
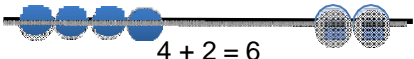

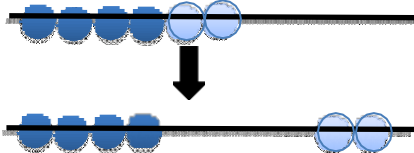










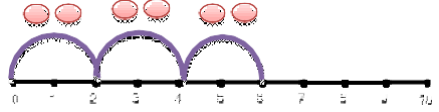
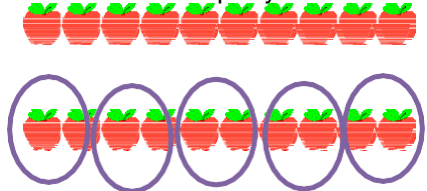
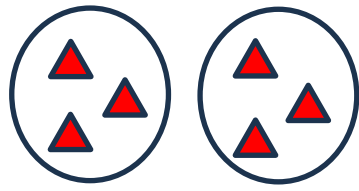


## Maths Calculation Policy

	Addition	Subtraction	Multiplication	Division
Rec	<p>Children are taught to 'combine 2 groups.'</p> <p>Adding using objects or pictures Focus on adding using real objects, such as teddies, pennies, pencils and cubes.</p> <p>I buy 2 cakes and my friend buys 3 cakes. How many cakes did we buy altogether?</p>  <p style="text-align: center;">Recorded as <math>2 + 3 = 5</math></p> <p>Children introduced to numberlines to support calculations and teachers demonstrate the use of a numberline.</p> <p>Bead strings can be used to illustrate addition.</p>  <p style="text-align: center;"><math>4 + 2 = 6</math></p> <p>Recording calculations Children develop ways of recording addition calculations by drawing pictures and begin to record using mathematical symbols e.g. <math>2 + 3 = 5</math></p> <p>Rapid Recall 1 more (numbers up to 10)</p>	<p>Children are taught to 'take away' from a set.</p> <p>Subtracting using objects or pictures Focus on using real objects or pictures to solve problems.</p> <p>I have 5 cakes and my friend eats 2. How many are left?</p>  <p style="text-align: center;">Recorded as <math>5 - 2 = 3</math></p> <p>Children introduced to numberlines to support calculations and teachers demonstrate the use of a numberline.</p> <p>Bead strings can be used to illustrate subtraction.</p>  <p style="text-align: center;"><math>6 - 2 = 4</math></p> <p>Recording calculations Children develop ways of recording subtraction calculations by drawing pictures, recording using digital camera and begin to record using mathematical symbols e.g. <math>5 - 2 = 3</math></p> <p>Rapid Recall 1 less (numbers up to 10)</p>	<p>Children will count in 1s &amp; 2s and will begin to count in 10's.</p> <p>Children will talk about equal groups of objects.</p>  <p style="text-align: center;">3 plates, 2 cakes on each plate</p> <p>Recording calculations Children may draw pictures to represent their understanding or take pictures with an iPad.</p>	<p>Children will talk about sharing.</p> <p>6 cakes shared between 2</p>  <p>6 cakes put into groups of 2</p>  <p>Recording calculations Children may draw pictures to represent their understanding or take pictures with an iPad.</p>

