

0 1 2 3 4 5 6

14 15 16 17 18 19 20

7 8 9 10 11 12 13

The Early Years maths curriculum is split into two sections, '**Number**' and '**Shape, Space and Measures**'. In school, your child engages in maths activities everyday, some are part of their daily routines and some are specifically planned for during 'maths time'.

This booklet is about helping your child at home and outside of school to make progress in 'Number' and be ready to learn 'Number' when they move up to Year 1.

Learning numbers and number concepts in Foundation Stage is not about sitting down and writing 'number sentences' (sums/calculations) or spending a long time at a number activity. It is about engaging in fun, active and meaningful activities, some of which can be incorporated into your family life and daily routines.

Reward your children for good number learning with trips to the park, a visit to a relative or friend's home or blowing bubbles in the garden, especially if 'number' is not your child's favourite subject.

**Below are the end of Foundation 2 expected levels
(Early Learning Goals):**

1. To say numbers in order to 20 by counting forwards and backwards.
2. To count up to 20 objects by touching and/or moving them.
3. To recognise numbers to 20.
4. To order numbers to 20.
5. To say the number that is one more or one less than a number (with most numbers to 20)
6. To add groups of objects together and find the total by 'counting all of the objects' and then by 'counting on from the biggest group of objects' (with up to 9 objects in each group)
7. To subtract (take away) some objects from a larger group of objects and find out how many are left (with up to 10 objects)
8. To solve problems, by doubling, halving and sharing (with up to 10 objects)

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1. To say numbers in order to 20 by counting forwards and backwards.
2. To count objects by touching and/or moving them up to 20.

Focus on numbers 1-10 first, then to 20.



Activities:

- Sing number songs together, such as 'One two three four five, once I caught a fish alive'. If you are unfamiliar with number songs, have a look on 'You Tube' (there are some links on the last page).
- Chant numbers forwards (and then backwards) whilst walking to school or during a car journey.
- Count the steps as you climb them or count how many jumps you can do on the ground or trampoline.
- Count the parked cars as you walk past them on a road or car park.
- Count the items of shopping out of the bag, line them up and then count back.
- Check how many clothes are hanging on the washing line by counting them. Count back from that number.
- Empty the coins in your pocket/purse and ask your child to find out how many coins there are.
- Count fingers and toes during bath time, and then count back.
- Line up toys, such as teddies, dolls, and cars. Count them and then count back.
- Count wheels on lots of toy cars, legs on lots of teddies, etc.

*Remember, when counting objects, make sure your child touches each object to develop accurate counting skills.

3. To recognise numbers to 20.

4. To order numbers to 20.

Your child will have learnt numbers of personal significance first, such as the



Vocabulary

Count

Number names (one , two, three...eighteen, nineteen, twenty)

Order

Put/place them in order

Place

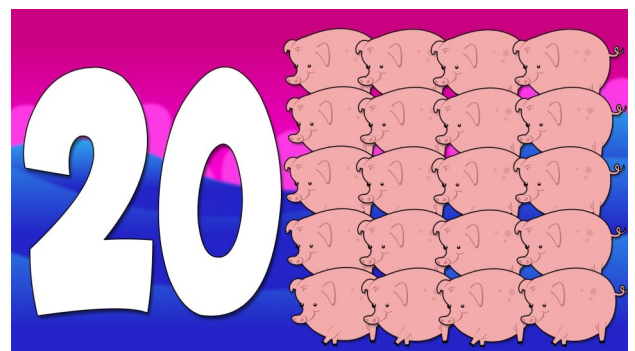
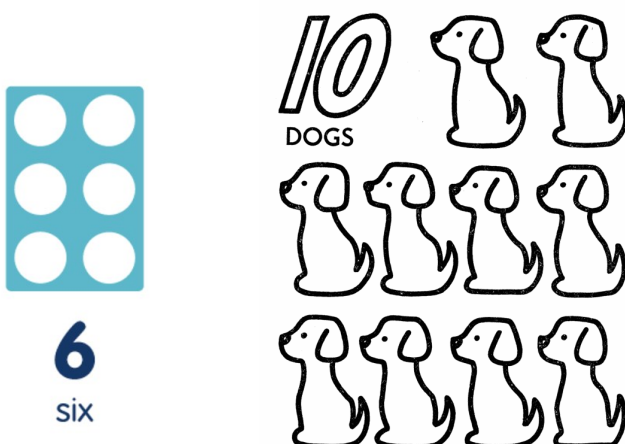
What number comes first? Next? After? Before?

Show me how many things go with number ...?

number(s) on your front door and their age. Teach your child numbers 0-10 first until they are secure with these. Then teach them 11-20, which are more difficult to learn, understand and remember. Talk about the shapes of the numbers. For example, number one is a straight line. Number nine has a round loop and a straight line.

It is important to remember that children need to learn the number names but also what each number represents and what each number means.

