





**P5 Numeracy overview for Number**

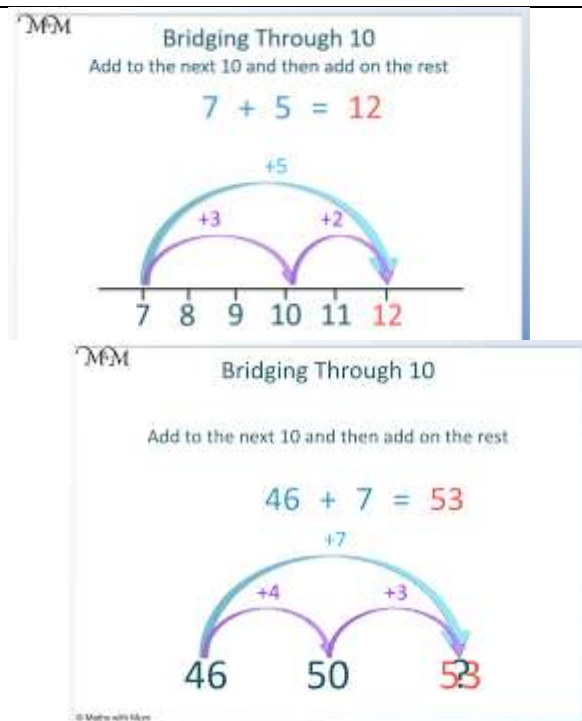
Learning area <b>Place Value</b>	Example a pupil may be given/ <b><u>How can you help at home?</u></b>
Count forwards and backwards in 1s, 2s, 5s and 10s within 1000. Count forwards and backwards in multiples of 3,4,5,6,7,8,9, within 100.	<p>Complete the following sequences:</p> <p>1. <u>4</u> <u>6</u> <u>8</u> <u>10</u> _____</p> <p>2. 50 45 _____ 35 _____ 25</p> <p>3. _____ 6 9 12 _____ 18</p> <p>4. 90 _____ 60 50 40</p> <p>5. 16 _____ 36 46 _____ 66</p> <p>Continue the following sequences:</p> <p>11. 5 10 15 _____</p> <p>12. 3 6 9 _____</p> <p>13. 85 80 75 _____</p> 
Count forwards and backwards in halves and quarters.	
Read, write, and recognise numbers within 1000 (before, after and between).	<p>Write the correct numerals next to the written words.</p> <p>6. four hundred and thirty-nine _____</p> <p>7. two hundred and thirty-seven _____</p>
Find missing numbers in a sequence (increasing and decreasing) within 1000.	<p>6. _____ 86 _____ 58 51 44 37 30</p> <p>Common difference: _____</p> <p>7. _____ 85 _____ 67 61 49 43</p> <p>Common difference: _____</p> <p>8. _____ 48 57 66 _____ 93</p> <p>Common difference: _____</p>
Understand that the place of a digit indicates its value and that 0 is a place holder. Demonstrate value of any number within 1000 in terms of thousand,	<p>1. What is the value of each number underlined? Write the value on a number line.</p> <p>a. <u>4</u>02 = _____    b. <u>4</u>02 = _____    c. <u>8</u>79 = _____    d. <u>8</u>67</p> <p>e. <u>1</u>25 = _____    f. <u>1</u>25 = _____    g. <u>7</u>54 = _____    h. <u>3</u>29</p> <p>i. <u>8</u>72 = _____    j. <u>8</u>42 = _____    k. <u>2</u>01 = _____    l. <u>6</u>48</p> <p>m. <u>9</u>48 = _____    n. <u>8</u>07 = _____    o. <u>9</u>07 = _____    p. <u>1</u>00</p> <p>2. Complete the following:    <math>452 = 400 + 50 + 2</math></p> <p>a. <math>375 = 300 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}</math>    b. <math>967 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}</math></p> <p>c. <math>689 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}</math>    d. <math>422 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}</math></p>

hundreds, tens and ones (units).										
Order a set of consecutive/non-consecutive numbers (increasing and decreasing) within 1000.										
Round numbers within 1000, to nearest 100 and nearest 10.	<table><tr><th>nearest 10</th><th>numbers</th><th>nearest 100</th></tr><tr><td>430</td><td>428</td><td>400</td></tr><tr><td>570</td><td>567</td><td>600</td></tr></table>	nearest 10	numbers	nearest 100	430	428	400	570	567	600
nearest 10	numbers	nearest 100								
430	428	400								
570	567	600								
Begin to develop an understanding of place value to include up to one decimal places, use this to multiply and divide numbers by 10 and 100.	$\begin{array}{l} 4.4 \times 10 = \underline{\hspace{2cm}} \\ 9.4 \times 10 = \underline{\hspace{2cm}} \\ 7.1 \times 10 = \underline{\hspace{2cm}} \end{array}$									
Develop a standard written method for vertical subtraction H T U (no exchange, then with exchange), estimating the answer before calculating.										
Learning Area: Mental Maths										

Know all remaining subtraction facts within 20.

