# How to Help Your Child with Numeracy

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Purbrook Infant School

# How to Help Your Child with Numeracy

## Early Years Foundation Stage Framework

- Your child will be learning skills, acquiring new knowledge and demonstrating their understanding through **7 areas of learning and development.**
  - Communication and language
  - Physical development
  - Personal, social and emotional development
  - Literacy
  - Mathematics
  - Understanding the world
  - Expressive arts and design

# How to Help Your Child with Numeracy

## Early Years Foundation Stage Framework

- Expected levels that your child should reach at age 5, usually the end of the reception year.
- These expectations are called the **“Early Learning Goals (ELGs)”**
- **Early Learning Goals** for numeracy are broken into two parts
  - **Number**
  - **Shape, Space and Measure**

# How to Help Your Child with Numeracy

## **Number** – Early Learning Goals

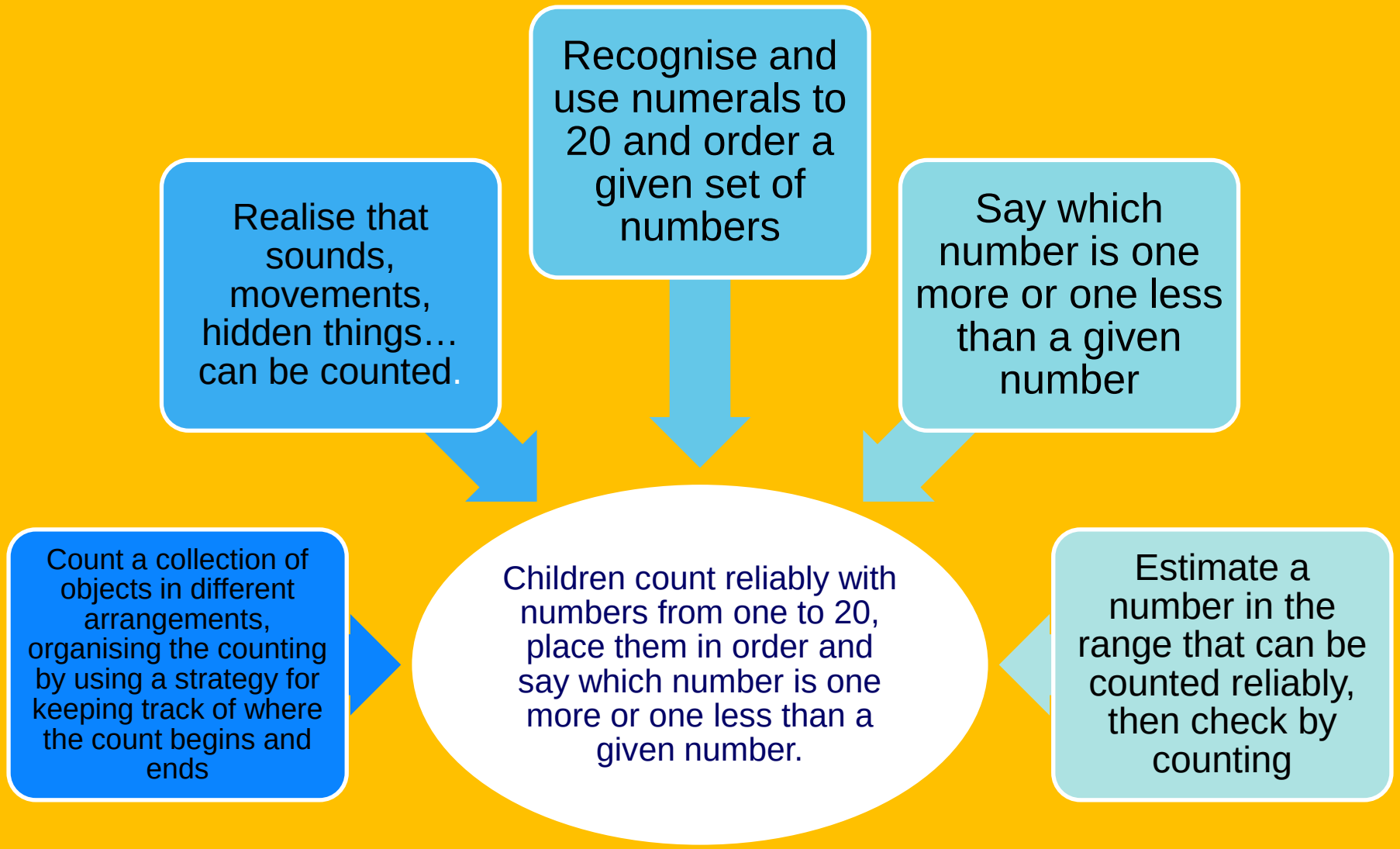
- Children count reliably with numbers from one to 20, place them in order and can say which number is one more or one less than a given number.
- Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.
- They solve problems, including doubling, halving and sharing.

