

Whitehall




Nursery and Infant School

Calculation Policy for EYFS

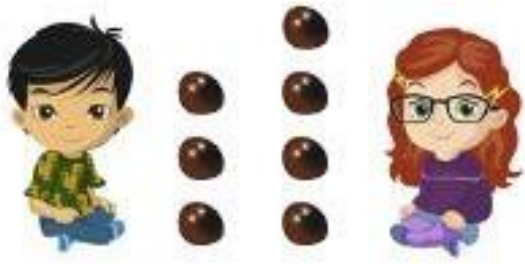
This calculation policy highlights the progression of the calculations in EYFS. Throughout the policy, a key thread of the consistent use of the CPA (concrete, pictorial, abstract) approach across Maths helps children develop mastery across all the operations in an efficient and reliable way.

Adapted and inspired by Westoe Crown Primary School Calculation Policy

	Real-life representation	Other representations
<p>Addition</p>	<p><u>Sorting groups</u></p> <p>Children sort everyday objects into groups.</p> 	

Counting and adding more (within 5)

Children add one more person or object to a group to find one more.



One more than 3 is 4

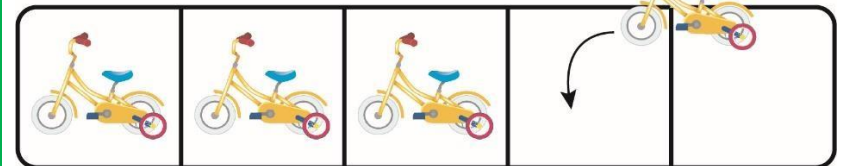
Counting and adding more (within 5)

Children represent first, then, now stories on a five frame. They make the first number and then add one more.

First



Then



Now



*First, there are 3 bikes.
Then, 1 more bike came.
Now, there are 4 bikes.*

Combining groups to find the whole

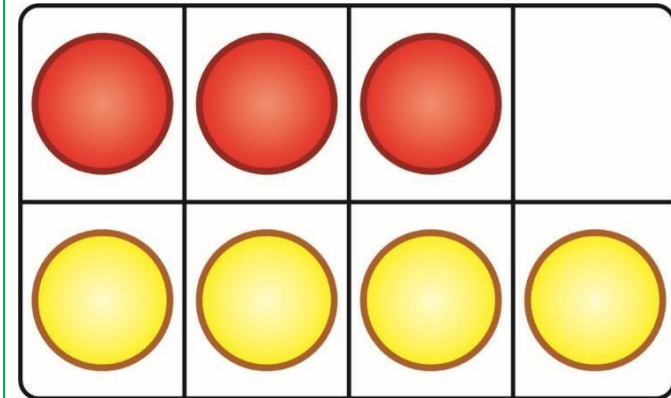
Children sort people and objects into parts and combine them to find the whole.



The parts are 3 and 4. The whole is 7.

Combining groups to find the whole

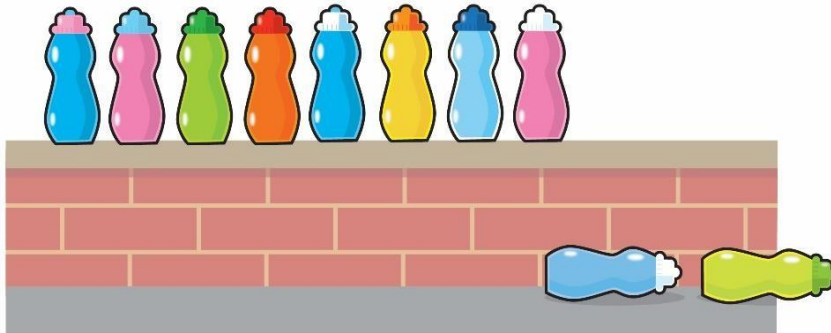
Children use counters or cubes in a part-whole model to find the whole.



The parts are 3 and 4. The whole is 7.