Mentally add and subtract any number from 20, including bridging through 10.

Mentally add and subtract a single digit from a 2 digit number, bridging the 10. (34-7, 43-8)



Solve a range of addition and subtraction problems, using both written and mental calculations, selecting the operation required.

iknowit Word Problems: Choose the Operation (Addition & Subtraction)

There were 88 cars on the lot at the North Avenue Car Dealership. Last month, 55 of them were sold. How many cars are left?

Answer:  cars

Pupils may use a range of strategies to calculate mental calculations, such as:

-Partitioning/breaking a number up into its TU

-Counting on one by one

e.g.  $37 + 3 = 38, 39, 40$

-Rounding to 'friendly numbers'

e.g.  $29 + 31 =$

$30 + 30 = 60$

-Making sets of 10

e.g.  $57 + 39 =$

$57 + 3 = 60$

$60 + 33 = 93$

-Adding up in chunks or skip counting on

e.g.  $47 + 55 =$

$7 + 5 = 12$

$40 + 50 = 90$

$90 + 12 = 112$

Mentally subtract 100 from multiples of 100 within 1000.

e.g.

$900 - 100 =$

$500 - 100 =$

$300 - 100 =$

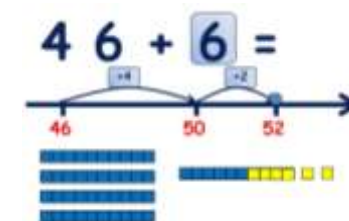
Mentally add and subtract two 2 digit numbers within 100, **without bridging/crossing 10.**

Mentally add and subtract a single digit to a 2 digit number, **bridging/crossing the 10** (34+7, 43-8)

$46 + 6 =$  Bridge up to the next 10 first

$46 + 4 = 50$

$50 + 2 = 52$



**Learning Area: Money**

Understand relationships between all coins and notes. Understand and use decimal recording of amounts of money up to £10.00.

100 x 1p = £1  
£1 is the same as 100 1p coins.

2 x 50p = £1  
£1 is the same as two 50p coins.

10 x 10p = £1  
£1 is the same as ten 10p coins.

2 x 20p = £1  
£1 is the same as two 20p coins.

50p + 20p + 20p + 10p = £1  
These coins make £1.00

Calculate change required when buying items, paying with amounts up to £10.00. Compare different ways of spending a fixed budget up to £10.00.

You buy	You pay	Your change	Correct or incorrect?	Correct change required
£8.99				
£9.75				
£9.10				
£8.50				
£7.50				

Use efficient methods to find the total of a mixed group of coins and notes totals up to £10.00

e.g. by starting with the highest value coins or notes, or by grouping lower value coins into £1 piles

Find different ways of paying exact amounts within £10.00, e.g. using the least number of coins or notes, or using a specific number of coins or notes.

How many different ways can you pay £1.00 using only coins? How many different ways can you pay £1.00 using only notes? How many different ways can you pay £1.00 using only coins and notes?


Discuss ways of managing money effectively: e.g.

How many different ways can you pay £1.00 using only coins? How many different ways can you pay £1.00 using only notes? How many different ways can you pay £1.00 using only coins and notes?


deciding on best value when considering different options, putting money into a savings account etc

16. Read the case study below and then draw up a budget for James.

James works at the local shop as a cashier. He earns £250 a week. He also helps his neighbour's children once a month and gets £75. James still lives at home so he has the following expenses each month:

Money for his parents towards his food - £600  
Tobacco - £60  
Petrol for his car - £75  
Entertainment - £250  
Mobile Phone - £32  
Savings - £200  
Clothes - £30

Transactions			
Income	Amount	Expenses	Amount
Salary	£1000	Food	£600
Subsidising	£75	Tobacco	£60
		Petrol	£75
		Entertainment	£250
		Mobile Phone	£32
		Savings	£200
		Clothes	£30
Total	£1075	Total	£1672

Calculate in the context of money, using all 4 operations- e.g. working out the cost of a meal for 4 people, then splitting the total cost equally between them.