	Addition	Subtraction	Multiplication	Division																														
Y1	<p>Children are taught to 'count on.'</p> <p>Adding using objects or pictures Focus on adding using real objects, such as teddies, pennies, pencils and cubes.</p>  <p>Bead strings can be used to illustrate addition.</p>  <p>'Counting on' in jumps of 1 using a number line, typically starting from the largest number.</p> <p><math>5 + 5 = 10</math></p>  <p>Commutativity: children are taught that addition can be calculated in either order and the answer will not change.</p> <p>Adding 10 using a number square by moving downwards one square.</p> <table border="1" data-bbox="224 1125 548 1220"> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> </table> <p><math>7 + 10 = 17</math></p> <p>Recording calculations: Children record calculations using mathematical symbols</p> <p>Rapid Recall</p> <ul style="list-style-type: none"> <li>• Number bonds for 5, 10 &amp; 20</li> <li>• 1/10 more than a given number</li> </ul>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	<p>Children are taught to 'count back.'</p> <p>'Taking away' using objects or pictures. Focus on using real objects or pictures to solve problems.</p>  <p>Bead strings can be used to illustrate subtraction.</p>  <p>'Counting back' using a number line, starting from the largest number</p> <p><math>10 - 7 = 3</math></p>  <p>Inverse Operation: children are taught about the relationship between addition and subtraction</p> <p><math>6 + 4 = 10</math>  <math>4 + 6 = 10</math>  <math>10 - 6 = 4</math>  <math>10 - 4 = 6</math></p> <p>Recording calculations Children record calculations using mathematical symbols Children are encouraged to form numbers correctly e.g. <math>10 - 4 = 6</math></p> <p>Rapid Recall</p> <ul style="list-style-type: none"> <li>• Subtraction facts for 10</li> <li>• 1/10 less than a number</li> </ul>	<p>Children will count in 2s, 5s and 10s.</p> <p>Children will talk about equal groups of objects.</p>  <p>Using pictures or objects to solve practical problems that involve combining groups of 2,5,10.</p> <p>There are 2 cakes on 1 plate. How many cakes on 3 plates?</p> <p>Using a number line</p>  <p><math>2 \times 3 = 6</math> or <math>3 \times 2 = 6</math> (two, three times) or (three groups of two)</p> <p>Recording calculations Children may draw pictures to represent their understanding. They will begin to record their calculations as 'lots of' e.g. 3 lots of 2 = 6. Children begin to record multiplication sums using the correct symbols. <math>3 \times 2 = 6</math> They also learn to use repeated addition: <math>3 \times 2 = 6</math> or <math>2 + 2 + 2 = 6</math></p> <p>Rapid Recall</p> <ul style="list-style-type: none"> <li>• Count in 1s, 2s, 5s and 10s</li> <li>• Double numbers and associated near doubles</li> </ul>	<p>Children will talk about sharing equally.</p> <p>I have 10 apples and 5 children. How can I share these equally?</p>  <p>Children begin to record this as: <math>10 \div 2 = 5</math></p> <p>There is a brief introduction to division through the solving of fractions. Children learn to find a half of an even number.</p> <p><math>\frac{1}{2}</math> of 6 = 3</p> 
1	2	3	4	5	6	7	8	9	10																									
11	12	13	14	15	16	17	18	19	20																									
21	22	23	24	25	26	27	28	29	30																									

**Addition**

Y2 Adding using a numberline  
 ✓ Children are taught to use empty numberlines, starting with the largest number and counting on.  
 $34 + 23 = 57$

Adding using a 100 square

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$24 + 32 = 56$

Adding using tens and unit/ones  
 $23 + 12 = 35$

Partitioning  
 $47 + 35 =$   
 $40 + 30 = 70$   
 $7 + 5 = 12$   
 $70 + 12 = 82$   
 OR  
 $47 + 30 = 77$   
 $77 + 5 = 82$

Rapid Recall  
 • Number bonds for 10, 20, 100

**Subtraction**

Subtracting using a numberline  
 ✓ Children are taught to use empty numberlines, starting with the largest number and counting back.  
 $47 - 23 = 24$

Taking away using a 100 square

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$68 - 42 = 26$

Taking away using tens and units/ones  
 $43 - 21 = 22$

Partitioning  
 $77 - 24 =$   
 $77 - 20 = 57$   
 $57 - 4 = 53$

Calculating change by counting on:  
 $50p - 22p =$   
 $22 > 30 = 8$   
 $30 > 50 = 20$   
 $20p + 8p + 28p$  change

Rapid Recall  
 • Subtraction facts for 10 and 20

**Multiplication**

Children develop their understanding of multiplication and use jottings to support calculations:  
 ✓ Repeated addition  
 3 times 5 is  $5+5+5=15$  or 3 lots of 5 or  $5 \times 3$

Commutativity  
 Children should know that  $5 \times 3$  has the same answer as  $3 \times 5$ .

Multiplying larger numbers  
 $15 \times 3 =$   
 Can be worked out as:  
 $10 \times 5 = 50$   
 $10 \times 5 = 50$   
 $10 \times 5 = 50$   
 $30 + 15 = 45$   
 $30 + 10 + 5 = 45$

Multiplication shown as an array

$3 \times 4 = 12$  or  $4 \times 3 = 12$

**Division**

Children develop their understanding of division and use jottings to support calculations:  
 ✓ Sharing equally  
 6 sweets shared between 2 people, how many do they each get?

✓ Grouping or repeated subtraction

Inverse  
 Using multiplication to support division  
 $3 \times 5 = 15$  so I know that,  
 $15 \div 5 = 3$

Recognising when a number cannot be divided equally and therefore leaves a remainder  
 $10 \div 3 =$   
 Knowing that  $9 \div 3 = 3$ ,  
 So,  $10 \div 3 = 3 \text{ r}1$