Finding number bonds to 10

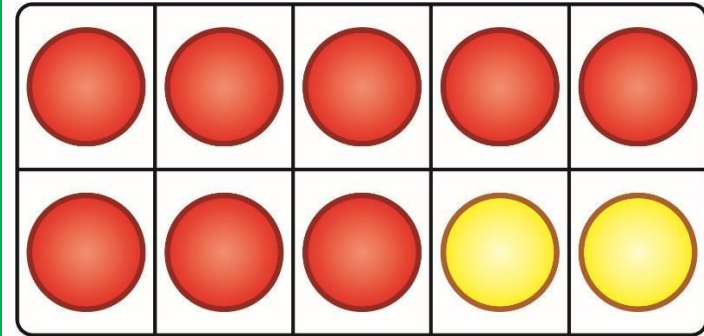
Children combine 2 groups to find a number bond to 10



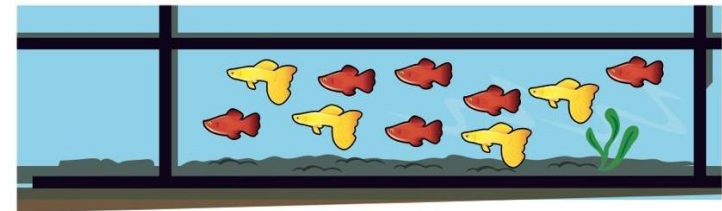
*There are 8 bottles on the wall.
There are 2 bottles on the floor.
There are 10 bottles altogether.*

Finding number bonds to 10

Use ten frames and part-whole models to represent key number bonds.



*8 and 2 is 10
There are 10 altogether.*



*6 and 4 is 10
There are 10 altogether.*

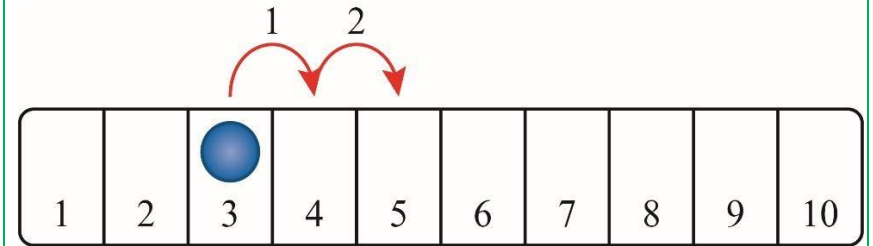
Adding by counting on (number track)

Children jump along a physical number track. They start at the larger number and count on the smaller number to find the total.



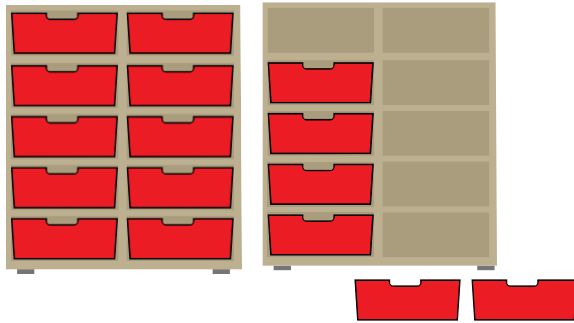
Adding by counting on (number track)

Children use a number track and a counter. They start at the larger number and count on the smaller number to find the total.



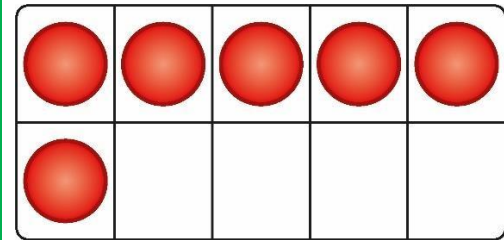
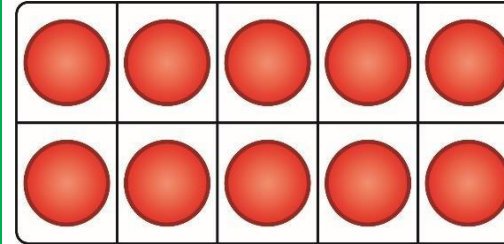
Adding by counting on (ten frames)

Children find the total number by counting on from the larger number.



Adding by counting on (ten frames)

Children make the larger number on the ten frames and then make the smaller number, counting on to find the total. They can use counters, cubes or other objects on the ten frames.



Subtraction

Sorting groups

Children sort everyday objects into groups.



Comparing groups

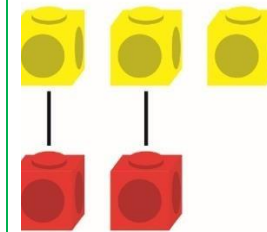
Children line up objects to compare the amount. They line the objects up either horizontally or vertically.



*Ella has more conkers.
Tom has fewer conkers.*

Comparing groups

Children line up cubes or counters to compare the amount in each group. Lines can either be horizontal or vertical. A starting line helps to line the objects accurately.



*There are more yellow cUBes.
There are fewer red cUBes.*

Counting back and taking away (within 5)

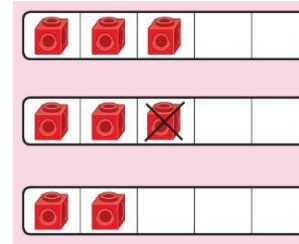
Children remove one more person or object from a group to find one less.



