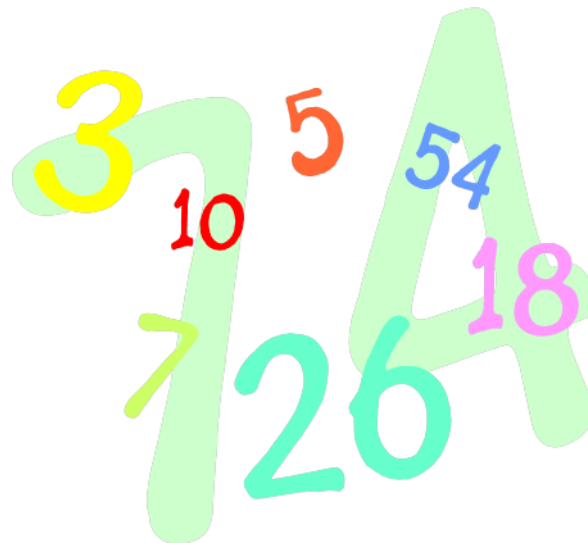


Maths Evening for Parents

Benson Primary



Aims

- To understand key aims in the new national curriculum for maths and how these link with teaching children to calculate/solve problems.
- To gain ideas around how you can support your children with learning maths at home.

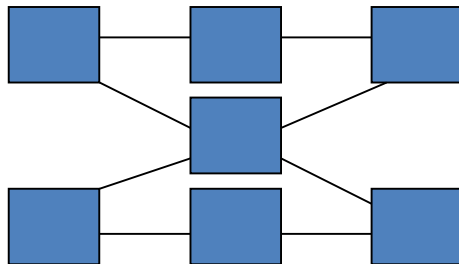
Warm up activity

“Make 12”

- You need seven number cards like these:



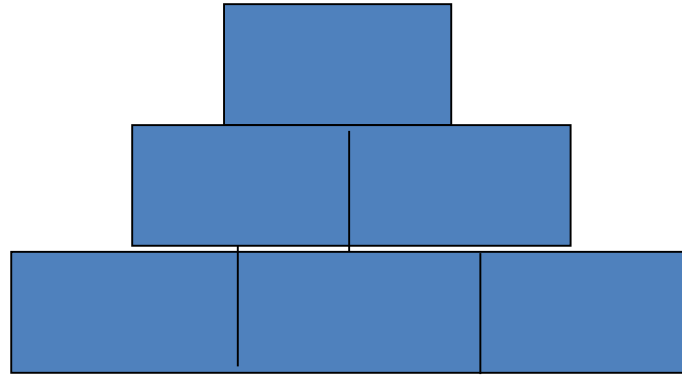
- Arrange the cards into a grid like the one below.
- Each line of three numbers must add up to 12.



- Can you find two other ways to do it?
- What are the ‘top tips’ to be successful?

Problem solving and reasoning mathematically

“Brick Walls”



- Choose three numbers between 0-9 and write them on the bricks at the base of the wall.
- Add each pair of numbers and write the answers on the bricks above.
- *Where would you place particular numbers at the base of the wall to make sure you get the highest number at the top?*
- *What are all the different top-numbers you can get with your same three base-numbers?*

Problem solving and reasoning mathematically

“Got it”



Work together to add numbers from the above cards, so that you make a total of 23.

If you were playing competitively, can you devise a strategy that would always allow you to reach 23 when playing against a competitor?

Attitudes to maths

- Our own feelings towards mathematics are influenced by:
 - our own parents' attitudes towards the subject
 - our own experiences of the subject at school
 - popular culture

Jo Boaler

British education author

“Ideas that students hold about their ability make a great difference to their learning ability.”

Carol Dweck

Fixed and growth mindsets

Fixed Mindset

- Intelligence is static.
- I must look clever!
- Avoids challenges
- Gives up easily
- Sees effort as pointless
- Ignores useful criticism

