

*NIWA Manukau Science and Technology Fair
Prize Giving Ceremony*

Tuesday, 18 August 2015

Mission Heights Junior College Theater

7 to 9 pm

<i>Welcome</i>	<i>Catherine Hunter</i>
<i>Convenor's Address</i>	<i>Catherine Hunter</i>
<i>Science Scholar, University of Auckland speaker</i>	<i>Jake Martin</i>
<i>Presentation of Category Prizes</i>	<i>Prize sponsors</i>
<i>Musical Interlude</i>	<i>MHJC students</i>
<i>Presentation of Special Awards</i>	<i>Prize sponsors</i>
<i>Presentation of the Premier Award</i>	<i>Ken Becker, NIWA</i>
<i>Closing</i>	<i>Catherine Hunter</i>

Your prize money comes in the form of a cheque which is found in your envelope.

Please cash all cheques by December 31, 2015.



Sponsor's Message



NIWA again has the pleasure of congratulating students, parents, teachers and supporters who have worked so hard to ensure the success of the 2015 NIWA Manukau Science & Technology Fair. NIWA has a core interest in promoting science generally and science careers for young New Zealanders, and the Manukau Fair is one of the key ways we promote this interest in the region.

Science & Technology Fairs provide a great chance for students to actively participate in science projects. The enthusiasm is clear to see and the Fairs give an opportunity for students to gain recognition for excellence and innovation. Across the country thousands of students have been involved in researching, constructing, and presenting exhibits. Participation in Science & Technology Fairs is on its own a powerful learning tool. It should also be fun.

Naturally, NIWA hopes that many of the students exhibiting at this year's Fair will go on to careers in science. The future achievements of our young scientists and technologists will lead the way in growing New Zealand's prosperity and in maintaining, restoring and caring for our remarkable environment.

NIWA is the main sponsor of the Waikato, Auckland City, Manukau, Wellington and Bay of Plenty – Science & Technology Fairs. This sponsorship is part of our long-term commitment to enhancing science and technology for young New Zealanders.

Thank you to the Kiwanis, judges, schools and all other sponsors for their commitment and support in promoting the NIWA Manukau Science & Technology Fair. Without your contributions and dedication this exciting science event for the students would not happen.

Dr Julie Hall

NIWA Education Manager

Convenor's Report

Welcome to our special guests of tonight's event, the successful young scientists from across the Manukau region. I would also like to extend a warm welcome to family members, teaching professionals, judges and sponsors. The students will appreciate you being here to see them receive their well-deserved accolades.

As I look around the room, I see a lot of well-presented school uniforms, neat hair and nervous faces, especially on the girls (which I would like to point out makes up more than half the award winners). This is certainly a shift from the stereotypical scientist. You know, the one of the old man in a white coat with wild hair and goofy glasses? It is really encouraging to see so many students dissolving the stereotype, proving that just because you are young doesn't mean you aren't a forward thinking scientist.

Growing up, I didn't have an amazing opportunity quite like this. It was possibly a good thing, because if my ideas were up against yours back then, I wouldn't stand a chance! We had almost 200 projects this year, the majority in the year 7 and 8 categories. You should feel proud of what you have accomplished and at such a young age. The judges made several comments about the high caliber of projects from such young scientists. They were especially amazed by how personalized the scientific questions and technological designs were. Continue to advance society's understanding of science and technology with your imagination and curiosity in the future.

While students have been poking around the science lab, there has been a lot of work going on behind the scenes. I would like to recognize the outstanding efforts of the Committee members. Without these dedicated individuals we wouldn't be able to pull off such a fantastic event. Thanks is also due to the Kiwanis Club of Papapotoetoe, Manurewa High School and the MHJC Family and Friends for their assistance.

The Committee and I are also truly grateful for the time given by the students' teachers, mentors and the judges. Your encouragement and feedback allows us to recognize so many future leaders in science and technology. Just a tip – make sure you get the students' autographs before they leave, just in case they become famous one day.