# How to Help Your Child with Numeracy

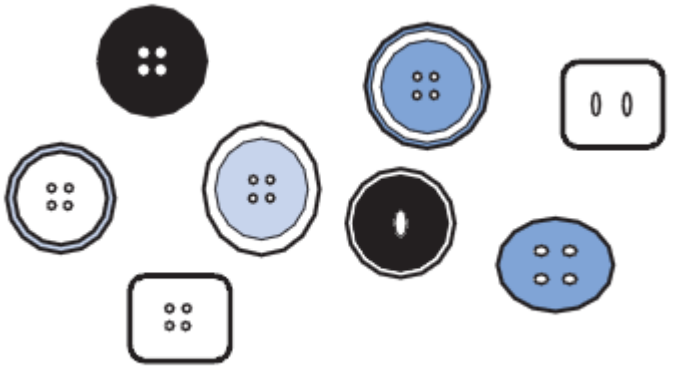
## **Shape, Space and Measure** – ELGs

- Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and when problem solving.
- They recognise, create and describe patterns.
- They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

# Number


Recognise and use numerals to 20 and order a given set of numbers
Realise that sounds, movements, hidden things… can be counted.
Say which number is one more or one less than a given number
Count a collection of objects in different arrangements, organising the counting by using a strategy for keeping track of where the count begins and ends
Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number.
Estimate a number in the range that can be counted reliably, then check by counting

Count a collection of objects in different arrangements, organising the counting by using a strategy for keeping track of where the count begins and ends



Give one and only one number name in **one-to-one correspondence** with each object.
For example, count the number of:

- tiny things you can pack in a matchbox;
- shoes on a shoe rack
- pieces in the jigsaw
- peas that you find in different pods
- penny coins in a piggybank
- letters in their name
- times you can bounce or catch a ball

Can you put eleven cows into the field

Spot mistakes
Eg The child counts the same object twice or repeats the same number

Realise that sounds, movements, hidden things… can be counted.

How many fish are in the fish tank?

Start to count moving objects

How many windows does that house have?

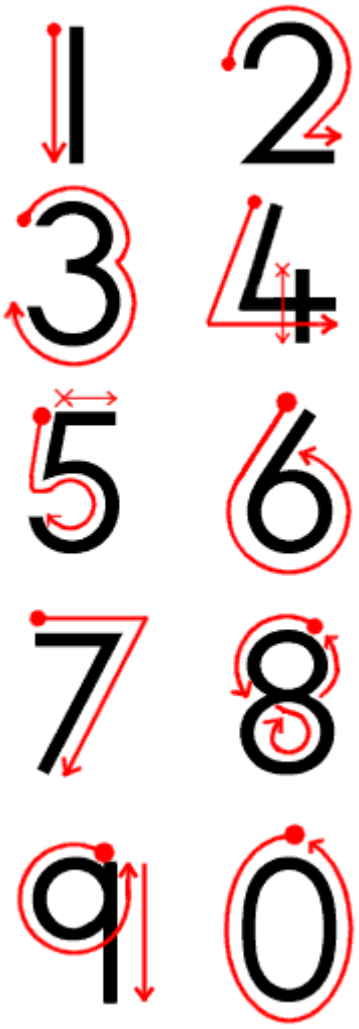
Start to count objects that are far away

Count evenly spaced or regular claps or drum beats, first with eyes open to watch, then with eyes closed.

- Count pairs of claps or drum beats
- Count the sounds in repeated rhythmic patterns such as: tap, tap, pause, tap…
- Count the number of times you skip with your skipping rope
- Count the number of times that I jump
- Count how many big strides you take across the room…

Point to the number five

Recognise and use numerals to 20 and order a given set of numbers



Match collections of real objects, then pictures of collections of things, to numbers.

