# Galley Common Maths for parents


September 2024

# Mastering Number

- Like Phonics is to English, Mastering Number supports Maths.
- It focuses on the key knowledge and understanding of each year group's Maths' curriculum.
- It develops a solid number sense, as well as fluency and flexibility.
- It is a daily 15 minute session, using images, resources and lots of mathematical language.

# Y2 example

- https://www.ncetm.org.uk/maths-hubs-projects/mastering-number-at-reception-and-ks1
- Shows a very short excerpt.
- Shows resources, teacher lead from the front, partner talking, reasoning and learning.

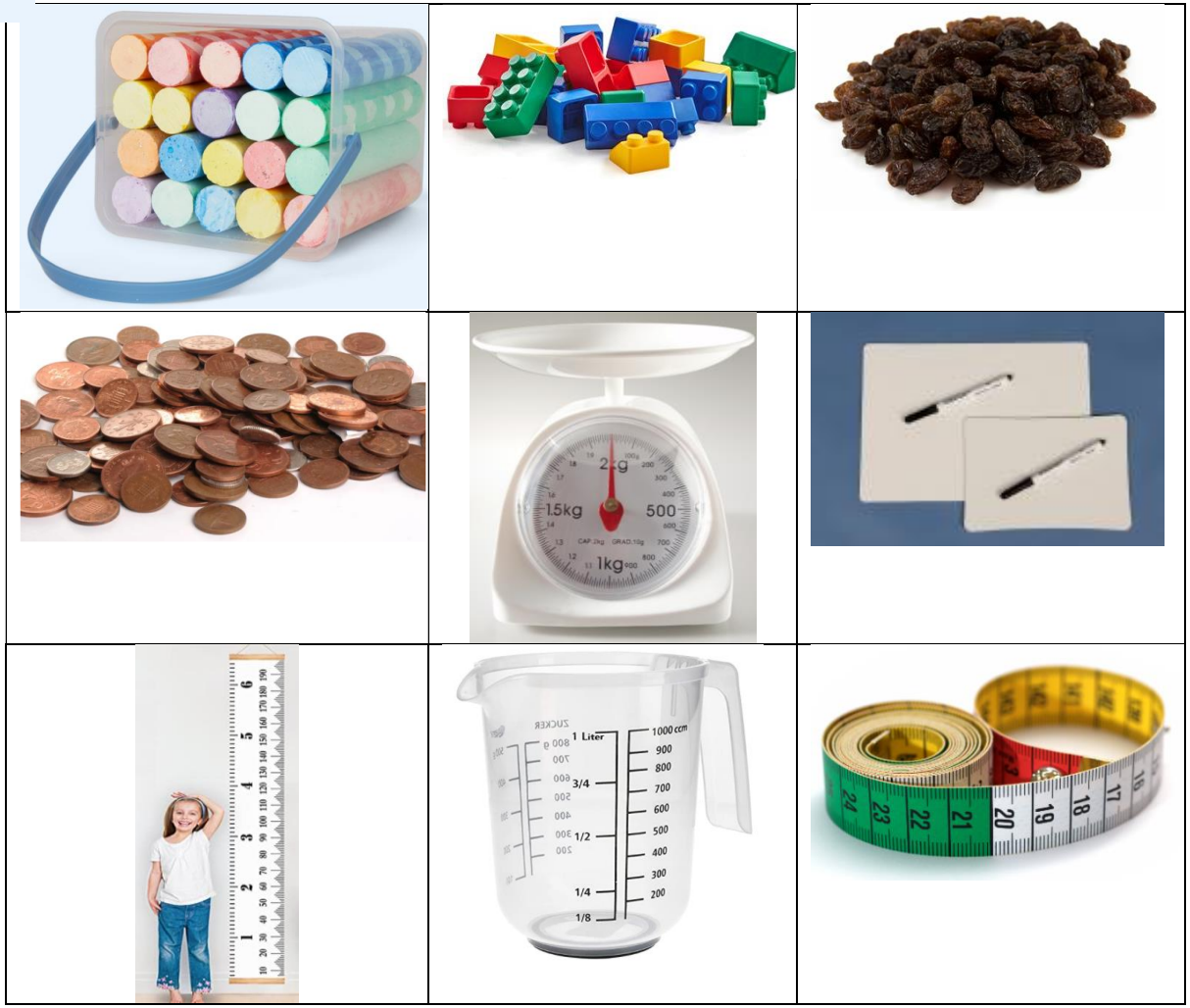
Resourcing

Representing

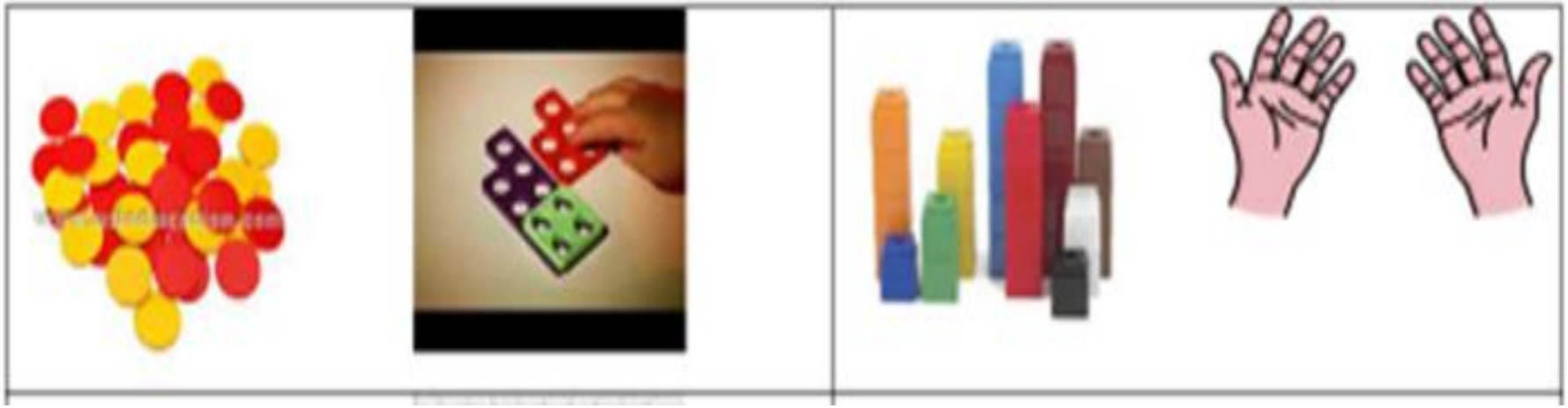
Rehearsing

Reasoning

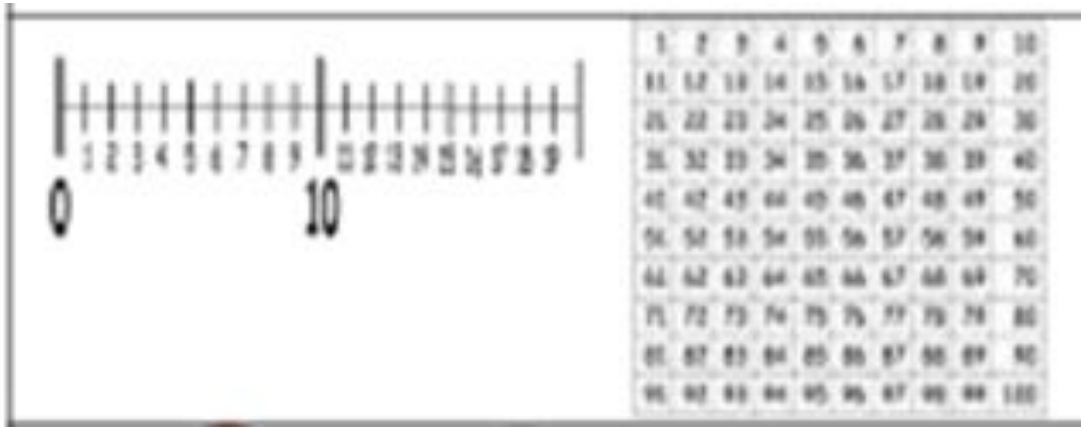
# Resourcing

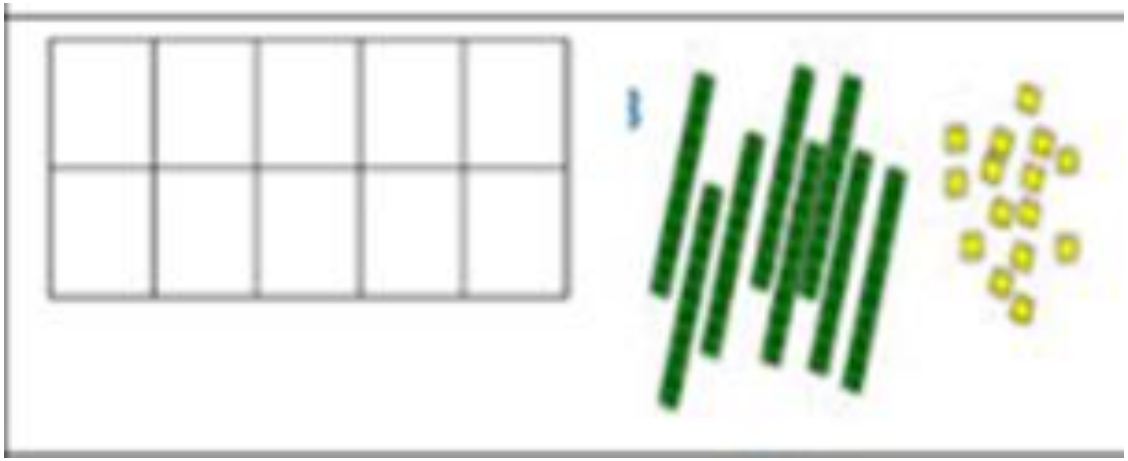

1.5kg
500
1kg
1 Liter
3/4
1/2
1/4
1/8
1000 ccm
900
800