Finally, thank you to our sponsors for their continued financial support. NIWA and Storage King, Botany North continue to be our major sponsors. This year we have added two sponsors, the Auckland Science Teachers Association and Auckland Transport.

To end, I would like to leave you with a quote from one of those old men who wore a white coat and had wild hair – Albert Einstein: “To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science”. I think he sums up what we are here to celebrate this evening – don't you? Congratulations everyone.

Catherine Hunter
Convenor



Presentation of Category Awards

Category 1 – Years 7 and 8 Living World Sponsored by Wai Shing Ltd.

Presented by Liz Palmer, Committee member,
on behalf of Wai Shing Ltd

FIRST PLACE

Zoe Musham

*Poo Poo Poo: Manure and its ability to make
plants grow*
Somerville Intermediate School

SECOND PLACE

Isabelle Fox

Use It or Lose It
Somerville Intermediate School

THIRD PLACE

Amber Kouwenhoven

Alpaca Alchemy
Somerville Intermediate School

HIGHLY COMMENDED

Nikita Borrie

Raising Radishes
Clevedon School

HIGHLY COMMENDED

Philippa Schaefer

Does Colour Affect Appetite?
Maraetai Beach School

HIGHLY COMMENDED

Ashley Tan

A Toy for All Paws?
Somerville Intermediate School

HIGHLY COMMENDED

Alysa Lai

'Brain' Man's Computer
Somerville Intermediate School

Category 2 – Years 7 and 8 Physical and Material World

Sponsored by Gunac South Auckland GME Ltd.

Presented by Robyn Mekkelholt, Owner, Gunac
South Auckland GME Ltd.

FIRST PLACE

Aaron Jackson

How to keep your eggs in eggcellent condition
Elim Christian College

SECOND PLACE

Grace Chang

Mac Nap
Somerville Intermediate School

THIRD EQUAL

Hope Bailey

Sugar, Oh Honey Honey!
Elim Christian College

THIRD EQUAL

Graeme Gobey

YiQi. Flying Dinosaur?
Somerville Intermediate School

HIGHLY COMMENDED

Emma Jorgensen

Vitamin C
Saint Kentigern College

HIGHLY COMMENDED

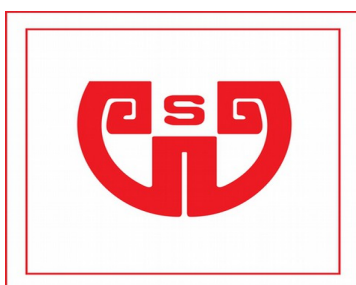
Jessica Haworth

Up in Flames
Somerville Intermediate School

HIGHLY COMMENDED

Alex Coleman-Chaiman

Too Slow No Go Oh No
Pukekohe Intermediate School



Presentation of Category Awards

Category 3 – Years 7 and 8 Environmental Science / Planet Earth and Beyond

Sponsored by the Kiwanis Club of Papatoetoe

Presented by John Bell, Past President,
Kiwanis Club of Papatoetoe

FIRST PLACE

Ethan McCormick

Mangemangeroa Medical

Somerville Intermediate School

SECOND PLACE

Blake Fryer

Biodegradable Soft Baits or not?

Pukekohe Intermediate School

THIRD PLACE

Julianne Buys

What's growing on our playground?

Maraetai Beach School

HIGHLY COMMENDED

Zoe Shuker

Climate Change?

Drury School

Category 4 – Years 7 and 8 Intermediate Consumer Science

Jointly sponsored by the Kiwanis Clubs of
Shamrock and Drury

Presented by Dean Tohill, President, Kiwanis
Club of Shamrock

FIRST PLACE

Danielle Mayer

Margarine or Waterine

Saint Kentigern College

SECOND PLACE

Aiden Iqbal

Cool Running

Somerville Intermediate School

THIRD PLACE

Xanfira Goulder-Chisholm

Lush-ious Locks

Saint Kentigern College

HIGHLY COMMENDED

Renee Baird

No Stain No Shame

Rosehill Intermediate School

HIGHLY COMMENDED

Samiya Patel

Slurp, Chew or Crunch?

