

MATHS AND MUNCHIES

24.10.23



Howes Community
Primary School



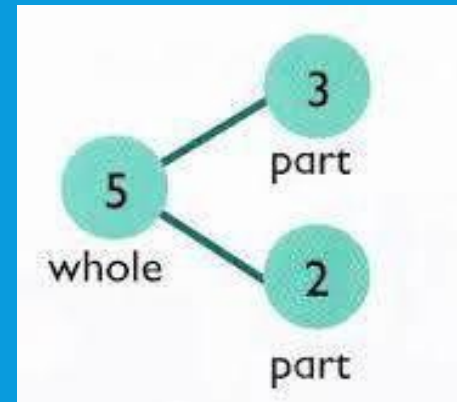
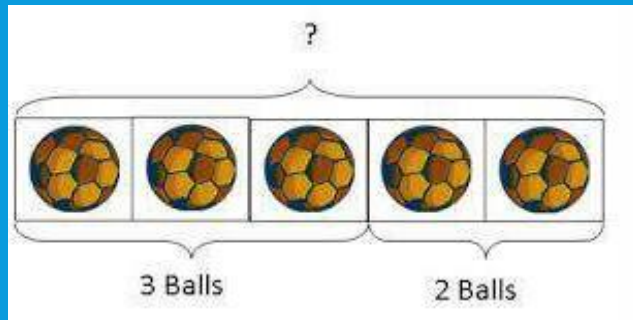
AIMS

- Give you an overview of how addition is taught from reception to year 6
- Give you ideas of ways to support your child with maths
- Give you a copy of our entire calculation policy outlining how we teach the 4 operations
- Demonstrate how we use IT apps to support maths
- Share information about statutory tests the children take in maths



OUR APPROACH

- We start children with concrete resources
- They need to feel and see the maths
- We then move on to pictorial representations of the same thing



