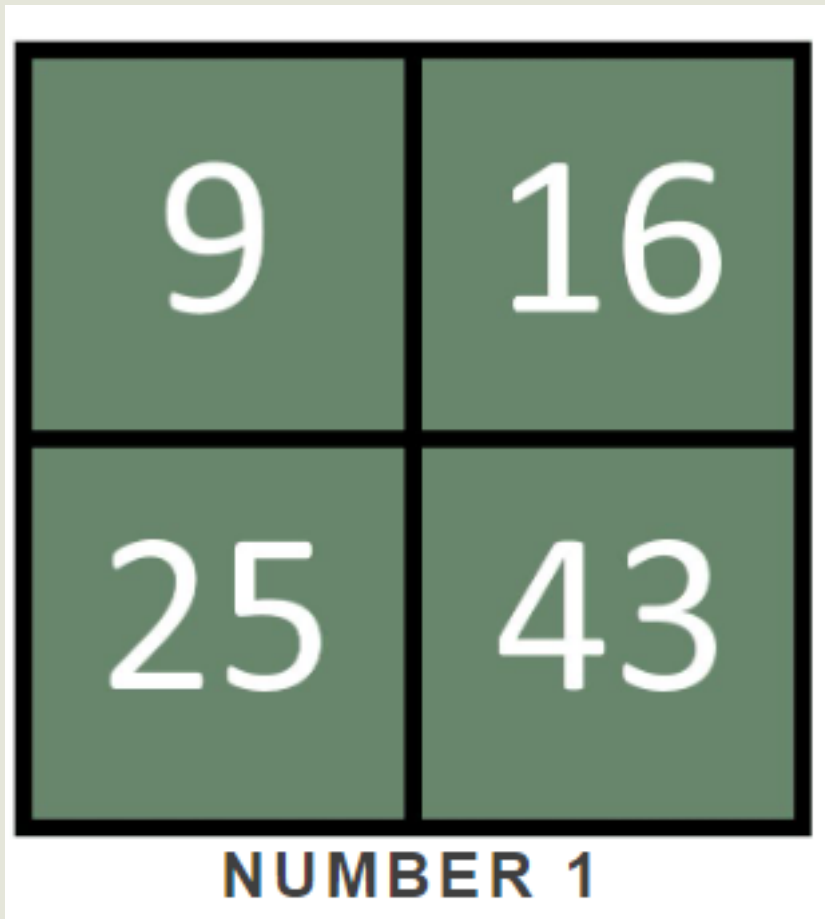


Which one doesn't belong?



Can you find a reason why each number is different to the rest?

Example,
9 is the only single digit.

25 is the only number that is a multiple of 5.



