 equal groups	What is the total/whole? How can you find half? How many parts do you need to split them into to find half? How many are there in each part? Is this still half when I move the around? How can you check that this is still half?	There are ____ altogether. They are shared into ____ equal groups. There are ____ in each group. Each group is ____ of the whole. I know that the ____ are/are not split in half because ...		Children need to have a good sense of cardinality so that they can find a total and then relate this to finding half the amount of the total. They need to show how the total can be shared equally into two groups, using learning covered in the previous block on multiplication and division Children may only recognise a half as half of an object or shape, rather than also referring to a number or quantity. Children may not recognise when the two halves appear different visually, for example three apples on a plate close together and three apples on another plate spread out.	
Find a half of a quantity	To find a half of a group of objects	How many are there altogether? How many equal groups are there when you are finding half? How do you know that the groups are equal? How many are there in each group? So what is half of ____? If 3 is half, how can you find the whole? If you know that double 4 is 8, how can you work out half of 8?	There are ____ altogether. To find half, I need to share the total into ____ equal groups. There are ____ in each group. Half of ____ is ____. If double ____ is ____, then half of ____ is ____.		Children may draw lines to halve each shape/object in a set, rather than finding half of the total. When finding missing totals, children may halve the amount rather than doubling it. For example, when asked to find the whole if 4 is half, they may give the answer 2	 Five cakes were halved. How many halves are there altogether?  Find a Half (1) Use paper shapes to help you. How many ways can you find to halve the shapes?  Put the number in the box. Which shape has the most ways? Now try some different shapes. What do you notice? It's impossible to cut this shape in half Are there any more shapes that can't be halved?
Recognise a quarter of an object or a shape	To investigate finding a quarter	What is the whole? How many parts are there? Are the parts equal? How many parts are shaded? Is this a quarter? How do you know that this is/is not a quarter?	The whole is split into ____ equal parts. ____ of the parts is shaded. This shows one ____ There are ____ quarters in a whole. This is/is not a quarter because ...		It may be necessary to reinforce the idea of equal parts, so that children do not think that a shape split into four unequal parts also represents quarters. Children may struggle to recognise quarters when they are shown in non-standard ways.	

