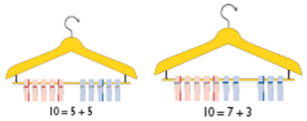
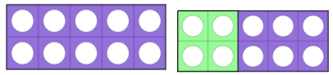
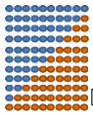
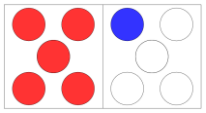
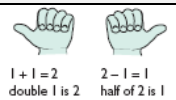
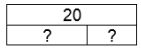
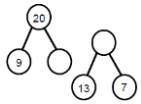
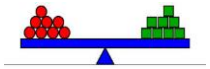
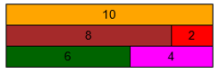
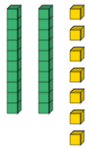
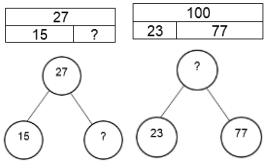
Addition KS1

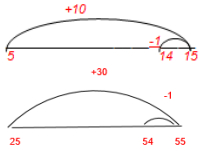
<table>
<tr><td>EYFS</td><td colspan="6">Reception: ELG 2022
Number ELG
Children at the expected level of development will:
• Have a deep understanding of number to 10, including the composition of each number;
• Subitise (recognise quantities without counting) up to 5;
• Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns ELG
Children at the expected level of development will:
• Verbally count beyond 20, recognising the pattern of the counting system;
• Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
• Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</td></tr>
<tr><td>Year</td><td colspan="3">1</td><td colspan="3">2</td></tr>
<tr><td></td><td colspan="3">Concrete, pictorial, abstract</td><td colspan="3">Concrete, pictorial, abstract</td></tr>
<tr><td>Developing Conceptual/ Procedural Understanding</td><td>Number bonds
 
We have 10 pegs on the coathangers, how can we split them into 2 groups? Is there another way? How can we be sure we have got them all?
 
Ten Frames
 
2 + □ = 10
5 + □ = 10
□ + 4 = 10
10 - □ = 3
10 - □ = 9
10 – 0 = □

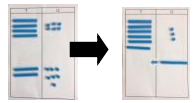
Hungarian frames
  </td><td> 
1 + 1 = 2
double 1 is 2
2 – 1 = 1
half of 2 is 1
 
2 + 2 = 4
double 2 is 4
4 – 2 = 2
half of 4 is 2
 
Recognise small quantities
 
Count on
 
Count on, on number track in 1s.
Develop knowledge of fact families.
 
10
3
7</td><td>Whole-part model
 
20
? ?
 
Fill in the missing numbers

Balance image for concept of equality.
 
9 = 9
9 = 8 + 1
9 = 7 + 2
8 + 1 = 7 + 2
 
10
8
2
6
4</td><td>Base 10
 

Whole-part model
 
27
15 ?
100
23 77
27
15 ?
? 23 77
Fill in the missing numbers

All answers to be recorded in a number sentence following any informal recording.</td><td>Adjustment strategy
5 + 9 =
5 + 10 – 1= 14
 
+10
-1
5
14 15
+30
-1
25
54 55
(Round and adjust)
Doubles then near doubles
5 + 6 =
5 + 5 + 1 = 11

7 + 8 =
8 + 8 - 1 = 15

47+50 =
Re-arranging
18+4 =
Tell me what you know about 4, e.g.</td><td>Partition and recombine
Record partitioned steps in number sentences then add mentally.
40+20=60
6+7 =13
60+13=73
Moving on to:
46 + 27 = 60 + 13 = 73
 
Regrouping the 10.

Balance in the equation
14 = 8 + 6, 7+6=8+5
□= 13+9
3+ □+6 =16
14+ ◇= 15+27</td></tr>
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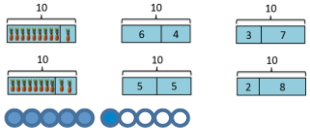
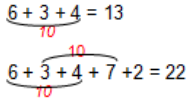
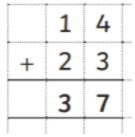
<td>Use the pattern to complete the number sentences.
 
Use bonds of 10 to calculate bonds of 20.</td>
<td>10 = 3+7
10 = 7+3
10 – 7 = 3
10 – 3 = 7</td>
<td>10 = 10
10 = 8 + 2
10 = 6 + 4
8 + 2 = 6 + 4</td>
<td>Adding more than two numbers

Strategy to include looking for facts or bonds that are useful e.g. bonds up to and including 10, doubles or adding 10 to a given number.
 
Record thinking.</td>
<td>3+1, 2+2
18+4= Rearrange the 4 into 2+2
18+2+2= 20+2 =22

59+24 = Partition the 24 into 20 +4 and rearrange the 4 into 1+3.

So 59+24=
59+20+1+3 =
59+1+20+3 = 83</td>
<td>Decision making

Using statements such as:
Ben did 14 + 9 = 23
How could he have done it?

When secure, children can move on to column addition:
  </td>
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<tr>
<td>Known facts</td>
<td colspan="2">Represent & use number bonds and related subtraction facts within 20
Add and subtract 1 digit and 2 digit numbers to 20, including zero</td>
<td colspan="4">Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.</td>
</tr>
<tr>
<td rowspan="6">Essential Knowledge</td>
<td>1 more</td>
<td>Number bonds: 5 and 6</td>
<td>10 more</td>
<td>Number bonds:20,12 and 13</td>
</tr>
<tr>
<td>Largest number first.</td>
<td>Number bonds: 7 and 8</td>
<td>Add 1 digit to 2 digit by bridging</td>
<td>Number bonds: 14 and 15</td>
</tr>
<tr>
<td>Add 10.</td>
<td>Number bonds:9 and 10</td>
<td>Partition second number and add tens then ones.</td>
<td>Number bonds: 16 and 17</td>
</tr>
<tr>
<td>Ten plus ones.</td>
<td>Use number bonds of 10 to derive bonds of 11</td>
<td>Add 10 and multiples of 10.</td>
<td>Number bonds: 18 and 19</td>
</tr>
<tr>
<td>Doubles up to 10.</td>
<td></td>
<td>Doubles up to 20 and multiples of 5.</td>
<td>Partition and recombine.</td>
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<tr>
<td></td>
<td></td>
<td>Add near multiples of 10.</td>
<td></td>
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</table>