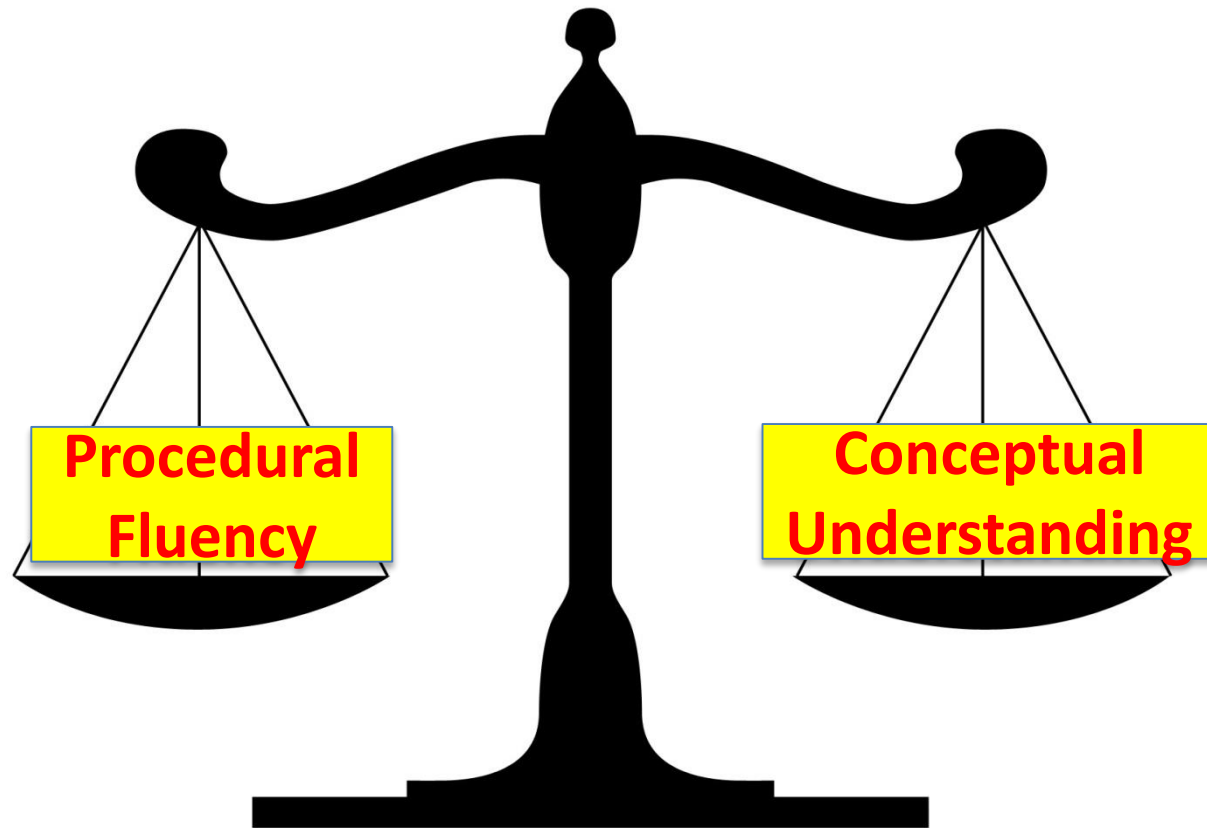
Likely to plateau early and achieve less than full potential.

Growth Mindset

- Intelligence is expandable
- I want to learn more!
- Embraces challenges
- Persists in the face of setbacks
- Sees effort as the way forward
- Learns from criticism

Reaches even higher levels of achievement.

Developing fluency and conceptual understanding



Developing fluency and conceptual understanding

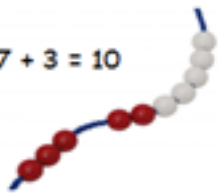


Mental calculation: addition and subtraction

Mental Calculation Strategies for Addition and Subtraction

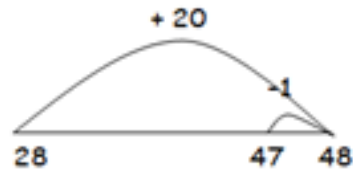
Number Bonds

$$7 + 3 = 10$$



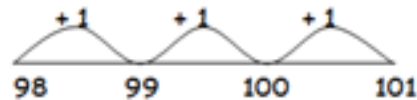
Adjusting

$$28 + 19 = 47$$



Finding the Difference

$$101 - 98 = 3$$



Doubles



Near Doubles



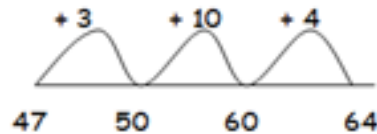
Partitioning

$$44 + 34 = 78$$

$$70 + 8 = 78$$

Bridging

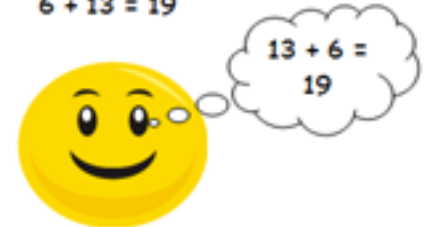
$$47 + 17 = 64$$



Reordering

e.g. put big number in head when counting on

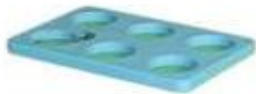
$$6 + 13 = 19$$



Mental calculation: multiplication and division

Mental Calculation Strategies for Multiplication and Division

Knowing multiplication and division facts to 12×12



Multiplying and dividing by multiples of 10

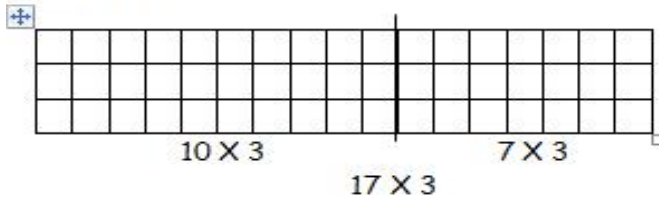
thousands	hundreds	tens	ones

1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009

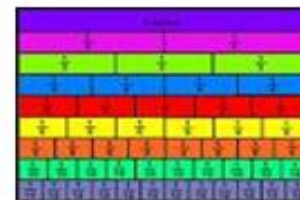
Doubling and halving



Multiplying and dividing by single-digit numbers and multiplying by two-digit numbers

