



DCBEAGLE CHALLENGES

BEYOND THE TEXTBOOK

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Maths lessons without walls

Why are some teachers keen to do mathematical activities outside? *NCETM* writes:

“Getting out of the classroom facilitates authentic or experiential learning (the engagement of learners with the world as they actually experience it) and gives better access to the main pathways to learning (Visual, Auditory and Kinaesthetic). Pupils not only experience mathematics in concrete and novel settings, but can be liberated from the sometimes restrictive expectations of the classroom. As a result, we can expect to find the following benefits:

- higher levels of motivation
- almost limitless resources
- an opportunity to see maths as cross-curricular
- greater curiosity leading to more effective exploration
- creative ideas driving investigations
- meaningful application of problem solving strategies and thinking skills
- a heightened sense of purpose and relevance
- the all-important bridge between theory and reality
- greater independence and an improved attitude to learning
- greater enjoyment and achievement (one of the five Every Child Matters outcomes)
- a realisation that our environment offers opportunities for learning and enjoyment”

Two useful websites giving many outdoor maths lesson suggestions:

Activities for Early Years up to Year 6: Click [here](#).

Many ideas, again for all age groups. An opportunity for the pupils to take ownership and create their own activities following a common theme: Click [here](#).

This month’s puzzle – [Counting the Wounded](#)

In a hospital for wounded soldiers it was stated that there was exactly two-thirds of the men had lost an eye, three-fourths had lost an arm, and four-fifths had lost a leg. It follows that at least 26 of the men must have lost all three – an eye, an arm and a leg.

Can you now calculate exactly how many men were in the hospital?

(From the book, *A Puzzle Mine* by H E Dudeney)

This month’s website

[Become a mathematician](#)

Maths to many is “doing sums in lessons and having puzzles on Friday afternoons”. Surprise your pupils and become a magician (mathemagician). Click [here](#) to learn a few Magical Math Puzzles.

The programme of challenges for the Autumn Term is now available with two exceptions. Please do register for the events sooner rather than later to avoid disappointment. You will notice I am using different response forms which hopefully easier for you to navigate the website.

BOURNEMOUTH – The Year 5 mathematics challenge needs a new home! Ballard School has been the recent host but cannot accommodate it this year. Please contact me if you are interested in taking over the mantle. My strapline is, “..... I do all the work!” The host school only has to provide a location and a tea. I do the rest.

Challenges before Christmas term half term:

| | | | | |
|----------|--------------|------------------------|---------------------------|--------------|
| Friday | 14 September | Year 6 Maths | Wrekin College Shropshire | 12:30 - 3:20 |
| Thursday | 20 September | Year 5 Maths | Christ Hospital, Horsham | 1:45 - 3:30 |
| Friday | 21 September | Year 4 Maths | Davenies Beaconsfield | 2:00 - 4:00 |
| Tuesday | 25 September | Year 6 Maths | Windlesham House Sussex | 2:00 - 4:00 |
| Thursday | 27 September | Year 5 Maths | St Andrew's Eastbourne | 2:00 - 4:00 |
| Friday | 28 September | Year 4 Maths | Crosfields, Reading | 2:00 - 4:00 |
| Monday | 01 October | Year 4 Spell It! (tbc) | Wolverhampton Girls High | 2:00 - 4:00 |
| Tuesday | 02 October | Year 6 Maths | Red Maids' High, Bristol | 2:00 - 4:00 |
| Thursday | 04 October | Year 4 Maths | King Edward's, Bath | 2:00 - 4:00 |
| Tuesday | 09 October | Year 6 Maths | Dean Close, Cheltenham | 2:00 - 4:00 |

Puzzling in the classroom and at home

When teaching I always had puzzles present in the classroom for the pupils to tackle in their recreational time or early finishers. Effective homework assignments were puzzles where the whole family can be involved.

A website with many ideas for all age groups is [MathGames4Children](http://MathGames4Children.com).

Puzzle of the month solution

120

Final words

Enjoy the rest of the summer term and do take mathematics outside the classroom and into the playground.