Saint Kentigern College

HIGHLY COMMENDED

Kystal Lal

Sanitiser Showdown

Howick Intermediate School

HIGHLY COMMENDED

Ann Cato

The Good Sauce

Pukekohe Intermediate School



Presentation of Category Awards

Category 5 – Years 7 to 10 Technology / Innovations

Sponsored by KP Group Ltd

Presented by Neil Pemberton of
KP Group Ltd

FIRST PLACE

Michaela Gobey

Ballet Posture Belt

Somerville Intermediate School

SECOND PLACE

Devin O'Callaghan

Smarter Storage

Pukekohe Intermediate School

THIRD PLACE

Jake Hoggart

Frost Bite, Yeah Right!

Drury School

HIGHLY COMMENDED

Isabella Caine

A Better Banana Box

Pukekohe Intermediate School

HIGHLY COMMENDED

Ciaran Hanrahan

Multi-purpose disposable glove dispenser

Pukekohe Intermediate School

HIGHLY COMMENDED

Cooper Hart

The Herbinator

Drury School

HIGHLY COMMENDED

Joshua van Garderen

AutoAqua

Elim Christian College

Category 6 – Years 9 and 10 Living World

Sponsored by Kiwanis Club of Waiau Pa-Clarks
Beach

Presented by Megan Allan, President, Kiwanis
Club of Waiau Pa-Clarks Beach

FIRST PLACE

John Yang

Bill Wong

Ryan Ngo

Misconception

Mission Heights Junior College

SECOND EQUAL

Shiwani Prasad

Athina Hiep

Partiality and Prejudice

Mission Heights Junior College

SECOND EQUAL

Karen Phung

Bridget Ong

Monisha Narayan

Colour and Memory

Alfriston College

HIGHLY COMMENDED

Zhuali Lim

Nageesh Sharma

Bee's Colour Sense

Howick College



Presentation of Category Awards

Category 7 – Years 9 and 10 Physical and Material World

Sponsored by New Zealand Steel Ltd.

Presented by Bruce Cooper, Mechanical Supervising Engineer

FIRST PLACE

Jojo Coleman-Chaiman

No Whey!

Pukekohe High School

SECOND PLACE

Sarah Spargo

Off the Wheaten Path

Howick College

THIRD PLACE

Katie Smith

Sweet Addiction

Howick College

HIGHLY COMMENDED

Levi Beintken

Light Efficiency

Howick College

HIGHLY COMMENDED

Grace Hills

Butterfly Wings

Alfriston College

HIGHLY COMMENDED

William Pickett

Spud-Zooka

Howick College

Category 8 – Years 9 and 10 Environmental Science / Plant Earth and Beyond

Sponsored by Kiwanis Club of Papakura

Presented by Ewan Beck, Past Gov. NZSP District of Kiwanis International

FIRST PLACE

Emma Stevens

Light Pollution

Pukekohe High School

SECOND PLACE

Molly Herbert

Ashley Taimataora

Ngapipi Herewini

Bacterial Matters

Mission Heights Junior College

THIRD PLACE

Eleanor Cato

The "Dirt" on Soil

Pukekohe High School

HIGHLY COMMENDED

Georgia Huddle

How Clean is Your Stream?

