Early Maths

December 2015

At the end of year 2

- Partition two-digit numbers
- Add 2 two-digit numbers within 100 (e.g. 48 + 35)
- Use estimation to check that answers (e.g. knowing that 48 + 35 will be less than 100).
- Subtract mentally a two-digit number from another two-digit number (e.g. 74 – 33).
- Recognise the inverse relationships between addition and subtraction (e.g. Δ – 14 = 28).

- Recall and use multiplication and division facts for the 2, 5 and 10 x tables to solve simple problems, (e.g. 40 ÷ 10 = 4; stating the total value of six 5p coins).
- Identify fractions ; 1/3 , 1/4, 1/2 , 2/4 , 3/4

Year 6 problems

A small punnet of cherries costs £3.30 and contains 30 cherries. A large punnet of cherries costs £4.80 and contains 60 cherries.

How much cheaper is each cherry in the large punnet than in the small punnet?

Year 6 problems

- The prices of some orders from an ice cream van are shown below.

- 1 ice cream and 1 lolly cost £6
- 3 ice creams and 4 drinks cost £16
- 1 ice lolly and 3 drinks cost £5

- How much will it cost in total to buy 5 of each item?


Victoria 38


1503


Warninglid 2¼
London 38
Crawley 8
Gatwick 14
B 2115 (A 23)


30


Chorleywood
Amersham
A404
18
1000 m


1798
3173
3069
2282


459 one hundred sixteen
1,353 465 193 14:50
FORTY 161 47 27 7
10:27.36 25
16:51.84
21:54.70 1,704

In maths children need to …

- See patterns
- Move on from counting
- Develop mental fluency
- Know facts and (more importantly) strategies

Year 1 maths project

- ✓Subitising
- ✓Number sense
- ✓Number magnitude

Subitising

- Patterns in number
- Moving on from counting
- Seeing numbers in different ways

Subitising

- Let's have a go!!

Being the master of number

- ✓Number sense
- ✓Number magnitude

Number Sense

- What is it?

How we see a number

- How many?
- How many more than?
- How many less than?

How many ways can you make 7?

