

# Narara Valley High School

Narara Valley High School is a comprehensive high school of 1110 students on the NSW Central Coast. The school caters for the needs of a diverse student population through excellent learning initiatives based on quality teaching and innovative STEM teaching programs that emphasise 21st century learning. Narara Valley's teachers have extensive experience in the delivery of innovative curriculum models that enhance student engagement through transdisciplinary inquiry based learning.

The Middle School has been established for 12 years and is driven by **integrated curriculum**. Within the Middle School model two core subjects are taught by two core teachers. Humanities integrate English, geography and history which is taught over 14 hours per fortnight. Measuring Physical Sciences integrates mathematics, science and PDHPE and is taught for 20 hours per fortnight. These subjects are heavily centered on inquiry based learning activities and the transference of cross curricular skills and concepts.

The middle school teaching and learning faculty comprises of 9 to 12 staff that are trained across mathematics, science, PDHPE, English, geography and history subject areas. Teachers work together as a **cross curricular team** to program, implement and deliver integrated curriculum.

Narara Valley High School implements an **accelerated program**. Students complete Stage 4 and 5 in three years within a stand-alone accelerated class of 20 to 25 students in each cohort. The core curriculum is integrated and centred on project based learning. The program has a strong technology focus and incorporates STEM units in mathematics, technology and science.

**The Survivor Maths Challenge** is a project based learning STEM initiative conducted with Year 6 gifted and talented students. Mathematics students from primary schools work through challenges over 6 weeks and are able to meet and collaborate with and learn from high school students as mentors and teachers.

Mathematics and science programs incorporate **STEM projects and initiatives** which increase student engagement and success through project based learning. The enrichment technology program is designed for all Year 7 and 8 students and is timetabled as two periods per fortnight. Students learn fundamental skills and undertake project based learning activities in technology. The TAS faculty has implemented STEM initiatives which include computer coding, 3D printing for design, engineering and science projects, Raspberry Pi, engineering courses, electronics, LEGO Mind Storm and NXT software to program robots to perform various tasks.

In addition Narara Valley implemented **Big History**, a transdisciplinary subject that incorporates mathematics, science, history, geography and social science into a project based learning, technology focused course about the history of the universe, the Earth and humanity. Narara Valley High School was one of two pilot schools in Australia and one of seven across the world to first implement Big History in high schools.

