BEYOND THE TEXTBOOK = September 2017

The cogs must now be in full flow as this new academic year grows in age. My "year" started in Nairobi with three days of puzzling and challenging and I have already done two challenges in the UK involving over 320 young mathematicians from 80 different schools.

Four Techniques for Better Math Teachers

Dr Erin Baldinger from Minnesota has listed five techniques which should concentrate the minds of teachers of mathematics

"Improving math education and preparation programs for math teachers is a complicated task, but through my experience and research I've learned some general principles and strategies that are effective in helping support all students to engage in mathematics.

- **Believe that all students can learn math.** You must believe that every one of your students – no matter their background or current level of knowledge – is capable. To me, this is the fundamental underlying principle of being a good teacher.

- **Explore multiple solutions to math problems.** There are often multiple mathematically valid ways to approach a task, and the teacher's role is to help students make connections among the different solution strategies.

- **Listen.** Teachers must be committed to listening to their students and understanding what they have to say about mathematics. By valuing all student contributions and building on them, you'll help them cultivate a deeper mathematical understanding.

- **Understand that there's no quick fix.**"

As always much of it is common sense but at times we need to regroup to bring the best out of our pupils.

This month's puzzle

Farmers at Market

Some farmers, each possessing £100 went to market. They saw sheep, lambs and goats for sale. The sheep were 33 shillings each, lambs 21 shillings each and goats at 14 shillings each. (20 shillings in a pound)

Each farmer spent £100 and each took 100 animals home – the numbers of sheep, lambs and goats were not the same. How many farmers were in that group?

Oxford Year 5 maths challenge needs a new home

Sadly due to a misunderstanding this challenge is homeless for the second time in two years. If you are interested in taking this exciting event on please do contact me. I charge £300 to host the event and my unique selling point is ,,,,, "I do all the work ….!" The challenge could be in the Spring Term or early in the Summer Term.

Website of the month – ICT GAMES

A wide variety of mathematics activities covering Key Stages 1 and 2.

Countdown booklets (http://dcbeagle.com/cdownbooklets.html)

I have produced five A4 booklets of the Countdown number game examples with about fifty in each. Two, the Junior versions, are aimed for Key Stage 2 and the other booklets are a challenge for anybody. I have checked all the examples and I hope they all find a possible solution or two. I have also listed two entertaining videos relating to the Countdown number game.

Video of the month (http://www.youtube.com/watch?v=9QBv2CFTSWU)

Preparing an INSET mathematics morning I was looking for an amusing and / or interesting video on mathematics and I came upon this one to end the first session. I am surprised they all came back after the coffee break. Cringe material!!

DCBEAGLE Challenges diary

Tuesday 26 September	Year 6 Maths	Windlesham House Sussex
Wednesday 27 September	Year 5 Maths	St Andrew's Eastbourne
Thursday 28 September	Year 4 Maths	Crosfields, Reading
Friday 29 September	Year 6 Maths	Red Maids' High Bristol
Saturday 30 September	Year 4 Maths	King Edwards School Bath
Monday 09 October	Year 5 Maths	Ballard School, Bournemouth
Tuesday 10 October	Year 6 Maths	Dean Close, Cheltenham
Tuesday 31 October	Year 6 Maths	St Edward's School Oxford
Tuesday 07 November	Year 4 Maths	Summer Fields, Oxford
Friday 10 November	Year 4 Maths	St Edward's Cheltenham
Monday 13 November	Year 4 Maths	St Edward's Reading
Thursday 16 November	Year 6 Maths	Aldwickbury School
Tuesday 21 November	Year 5 Maths	Rupert House
Thursday 23 November	Year 6 Maths	Monkton Combe Bath
Friday 24 November	Year 5 Maths	St Edward's Cheltenham

My full programme can be found on the Portfolio page.

Farmers at Market solution

5

Words of wisdom

Mathematics is the brain's sharpener!!!!