

# Students create own scooter racks

Students at Christchurch South Intermediate School needed somewhere safe and secure to lock up their scooters. They came up with the solution.

As scooting to school became more popular, storage was a problem that needed solving. It took months of work during lunch-times but nine year 8 students in a technology extension group came up with a workable design for new scooter racks.

The result is to such a high standard that two other schools have purchased the racks too.

Technology teacher Randall Grenfell says that while this particular project was about providing the infrastructure to support students travelling by scooter, group members were learning all about problem-solving, independence and perseverance.

He noticed the group always arrived quickly for project sessions and were strongly engaged through each step of the process. They were ready to learn, in part because they had chosen the challenge themselves, he says.

'It was an authentic problem, not something a teacher dreamed up to get the ball rolling. It was real to them and their world.'

The group was mentored by a professional engineer, courtesy of the Futureintech initiative, which promotes careers in engineering, technology and science.

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Three students work on a wooden mock-up during the course of the project.



A completed scooter rack.

Most of the students in the group ride scooters to school so they knew it was a problem they wanted sorted. //

Technology teacher  
Randall Grenfell.

## The learning process

The group had a thorough process of research and design. Here's the outline:

- Identified shortcomings in current system, then researched and brainstormed solutions.
- Narrowed down criteria for a successful parking system: locking, ease of access, cost, environmental impact and durability.
- Sketched ideas and picked some for further evaluation.
- Made five different mock-ups in wood and tested these.
- Picked the frontrunner and made a cardboard model with exact specs for manufacture.
- Chose materials and hired an engineering firm to cut and fold a steel prototype.
- Prototype tested and design refined.
- Marketing and branding lessons lead to a sales brochure and approach to other schools.
- Orders taken. Components arrive at school for students to assemble.