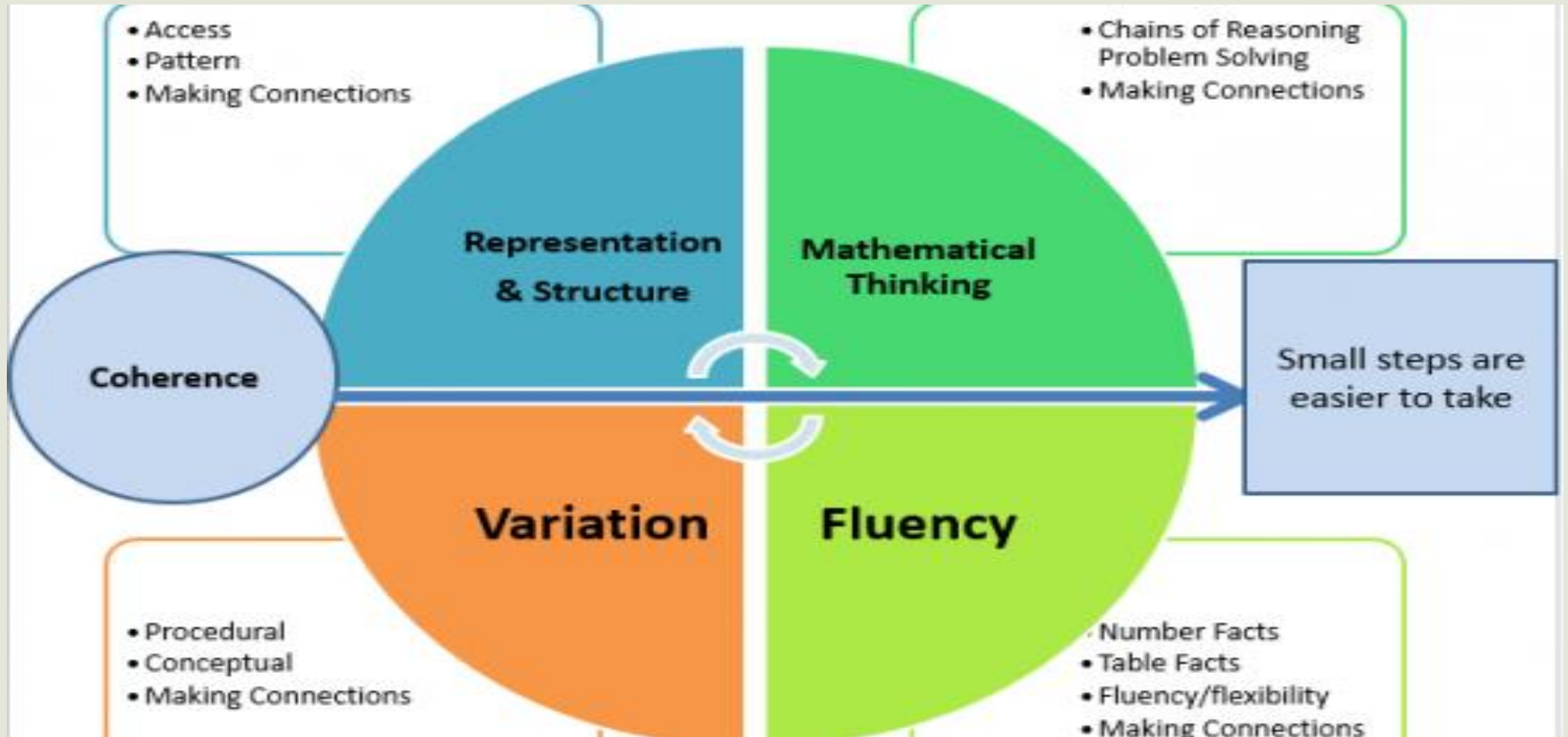
Mathematics workshop

Wednesday 22nd November

Aims of session

- Give you information to help you to support your children
- An overview of how we approach maths at Glynne
- Maths mindset
- Mental calculations
- Formal calculations

How we approach maths at Glynne



How we approach maths at Glynne

Our curriculum aims to equip children for the next stage in their education and with the mathematical skills for life.

We aim to produce confident, flexible mathematicians who are fluent, can see links and use prior knowledge to tackle areas of unfamiliar maths.

Maths mindset

- ‘a growing body of evidence that students’ mindsets play a key role in their math and science achievement. Students who believe that intelligence or math and science ability is simply a fixed trait (a fixed mindset) are at a significant disadvantage compared to students who believe that their abilities can be developed (a growth mindset)’. (Dweck 2008 - [Read the full paper here](#))

■ “I don’t do maths”

I have a **GROWTH MINDSET!**



- Flexible
- See links
- Not afraid to take risks
- Underpinned by solid foundations

How would you solve?

$$34+38=$$

Mental calculations

MC RaPa CoDa Numbo

- 14 **MA1** **MC** = Manipulate Calculation
- 23 **MA2** **Ra** = Round and Adjust
- 30 **MA3** **Pa** = Partitioning
- 38 **MA4** **Co** = Counting On
- 52 **MA5** **Da** = Double and Adjust
- 60 **MA6** **Numbo** = Number Bonds