**Pizza Night Budget**

Friday night is homemade pizza night! You need to create a budget to purchase the ingredients to make the pizzas.

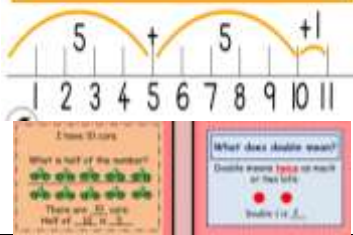
There will be 4 people eating the pizza (2 adults & 2 children). Each person has their own individual pizza.


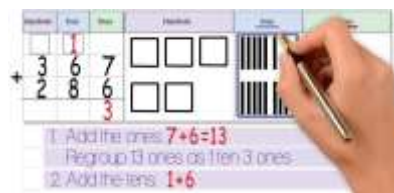
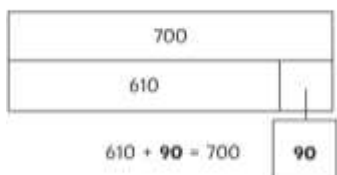
You have £30 to spend. You do not have to spend all of the budget, as long as you meet the pizza night requirements.

Item	Amount in pack	Price
pizza base	2	£4.00
mozzarella cheese	800g	£4.65
pineapple pieces	22kg tin	£2.50
mushrooms (tinned)	200g	£2.00
pizza base sauce	400g	£5.50
olives	22kg jar	£3.00
tomatoes	1	£2.50
onions (brown)	1	£1.45
saus	200g	£4.10
chicken (cooked & shredded)	250g	£7.50
salami	40g	£7.00
garlic bread	2	£4.00

Calculate estimated costs by rounding prices to the nearest pound, 50p or 10p as appropriate.

How many different ways can you pay £1.00 using only coins? How many different ways can you pay £1.00 using only notes? How many different ways can you pay £1.00 using only coins and notes?