700
600
500
400
300
200

# Resourcing

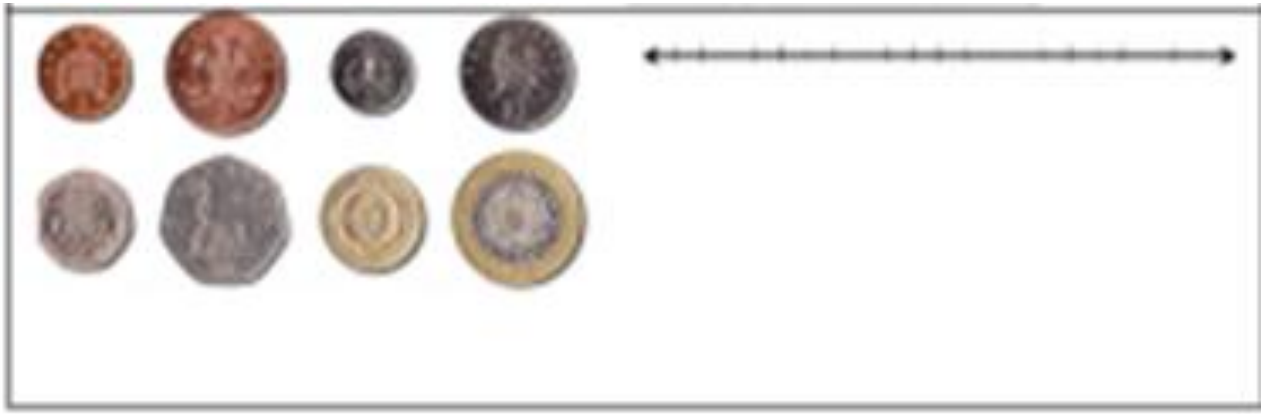


# Resourcing



# Resourcing



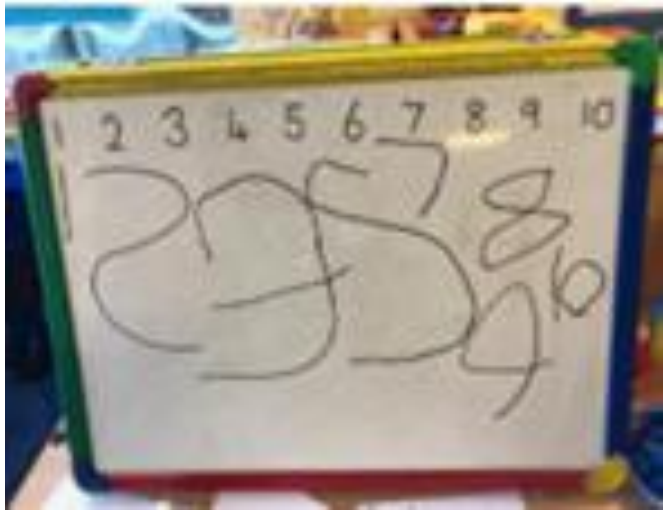
# Representing

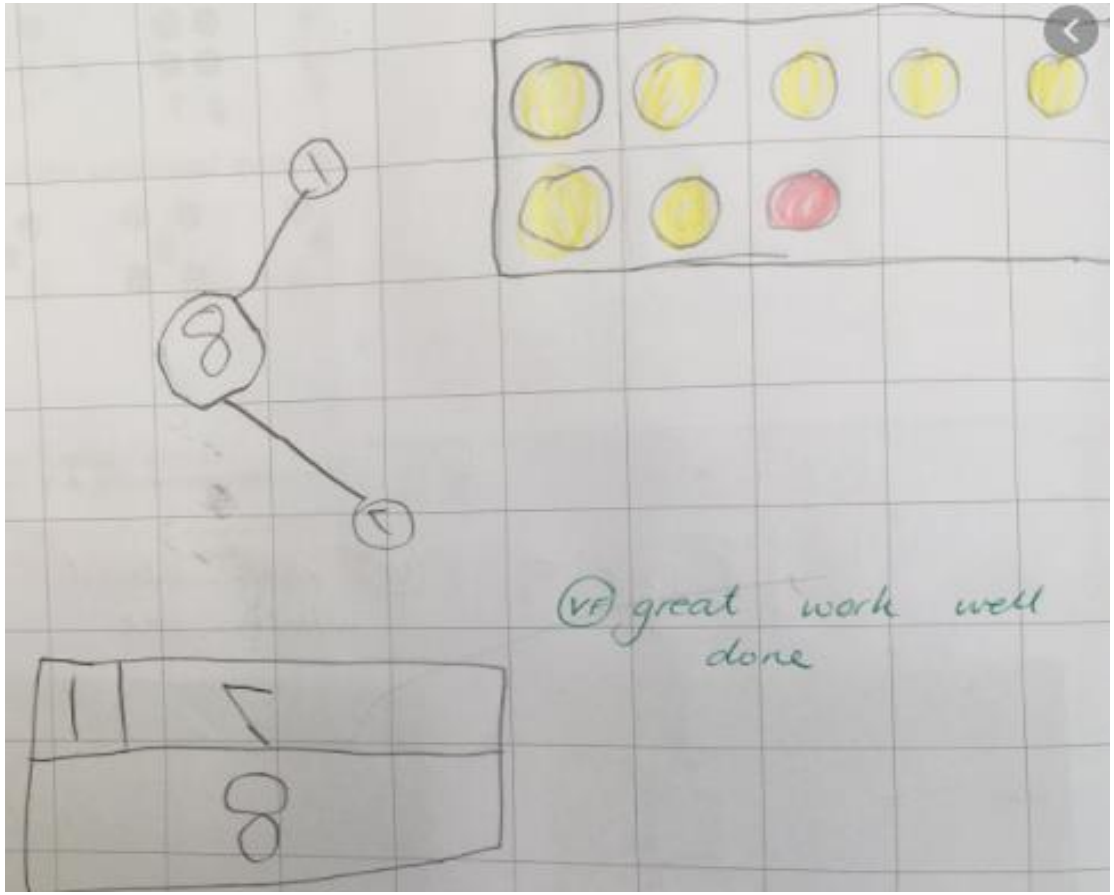
This begins with resources as we have seen.

Then children begin to also use pictures.

