Maths at Bernards Heath
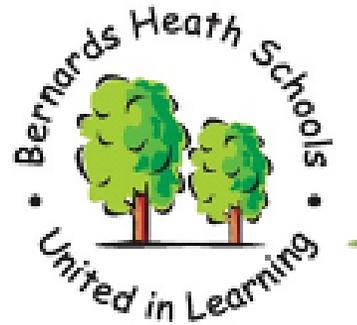
January 2017

► The key is curiosity, and it is curiosity, not answers that we model. As we seek to know more about a child, we demonstrate the acts of **observing**, **listening**, **questioning** and **wondering**. When we are curious about a child's words and our responses to those words, the child feels respected. The child is respected. "What are the ideas that I have that are so interesting to the teacher? I must be somebody with good ideas."

Vivian Paley

Describe what you can see.
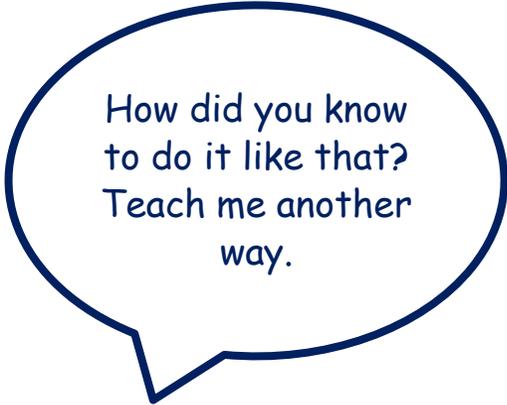
How did you know to do it like that? Teach me another way.
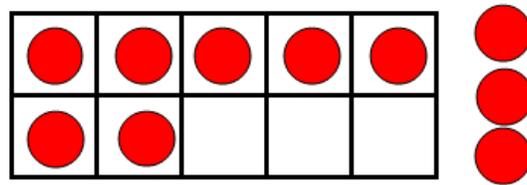
What would happen if…?

Tell me more…

Show me

Fluency, breadth, depth

▶ Developing fluency

▶ Challenge through breadth and depth - not racing on to higher and higher numbers
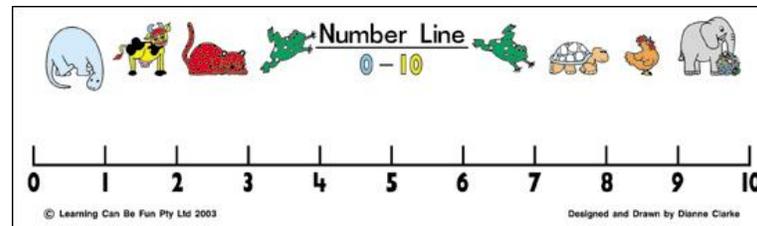
▶ 'Become the Master of Number'

▶ Concrete

Pictorial

Abstract

10-3=7

Year 1 -
Count to 40, forwards and
backwards, beginning with 0 or 1 or
from any number

