Maths in the early years

SALTFORD PRIMARY SCHOOL
27TH APRIL 2018
SARAH SAVAGE
This evening’s session will include...

- How children learn number
- The Early Learning Goals
- Supporting your child(ren) at home
Any questions?
Understanding number

DEVELOPING NUMBER SENSE
A new way of counting!

You have 20 seconds to memorise this way of writing numbers.

(P.S You can’t write anything down!)
Task

Write this number using the numeric system you just tried to remember

1 8 7 2 5
### Making connections

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Bet you can now!

35,927
How can we support children in understanding mathematical concepts?
Numberblocks - CBeebies
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NCETM Mastery CPD materials
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Resources and approaches used in school

- Songs
- Exploring through play
- Numicon
Step 1 - The play stage

Making pictures
Play dough
Sand
Paint
Drawing round
Counting
Step 2 - Structure

With a partner make a number line 1-10 using the shapes.
Step 3 – Linking the counting with structure
Step 4 – ‘Read’ numbers and patterns

Step 5 – Generalising

e.g. 3 + 6 = 9
The Early Learning Goals

Expectations by the end of the Reception year
Numbers

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. 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.
Varied fluency
NCETM Mastery CPD materials
Adding and subtracting

If $a = 1$, $b = 2$, ..., $Z = 26$, find the following totals and express them as letters.

$b + e = ?$

$g + c = ?$

$j - a = ?$
Adding and subtracting

If a = 1, b = 2,... Z = 26, find the following totals and express them as letters.

\[ b + e = g \]
\[ g + c = j \]
\[ j - a = i \]
3 + 4

NCETM Mastery CPD materials
Variation: Showing different representations provides learners with opportunities for deeper understanding.

These are all doubles. True or false?
Convince me.
Early Learning Goals

Shape, space and measure

Children use *everyday language* to talk about *size, weight, capacity, position, distance, time and money* to compare quantities and objects and to solve problems. They recognise, create and describe *patterns*. They explore characteristics of *everyday objects and shapes* and use *mathematical language* to describe them.
## Significant jump by the end of Year 1

### Number - Place Value
- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- given a number, identify one more and one less
- identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- read and write numbers from 1 to 20 in numerals and words.

### Number – Addition and Subtraction
- read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7=?-9

### Number – Multiplication and Division
- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

### Number - Fractions
- recognise, find and name a half as one of two equal parts of an object, shape or quantity
- recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.
Supporting at Home
Maths Vocabulary

**Counting and recognising numbers**

COUNTING

number

zero, one, two, three... to twenty and beyond zero, ten, twenty... one hundred

none

how many...?

count, count (up) to count on (from, to) count back (from, to) count in ones, twos... tens... more, less, many, few odd, even every other how many times?

pattern, pair guess how many, estimate nearly, close to, about the same as just over, just under too many, too few, enough, not enough

**COMPARING AND ORDERING NUMBERS**

the same number as, as many as

Of two objects/amounts: greater, more, larger, bigger less, fewer, smaller

Of three or more objects/amounts: greatest, most, biggest, largest least, fewest, smallest one more, ten more one less, ten less

compare order size first, second, third... tenth last, last but one before, after next between above, below
Addition and Subtraction Vocabulary

add, more, and make, sum, total altogether
score double one more, two more, ten more...
how many more to make... ?
how many more is... than...?
take (away), leave how many are left/left over?
how many have gone?
one less, two less... ten less... how many fewer is... than...?
difference between is the same as
The language of growth mindset

Keep trying. You can do it!

Praise the effort, the process and their journey rather than their speed or an accurate answer.

Remember: It’s ok to get things wrong. That’s what helps us learn.

https://www.bbc.co.uk/cbeebies/grownups/help-your-child-try-new-things
https://www.bbc.co.uk/cbeebies/grownups/help-your-child-with-maths

Maths is fun!