# Representing

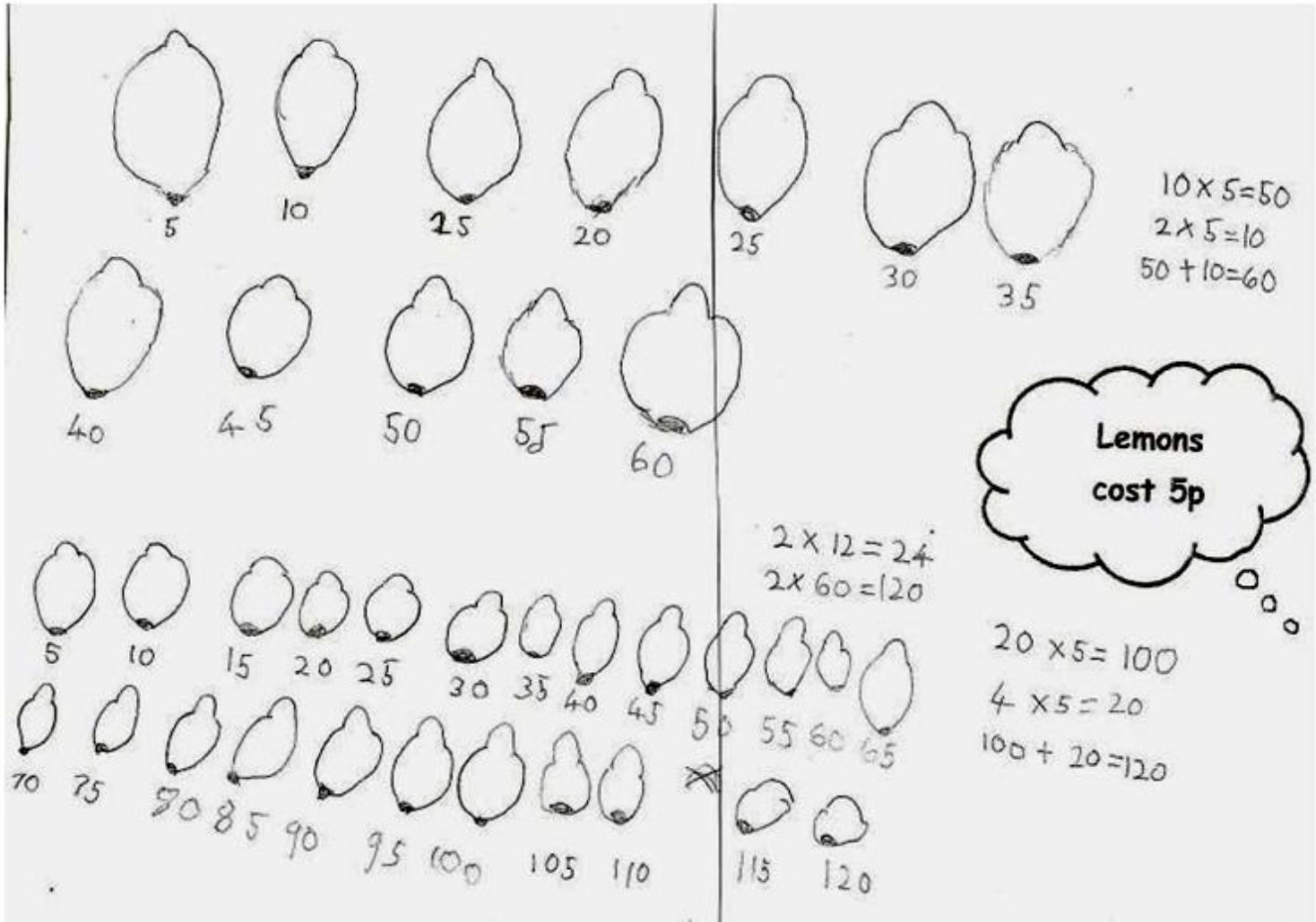
Next children add numbers or words to their drawings.



# Representing

Next, children use mathematical symbols in their representing.



# Rehearsing

Addition: largest number first

Maths worksheets from yoururbrainy.com

When adding, it's easier to start with the bigger number and add on the smaller number.
Try these:

