DCBEAGLE CHALLENGES

BEYOND THE TEXTBOOK – IRISH MATHS WEEK

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It's Maths Week! In Ireland and Northern Ireland

Well, nearly! I will be returning for my eighth year and my programme is as exciting as previous visits – Dublin, Mallow, Dundalk, Tipperary, Limerick, Thurles and Belfast.

My mission is to get educators and parents to understand that pupils will not learn anything unless they enjoy the subject. The Maths Week concept should be extended by 51 weeks each year – the excitement and the enjoyment on their faces show they have had a positive experience and they will be more inquisitive leading to a better understanding of mathematics.

Get the children to love maths

This website produced by an unusual website title of "Sleeping Should Be Easy". They give the following ideas:

Play math puzzles and games

"Most of us assume math is all numbers. You might think of math games as flashcards of 2+5 or pictures of 10 ducks in a row. But math is more than just numbers. Think spaces, amounts, logic. Playing math games with your child encourages skills to make sense of these concepts. And presenting math as games makes it that much more fun."

Focus on logic, not right or wrong

"Do you find that when you check your child's work, you focus on the wrong answers more than anything? This seems to make sense, especially when you want her to improve and learn from her mistakes. But only correcting mistakes focuses on having right answers. And sure, a great test score is fantastic. But that can only came from tons of practice and focusing on logic. We're not aiming for perfection. Instead, shift your focus to logic instead. Be more interested in how she got her answer than showing her the correct one."

Math isn't about speed

"We've heard of math savants and geniuses who can calculate crazy problems in their heads. Glamorous, but unlikely. For the rest of us, especially our kids, it's not about speed.

We shouldn't praise speed as if it's a skill we want them to learn. Mastering logic is more important than speeding through problems. Don't force your child to finish a worksheet or problem within a set time. This only makes her more anxious."

Don't admit you did poorly in math

My kids won't hear how I had scored a C- in high school math. They won't even know (at least from me) that some people think they're a "math person" or not.

Admitting you did poorly in math already defines a person—incorrectly—as someone who doesn't get numbers. Doing so convinces your child that she might also be innately terrible with numbers.

Use number sense, not memorization or tricks

Memorization and tricks like "carrying over" get the problem solved. But kids don't learn number sense or the logic behind it. It's inflexible.

So, what's a typical number sense? Let's say you told me to add 17 + 25. Using math tricks would mean adding the 7 and the 5, then carrying over 1. It's a trick and doesn't use logic.

Instead, one way to add 17 + 25 is to round up to the nearest 10s. I would take 3 from 25 and add it to my 17. Now I'm now adding 20 + 22, which is much easier to add in my head.

Encourage a growth mindset

Some kids believe they're innately good at something. That they're born with the skill to play golf, or play piano, or understand math. This "fixed mindset" can hold a child back from trying hard or making mistakes. She's afraid of falling short of her "smart" label and will protect it even if it means not challenging herself.

Instead, encourage a growth mindset. **No one is born being good at math.** Even math geniuses wouldn't achieve all they do if they didn't try. Just as we exercise our physical muscles, so too can we grow our brains through effort

Puzzle of month

Military Squares

An officer wishing to arrange his men in a solid square found by his first arrangement that he had 39 men over. He then started increasing the number of men on a side by one but found that 50 additional men would be needed to complete the new square. How many men did the officer have?

Activities found at Maths Festivals around the world

As I am in festival mode I thought it would be quirky to visit other websites and find what activities are available. www.mathsweek.ie is also full of material to use.

Math4Love is a festival in Seattle which brings pupils together to enjoy the activities encouraging them that maths is not that strange subject in the classroom. Website: mathforlove

Maths Craft – New Zealand. The resources page has activities involving origami, Mobius strips, crochet, French knitting, flexagons, colouring, string art, Penrose tiles. Website: mathscraft

Californian Math Festivals – practical activities for 7 – 12 year olds –

- Number: click here
- Shape and geometry: click here
- Algebra: click here

These activities are on work cards and cover a wide age group range.

Maths games and activities for Maths Week and beyond – click here.

DCBEAGLE Challenges

- I am still looking for a home for my Year 5 mathematics challenge in Bournemouth. Bryanston kindly host the Year 4 and Year 6 challenges.

There are a few places left at the following venues:

- St Edward's Prep School (Reading) Year 5 challenge Monday 5 November: **5 places.**
- Rupert House (Henley) Year 5 challenge Tuesday 20 November: **3 places**
- Monkton Combe (Bath) Year 6 challenge Thursday 22 November: **5 places**

No vacancies at the following challenges:

Summer Fields Year 4, Headington Year 6, Aldwickbury Year 6, St Edward's Cheltenham Year 4 and Year 5.

Puzzle solution

1975

Final words .. oh dear!

Why are obtuse angles always depressed? Because they are never right.

A farmer counted 297 cows in the field. But when he rounded them up, he had 300.