

Submission to Science meets Parliament essay competition 2015

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In your view what policy settings and initiatives would help attract the next generation of scientists to the profession?

by Kelly Stevanov

“What do you want to be when you grow up?” My four-year-old son answers “a builder with a digger”. I’ve heard other children reply “ a fire-fighter”, “a singer” and even a “super hero”. But I can honestly say I’ve never heard any young child reply, “I want to be a Scientist”. We need to introduce initiatives that inspire children to the field of science and then nurture this throughout school years so that it is an attractive option to students completing their HSC. We then need to foster career development to keep scientists motivated to stay in their profession.

We need a “Bob the Builder” or “Fireman Sam” character for science. This character needs to appeal to boys and girls, needs to have their own television program shown daily. There needs to be a series of children’s books and then a corresponding merchandise line. We learn so much in our first few years of life and if we aren’t exposing children to a possible career in science from this age, and making it familiar to them, then of course it will be harder to attract them to this field as they grow older.

Now that the “seed” of science has been planted as a possible career option, we need to introduce some hands on fun science in pre-schools. There should be a “science for pre-schoolers” handbook, which can be distributed to pre-schools with ideas for weekly science activities targeted at three to five year olds with fun, visually entertaining experiments the children can help with and/or be amazed by. There should also be a government funded travelling science show that visits pre-schools across the country, showcasing a number of different science occupations. We have other professions such as firefighters visit preschools on a regular basis, but why not scientists?

Throughout primary and high school, science should continue to be promoted. Perhaps an initiative similar to the Coles Sports for Schools would be beneficial, where children can instead win/earn science equipment for their school and trips to Questacon. There should also be free science workshops available during school holidays, perhaps sponsored by local companies who employ scientists. Parents are always on the look out for options to entertain children in school breaks, and if it’s free it’s even more appealing.

In high schools, there needs to be a real emphasis on providing career specific information and work experience opportunities. Time and time again I hear the phrase “ it’s so hard to know what you want to do when you finish year 12”. Generally by this stage students have worked out what subjects they enjoy and are talented in, and hopefully science is one of those. However, rarely do they know what real career options are out there. I think science specific career expos highlighting the vast range of opportunities and what’s required to pursue these would be valuable. Companies should also be encouraged to offer school holiday work experience placements so students can get a realistic feel for what certain roles would entail.

But it is not merely enough to attract students to the Science profession; we must endeavour to retain them. Throughout University, industry scholarship schemes, mentoring, merit based prize money, and paid work placements are vital motivators for the successful completion of degrees.

A good incentive for Scientists to continue in their profession would be a wellstructured Australian career development program to achieve chartered status and opportunities for career progression alongside appropriate recognition and reward. Recognition of experience and prior education should also be incorporated.

Science meets Parliament would be an excellent opportunity to talk about these and other ways to ensure we have a strong pipeline of scientists undertaking and completing university courses so we build our science capability into the future. It would be a great chance to help convince decision-makers that investment in STEM education from pre-school to university – and investing in our STEM workforce – will pay for itself many times over in benefits to the nation in the long-term.

If we inspire and nurture science initiatives from childhood, not only will they be wanting to be scientists when they grow up, they'll be wanting to be scientists as they grow old!