

MECHANICAL ENGINEERING YEAR 11/12

Students in Year 11 and 12 can choose to participate in this Subject Option at Mairehau High School, which can lead to further opportunities in Industry.

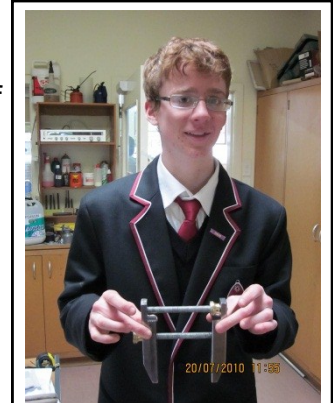


Jarrod Tutbury with his completed wind vane project

Mechanical Engineering underwent a rigorous moderation process for both Level 1 and Level 2 Standards. MHS passed with flying colours; 6 out of 6 standards that were inspected and the work of 18 different students was re-assessed. It met the Industrial and Educational norms set out in the Mechanical Engineering programme.

Competenz (N Z Engineering, Food & Manufacturing Industry Training Organisation Inc.) manages the development and accreditation of the Standards in co-operation with NZQA.

The Year 11 (Level 1) students initially work under tight supervision where safety, skills and tool knowledge are being taught. Students are assessed on their written work as well as their practical work, which has to be completed following precise tolerance allowances.



Gregory Hicks with his completed toolmaker's clamp

Later in Term 3 and 4 they work more independently and develop in part their own product (a wind vane). Students who achieve all 24 credits on offer walk away with the qualification and a National Certificate in Mechanical Engineering Level 1.



Casey Sales working on a part for the model stockcar



Tools 4 Work is an interactive website that students and teachers can access for further information.

The Year 12 (Level 2) students are first given a tracking sheet on which they can record their own achievements throughout the year.

Their first practical project has some guidelines from which they can develop their own product.

They learn specific skills associated with the project and also complete worksheets on which they record their learning and new knowledge. These worksheets get assessed by the teacher, along with the safe and correct use of tools and machinery during the production process.

In the second semester Level 2 students attempt a more exacting project which uses all the skills learned in Year 11 and Year 12.

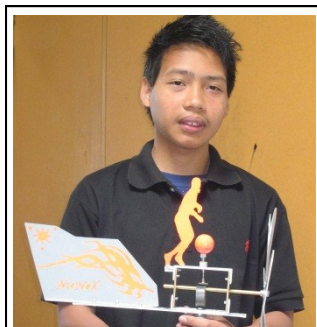


Ryan Cunningham with his completed stool.

Axel Willmer (Mechanical Engineering Teacher)



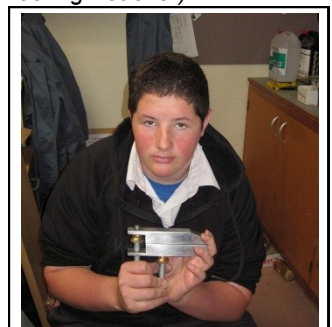
Mathew Leckie with his completed coffee table



Leonardo Jastiva Jr with his completed wind vane project



Hamish Ayrey with the grass cart still under construction



Matthew Brown with his finished toolmaker's clamp