6 Cool Strategies for Mental Addition!

MA5: Round & Adjust

$$45 + 39 = 84$$

$$45 + 40 - 1$$

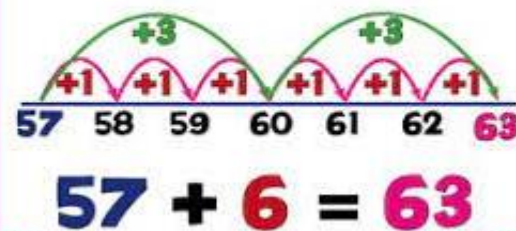
$$85 - 1 = 84$$

A5a: Partition Jot

$$57 + 25 = 82$$

$$70 + 12$$

A2b: Counting On



MA4: Double & Adjust

$$45 + 46 = 91$$

$$45 + 45 + 1$$

$$90 + 1 = 91$$

MA3: Number Bonds

$$45 + 95 = 140$$

$$40 + 100 = 140$$

Formal Calculations -

Sense of Number Visual Calculation Policy

Basic Edition for
Glynne Primary School
January 2015

Graphic Design by Dave Godfrey
Compiled by the Sense of Number Maths Team

For sole use within Glynne Primary School.

'A picture is worth 1000 words!'
www.senseofnumber.co.uk



Glynne Primary School

Glynne Primary School VCP Basic Edition © Sense of Number 2014
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The screenshot shows a web browser window displaying the Glynne Primary School website. The page title is 'Glynne Primary School' and the navigation menu includes 'HOME', 'ABOUT US', 'KEY INFORMATION', 'PARENTS AND CARERS', 'OUR CURRICULUM', and 'NEWS & EVENTS'. The main content area is titled 'Mathematics' and contains the following text: 'Progression and Overview of the Maths Curriculum', 'Maths Visual Policies', 'In response to the Mathematics Curriculum we worked together with our network of local primary schools to create a visual Calculation Policy. These visuals are intended to help you in understanding the methods and steps involved in the teaching of mathematics at Glynne.', and 'Glynne basic Visual calculations policy'. Below this, there is a section titled 'Find out more about the Maths curriculum below, including what your child is learning and in which term this is taught.' with a list of links: 'Year 1 Overview', 'Year 2 Overview', 'Year 3 Overview', 'Year 4 Overview', 'Year 5 Overview', 'Year 6 Overview', and 'Maths at Glynne'.

Policy available on website

Formal Calculations - Addition and subtraction

S11: Column Subtraction

$$\begin{array}{r} \text{100} \quad \text{10} \quad \text{1} \\ \text{6} \quad \text{11} \quad \text{1} \\ \text{723} \\ - \text{356} \\ \hline \text{367} \end{array}$$



Formal Calculations - Multiplication

M6: Expanded Column

$$\begin{array}{r} \begin{array}{ccc} 100 & 10 & 1 \\ 1 & 4 & 7 \\ \times & & 4 \\ \hline \end{array} \\ \begin{array}{r} 28 \\ 160 \\ 400 \\ \hline 588 \end{array} \end{array}$$

(4×7)
 (4×40)
 (4×100)



M7: Column Multiplication

$$\begin{array}{r} \begin{array}{ccc} 100 & 10 & 1 \\ 1 & 4 & 7 \\ \times & & 4 \\ \hline \end{array} \\ 588 \\ \hline 12 \end{array}$$



Formal Calculations - Multiplication

M9: Long Multiplication Column

$$\begin{array}{r} 43 \\ x 65 \\ \hline 215 \\ + 2580 \\ \hline 2795 \end{array}$$

(5 x 43)
(60 x 43)



Formal Calculations - Division

D10: Short Division

$$136 \div 4 = 34$$

$$\begin{array}{r} 34 \\ 4 \overline{) 136} \end{array}$$



Formal Calculations - Division

1	2	2	6	4	
	-	1	2	0	(10 × 12)
		1	4	4	
	-	1	2	0	(10 × 12)
			2	4	
	-		2	4	(2 × 12)
				0	

Formal Calculations - Division

D13: Long Division

Chunking Method

$$\begin{array}{r} 26 \text{ r}21 \\ 37 \overline{) 983} \\ \underline{- 740} \quad (37 \times 20) \\ 243 \\ \underline{- 222} \quad (37 \times 6) \\ 21 \end{array}$$

$$983 \div 37 = 26 \text{ r}21$$



Calculations –

$$\begin{array}{r} 734 \\ \times 74 \\ \hline \end{array}$$

$$7 \overline{) 2982}$$

$$46 \overline{) 1196}$$

	Th	H	T	O
	2	4	5	7
+	3	9	1	6

	Th	H	T	O
	8	9	3	2
-	4	1	5	7

$$21 \overline{) 9139}$$