LOOKING TO THE STARS

Astrophysicist Clare Kenyon is making science accessible for all and is helping the next generation, particularly girls, embrace the wonders of our amazing universe.

WORDS BY REBECCA DOUGLAS

lare Kenyon is nothing if not well-rounded. She's keen for people to look beyond the stereotype of scientists as stern people in white lab coats and sensible shoes and avoid shunting themselves onto a track that is too defined and limiting. It's entirely possible, if not preferable for your sense of fulfillment, to have hobbies and career paths that wildly diverge from each other, she argues.

In fact, Kenyon's pastimes and talents are so numerous, one wonders when she squeezes in time to sleep – she speaks several languages, plays several instruments, and has represented Victoria in mixed netball.

"You're not choosing between science and another life – you can do it all," she says. "One of my most important mantras to young girls particularly is 'Don't be scared to try all the things'. Don't burn yourself out, but it's okay to pick stuff up and see whether you enjoy it. It's okay to be good at multiple things."

Kenyon argues her wide spectrum of interests helps in her role as a science communicator, enabling her to find common ground with almost everyone. She has relished working on programmes such as 'Telescopes in Schools' for the University of Melbourne and opening the universe to students and parents, especially in socio-economically disadvantaged areas, by showing them the solar system in real time. "Children are full of a sense of wonder already, but it's the cynical parents that I loved seeing the most when they look in the eyepiece and see the rings of Saturn."

Growing up in Melbourne, she was always curious and keen to learn, but her early forays into science were somewhat mixed. Two-year-old Kenyon was too young to recall her sighting of Halley's Comet in 1986 but remembers playing with solar power kits and her mother's old school microscope kit.

Her enthusiasm waned for a while after stepping on a drawing pin at age 13 while attempting to climb out the window to watch the meteor showers. She was also discouraged by the fact that at the time space science was perceived as a very academic, narrow field with few chances for work outside of research.

When she began her university studies, she started with a music degree, playing the double bass. Two years in, she missed the thrill of discovery and exploring new ideas that STEM offers and switched to a science degree, studying physics, mathematics, and geology. Along the way, she also squeezed in a diploma in criminology.

In her first maths class, she sat next to a male student who turned to her and said, "What are you doing here? Girls can't do maths." Kenyon says a sense of interest prompted her turn towards a science degree, but a sense of defiance drove her to finish it.

Kenyon then lived for a year in the United Arab Emirates, travelled across the globe, moved to England, and studied a master's in education. She remembers sitting on one of the big red London tourist buses and writing her thesis as she rode around town. She returned to Melbourne and taught in a high school for a couple of years



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before embarking on a PhD in physics. Her research centres on the gases surrounding quasars, which are extremely bright galaxies with supermassive black holes of millions to billions times the mass of our Sun in the middle. She uses data gathered from a telescope in Chile and compares it to big simulations calculated by a supercomputer.

Now appearing under the moniker of the 'Red Lipped Astro' on social media, she regularly features on TV, radio and on a podcast, Spaghettification, to explain science in an engaging and understandable way.

Kenyon also jointly runs the Kathmandu Astrophysics School in Nepal. Started in 2016, it focuses on equipping undergraduate and graduate students with the skills they need to pursue fulfilling careers in science within their country or internationally. The program offers participants mentoring, interactive academic lectures, coding lessons, and professional development. "There's plenty of research out there showing if you upskill women and give them opportunities, particularly in STEM, in a developing country, that country's GDP and outlook improves dramatically," she says.

One of her latest projects towards a better future for all is working with the University of Melbourne developing a new cross-disciplinary subject on climate change called 'Today's Science, Tomorrow's World'.

"There's some engineering stuff, so they're looking at how to mitigate floods with floating walkways, which is really cool, along with looking at pollution, and biofuels – asking 'How safe are they? How good are they?'" she says. "It's this beautiful, well-rounded subject."

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