OUR APPROACH

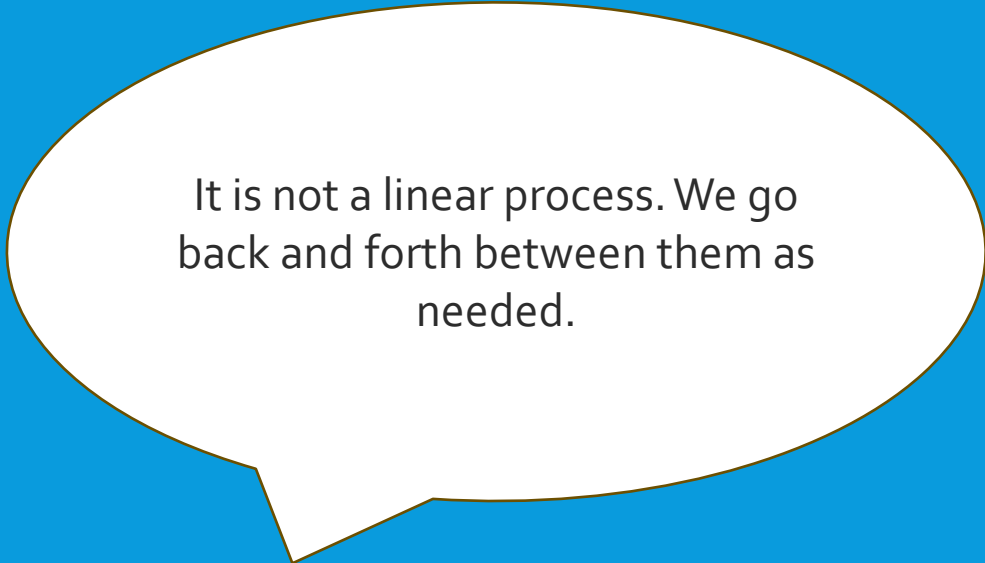
- Finally, we have the abstract

- $2 + 3 = 5$

- $3 + 2 = 5$

- $5 = 3 + 2$

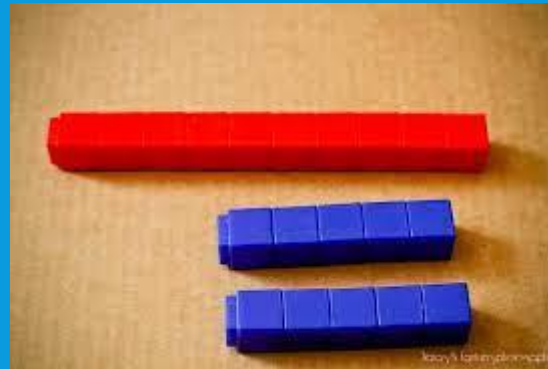
- $5 = 2 + 3$



It is not a linear process. We go back and forth between them as needed.

RECEPTION - COMPARISON

- Comparison of a group of objects
- Using the number names
- Showing an interest in larger numbers
- Estimating how many there are



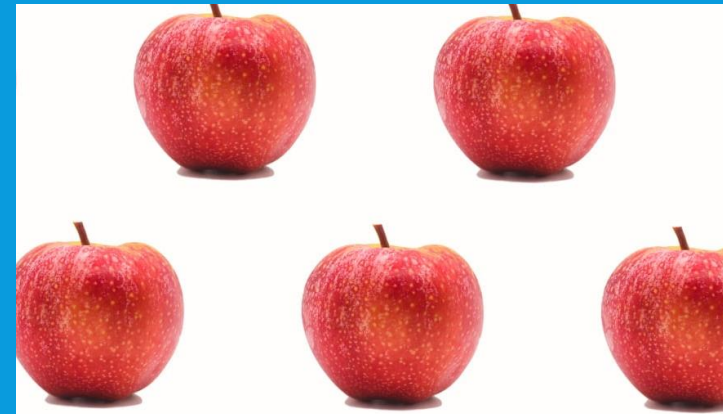
RECEPTION - COUNTING

- Counting beyond 10
- Pointing as they count
- Ensuring accuracy
- Beginning to recognise numerals 0 to 10
- Order the numbers



RECEPTION – CARDINALITY AND SUBITISE

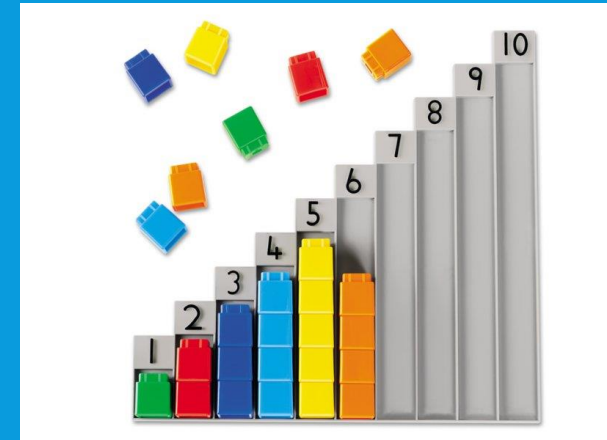
- Cardinality - Understanding how many is in a set
- Subitise – instantly recognise how many is in a set



Using your fingers:
Show me 3 and 2
Show me 4 and 4

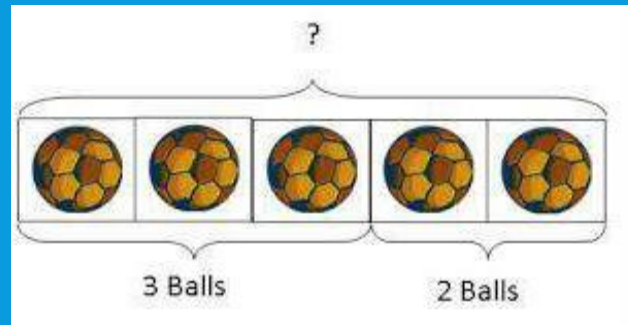
RECEPTION – COMPOSITION

- Solve real life problems
- Understand 1 more and 1 less
- Recall pairs of numbers that total 5 and some that total 10
- Use subitising of smaller numbers to begin to recognise larger numbers