<p>Find a quarter of an object or a shape</p>	<p>To find a quarter of different shapes</p>	<p>How many quarters make a whole? How many parts has the whole been split into? Are all the parts equal? How many parts do you need to colour to show a quarter? Can you make a quarter in a different way?</p>	<p>To make quarters, I need to split the whole into _____ equal parts. To show a quarter, I need to colour _____ of the equal parts. If the whole is split into four equal parts, each part is called a _____ The shape is/is not split into quarters because ...</p>	<p>Children use the words “quarter” and “parts” at this stage, but do not use the fractional notation of 1/4</p> <p>Children may think that if they split something into four parts, they have split it into quarters. They may not remember that the parts must be equal. Children may not recognise that they can split some shapes/objects into quarters in a number of ways, instead using only horizontal or vertical divisions. At this stage, children are still only finding a quarter of one object</p>	<p>How many different ways can you shade one half of the shapes?</p>  <p>Mo is finding halves.</p> <p>It is hard to find half of an odd number.</p>  <p>Do you agree with Mo? Explain your answer.</p>															
<p>Recognise a quarter of a quantity</p>	<p>To investigate finding a quarter of a quantity by splitting it into 4 equal groups</p>	<p>What is the total/whole? How can you find a quarter? How many parts do you need to find a quarter? How many are there in each part? Is this still a quarter when I move the around? How can you check that this is still a quarter?</p>	<p>There are _____ altogether. They are shared into _____ equal groups. Each group is a _____ of the whole. There are _____ in each group. I know this shows/does not show a quarter because ...</p>	<p>To decide if a quarter has been found, encourage them firstly to check that there are four groups and then that there is an equal amount in each group. Emphasise that a quarter refers to just one of these groups. They will need to see this in lots of different contexts. Children may only recognise a quarter as an object or shape split into four parts, rather than as a number or quantity. Children may not see that groups are equal if each group is arranged differently. Children can also explore representing the whole when they are given a quarter</p>	<p>Complete the sentence. What is half of this amount?</p> <p>7 is half of <input type="text"/></p>  <p>Half the children at a party are girls. How many children could be at the party? Give four different answers. Explain your reasoning.</p>															
<p>Find a quarter of a quantity</p>	<p>To find a quarter of a group of objects or a number</p>	<p>When you find a quarter, how many equal groups are there? How many _____ are there in each group? So what is a quarter of _____? If 3 is a quarter of the whole, how can you find the whole? If you know that half of 8 is 4, how can you use this to find a quarter of 8?</p>	<p>There are _____ altogether. To find a quarter, I need to share the total into _____ equal groups. There are _____ in each group. A quarter of _____ is _____ If half of _____ is _____, then a quarter of _____ is _____.</p>	<p>Children find a quarter of a quantity through their understanding of how to share a set of objects equally. Use of stem sentences supports their understanding that one quarter refers to one of the four equal groups. Encourage children to see the link between finding half of an amount and half again to find a quarter. Children may not realise that each quarter is equal if objects are arranged differently within each group. Children may group objects into 4s rather than sharing them into four groups, which could lead to them giving an incorrect answer of 4</p>	<p>Sam and Tom share the fruit equally. There are 4 apples, 3 oranges, 1 pear and 1 banana. How many of each fruit do they receive? Complete the table below.</p>  <table border="1"> <thead> <tr> <th></th> <th>Apples</th> <th>Oranges</th> <th>Bananas</th> <th>Pears</th> </tr> </thead> <tbody> <tr> <td>Sam</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tom</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Complete the sentences:</p> <p>Sue  Half of 14 is equal to 5 + 3</p> <p>Dom  Half of 14 is equal to 11 - 4</p> <p>Who is correct?</p> <p>Half of _____ = 6</p> <p>Half of _____ = 10</p> <p>Half of _____ = 7</p>		Apples	Oranges	Bananas	Pears	Sam					Tom				
	Apples	Oranges	Bananas	Pears																
Sam																				
Tom																				

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Find a Half (2)

I have filled half of the cabinet.

The whole cabinet has spaces.
Half of is .

How many ways can you find to show half?

Use counters to help you.

If we can't break the coins, which bags of coins can we halve?

Use counters to check.

Alex and Jack are talking about quarters.

My shape shows quarters because it has four equal parts.

Alex

My shape shows quarters because it has four parts.

Jack

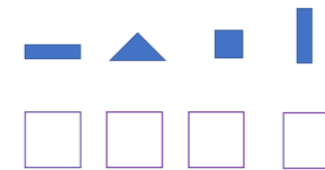
Are they correct?
Explain your answer.

Use the squares to show:

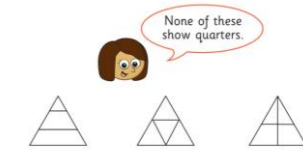
- Less than a quarter shaded.
- Exactly a quarter shaded.
- More than a quarter shaded.



Can you draw lines in the squares to prove these are quarters?



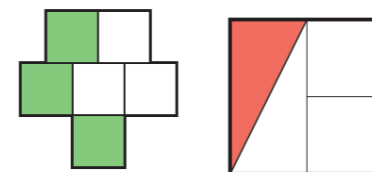
Kim wants to show a quarter.



Do you agree with Kim? _____
Talk about your answer.

What fraction of the whole shape is shaded?

Explain your reasoning.

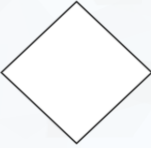

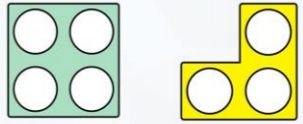





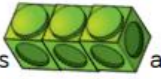


Reasoning

A B C

Which shape has been correctly split into quarters?
How do you know?

