

CHOOSING MATHS

One of Anna-Marie Imafidon's favourite bits of maths is decision theory. This crunches numbers to work out the best possible options.

Anne-Marie Imafidon

The maths genius inspiring young women to reach their full potential.

Science is more than just memorising facts and equations, or about theories, Anne-Marie Imafidon tells *Science+Nature*. "It's about problem-solving, helping people and being creative. It may not seem like it in school, but in real life that's what it's about," she says.

Imafidon should know. She is the youngest girl ever to pass A-Level computing, which she took at age 11. By 20, she had received a master's degree in mathematics and computer science from the University of Oxford. In 2015, she was named in the top 50 most influential women in IT in the UK. After working for some of the world's biggest companies, Imafidon, now aged 29, is on a mission to encourage other people, especially women and girls, to share her passion for STEM (science, technology, engineering and maths) subjects.

Imafidon explains that her goal is to change the way women in science are viewed. Even today, the statistics show that being a girl interested in STEM subjects means you're in a minority. She says there are not enough women represented in science books, films and television shows, and thinks this does not accurately reflect the excellence women have shown in STEM fields.

To change this, Imafidon has set up an organisation called Stemettes (see box below), which aims to inspire and support young women on their STEM journeys. Over the past six years, Stemettes has worked with almost 40,000 young women and girls to motivate them and help them to explore STEM subjects

and careers. "We are seeing change," Imafidon says. "Women are being taken more seriously. We'll get there."

She is also keen to emphasise that she wants everyone (both male and female) to discover the joy of STEM. "STEM careers are about creating and investigating and changing the world around us," she says. "Come and join the party. It is so much easier when you are not alone. We are excited to welcome people into the science world."

ROLE MODEL

One of Imafidon's favourite STEM women is Dame Stephanie Shirley, who set up a very successful technology business and now uses her wealth to help others.

Imafidon has always loved science. She says her first memory is when she was four years old, using her dad's computer to type out the story of Little Red Riding Hood (though she changed red to purple because she thought it was a better colour). She saved her story, went to bed and the next day was amazed that it was still there. She still feels the same way about STEM today. "There's something true, almost perfect about the fact you made it and that remains," she says. "The first person

who worked out that $2+2=4$ is now long gone, but people are being born today and $2+2$ will still equal 4. It lives on."

STEM is for everyone, according to Imafidon, and most science projects involve people working together. "It's a team effort. We still don't talk about that enough," she says, "Even the greatest scientists – Einstein, Ada Lovelace – worked with others."

She says life is not perfect but science is the subject that can help us make the world a better place. "Literally anything you can think of, from your shoes to food, is all STEM," Imafidon says. "Everything is science. It's all legit."

For more information on Stemettes, go to stemettes.org/girls

Girls do STEM

Started in 2013, Stemettes aims to show the next generation that girls and women can make an equal contribution to STEM. It does this by celebrating the brilliant women already in STEM, and by telling the stories of great female scientists.

"People almost forget there are women in science," says Imafidon. "If you're a girl or woman studying STEM subjects, you don't see yourself reflected in any of the stuff on TV or in books. How many people know that a woman, Hedy Lamarr, invented Wi-Fi?" (Readers of *Science+Nature* will know all about this, of course, because she was our first Hero of Science.) However, things are changing in society.

The idea came to Imafidon when she was working for a large company. She was sent to the US to speak at a tech conference and there were 3,500 women there. Imafidon was amazed, "Why don't girls get to experience this type of environment, where it's the most normal thing to be technical and to enjoy it? I don't think it happens often enough," she says.

Stemettes hosts lots of events, exhibitions, hackathons and mentoring schemes. So far, about 40,000 young women in the UK and Ireland have been to the events. Stemettes have an app, OthoB, which features weekly competitions, event listings and role-model profiles. Find it at outboxjourney.com/app



Young women visit Stemettes events all around the UK.