

Construction & Infrastructure



New Zealand's growth is set to outpace most of its developed markets' peers with construction and infrastructure including broadband rollouts, national road building, energy, water/wastewater and house building set to increase by around 40%.

To support future growth across the industries, there needs to be more educated and skilled people entering the construction and infrastructure industries, at all levels.

To do this, we need to ensure that all young people have the skills and competencies, including literacy and numeracy, to progress into tertiary education and training, and to enter and progress in the workforce.

Approximately 70% of school leavers do not enter degree level study, so there are many students looking at alternative options and careers via a different pathway.

NCEA Level 2 or an equivalent qualification is the minimum qualification that young people now need to succeed in New Zealand's economy. Achieving this means they are better prepared to progress into tertiary study, training or work.

Students can continue their pathway by gaining part or whole industry qualifications as part of NCEA Level 3, either full time at school or part time at school and part time in tertiary study or industry training.

They can also use the Qualifications and Employment Pathways mapping tool to help make good decisions about their next steps.

We know that achieving Level 4 or above qualifications means that young people have the skills to adapt to a changing future and make a positive contribution to growing the future labour market.

The Vocational Pathways

The Vocational Pathways were developed in collaboration with industry and education to ensure students 16-19 years have a better understanding of the workplace, and the qualifications and skills required by industry. Students can get NCEA Level 2 with Vocational Pathways, which shows they have a broad knowledge and relevant skills that are relevant to the industries.

There are six industries in the Vocational Pathways:



*I like being practical.
Building skills will
set me up for life.
My path is Orange.*



From dropping out to cashing in

Jay, a young man on the verge of leaving school, enrolled in carpentry as a full time student at the West Auckland Vocational Academy (AWVA). "It turned my life around", says Jay.

I proved I wasn't a failure. I turned up to class every day and discovered learning was actually fun.

Jay came top of his class and is now employed as an apprentice electrician after completing further study at UNITEC with a \$2,500 scholarship.

"Ensuring students gain the skills that the trades industry needs now is vital", says Chris Skinner, carpentry tutor. "We constantly work with our tertiary and industry partners both in terms of providing practical expertise to our students and to tell us what skills they want to see in a prospective employee. We aim to have our students work-ready. The change from school to work is a huge step – we give our students a basketful of skills, including numeracy and literacy. The students that come out will be valuable to any employer."

AWVA has also recently purchased a car and employed a driving instructor – this is a direct result of industry stressing the need for employees to have a driver's license. Academy students can now gain their driver's license as part of their course.

Using the Vocational Pathways as a framework, Trades Academies provide hands on practical courses in the trades, working closely with tertiary institutions and industry providers. Carpentry is the AWVA's most comprehensive course and 14 young men from the 2012 intake are all either: currently employed; in an apprenticeship; or at UNITEC continuing their studies.

Students who do not fit the mould of traditional schooling now have an opportunity to excel and learn skills. They can find out about employment options and make a plan for their future.

Construction & Infrastructure Vocational Pathway

The Construction and Infrastructure pathway offers a broad range of study options for students such as:

- implement basic procedures using resistant materials to make a specified product
- demonstrate understanding of basic concepts related to machines
- promote an organised body of design work to an audience using visual communication techniques

- demonstrate understanding of advanced concepts related to structural frameworks
- perform measurements and calculations used in boat building
- demonstrate fundamental knowledge of earthworks
- perform manual soldering and de-soldering procedures for electrotechnology work.

The flexibility of NCEA Level 2 qualifications with Vocational Pathways enables young people to easily change their study options, and many options are applicable to multiple pathways. Students can choose subjects which interest them, suit their learning style, or help them with their career choice.

If you want to know how a student's learning relates to Construction and Infrastructure, ask a young person for their Vocational Profile. It's a good way to understand how their learning relates to industry.

A student with NCEA Level 2 with a Construction and Infrastructure pathway will have:

- a foundation qualification: NCEA Level 2 (or equivalent qualification), recognised as the minimum qualification a young person needs
- a Vocational Pathway in one or more industries
- the minimum level of literacy and numeracy required, or more
- a broad understanding and some relevant skills in the Construction and Infrastructure industries.



Sources

- www.dol.govt.nz/publications/research/forces-for-change/forces-for-change-06.asp
- NZ Manufacturing Sector: its Dynamics and Competitiveness by Castalia Advisory group is on businessnz.org.nz.