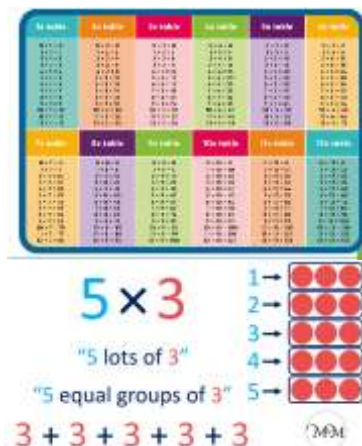

	<p><b>Activity 2</b> Round the cost of these items to the nearest 10p:</p> <table border="1"> <tr><td>4 pint milk</td><td>£1.02</td><td></td></tr> <tr><td>Tub of butter</td><td>£1.68</td><td></td></tr> <tr><td>Jar of jam</td><td>£1.07</td><td></td></tr> <tr><td>Packet of biscuits</td><td>£0.98</td><td></td></tr> <tr><td>Loaf of bread</td><td>£0.91</td><td></td></tr> <tr><td>Cornflakes</td><td>£1.27</td><td></td></tr> </table>	4 pint milk	£1.02		Tub of butter	£1.68		Jar of jam	£1.07		Packet of biscuits	£0.98		Loaf of bread	£0.91		Cornflakes	£1.27	
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<p><b>Learning Area: Addition, subtraction, multiplication &amp; division</b></p>																			
<p>Mentally add multiples of 100 within 1000.</p>	<p><b><u>Adding Multiples of 100</u></b></p> <p>350 + 500 =</p> <p>657 + 300 =</p> <p>297 + 700 =</p>																		
<p>Mentally find what must be added to multiples 100 to make 1000.</p>	<table border="1"> <tr> <td>200 + 800</td> <td>500 + 500</td> <td>180 + 20</td> <td>1,100 - 100</td> <td>900 + 100</td> </tr> </table>		200 + 800	500 + 500	180 + 20	1,100 - 100	900 + 100												
200 + 800	500 + 500	180 + 20	1,100 - 100	900 + 100															
<p>Know near doubles &amp; components up to 20. Find doubles of multiples of 10 up to double 200 and derive corresponding halves.</p>	<p><b>Near Doubles Strategy</b></p> <p>When adding numbers that follow each other, use the knowledge of doubles to help add the numbers.</p> <p>5 + 6 = This is the same as: 5 + 5 + 1 = 11 or 6 + 6 - 1 = 11</p> 																		
<p>Mentally find doubles of multiples of 5 up to double 30, and corresponding halves Find doubles of multiples of 50, answers within 1000.</p>	<table> <tr> <td> <p><b>Multiples of 5</b></p> <p>Double 15</p> <p>Double 10</p> </td> <td> <p><b>Multiples of 50</b></p> <p>Double 300</p> <p>Double 450</p> </td> </tr> </table>		<p><b>Multiples of 5</b></p> <p>Double 15</p> <p>Double 10</p>	<p><b>Multiples of 50</b></p> <p>Double 300</p> <p>Double 450</p>															
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and derive corresponding halves.	Half of 30	Half of 500Half of 800																				
<p>Count by 5's</p> <table><tr><td>5</td><td>10</td><td>15</td><td>20</td><td>25</td></tr><tr><td>30</td><td>35</td><td>40</td><td>45</td><td>50</td></tr><tr><td>55</td><td>60</td><td>65</td><td>70</td><td>75</td></tr><tr><td>80</td><td>85</td><td>90</td><td>95</td><td>100</td></tr></table>	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	800	
5	10	15	20	25																		
30	35	40	45	50																		
55	60	65	70	75																		
80	85	90	95	100																		
Mentally find what must be added to any 2 digit number to make 100	<p>Fill in the missing numbers.</p> $97 + \underline{\quad} = 100$ $16 + \underline{\quad} = 100$ $7 + \underline{\quad} = 100$ $34 + \underline{\quad} = 100$																					
Develop a standard written method for vertical addition H T U (with carrying), estimating the answer before calculating.	<p><a href="https://cea.org.uk/learning-resources/help-your-child-maths/help-your-child-subtraction/helping-your-child-hundreds-0">https://cea.org.uk/learning-resources/help-your-child-maths/help-your-child-subtraction/helping-your-child-hundreds-0</a></p> 																					
Find what must be added to any 3 digit number to make the next higher multiple of 10 or 100.																						



Understand all times tables (up to 12) multiplication facts as repeated addition, and as arrays. Develop quick recall, using understanding of commutativity, and knowledge of other multiplication facts. Derive corresponding division facts, using understanding of inverse relationship.

<https://www.topmarks.co.uk/maths-games/hit-the-button>

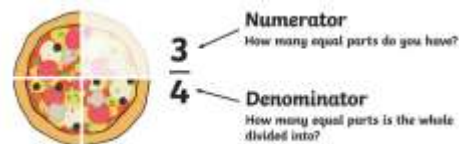


Use written multiplication methods to multiply a 2 or 3 digit number by any single digit number

$$\begin{array}{r} 13 \\ 325 \\ \times 6 \\ \hline 1950 \end{array}$$

### Learning Area: Fractions

Recognise, read and write fractions, identifying numerator and denominator.



Order a set of fractions (increasing and decreasing).

Order these fractions from the smallest.

$$\frac{3}{6} \quad \frac{1}{6} \quad \frac{5}{6} \quad \frac{2}{6} \quad \frac{4}{6}$$

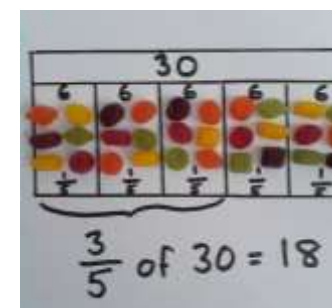
Order these fractions from the biggest.

$$\frac{4}{12} \quad \frac{6}{12} \quad \frac{8}{12} \quad \frac{10}{12} \quad \frac{11}{12}$$

Begin to talk about equivalent fractions.

$$\begin{array}{cc} \frac{1}{2} = \frac{\quad}{4} & \frac{1}{3} = \frac{\quad}{6} \\ \frac{1}{2} = \frac{\quad}{8} & \frac{1}{3} = \frac{\quad}{12} \end{array}$$

Find fractions of quantities, using links with division facts. Begin to understand the relationship between fractions and decimal fractions. Write tenths as decimal fractions. Use known division facts to find fractions of quantities (numerator = 1)



Question	Visual	Working	Answer
Find $\frac{1}{3}$ of 12		$12 \div 3$	£4
Find $\frac{2}{3}$ of 12		$12 \div 3 = 4$ $4 \times 2 = 8$	

Work out the decimal fraction coloured in a shape using tenths, change tenths to decimals, order decimals.

e.g. Order these decimals: 0.6, 0.1, 0.8