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						<p>Draw this shape on your board. Split it into quarters.</p>  <p>How did you do this? Is there more than one way?</p> <p>Gina says, "If both cakes are split in quarters, I will have 6 quarters altogether. Is Gina correct?"</p>  <p>Which number frame can be split into quarters the easiest? Explain your answer.</p>  <p>Find a Quarter (1)</p> <p>Can you show quarters on the pigsties?</p>  <p>How many different ways can you show quarters? Draw lines to show them.</p>  <p>This is a quarter of my vegetable patch.</p>  <p>What could the whole patch look like?</p> <p>One cube is a quarter, what could the whole look like?</p>  <p>Two cubes are a quarter, what could the whole look like?</p>  <p>Three cubes are a quarter, what could the whole look like?</p>  <p>How many different possibilities can you make?</p>
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Mr. White has asked his class to put one quarter of the balls into the hoop.



Teddy: I'm going to put one ball in the hoop.

Whitney: I'm going to put three balls in the hoop.

Tommy: I'm going to put four balls into the hoop.

Who is correct? Can you explain any mistakes made?

Find a Quarter (2)

I need a quarter of the cabbages.

The whole is .
A quarter of is .

Tick the baskets of fruit that have been quartered.

Share counters into 4 groups.
Can your friend spot the groups that have been quartered?

If this is a quarter, what is the whole?



When we find a quarter of an even number, it will give a whole number answer.

Always, sometimes or never?

Four children share 2 pizzas equally. Draw a diagram to show how much pizza each child gets.

What fraction of the pizzas does each child eat?

Four children share two bags of 8 marbles equally. Draw a diagram to show how many marbles each child gets.

What fraction of one bag of marbles does each child get?

Complete this halving wall.

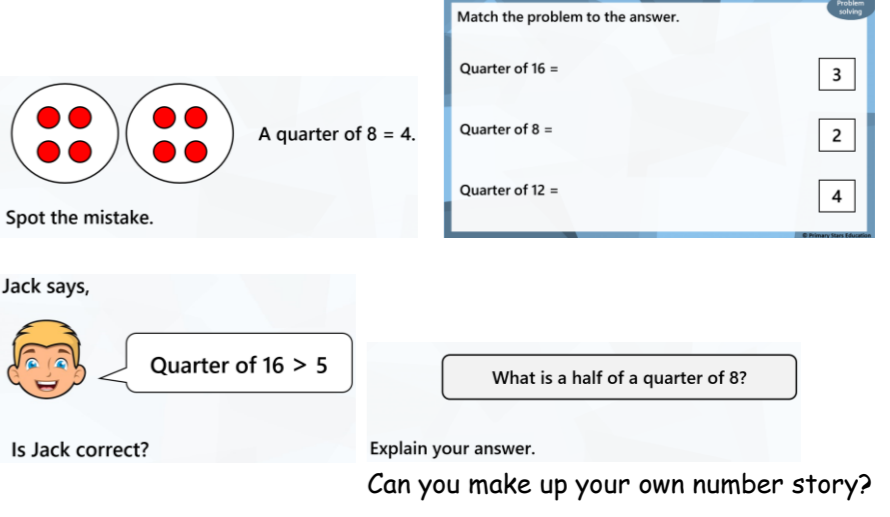
What is the relationship between the top row and one part of your final row?

Explain your reasoning.

20			
10			

Choose any number and create your own halving wall.

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						 <p>Match the problem to the answer.</p> <p>Quarter of 16 = <input type="text" value="3"/></p> <p>Quarter of 8 = <input type="text" value="2"/></p> <p>Quarter of 12 = <input type="text" value="4"/></p> <p>A quarter of 8 = 4.</p> <p>Spot the mistake.</p> <p>Jack says,</p> <p>Quarter of 16 > 5</p> <p>Is Jack correct?</p> <p>What is a half of a quarter of 8?</p> <p>Explain your answer.</p> <p>Can you make up your own number story?</p>
<p>Post – assessment:</p>		<p>WRH end of block fractions assessment – snip as feel appropriate</p>				