YEAR 1 NUMBER BONDS

- Know pairs of numbers that total 5, 6, 7, 8, 9 and 10



$$3 + \underline{\quad} = 5$$

YEAR 1 COUNTING ON

- Count on a set amount from a given number
- Use the bead strings to add it on
- Count it on a number line
- Draw a number line to show it

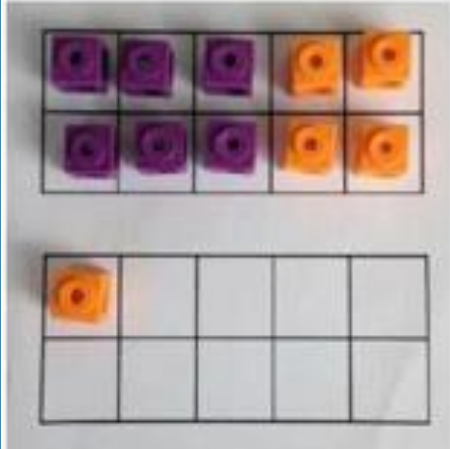


$$5 + 3 = \underline{\quad}$$



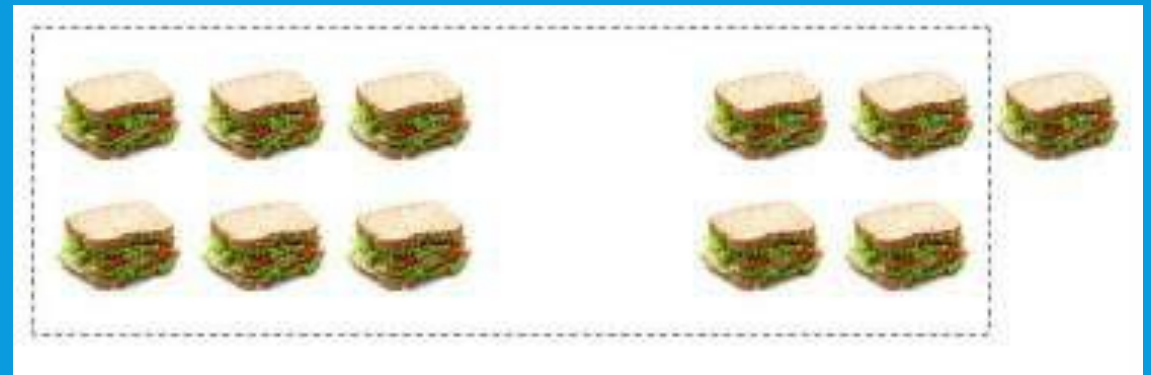
Have a go at
drawing a
number line to
answer $11 + 5 =$

YEAR 1 REGROUPING

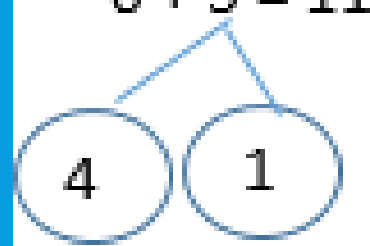


$6 + 5 = 11$

Start with the bigger number and use the smaller number to make 10.