For example:



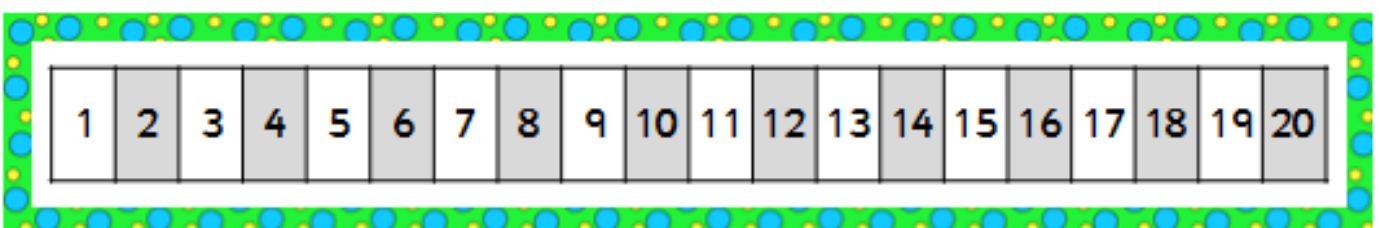
See the next

page for 'activities'.

Activities:

- Look out for numbers in your home (clocks, telephones, TV remotes, etc.) and when you are out and about (road signs, number plates, door numbers). Say, "I wonder what numbers are on that number plate?" Play, 'Eye Spy with my little eye, a number on the red door'.
- **Favourite things:** Write numbers and stick them onto your child's toys with sticky tape. If your child doesn't want you to do this, stick numbers on cupboard doors and drawers. Ask your child, "What number is on...?" "Can you find number 10?"
- **Hide and Seek:** Ask your child to close their eyes and count to ten or twenty whilst you hide numbers, written on small pieces of card, around the room, down the side of the sofa, in the toy box, etc.
- **Musical Numbers:** Dance to music. When the music stops, you and your child have to find a number and say what it is. These could be numbers you have hidden prior to the game or numbers that are already in your home environment.
- **Chalk numbers:** Write numbers on the ground outside with chalk. Ask your child to jump or bounce a ball on onto different numbers.

Once your child recognises numbers, ask them to put them in order. A tip for checking what numbers your child recognises is to make sure they are mixed up, like in the picture, as children can trick us into knowing them but instead they are 'counting/saying the number names in order'.



5. To say the number that is one more or one less than a number (with numbers to 20)



*First children need to understand the language 'more' and 'less'.

Vocabulary

More	One more than	Tell me the number that is one more than...?
Less	One less than	Tell me the number that is one less than...?
One more	Find one more than...?	
One less	Find one less than...?	

*Then they need to know what happens to an amount of 'things' if one is added (one more) or one is taken away (one less). We teach this by using real objects (not numbers until they can do this with objects).

Activities:

- **Setting the table for dinner time:** Ask your child, "I have put three plates out but need one more for dad. How many with one more?" or "I have set the table but have put 5 plates out and need to put one away" "How many with 1 less?"
- **Buttons:** Ask your child, "I have done 6 buttons on your coat but there is one more left to do. What is one more than 6."
- **Raisons:** Ask your child, "You have 9 raisons left, please can I have one?" "How many will be left?" "What is one less than 9?"

*Once children have got this, move on to objects to 20.

*Once they recognise numbers, using a number track like below,, ask you child, "What is one more than...?" and "What is one less than...?"



6. To add two groups of objects together and find the total by 'counting all of the objects' and then by 'counting on from the biggest group of objects' (with up to 9 objects in each group)

Activities:

Use your child's own toys or household objects that are safe and interesting

Vocabulary

Add	Count	Equals	How many altogether?
Plus	Count on	Make	Add the groups together.
And	Altogether	Biggest group/set	What is the total?
More	Total		Count on from the biggest number

to your child, such as buttons, ice lolly sticks or drinking straws, for adding. Children need to be able to touch and move the objects. Below is the process.

*First, children need to understand that there are two groups of objects.

*Children need to count how many are in each group first and then count the total amount.

For example:

Adult: "How many cars?"

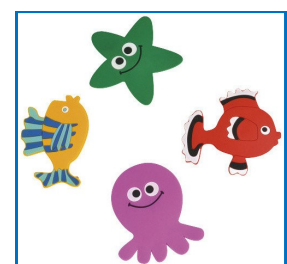
Child: "1,2,3,4,5...there are 5 cars."

Adult: "How many sea animals?"

Child: "1,2,3,4...there are 4 sea animals."

Adult: "How many altogether?"

Child to push objects together and count: "1,2,3,4,5,6,7,8,9...there are 9 altogether."



*Once they know how to do this securely, they need to add the two groups together by counting on from the biggest number (see details on the next page).

'Counting on' from a number means the children do not count all of the objects, instead they 'count on' from one group, the biggest group, to find the total.

