The Rofft School

Calculations Policy

Progression Step One

To be used in conjunction with The Rofft's M&N Progression Maps and Abacus Maths

Progression Step One Counting skills

Skills for number work

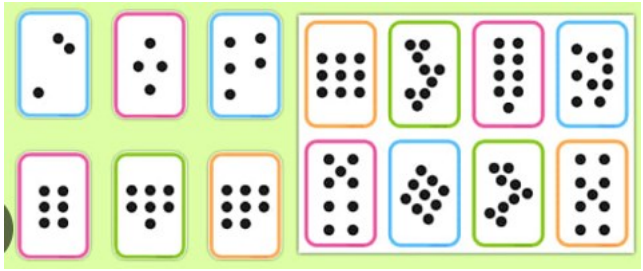
Counting songs/rhymes/games, for example, 'un a dau a tri banana', 'five little speckled frogs', 'five little ducks' etc.

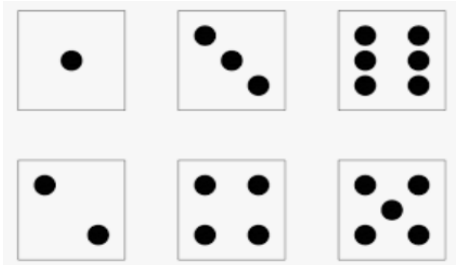
'Show me a number' activities using fingers and other classroom items.

Counting objects. Count out up to six objects from a larger group–indoors and outdoors.

Count objects to 10, and begin to count beyond 10.

Count regular and irregular arrangement of up to ten objects–use a variety of resources to develop the children's subitising skills, for example, dice, dot cards, 5/10 frame arrays, group of objects etc.





Develop subitising skills–regular and irregular arrangements–see above for examples.

Select the correct numeral to represent 1 to 5, then 1 to 10 objects.

Children to practise counting by touch counting / moving objects as they count, arranging objects into a line and counting on etc.

Recognise numerals 1-5/10/and beyond

Progression Step One Addition

Counting skills also need to be covered.

Use of games, songs and practical activities to begin and reinforce using vocabulary.

Use the language of 'more' and 'less' to compare two sets of objects.

Can find one more than a given number up to ten.

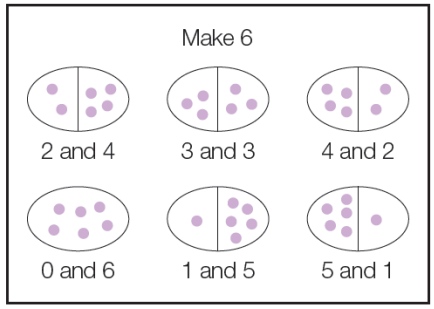
In practical activities and discussion, begin to use the vocabulary involved in adding.

Count on from a given number within 5 / 10/ 20.

Solve simple word problems using their fingers and other resources.

5 + 1 = 6

Begin to practically relate addition to combining two groups of objects—use concreate objects resources to support learning.



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Construct number sentences to go with practical activities on paper, mini whiteboards, ipads, outdoor walls etc.

Children to progress to using a number line. They jump forwards along the number line using finger.

Using quantities and objects, add two single-digit numbers and count on to find the answer.

Estimate how many objects they can see and check by counting them.

Begin to apply skills to money.

Rehearse adding two groups of objects in practical, fun home-work

activities.

E.g. How many windows are at the front of your house?

How many windows are there at the back of your house?

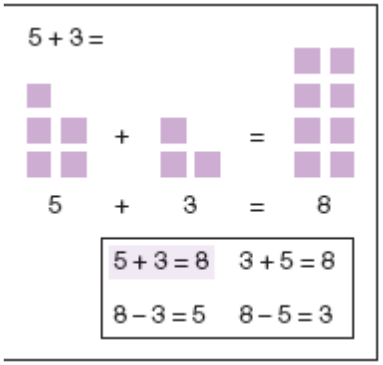
How many windows are there altogether?

Number formation rhymes/practice activities in preparation for written work

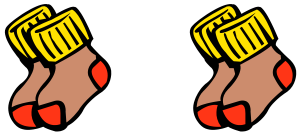
- Written numbers on whiteboards.
- Rehearse number formation with fingers (magic pencils) in sand/foam etc.