*First, there were 3 children.
Then, 1 child left.
Now, there are 2 children.*

Counting back and taking away (within 5)

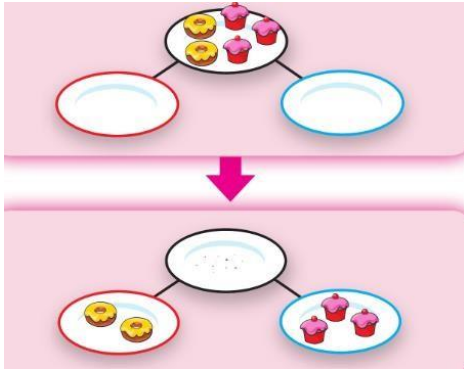
Children use five frames and objects to make a number. They then remove or cross out one object to find one less.



One less than 3 is 2

Introducing the part-whole model

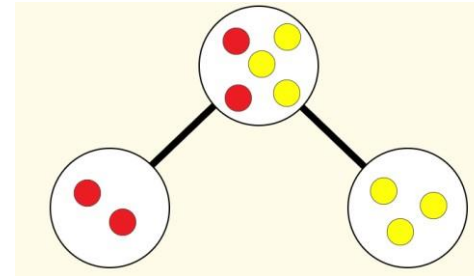
Children sort everyday objects into parts.



*One part is
The other part is*

Introducing the part-whole model

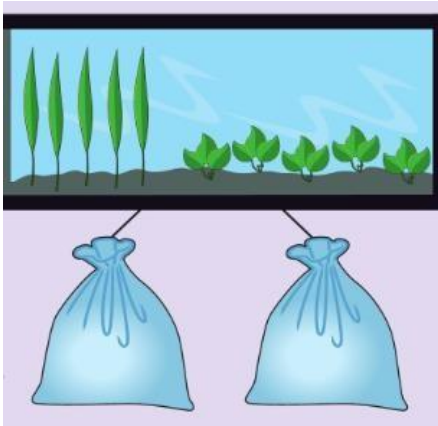
Children use counters or cubes to represent objects in a part-whole model.



*The whole is 5.
2 is a part.
3 is a part.*

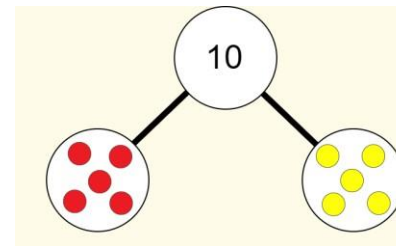
Finding number bonds to 10

Children partition 10 into different groups to find the number bonds to 10

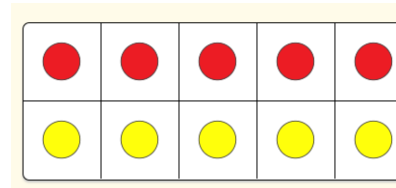


Finding number bonds to 10

Children use part-whole models, ten frames and counters to find the number bonds to 10



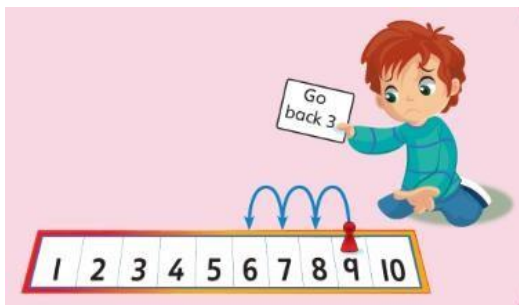
*10 is the whole.
5 is a part and 5 is a part.*



*10 is the whole.
5 is a part and 5 is a part.*

Counting back and taking away (number track)

Children use game boards and human number tracks to subtract by counting back.

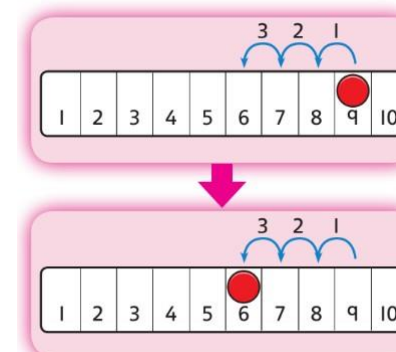


9 take away 3 equals 6

9...8...7...6

Counting back and taking away (number track)

Children use a number track and a counter. They start at the larger number and count back the smaller number to find the answer.

