



## CELEBRATING WOMEN IN MATHS – LEADING BY NUMBERS

**At the Character Education Trust, one of our key goals is to engage young women and girls in STEM subjects—with mathematics at the heart of this vision.**

It is well known that young girls are less likely to engage with maths and often see it as a subject “not for them.” We are driven to change this.

Over the years, we have helped young women achieve outstanding results at GCSE and A Level, and many have gone on to accomplish incredible things in their careers across finance, science, and education.

To support this, we employ and celebrate a team of truly inspirational female maths teachers. These educators are also leaders in our schools and work passionately to encourage other women to pursue excellence in mathematics.

Achieving success in maths as a woman—both historically and today—is not straightforward. Many have had to overcome significant barriers. What unites them is their passion and skill. These women bring their inspirational journeys into the classroom and lead by example across our schools.

We have collected some of their stories below in the hope that they will continue to inspire our young women and girls and give them the confidence to believe that mathematics can open doors to success and achievement.

Here are some inspiring excerpts from our “Women in Maths” series.

### SHEILA SMITH – CHAIR OF THE TRUST

*In 1965 when I started teaching the world was changing. Women were beginning to question the roles they were expected to follow. I was being told over and over again the*

*mathematics was a 'man's field' and really not very feminine. I suppose that my decision to train as a teacher of Mathematics was a quiet act of defiance. I wanted all students, particularly girls, to enjoy Mathematics, to be able to enjoy the world of numbers and equations and to be able to see how Mathematics is reflected in the beauty of the world. We have come a long way in my 81 years, and I hope that all students feel empowered to go on and enjoy this subject. I hope that as role models we are enabling all students, especially girls, that they belong and have a future in science, technology, engineering and beyond. Perhaps even to be defiant on occasions against the limiting expectations of others.*

MRS JAMES – DEPUTY HEADTEACHER – AYLESFORD SCHOOL

*Maths has led me to speaking to hundreds of school leaders at conferences, travel to deliver student conferences around several countries, be the voice of the first version of a maths revision app, mentor others and write whole school timetables. There are plenty of developments coming in the future to have our next generation of mathematicians change the world for the better.*

*I love teaching this value of problem solving to students for them to develop their skills alongside their knowledge and have been exceptionally proud that students who I have had over the years have gone on to achieve in this subject area, two of these even becoming heads of maths themselves! Having spent the last decade in school leadership, it has been my pleasure to see students and colleagues go on to achieve great things using maths as a vehicle of change. Maths doesn't care what your gender is, it's here for the taking.*

MRS SIZMUR – ECT MATHS TEACHER – WROTHAM SCHOOL

*For me it was more of a choice between studying maths or not studying at all. Academically, maths is all I have ever been interested in. Although I previously had an interest in teaching, I did not consider it to be a real possibility until I had spent some time doing maths interventions as a volunteer at Wrotham School. I had already begun my maths degree with the open university, and I discovered that I thoroughly enjoyed helping students with maths first as a volunteer and then as a TA.*

*I am most proud of myself for gaining my degree and my teaching qualification in my 50s, while supporting my twins through A levels and their first year at university.*

#### MISS HILL – MATHS TEACHER – AYLESFORD SCHOOL

I'd never have described myself as a natural in Mathematics, far from it. I was put in set 3 out of 4 in year 7 and I wanted to be better. Something about the persistent struggle to overcome what seemed like insurmountable problems and the resilience that I developed as a result of this, captivated my attention. I was sure as hell not going to let it beat me. Just as I got close to cracking it, I'd be presented with another seemingly impossible problem, more set backs but more determination than ever to succeed. I came to realise that, with pure determination and grit, I could actually solve some of these problems and that made me feel great and gave me a confidence that I hadn't had before. Sport had always been my thing but now Mathematics was the sport for my brain. I just would not give up. I used to tell myself, 'this is not a subject for wimps, keep going!'

Alongside this, there were very few girls interested in pursuing a career in Maths at 17. This, I felt sure, needed to change. Why shouldn't women do Maths degrees? It amazed me how outnumbered I was, when I finally got to University to study Mathematics in more depth. What I didn't realise, was the relevance of the subject in real life, until studying for a degree. Almost everything comes back to Mathematics and how everything around us, the buildings we live in, the cars we drive, the bridges we cross, the recipes we follow, the chances we take, the planes we fly in and the mobile phones we can't put down: they all couldn't exist without Mathematics!

#### MRS WILLIAMSON- LEAD PRACTITIONER MATHS – WROTHAM SCHOOL

*After university I always wanted to go into a numerical job, as I love the fact that numbers tell the true story and there is limited subjectivity and hiding with them. I started work as an accountant became qualified and eventually became Head of Internal for an insurance company.*

*After having my family and being in a financially secure position I realised what I really wanted to do was help educate and pass on my love of numbers to children and particularly less advantaged children hence not working in a grammar school. Since being qualified as a*

*teacher I have not looked back, every day is different and the feedback you get from seeing children suddenly “get it” is like nothing else.*

MRS ABBOTT – HEADTEACHER – WROTHAM SCHOOL

*Maths has always been a big part of my life. From a young age, my family—especially my grandad—encouraged me to solve problems, work out percentages, and just enjoy playing with numbers. Coming from a family of mathematicians, I guess you could say it’s in my DNA. But it was really my secondary school teachers who made me fall in love with the subject. They explained things so clearly and made it all make sense. I looked forward to every lesson.*

*I’m especially passionate about helping girls, who are often too hard on themselves. I’ve always tried to challenge that mindset and help them see what they’re capable of. After 24 years of teaching, the most meaningful thing is still the cards that say, “I never liked maths until I had you.” That’s why I do it. I want more children to say, “I loved maths at school.” And I’ll keep working towards that, one lesson at a time.*

MRS BLANSHARD – MATHS TEACHER, KEY STAGE LEADER AND EXPERIENCED MATHS LEADER – WROTHAM SCHOOL

*Ever since I could remember I have been fascinated with figures and enjoy solving problems mathematically. I studied Science in sixth form, Electrical Engineering at University and worked in Cable and Wireless before coming to the UK.*

*It was a difficult decision to quit Engineering due to family commitments, but I have not regretted it as I re-trained as a Maths teacher, and I have worked as one since 1997!*

*Over the years I have taught students of varied ability. Some have gone on to be teachers themselves, two of which are currently in the same school as me! Others will be found in Engineering, medicine, finance, football to name a few.*

*Whilst there is huge satisfaction in helping the most able students achieve their utmost best, there is always immense pride and fulfilment in hearing a student say, “thanks miss for believing in me!” or “if it was not for you, I would not have made it!” Investing time, patience and consistently modelling expectations with the more challenging students is hard work but always rewarding.*

*As Head of Maths at a previous school and whilst here at Wrotham I am also very proud of the many I have trained to be Maths teachers; several are now Head of Maths themselves.*

*My passion for every generation to be more confident dealing with figures than the one before them keeps me in the profession; I shall be doing all I can in this regard long after I retire!*

*If you or your child feels inspired by these stories and would like to consider a career in Maths or advice on how to maximise attainment in this core subject, please contact your child's school to arrange a careers meeting with our careers advisors or speak to your child's maths teacher by email or at parents evening.*