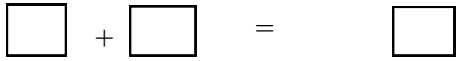
Progression Step One Written Addition

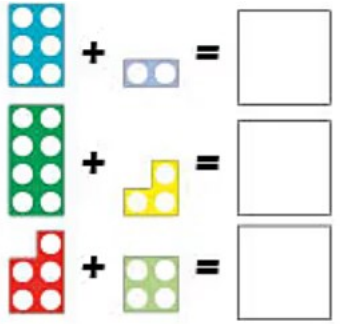
Make a record in pictures, words or symbols of addition activities already carried out (using whiteboards, paper, chalk boards, resources and symbol cards etc.).

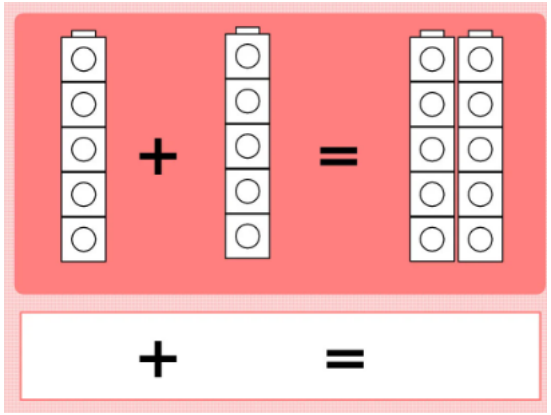


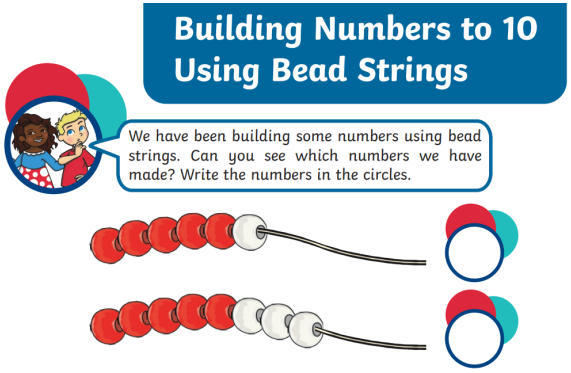
Complete single digit addition on a prepared laminated worksheet using objects. See bank number sentence below.











Progression Step One Subtraction

Counting skills also need to be covered.

Counting backwards from 10.

Use the language of 'more' and 'less' to compare two sets of objects.

Begin to relate subtraction to 'taking away' and 'fewer'.

Place numbers in order and say which number is one less than a given number.

Use of games, songs and practical activities to begin using vocabulary

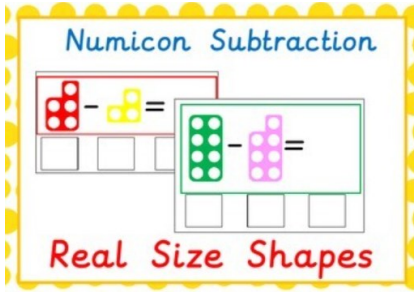
In practical activities and discussion, begin to use the vocabulary involved in subtracting.

Use fingers to "take away" to ten., beginning with taking away one.

Relate subtraction to taking away and counting how many objects are left . Encourage the children to recognise that when we 'take away', we end up with 'less' or 'fewer' items.

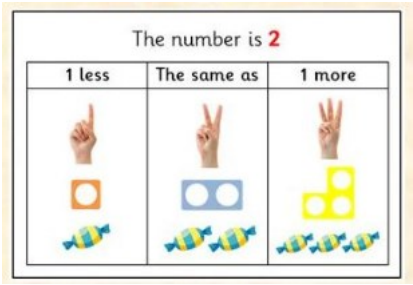
Construct number sentences to go with practical activities:

☐ - ☐ = ☐



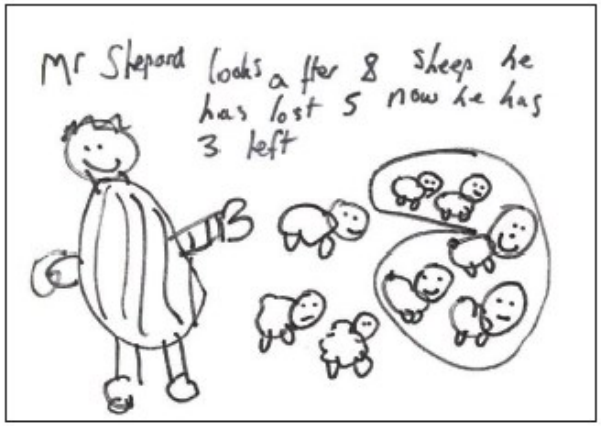
As time progresses children to use a number line to take away.

