

## School eyes 'Da Vinci' minds with revamp

### NUS High to train students to think across disciplines

By Amelia Tan

The National University of Singapore (NUS) High School of Mathematics and Science wants to produce Singapore's own Leonardo Da Vinci.

The legendary Italian known for his work as an artist, scientist and engineer is the inspiration for a curriculum revamp which will now train its students to think across disciplines.

Its principal, Dr Hang Kim Hoo, firmly believes that pigeon-holing his students into just one field of study each will not prepare them well for research and development, which is increasingly inter-disciplinary.

Until now, inter-disciplinary teaching and projects in the school's six-year diploma programme have been ad hoc.

Under what has been named the Integrated Arts and Science Programme, knowledge of the arts and sciences – design and engineering, animation and robotics - will come together in students' projects.

The school will put \$4.5 million into developing a research complex on its site. It will be where students' cross-disciplinary ideas can be taken further.

A workshop will also be built to allow students to develop their ideas into products that can perhaps be introduced to the market.

In the complex to be ready in November, one wing will be for video-conferencing, so students can discuss their projects with their mentors and research partners here and overseas.

Two other wings will house laboratories linked to facilitate collaboration between students researching, for example, life sciences and applied technology, such as clean-energy technology.

The universities are also picking up on the trend in inter-disciplinary teaching and research. From 2011, students in NUS' engineering programme will be taught the fundamentals of science, engineering, design and management; the fourth university, which opens its doors that year, will also be inter-disciplinary in its learning.

NUS High students like Tan Zhong Ming will thus have a head start in the field. The Year 6 student, who is working on modifying the structure of DNA and from this, to produce anti-cancer drugs, said combining engineering, biology and chemistry has made him used to inter-disciplinary research.

"I plan to continue my project in university and hope to come up with conclusive findings in a few years."



Students (from left) Khor Kar Yee, Charlene Tan, Angela Toh and Sophie Gan combine engineering and physics in a projectile launcher. ST PHOTO: DESMOND LIM