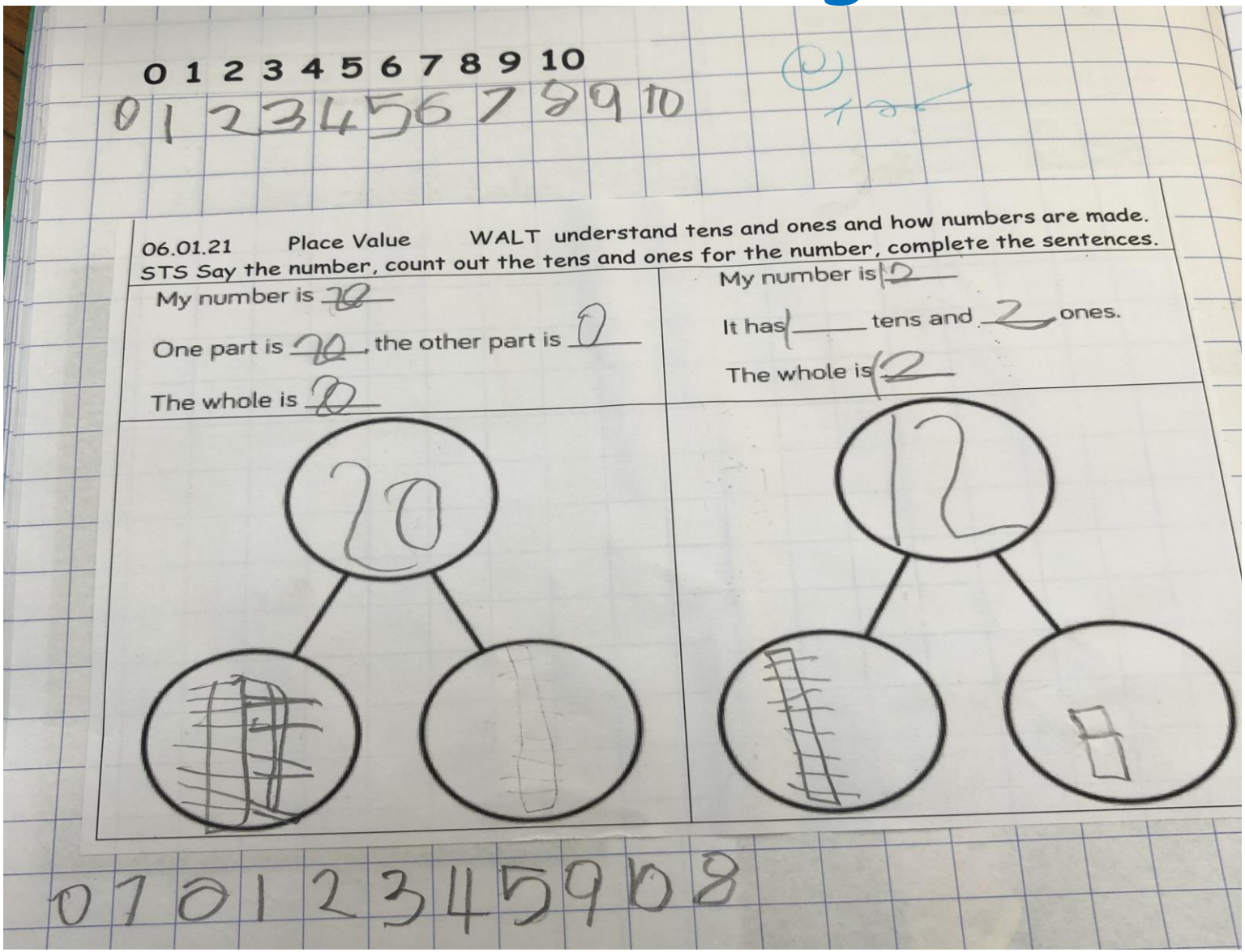
0 1 2 3 4 5 6 7 8 9 10 11 12

1. 3 + 6 = ☐ 6 + 3 = ☐

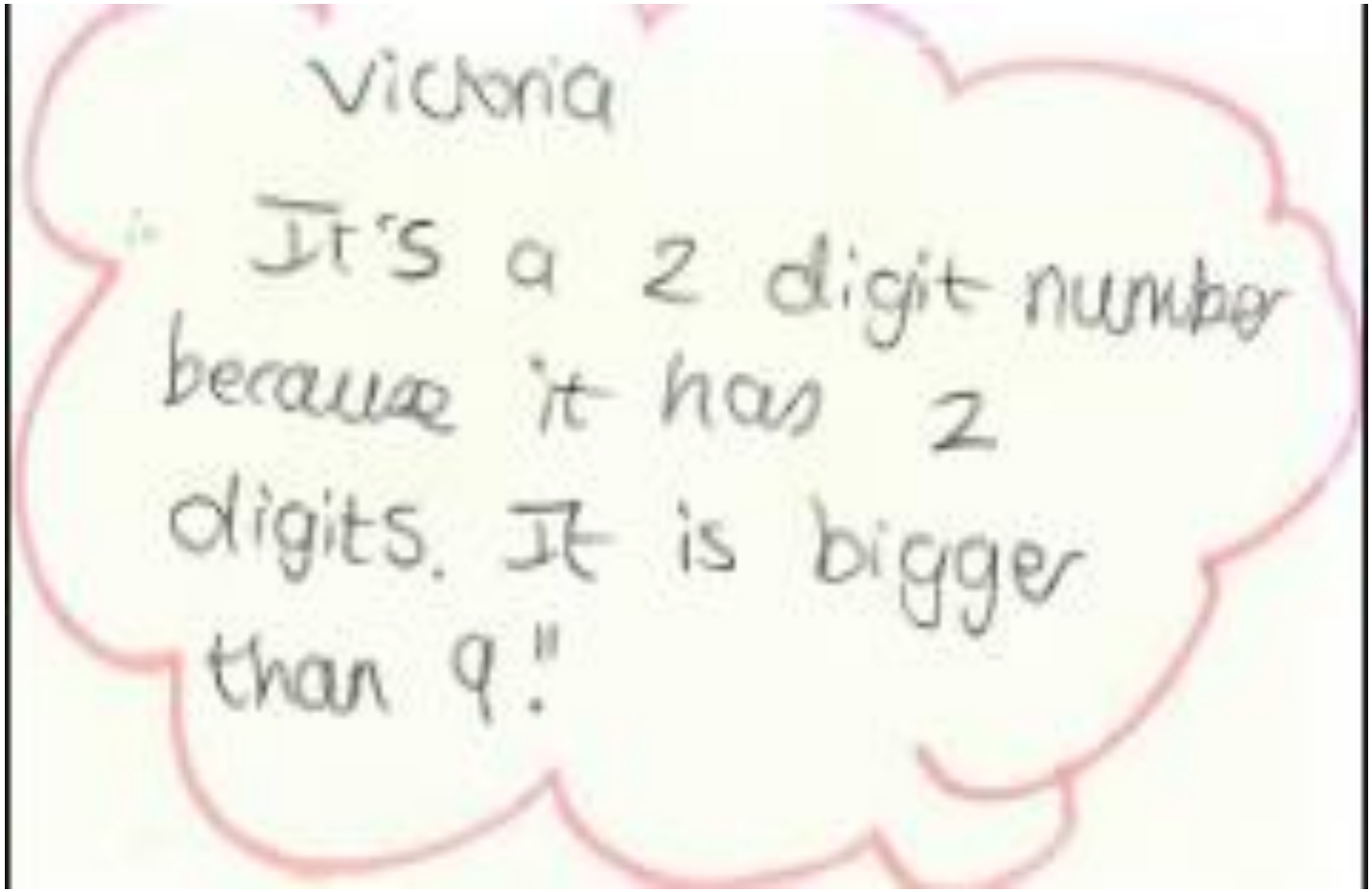
2. 2 + 7 = ☐ 7 + 2 = ☐

3. 1 + 8 = ☐ 8 + 1 = ☐

# Rehearsing


0 1 2 3 4 5 6 7 8 9 10
06.01.21 Place Value WALT understand tens and ones and how numbers are made.
STS Say the number, count out the tens and ones for the number, complete the sentences.
My number is 20
One part is 20, the other part is 0
The whole is 20
My number is 12
It has 1 tens and 2 ones.
The whole is 12
20
12

# Reasoning


Victoria
"It's a 2 digit number because it has 2 digits. It is bigger than 9!"

# Reasoning

3a. Viv thinks the arrow is pointing to 10.


Is she correct? Explain how you know.

4a. Fi is counting in 10s starting from 10.
She thinks she will land on the number 50.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Is she correct? Explain your answer.

# Reasoning

It can't be ... because ...

I noticed that...

It must be ... because ...

This is true here because ...

If ... then ...

I wonder whether ...

This is different because ...

I already know that ... so ...