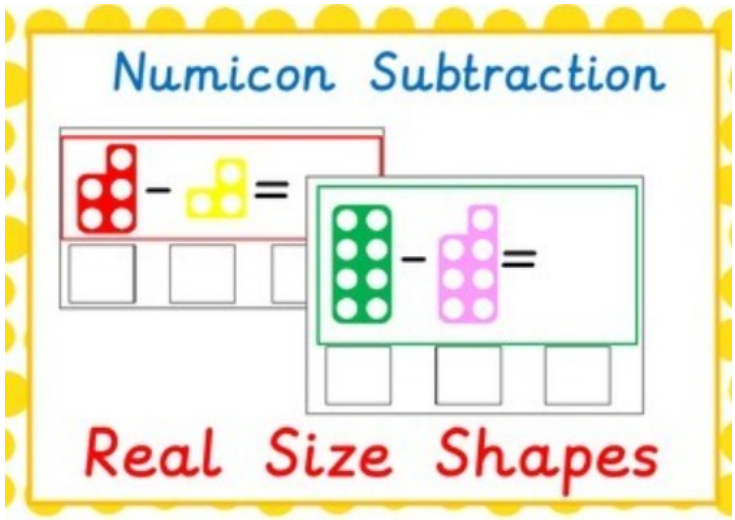
Using quantities and objects, subtract two single-digit numbers and count back to find the answer.



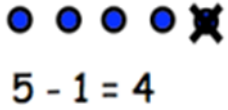
Progression Step One Written Subtraction

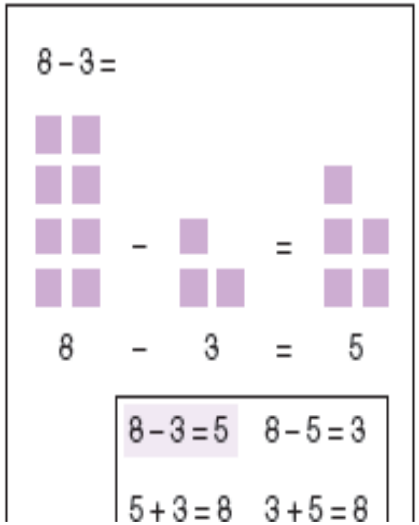
Make a record in pictures, words, objects or symbols of subtraction

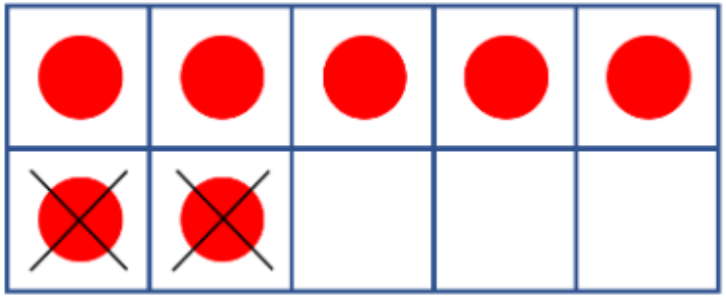




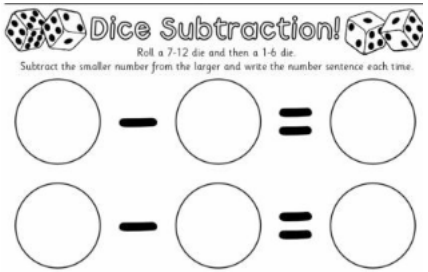
Moving on to …..







Then moving on to ….



Progression Step One Early Years Multiplication

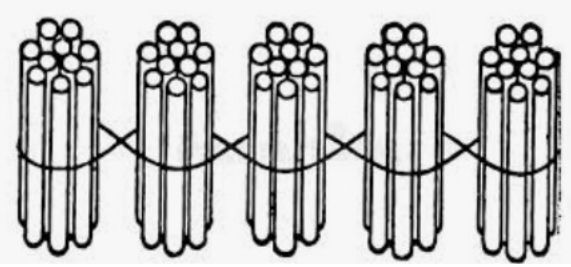
Counting skills also need to be covered.