- Match numbers to dot patterns: for example, in home-made dominoes, in jigsaw pieces, in pairs of dice, one with dots, one with numerals…
- Point to each number on individual grids of numbers to 30, and say them together.
- Point to 8 on a clock face, in this pack of shuffled cards, on a calculator key-pad, on the 'shop' till, on the telephone, on the computer keyboard, etc.

| | | |
|---|---|---|
| 2 | 8 | 9 |
| 5 | 1 | 3 |
| 6 | 4 | 7 |

What are the missing numbers?

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | 3 | 4 | | 6 | 7 | | 9 | |

There are 9 children.
1 goes out.
How many are left?
(Say together: 8 is 1 less than 9.
9 take away 1 is 8.)

Say which number is one more or one less than a given number

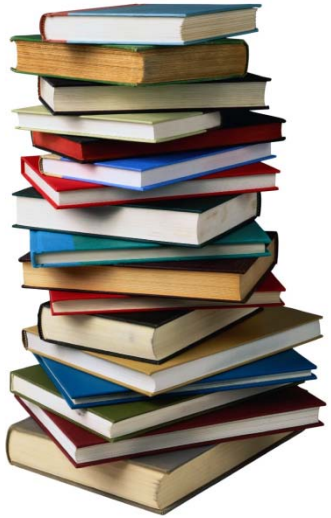
There are 3 people on the bus.
1 more gets on.
How many are on the bus now?
(Say together: 4 is 1 more than 3. 3 add 1 is 4.)

Which number comes before 10?
Which number comes after 3?
Which numbers are next to 12?
Which number is one more than 7? Than 14?

Begin to understand and use in practical contexts:
guess how many, estimate…
nearly, close, about the same as, just over, just under…
too many, too few, enough, not enough…

Estimate a number in the range that can be counted reliably, then check by counting

Guess the number of books in the pile
Now count them to see if your right




Estimate how many marbles, counters, dried peas, matchsticks, small balls of cotton wool, wooden cubes… there are in a lidded tin when you shake it.
When everyone has guessed, look in and count.
Why did you choose your number?

# Number

Begin to relate addition to counting on

Begin to use the vocabulary involved in adding and subtracting

Begin to relate subtraction to ‘taking away’,

and counting how many are left

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

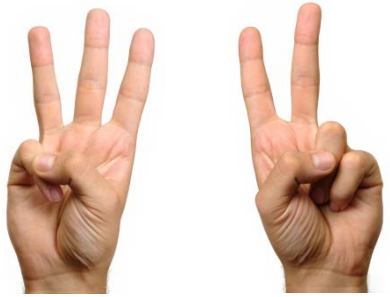
Begin to use the vocabulary involved in adding and subtracting

Through practical activities and discussion, begin to understand
and use the vocabulary of addition and subtraction:

a. in practical contexts, using objects;
b. by modelling with apparatus;
c. by modelling with fingers.

more, and, add, make, sum, total, altogether, score…
take away, leave, how many are left?…
how many are gone?
one more, two more… one less, two less…
how many more to make …?
how many more is … than …?
how many less is … than …?
difference between…

Count out 4 cakes. Count out 3 cakes. How many cakes altogether? Count all the cakes.
(Count: 1, 2, 3, 4… 1, 2, 3…
Altogether there are: 1, 2, 3, 4, 5, 6, 7.
Say together: 4 add 3 is 7.)



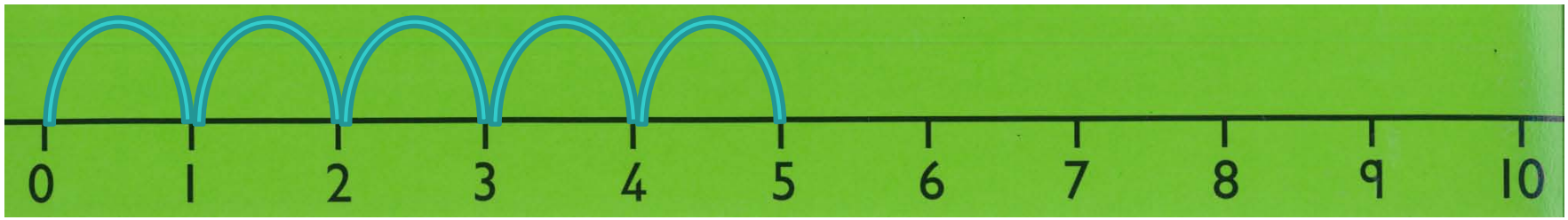
Show me 3 fingers on your right hand.
Show me 2 fingers on your left hand.
How many fingers showing altogether?
(Count: 1, 2, 3… 1, 2… 1, 2, 3, 4, 5.
Say together: 3 and 2 is 5.)