For example:

Adult: "How many cars?"

Child: "1,2,3,4,5...there are 5 cars."

Adult: "How many sea animals?"

Child: "1,2,3,4...there are 4 sea animals."



Adult: "Can you count on from the biggest group to find the total?"

Child: "5...6,7,8,9 " "The total is 9."

'Counting on' is a skill children need lots of practice with.

7. To subtract (take away) some objects from a larger group of objects and find out how many are left (with up to 10 objects)

Activities:

Use your child's own toys or household objects that are safe and interesting

Vocabulary

Subtract	Fewer	There are (number). Subtract (number). How
Take away	Leave	many left?
Minus	Left	
less		

to your child, such as buttons, lolly sticks or drinking straws, for subtracting. Children need to be able to touch and move the objects. Below is the process.

*First, children need to understand that there is one group of objects.

*Children need to know and understand the language 'take away' and 'subtract'.

*Next, they need to 'subtract' an amount of objects from the group of objects and count how many are left. For example:

Adult: "How many cars?"

Child: "1,2,3,4,5,6,7,8...there are 8 cars"

Adult: "There are 8 cars. Can you subtract 2 and tell many how many are left?"

Child moves two cars away and counts how many are left.

Child: "There are 6 left."

Adult: "So, 8 subtract 2 is 6", and child to repeat.



8. To solve problems, by doubling, halving and sharing (with up to 10 objects)

Vocabulary

Doubling:	Double	Add	Same	Amount	Again
Halving:	Halve/half	Split	Take away	Subtract	
Sharing:	Share	Fair/Equal			

Doubling, halving and sharing are not as difficult as they sound. They are number concepts that should only be taught if the children have had experience of adding and subtracting. Real objects need to be used so that children can move them.

Doubling

First, children should experience doubling with dice, dominoes and using their fingers. They need to know and understand that doubling means 'to add the same amount again'. This needs to be modelled to them.

Activities:

- Roll the dice. Double it by adding the same number of spots using another dice.

Double 4 is 8.



- Look at the red spots   on one side of a domino.

- Double it by finding the same number of spots on another domino.



Double 3 is 6.



Once the children have experienced some doubling, the next step is to problem solve by doubling.

For example:

Adult: "The teddy has 2 apples but needs to double the number of apples."

Child is to add  two  more apples and count the total.

Child: "The
is 4."



  teddy has 4 apples. Double 2

Halving

First, children should experience halving by using their fingers and other simple objects such as counters. They need 'halving' to be modelled to them and learn that halving, in terms of 'number', means 'to split the number of objects into two equal groups.'

Halving can be modelled like this:



"We have 4 spots. I am going to keep half and give half to you."

Once the children have next step is to problem

For example:



experienced solve by halv-



some halving, the ing.



Adult: "There at the picnic. A pink teddy." are there?"



are two teddies brown teddy and "How many apples



Child counts the apples: "There are 6 apples."

Adult: "Can you give half of the apples to the brown teddy and half of the apples to the pink teddy?"

Child to give 3 apples to each teddy: "They have 3 apples each."

Sharing

Children have a lot experience of sharing at school and are encouraged to 'share' to make it 'fair'. For example, when having their fruit, children notice there isn't enough fruit for everyone as two children do not have any. They work out that two more pieces of fruit are needed.

Therefore, most language, such as



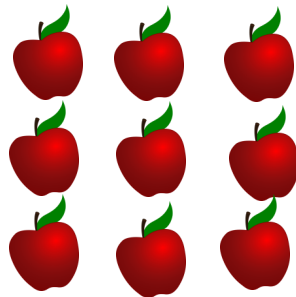
children have already experienced 'share', 'sharing', 'fair' and 'unfair'.

The next step is to problem solve by sharing.

For example:

Adult: "How many at the picnic?"

Child counts the
"There are 3 bears."



bears

bears:

Adult: "How many apples are there?"

Child counts the apples: "There are 9 apples."

Adult: "Can you share the apples fairly between the bears?" "Make sure they all have the same amount."

Child moves the apples to the bears until each bear has the same amount.

Child: "They have 3 each."





Website links

You Tube



Count to 10:

<https://www.youtube.com/watch?v=uGL7xYEVeaY>

Count to 20 (exercise workout with Jack Hartmann):

<https://www.youtube.com/watch?v=OVLxWIHRD4E>

Count to 100 (exercise workout with Jack Hartmann):

<https://www.youtube.com/watch?v=IXP47uZJ8qc>

Count to 100 (exercise workout with Jack Hartmann):

<https://www.youtube.com/watch?v=OTgLtF3PMOc>

Counting backwards from 10:

<https://www.youtube.com/watch?v=Sqm-kFNaw8c>

Counting backwards from 20:

https://www.youtube.com/watch?v=srPktd4k_O8

Various Numtum number games and video clips:

<http://www.bbc.co.uk/cbeebies/shows/the-numtums>