Real life contexts and use of practical equipment to count in repeated groups of the same size:

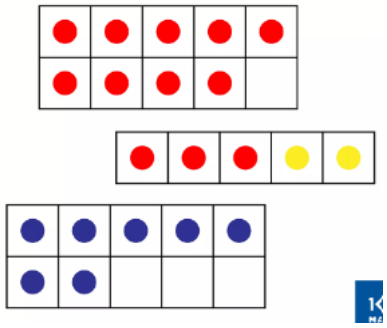
E.g. in 2s, 5s, 10s,

Use pairs of objects to aid counting in twos e.g. shoes, wellingtons, socks or gloves.

Use bundles of sticks to count on in fives/ tens



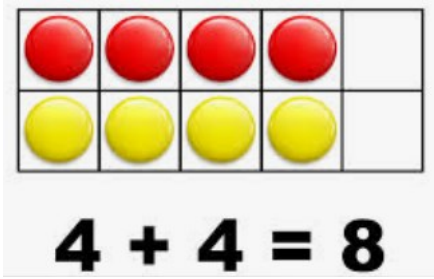
Support counting by grouping by using 5 and 10 frames



.Chanting in 2s, 5s and 10s.

Use a number line or a number square.

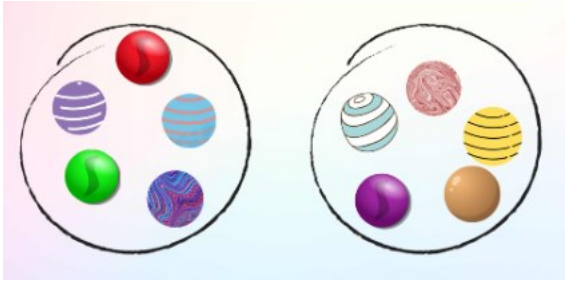
Solve problems, including doubling and halving



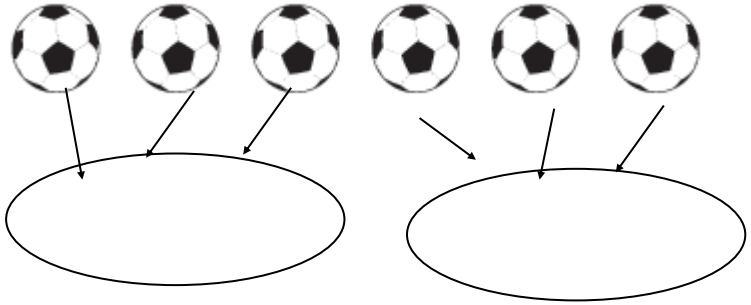
Progression Step One Early Years Division

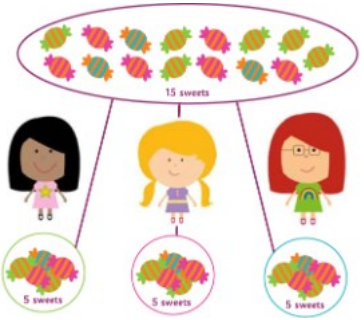
Counting skills also need to be covered.

Use Vocabulary of division e.g. share, fair, unfair.



Share objects into equal groups/the same as/sets/between people.

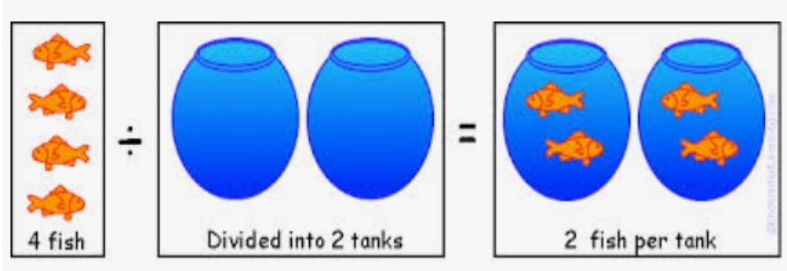




Encourage the children to share systematically, for example, 'one for you, one for you'. This will help ensure equal distributions between the people /sets.

Solve everyday practical problems, including halving and sharing:

- Sharing of milk and fruit at snack time
- Sharing sweets on a child's birthday
- Sharing activities in the continuous provision areas
- Sharing resources outdoors
- Count in tens/twos



Separate a given number of objects into two groups (addition and subtraction objective in Reception being preliminary to multiplication and division)