Range of resources – coins,
dienes, tables, sequences
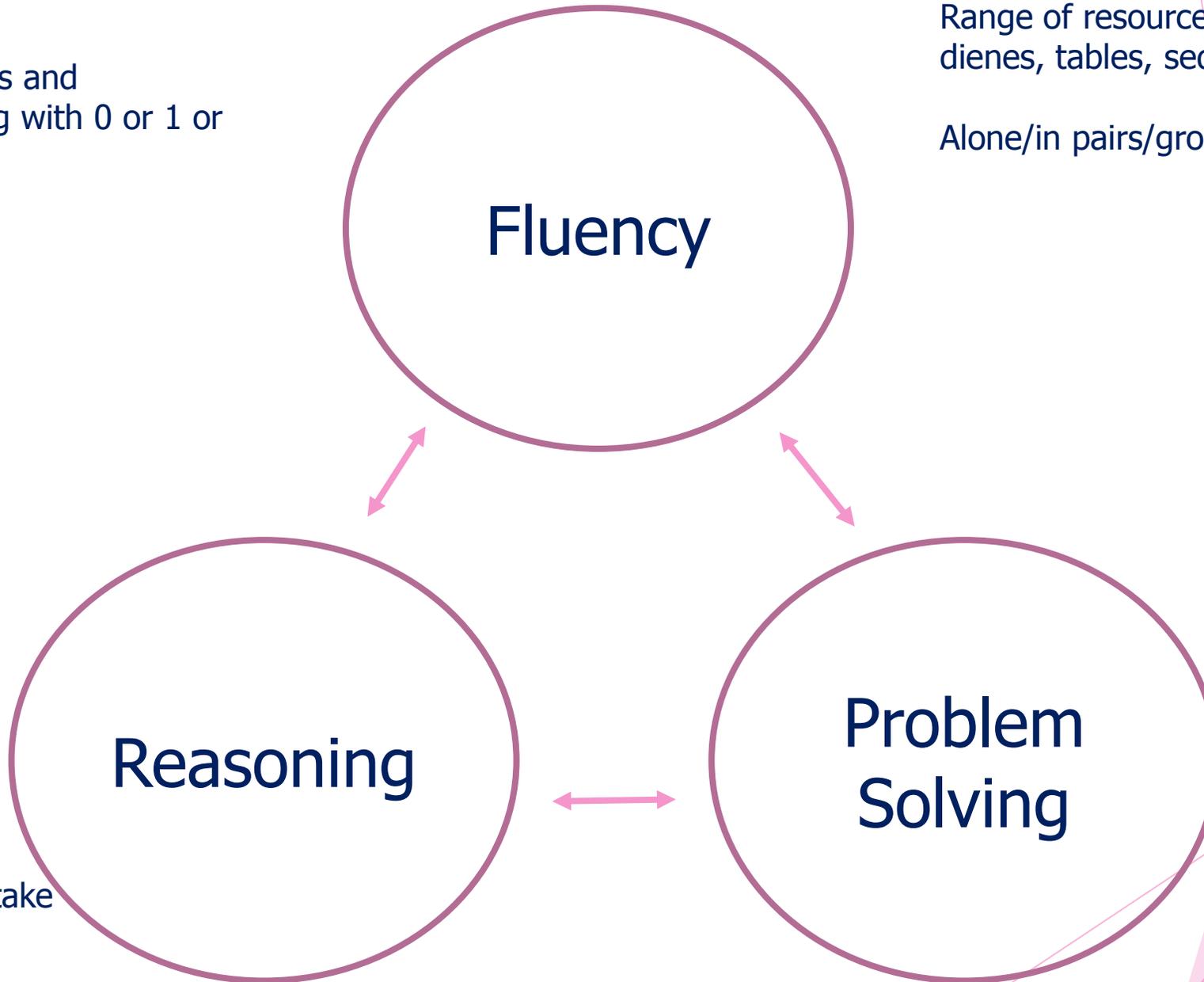
Alone/in pairs/groups

Fluency

Reasoning

Problem
Solving

Word problems
Real life examples
Scenarios
Games

Apply new skills

Prove it
True or false
Explain the mistake
Convince me

National Curriculum Statement	All students		
	Fluency	**Reasoning**	**Problem Solving**

Place Value
 	
Count to 40 forwards and backwards, beginning with 0 or 1, or from any number.
	• Complete the missing numbers:
	
	`31 [  ] [  ] 28 27`
	
	`19 [  ] 21 22 23`
	
	`40 [  ] 38 [  ] 36`
	
	• In pairs, take turns to say 3 consecutive numbers starting from any point. Record who says 40.
	e.g. start from 28
	28, 29, 30, 31, 32, 33,
	34, 35, 36, 37, 38, 39
	40
	
	• How many bricks are there altogether?
	
		• Kate says, "I have 3 tens and 8 ones. My number must be 308."
		Explain the mistake Kate has made.
		
		• True or false?
		I am counting forwards to 40 from 25. I will say 30.
		Convince me.
		
		• Spot and explain the mistake.
		26, 27, 28, 29, 40
			• My friend and I created the same number using base 10.
			My number is below. How much did we have altogether?
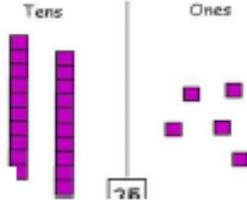			
			• Simon had 3 numbers in his bag. He gave three clues about them. Work out what each number could be:
			- One number has seven less than 35.
			- One number has no ones. - One number more ones than it has tens.
			
			• Put cards 0-40 face down. When you turn one over count how many jumps it takes to get to 40. Count how many jumps it takes to get to 0. Which is it closer to? Why?

MathsHUBS White Rose

Year 1 -
Count to 40, forwards and backwards, beginning with 0 or 1 or from any number

In pairs, take turns to say 3 consecutive numbers starting from any point. Record who says 40 – e.g. start from 28
28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Fluency

Reasoning

Problem Solving

True or false?
I am counting forwards to 40 from 25. I will say 30.
Convince me.

Put cards 0-40 face down. When you turn one over count how many jumps it takes to get to 40. Count how many jumps it takes to get to 0. Which is it closer to? Why?

How do you talk about Maths?

Writing's boring I know but you have to do it. I never liked it either, don't ask me to help you.

I have no idea how they teach reading now. I can't help you. I hated it at school, could never see the point in half of it.