$6 + 5 = 11$



$6 + 4 = 10$

$10 + 1 = 11$

$$6 + 5 = \underline{\quad}$$

NUMBOTS



YEAR 2 – ADDING 3 NUMBERS

$$4 + 7 + 6 = 17$$

Put 4 and 6 together to make 10. Add on 7

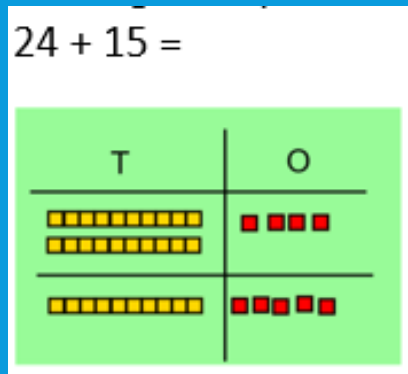


Children could draw it on a whiteboard

They could recall the year 1 method and draw it on a number line

$$\begin{array}{l} \textcircled{4} + 7 + \textcircled{6} = \boxed{10} + \boxed{7} \\ \quad \quad \quad \underbrace{\hspace{1.5cm}}_{10} \\ \quad \quad \quad = \boxed{17} \end{array}$$

YEAR 2 – COLUMN METHOD (NO REGROUPING)

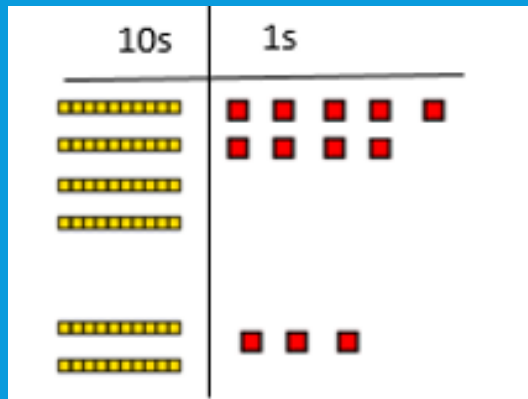


- Add the ones together first and then the tens
- No regrouping means the ones won't go higher than 9
- Next draw it on a white board
- Finally, write it as a calculation

$$\begin{array}{r} 24 \\ +15 \\ \hline \hline \end{array}$$

YEAR 2 - COLUMN METHOD (WITH REGROUPING)

- This time the ones will total 10 or more
- $49 + 23 =$
- Add the ones first, when you get to 10 exchange it for a 10 rod



- I could then go on to drawing it – Let's see what it might look like (Mrs Davies' turn)
- What about the abstract?

YEAR 2 - COLUMN METHOD (WITH REGROUPING)

Expanded method Contracted method

▪ $49 + 23 =$

▪ $40 + 9$

▪ $20 + 3$

▪ $60 + 12 = 72$

1

$$\begin{array}{r} 34 \\ +57 \\ \hline \end{array}$$

Place the numbers one on top of the other, lining up the tens and ones.

2

$$\begin{array}{r} 34 \\ +57 \\ \hline 1 \end{array}$$

Add the ones and write the answer under the ones.

3

$$\begin{array}{r} 34 \\ +57 \\ \hline 1 \\ \hline 1 \end{array}$$

Regroup any tens to the tens column.

4

$$\begin{array}{r} 34 \\ +57 \\ \hline 91 \\ \hline 1 \end{array}$$

Add the tens including any tens you've regrouped.

