Everyone knows and loves the feeling of personal accomplishment when months of hard work pays off, and for 19 of New Zealand's top science students, they experienced something far greater in early December. The annual Genesis Energy Realise the Dream national science event celebrates secondary school students who have undertaken outstanding examples of scientific and technological research. The final 19, very privileged students had been nominated through their local science fair, CREST or national Bright Sparks competition and after their nomination package had undergone hours of rigorous judging they were offered the opportunity of a lifetime.

The Realise the Dream event is sponsored by many top New Zealand organisations including Genesis Energy (principal sponsor), Dairy NZ, UNESCO, and the Royal Society of New Zealand each of which hosted activities and tours during the week. The chosen 19 participants and 6 mentors (previous participants), were flown to Auckland on December 3rd to commence their all expenses paid trip, where they got to know the other participants and experience a communications workshop, visit the Leigh Marine Research Centre and climb the Auckland Harbour Bridge. For the rest of the week, the group travelled down the North Island stopping at various activities and points of interest along the way including Hooker Falls, Hamilton Zoo, Tongariro Outdoor Pursuits Centre and Massey University exposing them to the many different realms of science and possible future career paths. The trip concluded with an awards ceremony at Government House where each student was rewarded with a $500 participation prize and medal presented by His Excellency The Rt Hon Sir Jerry Mateparae.

Year 10 Lincoln High School student, Heather Neill, was one of the select few lucky enough to be given the Realise the Dream opportunity, with her investigation named 'Weka Mecca', which won 'Best in Fair' in the Canterbury-Westland Science and Technology Fair in September 2011. Heather's project investigated whether the native ground bird, weka, would be able to access a non-toxic simulated poison inside a modified chew card detection device at the optimal height for detecting possums. Possum numbers need to be monitored and controlled to minimise the spread of Bovine Tuberculosis which strikes down many cattle herds every year. As possums are a pest, they threaten many of our native birds and also destroy our plants and generally cause havoc among farmers. Heather identified a need to efficiently, humanely and effectively control possum populations whilst keeping low maintenance and cost. Current safety regulations do not maximise possum exposure to the devices due to risk it may pose to ground birds. Heather wanted to investigate this to see whether it really was a necessary precaution to have devices higher than the optimal height, or if it is simply a precaution which had no real effect and could be done away with. Her results concluded that a poison could be potentially included inside specially designed chew cards to aid efficient possum control without presenting a risk to weka provided there were no cattle nearby to interfere with the set up.

Heather described the experience as 'Absolutely incredible! I am so thankful to have been given this amazing opportunity. It has opened so many doors and really broadened my perspectives on future career paths in science.' She said one of her favourite parts was seeing the great range of the other participants' work, and meeting new people and lifelong friends.

Fact sheet

This years project was a continuation of last yeres project

The set up of spoked chew card