▶ …But perhaps even more important is to talk about maths positively and to continue doing so at they get older. The real danger is of denigrating maths. Of saying: "It's not that important, you can get by without it." Yes it is and no you can't. Or: "I'm no good at maths." If that is the case, do something about it, don't brag about it.

▶ I'm not suggesting that we start lecturing our kids about the links between numeracy and getting a job, earning a decent wage, managing money, being healthy and happy even (although it's worth bearing these things in mind, and you'll find plenty in that vein on this website).

▶ But we do need to be aware of this odd cultural thing we have in this country of rubbishing maths. And – sadly – I have to admit it does seem to be more common among my female friends. All the research evidence too suggests that girls and women are less confident about maths.   -online article
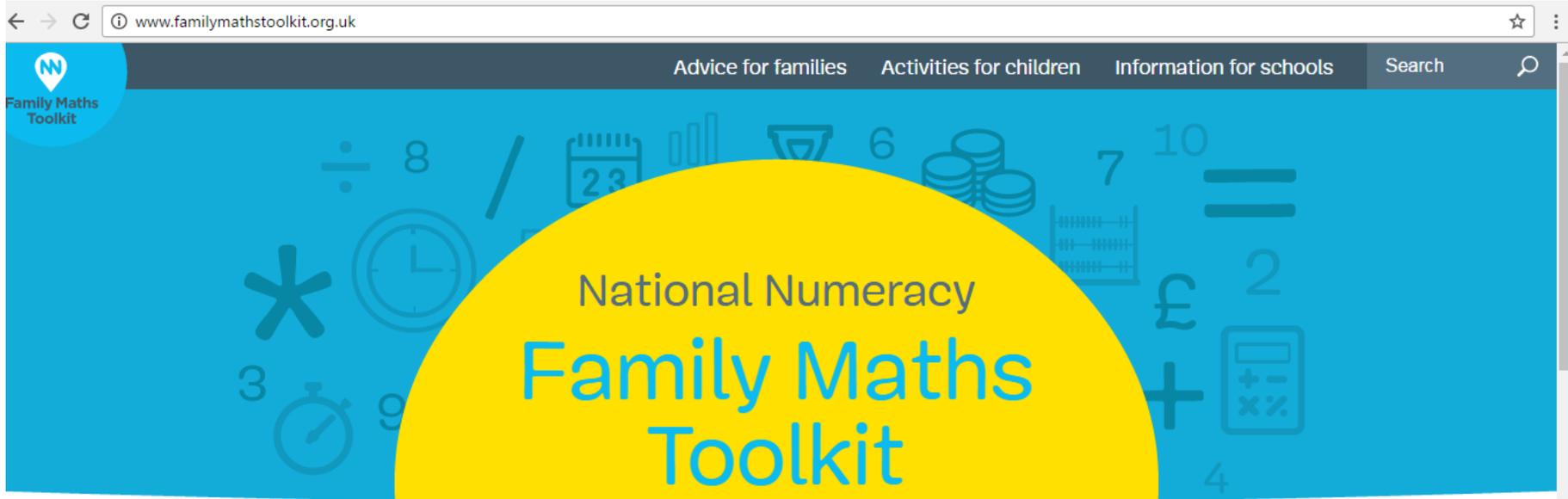
New Years Resolution?

We **must** promote a positive attitude towards maths, in the same way we do with reading and writing.

Language of Learning - process

Learning Heroes – trying, asking, being involved, working together, resilience, effort

Challenge – no lids on learning

Growing our brain - grappling

Learning mistakes

Thinking

Talking

Questioning

What do you think? Explain that to me.

How could we work it out? Tell me more.

Draw a picture to show me.

The Power of 'Yet'

Click here... Find out about Carol Dweck.

Email - Learning Together at Bernards Heath

A reminder of the many ways you can use our school website to support maths at home. Follow the links to our **curriculum maps** and our **calculation policy** to find out about maths across the school.

On our Learning Together page you will see links to **websites** with a good reputation for supporting young children's mathematical development. We also have a suggestion of maths **apps** - most of which are open ended and are best used alongside an adult who can question, probe and scaffold children's learning.

We also include a document - 'Maths Activities for Out of Class' - to give you ideas of mathematical concepts used in **every day life.**

You will find a copy of our **numeral formation guide** with a script to support young children as they learn to form numerals correctly.

It is also a good idea to look at the notes from our **maths meeting** with parents and follow the link to learn more about Carol Dweck and the power of 'yet'.

Please come along to our Maths Games Library -
Monday 2:45pm
Friday 8:45am
In the library/cooking area - borrow a game to play at home.

If you have any games your children have grown out of, we will be very grateful of any donations.