

SCI-FLY STEM OUTREACH A PARTNERSHIP IN INNOVATION



Working with GTP and WAI to inspire the next generation:

- Building on the established and proven **Growing Tall Poppies** framework; to increase the number of students continuing in STEM to Y12
- A focus on encouraging and inspiring underrepresented groups (in particular girls and students in regional locations)
- Providing free educational material via **Women in Aviation International**: <https://waiaustralia.org/educational-resources-2/>
- Offering aviation school visits, teaching Physics through flight
- Delivering school holiday programs run by pilots at Lilydale Flying School

The four critical pillars underpinning this objective are:

1. The undisputable relevance of Physics to real life
2. Stereotypes are old fashioned and reality is rapidly changing
3. Physics is no more difficult than any other STEM subject, it is achievable for everyone
4. The skills developed through studying Physics opens up a huge array of opportunities... including aviation!



The undisputable **relevance** of Physics to real life is something which many students are not intrinsically aware of.

Science is a subject that is rational and unbiased. It promotes **curiosity** and is available to everyone.



Physics is no more difficult than any other STEM subject, and the myth that surrounds this is damaging to potential students. Authentic experiences can **demystify** this view of Physics.

Physics training can be an asset in ANY **job** that involves:

- Creativity • innovation • communication • investigative skills
- analytical skills • attention to detail • ethical behaviour • practical skills • lab safety • critical thinking • logical processing • etc. • etc...

By encouraging more students to study Physics, the goal is not to explicitly make more physicists, but to equip more students with the skills Physics teaches, thus opening up a greater range of future opportunities.



From: xkcd.com

Sci-Fly is currently based in Melbourne, but when you look at the map of Australia, you can see that all of the capital cities are located on the coastal areas; locations outside of this are all classed as **rural, regional or remote**. According to the Australian Bureau of Statistics 66% of the population live in capital cities, leaving 34% of the population as regional or remote locations.

Due to this huge expanse, a lot of schools in the outback locations and regional areas do not get access to educational content that would include STEM subjects. This means that these children are **disadvantaged simply because of where they live!**

Filling positions for teachers in these areas is also challenging for the education department, they struggle to get qualified teachers to relocate to remote locations, STEM subjects are an even more specialized field, making it even more challenging to fill teaching positions to educate young minds.

The **long-term goal** of Sci-Fly in conjunction with GTP and WAI, is to provide an airborne education outreach program; taking STEM to non-metropolitan communities, and providing **exciting, informative and most importantly inspirational experiences** for children and young adults who, due to their rural location, would otherwise be unlikely to have such opportunities.

Not every child will grow up to be an aspiring scientist, but to foster curiosity, inspire young minds to ask questions and set out on a path of discovery, is a fundamental aspect of ensuring the future of scientific literacy in our society. In an ever increasing global community, location should not be a limiting factor on the opportunity for scientists to share and inspire the next generation **to achieve their dreams**, "to inculcate the coming generations with an enthusiasm for the wonder, beauty and endless potential of science" (Ian Chubb, previous Australian Chief Scientist).