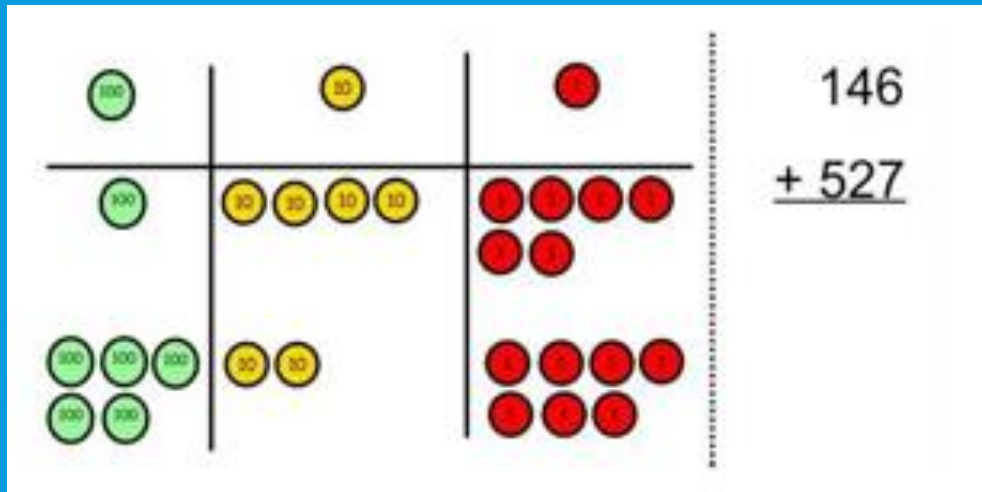
5

$$\begin{array}{r} 34 \\ +57 \\ \hline 91 \\ \hline 1 \end{array}$$

Check your answer.

YEARS 3 AND 4 – COLUMN METHOD WITH REGROUPING 3 AND 4 DIGIT NUMBERS

- Practical method



Think back to drawing it with 2-digit numbers. Have a go at drawing it for 3 digit.

Try $278 + 134 =$

YEAR 4 – USING DECIMALS IN THE CONTEXT OF MONEY

$£11.29 + £19.56$

T	Os	t	h
1	1	2	9
1	9	5	6

- The same principals as before apply.
- We can use place value counters to feel and see the maths first and then move on to pictorial and abstract methods the same as before.

Watch the video to see it in action.

YEAR 4 MULTIPLICATION CHECK

- In the spring term year 4 children complete a multiplication check
- They have to answer 25 multiplication questions up to 12x12
- It is done on line
- To prepare them for this we introduce TT Rockstars in year 2 – the natural progression from Numbots
- The expectation is they learn the following
 - Year 2 – 2, 5 and 10 times table facts
 - Year 3 – 3, 4, 6 and 8 times table facts
 - Year 4 – 7, 9, 11 and 12 times table facts



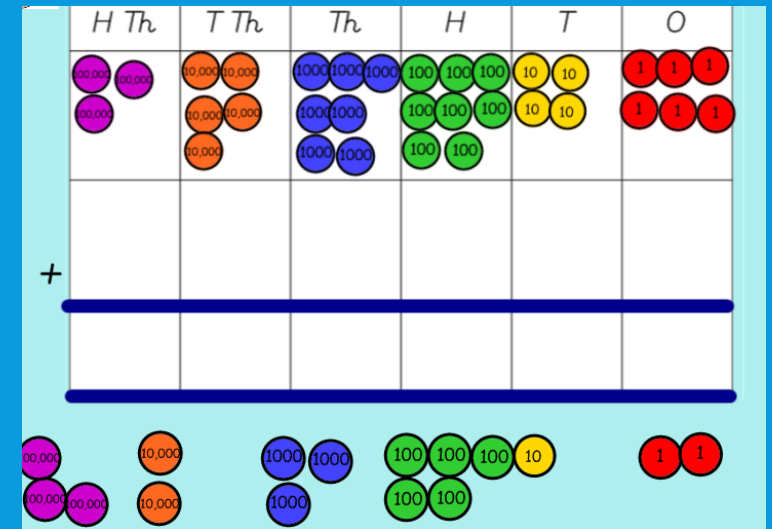
TT ROCKSTAR

- All children have a log in from year 2 up
 - The game works best played little and often
 - Teachers set challenges each week on it
 - Let's take a look on Roux's account
-
- User name: roudog
 - Password: woof



YEARS 5 AND 6 – CONSOLIDATION

- In years 5 and 6 children consolidate their existing learning and go on to add larger numbers using the same strategies
- They also use numbers that go up to 3 decimal places
- Start with the right most column
- If you get over 9 exchange
- It is still acceptable to use counters or drawings before going on to the abstract method



YEARS 5 AND 6 - LBO



Learning
by Questions

THANK YOU

- Any questions?
- We will be around if you'd rather answer them 1:1
- Please take a copy of our entire calculation policy with you