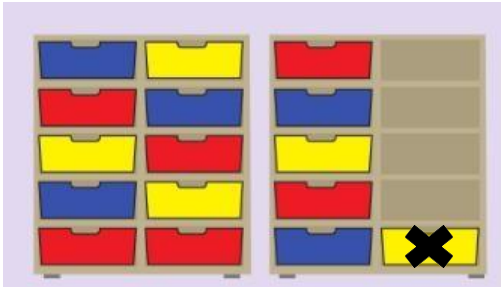


9 take away 3 equals 6

9...8...7...6

Counting back and taking away (ten frames)

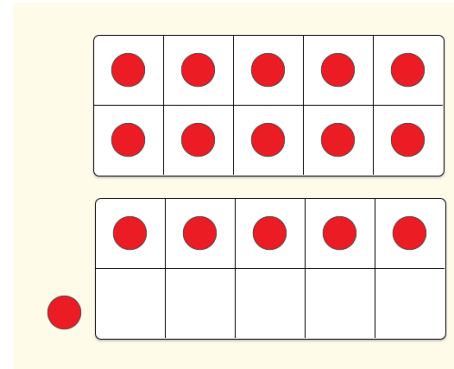
Children count backwards to find one less with numbers up to 20



One less than 16 is 15

Counting back and taking away (ten frames)

Children remove counters from ten frames to support in counting back with numbers up to 20.



One less than 16 is 15

Multiplication

Making doubles

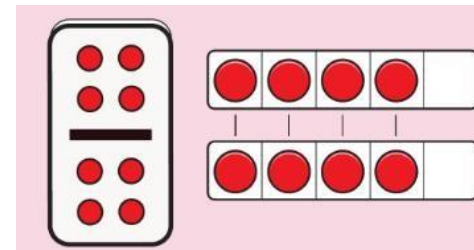
Children explore doubles in their environment including in games such as on dominoes or dice. They focus on the understanding of doubles being 2 equal groups.



*Double 4 is 8
Double 2 is 4
Double 3 is 6*

Making doubles

Children use five frames to find doubles by lining up counters or cubes.

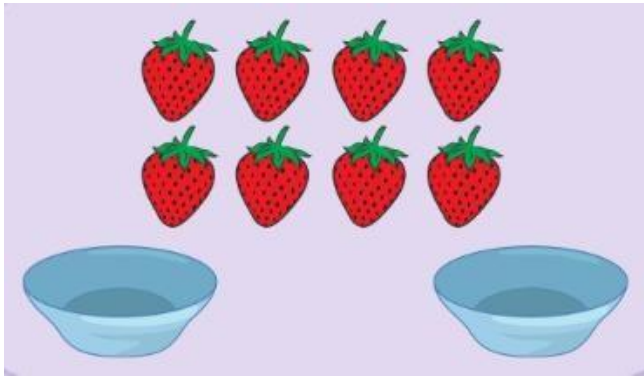


Double 4 is 8

Division

Halving and sharing

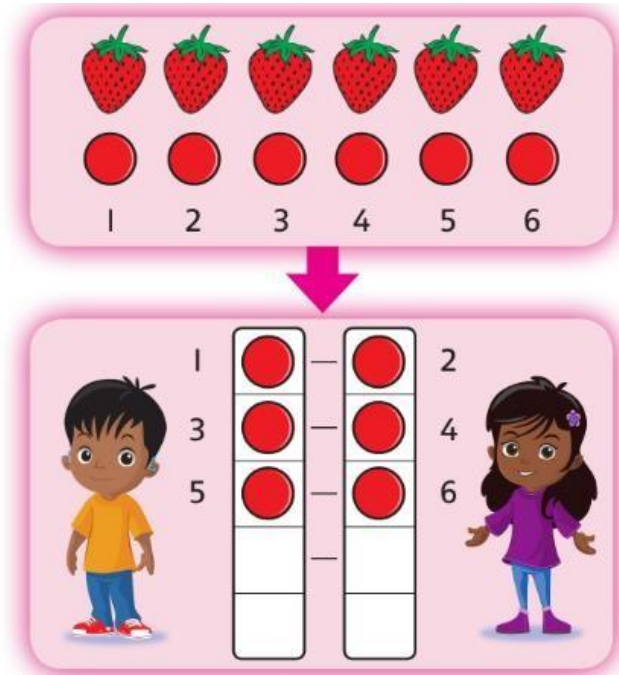
Children explore halving and sharing through practical sharing using real life scenarios including sharing fruit or classroom equipment.



Half of 8 is 4

Halving and sharing

Children use five frames to share amounts fairly and to check that the groups are equal. They share the counters/cubes one by one.



Half of 6 is 3