



MATHEMATICS: BEYOND THE TEXTBOOK – January 2017

DCBEAGLE Challenges ~ Douglas Buchanan

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Happy New Year to you!

Beyond The Text Book

No I have not lost my marbles repeating the heading of my newsletter. In my 36 years of primary school teaching whether it be a class teacher or specialist teaching maths to 7 to 13 year olds we are all grasping for new tools to enhance our teaching. Examples like basic strip film where you project one image then another, projectors in general (slides and film), the spirit duplicator which led to the Gestetner printer (with the wax sheets) and subsequently the photocopier. These tools brought about the worksheet revolution where many made huge amounts of money was made producing inane exercises. Then came the electronic evolution enough said on this!

However, when we look at maths teaching on a whole (I know most of my readers are the converted) the dear old textbook is the Bible which is used to inspire pupils in this subject. Has maths teaching really moved forward since you or your parents were at school. Probably not really.

My friend, Andrew Jeffrey, has written a piece on his website- click [here](#) about maths teaching and the textbook – an interesting read – click [here](#).

Feeling Dotty

Below are guides to activities to help special awareness, create patterns using dots.

Squares – a very old activity using a network of dots in a square or rectangle and players take turns in joining the dots. When a square has been formed the player receives a point. Click [here](#).

Connecting dots which form a circle – this is a comprehensive guide to this activity which can involve a wide age range of pupils. Click [here](#).

The class maths table

This is the second in my series of setting up a maths table for the pupils' use in their recreational time and wet break times.

- Paper and pencil activities. Layout a series of puzzles for the pupils (change them frequently and only one type of puzzle at a time). The ideal resource website is <http://krazydad.com>. The best ones are Kids Puzzles, Sudoku, Mazes, Kakuro, Inkies (KenKen).
- Memory games. The classic card game (Pelmanism). Click [here](#).
- Packs of cards with card game instructions. Domino cards, Comet. Click [here](#).

The frequent change of activities will keep the table 'fresh' and interesting.

Oh dear!

Q: What did the triangle say to the circle?

A: You are pointless!

Puzzle for the month: The Fencing Problems

I wish to fence in a perfectly square field which shall contain just as many acres as there are rails in the required fence. Each hurdle, or portion of fence is seven rails high, and two lengths would extend one pole (sixteen and a half feet) – that is to say, there are fourteen rails to the pole, lineal measure. What is the size of the field?

Do remember this puzzle was taken from a very old book!

Activities galore! Click [here](#).

There are many activities, all practical, to enhance the teaching in the younger year groups – nursery to Year 5. All the items are obtainable at a low cost so it will not affect any budgets. If you are looking for cheap, good quality playing cards do visit the following website:

<https://www.mxwholesale.co.uk>. Ordering about 96 packs will cost less than 50p a pack and I am sure you will be able to sell the excess at a school fair for about 75p

DCBEAGLE Challenges

The Spring Term is my busiest term for my challenges and puzzling days and 2017 will not be an exception. One or two venues are going to change but I hope not to cancel any events.

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|----------|-----------|------------------|-------------------------------|---------------|
| Tuesday | 17-Jan-17 | Year 4 Maths | Red Maids', Bristol | 2:00 - 4:00 |
| Thursday | 19-Jan-17 | Year 6 Maths | Bryanston School, Dorset | 2:00 - 4:15 |
| Friday | 20-Jan-17 | Year 4 Maths | Bryanston School, Dorset | 2:00 - 4:15 |
| Monday | 23-Jan-17 | Year 5 Maths | Portsmouth Grammar Junior | 1:30 - 3:30 |
| Tuesday | 24-Jan-17 | Year 6 Maths | Eagle House, Berkshire | 2:00 - 4:00 |
| Thursday | 26-Jan-17 | Year 5 Maths | Bristol Grammar School | 2:00 - 4:00 |
| Friday | 27-Jan-17 | Maths conference | The Red Maids' School Bristol | 10:00 - 4:00 |
| Monday | 30-Jan-17 | Year 4 Maths | St Gabriel's Newbury | 1:30 - 3:30 |
| Tuesday | 31-Jan-17 | Year 4 Maths | St Faith's Cambridge | 1:30 - 3:30 |
| Friday | 03-Feb-17 | Year 5 Maths | St Gabriel's Newbury | 1:30 - 3:30 |
| Monday | 06-Feb-17 | Year 6 Maths | St John's Beaumont | 2:00 - 4:00 |
| Tuesday | 07-Feb-17 | Year 4 Spell It! | Eagle House, Berkshire | 2:00 - 3:30 |
| Thursday | 09-Feb-17 | Year 5 Maths | Langley Preparatory Norwich | 1:30 - 3:30 |
| Friday | 10-Feb-17 | Year 6 Maths | Langley Preparatory Norwich | 1:30 - 3:30 |
| Thursday | 16-Feb-16 | Year 4 Maths | Ryde School, IOW | 10:30 - 12:30 |
| Thursday | 16-Feb-16 | Year 5 Maths | Ryde School, IOW | 1:45 - 3:45 |
| Tuesday | 21-Feb-17 | Year 5 Maths | Belmont (Mill Hill) | 2:00 - 4:00 |
| Monday | 27-Feb-17 | Year 5 Maths | The Paragon School, Bath | 1:30 - 3:30 |
| Thursday | 02-Mar-17 | Year 4 Maths | Christ's Hospital, Horsham | 1:30 - 3:30 |
| Friday | 03-Mar-17 | Year 5 Maths | Wrekin College Shropshire | 12:30 - 3:20 |
| Monday | 06-Mar-17 | Year 4 Maths | Gayhurst, Bucks | 2:00 - 4:00 |
| Tuesday | 07-Mar-17 | Year 5 Maths | Wellington - POSTPONED | 2:00 - 4:15 |
| Thursday | 09-Mar-17 | Year 5 Maths | Crosfields School, Reading | 2:00 - 4:00 |
| Friday | 10-Mar-17 | Year 6 Maths | St Gregory's, Harrow | 2:00 - 4:00 |
| Monday | 13-Mar-17 | Year 5 Maths | Christ's Hospital in London | Private |
| Tuesday | 14-Mar-17 | Year 6 Maths | Malvern St James | 2:00 - 4:00 |
| Thursday | 16-Mar-17 | Year 6 Maths | Mowden Hall, Newcastle | 1:30 - 3:30 |
| Friday | 17-Mar-17 | Year 5 Maths | Newcastle High for Girls | 1:30 - 3:30 |

The Fencing solution

28 miles square. There would be 501 760 acres and the same number of rails.

Hope you have an enjoyable term.