

FACING THE FUTURE

According to statistics cited in a report by the World Economic Forum, around 65% of the careers that our primary-aged children will eventually transition into don't yet exist. To put it in another way: parents and educators are now tasked with the seemingly impossible – preparing their children for a whole new world of work, the intricacies of which are as yet unknown. This is inextricably linked to the relentless rise of technology, which many experts believe will change, and in some cases eliminate entirely, many of our traditional job categories. Indeed, a 2013 Oxford University study that argued that around 47% of job categories would be open to automation within two decades, a statistic that many would find intimidating.

Not so Malcolm Kay, Superintendent of Stamford American School, who sees only opportunity for the next generation of Hong Kong kids to benefit in this brave new world of automation. He explains, *"The 2016-2017 Global Competitiveness Report by the World Economic Forum is very positive about many of the developments in Hong Kong, but consistently cites the need for its citizens to innovate in order to continue to thrive."* Despite the city's success as a financial powerhouse, the report suggests that there is a real need for Hong Kong to improve its standing as an innovation centre in order to continue to evolve and thrive, leading Malcolm to explain, *"Education must respond to this challenge and put in place practices that will prepare*

children for success as our next generation of innovators, entrepreneurs and business leaders."

So, with education clearly key to Hong Kong's continued success, what can be done to fine-tune our children's skillsets and ensure that they're competitive in what is currently an unknown marketplace? Stamford's innovative STEMinn (Science, Technology, Engineering, Mathematics and Innovation) programme is designed to challenge students across educational disciplines through critical thinking and real-world problem solving. Starting from the age of just five, Pre-Primary (Kindergarten)-aged children study and research five STEMinn units per year, progressing to nine units by the time they reach Grade Five.

But aren't five-year-olds simply too young to comprehend this level of complexity? Malcolm believes not, *"Research has shown that children develop higher order thinking skills as young as the age of four-and-a-half. At Stamford we use an inquiry-based approach to encourage children to think in a more diverse and creative way – a way far beyond application of a formula."* He continues, *"Beyond the basic skills of remembering, understanding and applying, children then develop the skills of analysis, synthesis and evaluation."* The result? *"Far greater potential as innovators and entrepreneurs in a modern society."*

Sessions are extremely hands-on, with dedicated STEMinn facilities enabling students to refine their scientific understanding by

designing and building prototypes, testing their theories through the production of their designs. The overarching aim of the programme is to hone those innovative tendencies and critical thinking skills, promoting independent learning and ultimately producing confident, agile and imaginative members of society. *"By having students formulate and answer their own questions, we start them on a journey in education that expands rather than restricts their thinking, by helping them learn how to observe, analyse, evaluate, and then imagine".* He adds, *"STEMinn also prepares them for success in the highly challenging physics, biology and chemistry courses offered in secondary school."*

This aim directly feeds into Stamford's vision – for every child to *"achieve more than they believe they can"*. By offering individualised learning plans for every child from the age of five, along with standards-based assessments in Reading, Mathematics and Science twice a year, Stamford are able to continually monitor their students' progress across all disciplines. This type of tailor-made learning benefits everyone, as Malcolm elaborates, *"We are interested in finding out what each child knows, as well as what they have yet to learn."*

With this commitment to helping every child reach their potential, it sounds like our next generation of innovators are in safe hands.

