



## East Spring Secondary School

### Power of Positive Energy (PPE)

#### Student Goals/Outcomes for Excellence & Success

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#### **PPE Sharing**

Good morning Mrs Jalil, Mrs Mohinder and Mr Chan. I'm Ebenezer Koh from 3E4 and I am part of the Math Department Talent development group of East Spring.

Today I want to share with you an interesting true story about a boy named Carl Gauss who lived in the 18<sup>th</sup> Century.

One day this math teacher presented a challenging mathematical problem to the class where Gauss was in. The math problem was to add up all the numbers starting from 1 and ending with 100. Every student picked up a piece of paper and started to add up the numbers one after another from number 1 onwards. Within a short span of time, while his fellow students were still struggling, Gauss went forward to the teacher and submitted his answer. That action surprised not only his math teacher but the whole class. But that is not all.....

The interesting thing is that his answer was correct.

But how did he do that so fast?

Well he came out with a very different way of analysing the mathematical problem. Instead of the normal way of adding the first numbers onwards, Gauss looked at the problem at a different angle.

What he did was to split the range of number from 1 to 100 into two equal halves, 1 to 50 and 51 to 100. He discovered that by adding the first pair,  $1 + 100$ , he got an answer of 101. For the second pair,  $2 + 99$ , he again got the same answer 101. This answer of 101 was still valid for the rest of the number pair addition. And since there were 50 pairs of numbers, the final total is  $101 \times 50$  which gave Gauss an answer of 5050.

The way he perceived and analyzed the mathematical problem surprised everyone.

From this story you can see that Math can train an individual to think creatively and out of the box to life's challenging problems. Math equips you with the practicality of problem solving that can help you overcome your problems with ease.

With different approaches, math solving can achieve a new dimension completely different from convention. This shows that math can be fun and exciting if we choose it to be.

Do you know what the top 3 jobs listed on the Wall Street Journal are?

Some of you may not believe it but the number one job on the list is being a Mathematician, followed by Actuary and Statistician. And what do they all have in common? They all use maths!

To end my PPE off, I will leave you with a quote, 'practice make perfect' and I hope with practice all of you will become perfect East Springians.