Show 2 fingers on one hand, then put them behind your back.
Show 3 more fingers on the other hand.
How many fingers altogether?
(Count on 3 from the hidden 2: 3, 4, 5.
Say: 2 add 3 is 5.)

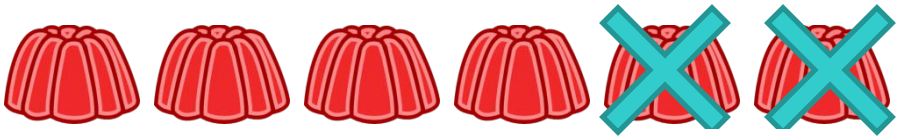
# Begin to relate addition to counting on

Count 4 beans into a tin with a lid on.
Emphasise that there are 4 beans in the tin.
Label the lid with 4.
Put 3 more beans on the table.
How many beans altogether?
(Count on 3 from the hidden 4: 5, 6, 7.
Say together: 4 add 3 is 7.)


Make a hop of three spaces on the number line.
Now hop two more. Where are you now?
(Count on 2 from 3: 4, 5. Say together: 3 add 2 is 5.)

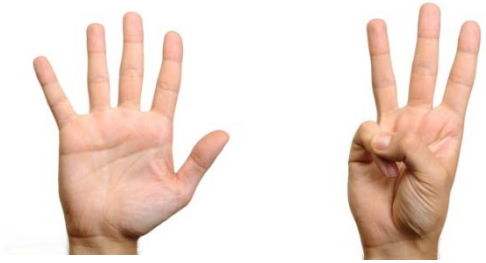


We ate 2 of our 6 jellies.
How many jellies are left?
(Count: 1, 2, 3, 4, 5, 6. Take away 1, 2… 1, 2, 3, 4 left.
Say together: 6 take away 2 is 4.)



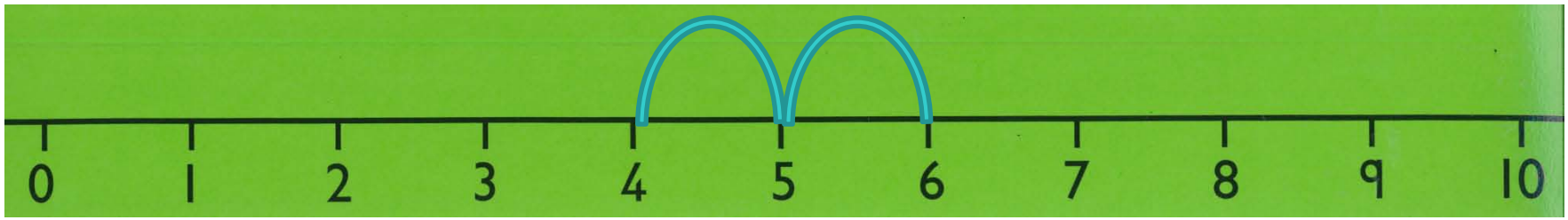
Begin to relate subtraction to 'taking away',

and counting how many are left



Show 5 fingers. Hide 2 fingers.
How many fingers are left
(Count: 1,2,3,4,6. Take away 1,2...1,2,3 left)

We made 6 mince pies.
We ate 2 of them.
How many pies are left?
(Count back 2 from 6: 5, 4.
Say together: 6 take away 2 is 4.)



# How to Help Your Child with Numeracy

## Take home messages

- Try to make maths as practical as possible
- Make maths fun, play games such as snakes and ladders, ludo, dominoes etc.
- Link maths to real life experiences. It is important that children see why they need maths