This is the same because ...

I know that ... because ...

I think that ... because ...

This is always true because ...

# The Non-negotiables

# Reception

- Count reliably to 10(objects).Recite to 20.
- Order numbers 1-10
- Say 1 more/1 less to 10
- Add and subtract two single digit numbers
- Number bonds to 5 and then 10

# Year One

- Count to and across 100, forwards and backwards from any number
- Read and write numbers to 20 in digits and words
- Say 1 more/1 less to 100
- Add and subtract 1 digit and 2 digit numbers to 20
- Solve simple multiplication and division with apparatus and arrays

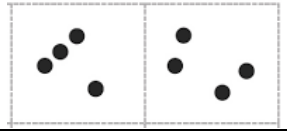
# Year Two

- Compare and order numbers up to 100
- Read and write all numbers to 100 in digits and words
- Say 10 more/less than any number to 100
- Derive and use related facts to 100
- Add and subtract: 2-digit number and ones 2-digit numbers and tens Two 2-digit numbers Three 1-digit numbers
- Calculate and write multiplication and division calculations using multiplication tables

# ADDITION

## Subitizing

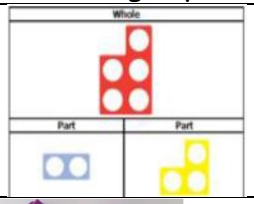
Composition of number

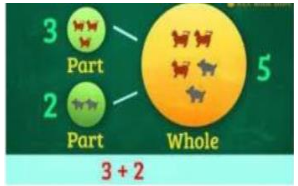


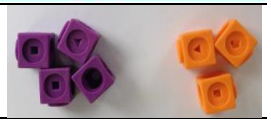
## One more than


## Part/part/whole

Combining 2 parts to make a whole.



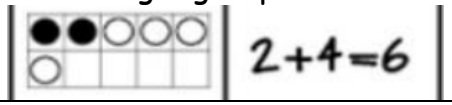



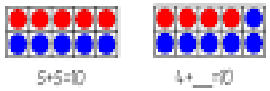
## Ten frames

Addition of single digits

Combining 2 groups




## Number bonds




## Double facts

## Y1

### + = signs and missing numbers

3 + 4 = □ □ = 3 + 4

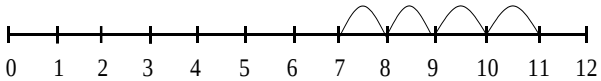
3 + □ = 7 7 = □ + 4

□ + 4 = 7 7 = 3 + □

□ + ∇ = 7 7 = □ + ∇

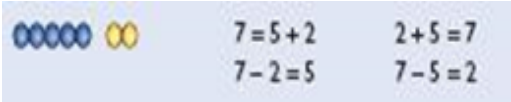
### Number lines (numbered)

7 + 4




Recording by - drawing forward jumps on prepared lines , -constructing own lines.

### Fact Families 2, 5, 7




## Y2

### Partition into tens and ones and recombine

Record partitioned steps in number sentences underneath each other and add mentally.

12 + 23 = 10 + 2 + 20 + 3

= 30 + 5

= 35

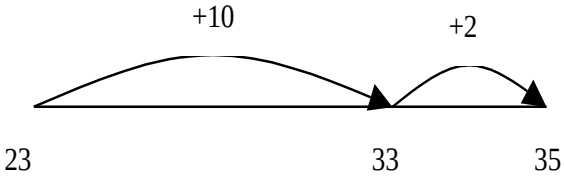
Introduce column addition without crossing the boundary.

12

+24

=

### Blank number lines




Bridge 10 whenever possible.

Bar method

| | | | | |
|---|---|---|---|---|
| 2 | 3 | | ? | 3 |
| 5 | | | 5 | |

# Useful websites

| |
|---|
| Education city<br>www.educationcity.com |
| BBC Bitesize<br>https://www.bbc.co.uk/bitesize/subjects/zrnbwty |
| Ictgames – maths<br>https://www.ictgames.com/mobilePage/ |
| Primary games arena – maths<br>https://primarygamesarena.com/Subjects/Maths |
| Numberblocks<br>https://www.bbc.co.uk/cbeebies/shows/numberblocks |
| Top marks<br>https://www.topmarks.co.uk/ |