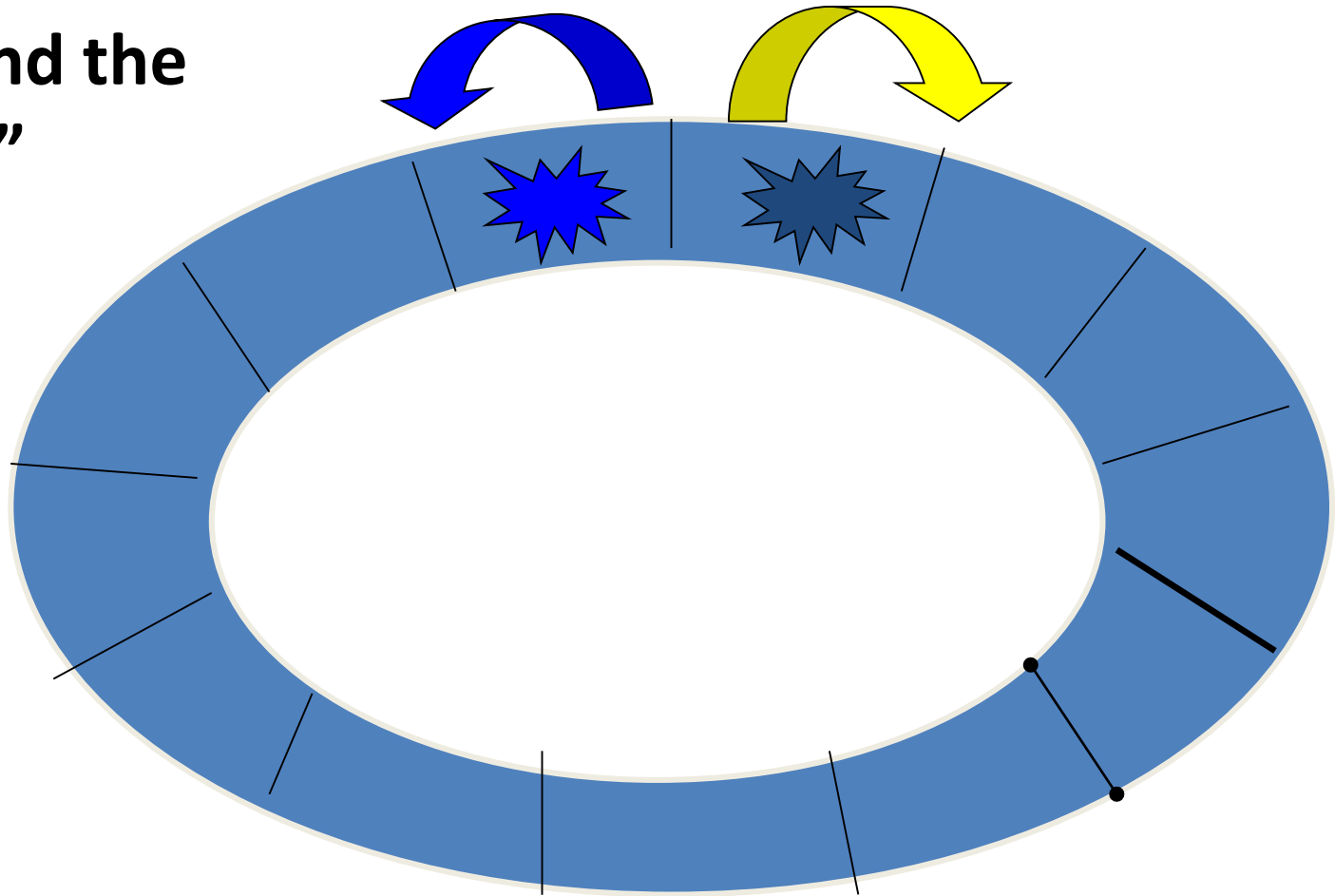


Finding fractions, decimals and percentages

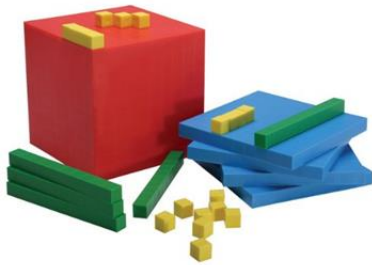
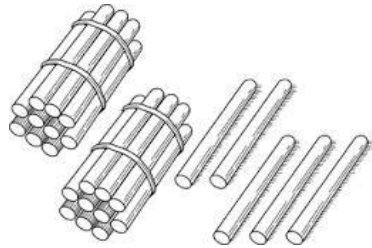


Mental calculation: multiplication and division

“Round the
Track”



Developing use of manipulatives and visual aids alongside written calculation



Tens	Units

Further reading

Recommended reading:

‘Maths for Mums and Dads’

By Rob Eastaway and Mike Askew

ISBN-13: 978-0224086356