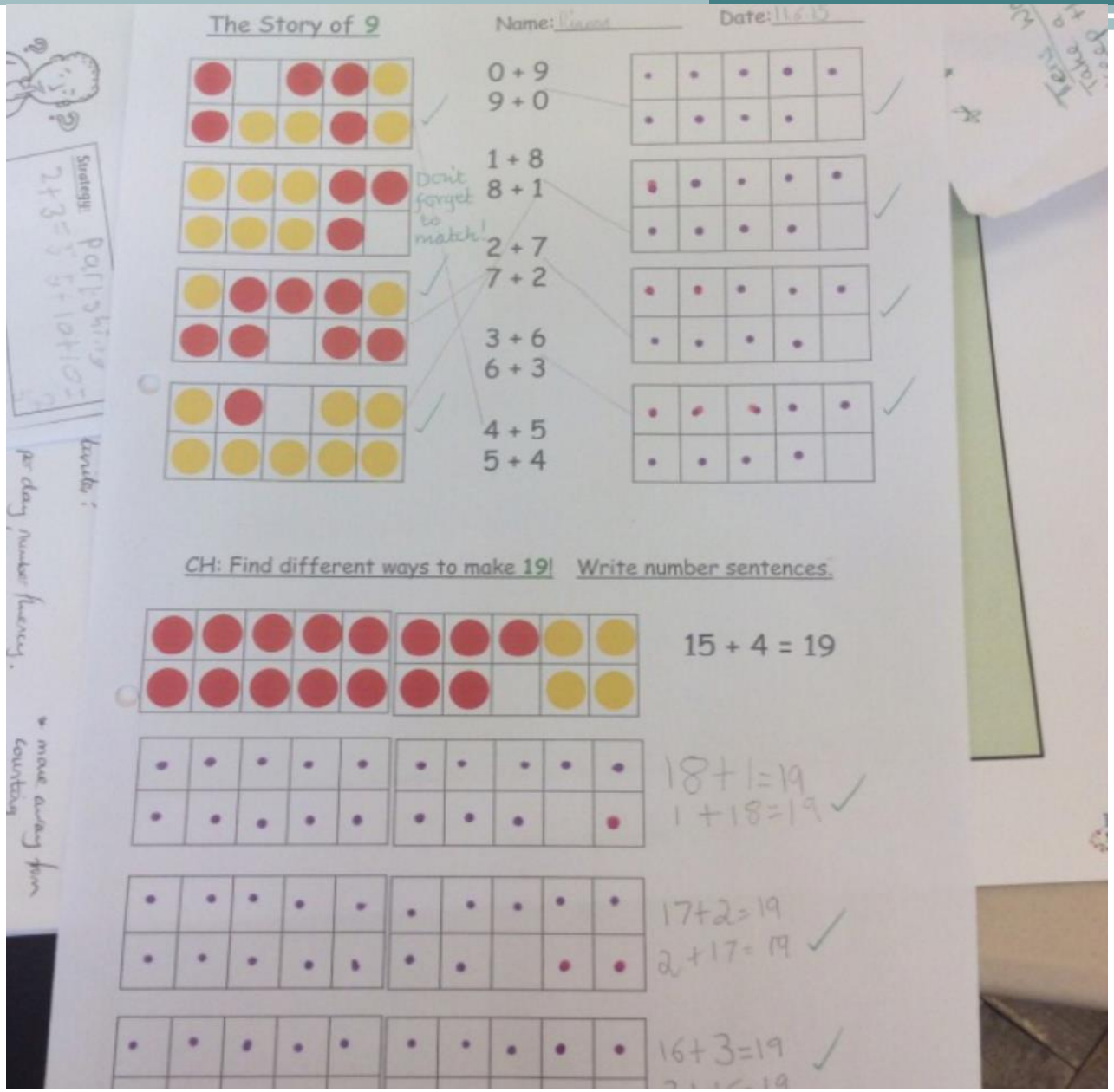
Number sense

- 19 + 7
- 21 - 16

- Counting strategies
  - using objects or verbal counting

- Reasoning strategies
  - uses known facts and relationships
  E.g. I know 5 + 5 = 10 and 6 is one more than 5, so 6 + 5 must be one more than 10

- Securing fluency – fast and accurate
  e.g. 6 + 5 = 11


The Story of 9
Name:
Date:
0 + 9
9 + 0
1 + 8
8 + 1
2 + 7
7 + 2
3 + 6
6 + 3
4 + 5
5 + 4
Don't forget to match!
CH: Find different ways to make 19! Write number sentences.
15 + 4 = 19
18+1=19
1+18=19
17+2=19
2+17=19
16+3=19

58111417

Seeing patterns in number

- $7 + 2 = 9$
- $17 + 2 = 19$
- $27 + 2 = 29$

Key strategies for number sense

- Make 10
- Near make 10
- Doubles
- Near doubles – e.g. I know 6 + 5 because I know that 6 + 6 = 12
- 1 more 1 less (2 more 2 less)
- Switch it
- The zero effect

