



Aims of this session:

- Number bonds: Understand what a number bond is and how we teach them.
- Addition and subtraction: understand how we use different methods and models.





Develop fluency

Number fluency - knowing and recalling facts.

<u>Procedural fluency</u> - knowing which method is needed when solving calculations and the ability to apply knowledge to solving problems and different contexts.

• Encourage mathematical reasoning: e.g., the children are asked to describe, explain, justify and prove their ideas and solutions.

• Children develop their problem solving skills in a variety of contexts and learn to apply their knowledge with increasing accuracy.

## Number bonds

Ability to split numbers into different parts.

This is an essential skill:

- helps with addition and subtraction.
- Can support problem solving with larger numbers.

## Subitising

Subitising is when you realise how many there are without counting. This is where you are able to recognise a number by grouping in into small sets.



For example, if you are shown a line of 6 black dots, it's likely that you will automatically group these into 2 groups of 3, and then know that there are 6 in total without actually counting each one.

#### What number can you see?

How did you know automatically?







Stem sentences are used to develop understanding.





Games



Numberblocks - Good news!



#### How did you know it was 4?







# We also explore representing numbers in different ways?





5 dice pattern



blocks

#### Frames

e.g., tens frame



5 needs \_\_\_\_\_ to make \_\_\_\_\_ .

Practical

#### representations

## Rekenrek









## Addition and subtraction

### Tens and Ones

### Partition: 45 = 40 + 5

Place value: (digit)

tens	ones

45 has 4 tens and 5 ones

#### We use a variety of resources and spend time exploring tens and ones in a number.

#### bundles of straws



## tens frames





Dienes



money



place value counters







Prepare for column addition

tens	ones
	••••

# <u>Deines - Addition/regrouping</u> 27 + 25 =



Children learn that when there are more than 10 ones they have to regroup 10 ones into a tens.

Children learn to represent this using pictures.



#### <u>Deines - exchanging</u>

## 43 - 26 =

tens	ones









Aim - efficient methods



# Please take a few minutes to complete the questionnaire.