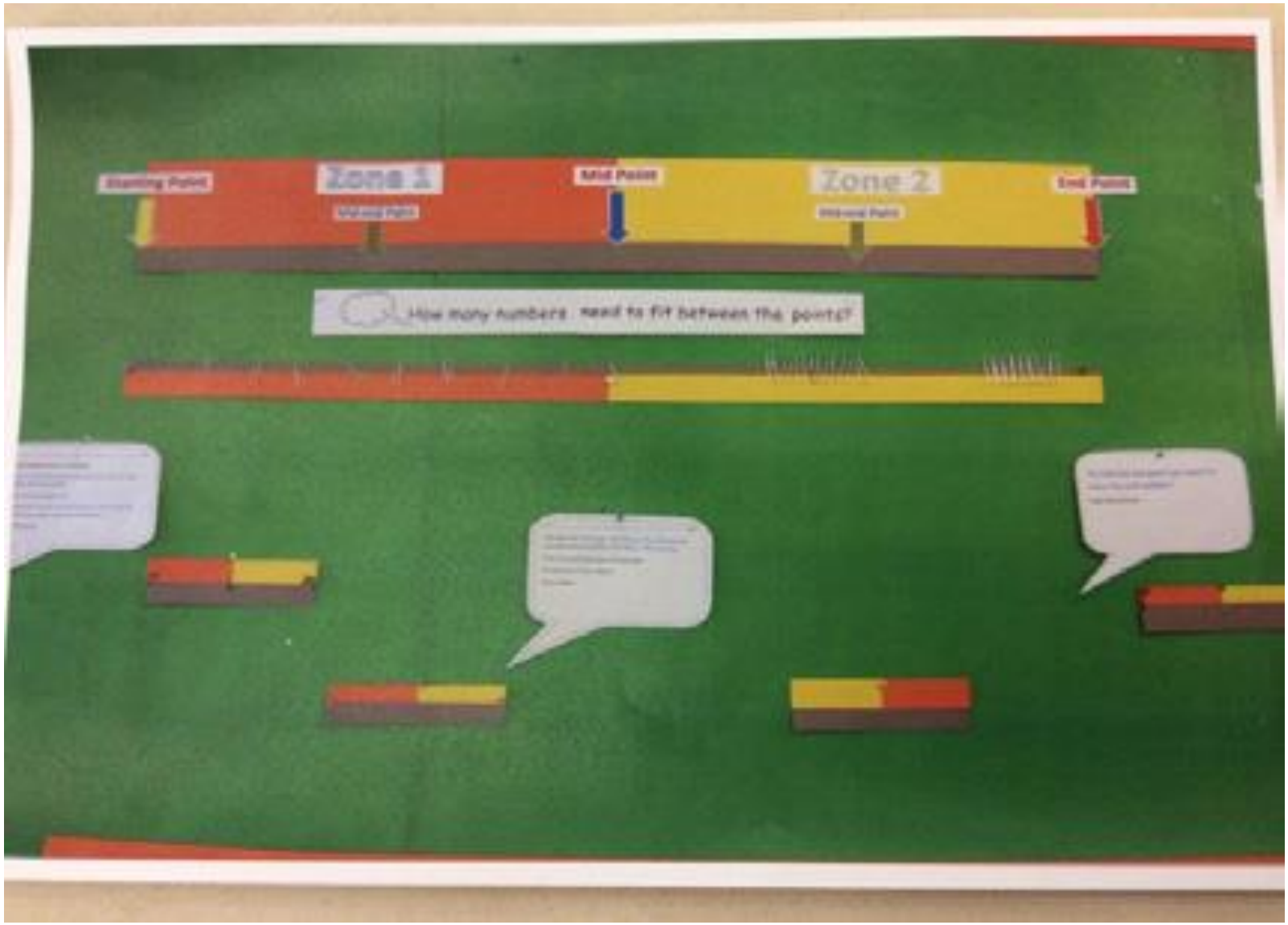
Number sense

- The key to understanding maths is making sense of it.
- Maths is NOT a set of formulas that have to be remembered.

- ‘I can’t do 8 +6 so I saw 4 + 3 and I doubled it. I’m good at doubling it.’
- ‘When solving 4 + 3 it’s like 2 + 2 + 2 + 1 so that’s 6 and one more and that makes 7.’

Number Magnitude

- What is it?


Zone 1
Zone 2
How many numbers need to fit between the points?

Number magnitude

- Ordering numbers
- What makes a number bigger than another?
- 76 is bigger than 7 because …..less than, more than

When confident with number - Securing fluency

- ✓ Mental fluency
- ✓ Operation sense

Securing fluency

$$7 + 1 = ? + 8$$

Key skills

- Doubling
- Halving
- Number bonds e.g. 1+9, 2+8 …
- What else do I know?
- Counting in given numbers e.g. 2's, 3's etc.

Changing attitudes

- I can’t do it!!
- I can do this because I know ….

As Parents you need to ….

- ✓Encourage and value mistakes
- ✓Give space to learn
- ✓Help see patterns

As parents you can help at home by ….

- Talking about number
  Which is bigger? Why?
- Encourage your child to recognise numbers in different ways e.g. dice
- Double and halve numbers
- Ask your child – how do you know?
- Ask your child – what else do you know?
  E.g. 16 + 8 = 24 so 8 + 16 = 24 and 24 – 16 = 8

Good achievement in maths

✓Success happens through:

- practice
- hard work
- the belief to improve
- resilience
- understanding the process