Howick College

HIGHLY COMMENDED

Kate Fryer

Compost

Pukekohe High School



Presentation of Category Awards

Category 9 – Year 9 to 13 Secondary Consumer Science

Sponsored by Auckland Science Teachers
Association

Presented by Catherine Hunter, Auckland
Science Teachers Association

FIRST PLACE

Timothy Dreadon

Dehumistify – To Dry or Dehumidify?
Manurewa High School

SECOND PLACE

Tilly Smith

Laura Davies

Meat vs. “Meat”
Howick College

THIRD PLACE

Catherine Burr

Lewis Road Creamery: Milk Worth Crying Over?
Pukekohe High School

Category 10 – Years 7 to 13 Scientific Photography

Sponsored by Storage King, Botany North

Presented by Peter Limpus, Facility
Manager, Storage King, Botany North

FIRST PLACE

Molly Herbert

Watermarked
Mission Heights Junior College

SECOND PLACE

Russell Hendry

Wetlands and Waterways
Somerville Intermediate School

THIRD PLACE

Anna Twyman

The Hot Spot
Somerville Intermediate School

HIGHLY COMMENDED

Tessa Dreadon

*Precious Resources – Endangered and
Threatened Animals*
Manurewa High School



Presentation of Category Awards

Category 11 – Years 11 to 13 Senior Science

Sponsored by NIWA

Presented by Ken Becker, Regional Manager
(Auckland)

FIRST PLACE

Brad Kroef

Logan Brown

Get a Grip

Pukekohe High School

SECOND PLACE

Manisha Paliwal

Five Fats Fight it Out

Manurewa High School

THIRD EQUAL

Aimen Sana

Garlic: To Wait or Not!

Manurewa High School

THIRD EQUAL

Daniel Brewster

*Germinating Spinach Seeds Under Varying Light
Wavelengths*

Pukekohe High School



Presentation of Special Awards

DairyNZ Awards

Sponsored by DairyNZ

Presented by Carol Duffield on behalf of Dairy NZ

Ciaran Hanrahan

Multi-purpose disposable glove dispenser

Pukekohe Intermediate School

Aimen Sana

Garlic: To Wait or Not!

Manurewa High School

Daniel Brewster

Germinating Spinach Seeds Under Varying Light Wavelengths

Pukekohe High School

Catherine Burr

Lewis Road Creamery: Milk Worth Crying Over?

Pukekohe High School

Georgia Hoddle

How Clean is Your Stream?

Howick College

Ethan McCormick

Mangemangeroa Medical

Somerville Intermediate School



The IET Innovation Awards

Sponsored by the Institution of Engineering and Technology

Presented by Yan Liu, IET Member

FIRST PLACE

Jake Hoggart

Frost Bite, Yeah Right!

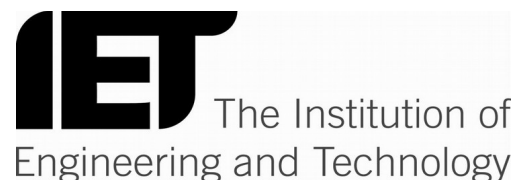
Drury School

SECOND PLACE

Michaela Gobey

Ballet Posture Belt

Somerville Intermediate School



Presentation of Special Awards

Best Project by a Maori Student

Sponsored by Manukau Institute of Technology

Presented by Chris Lautau, Schools and Pasifika Liaison

Jesse Tuhaka

Samhitha Yamineni

Sugar Rush

Mission Heights Junior College

Best Project by a Pasifika Student

Sponsored by Manukau Institute of Technology

Presented by Chris Lautau, Schools and Pasifika Liaison

Paris Lam

Tupou Makaui

Wiseman Mataiti

Milk: A1 vs A2

Southern Cross Campus



MIT Engineering Award

Sponsored by Manukau Institute of Technology,
School of Engineering

Presented by Ian Morrison, MHJC Principal, on behalf of MIT

Jake Hoggart

Frost Bite, Yeah Right!

Drury School

Best Soil Science Related Project Award

Sponsored by NZ Society for Soil Science

Presented by Carol Duffield on behalf of the Society

Eleanor Cato

The "Dirt" on Soil

Pukekohe High School



Presentation of Special Awards

Best Use of Statistics Award

Sponsored by the New Zealand Statistical Association

Presented by Carol Duffield on behalf of the Association

Benson Ireland

Which Soil?

Mission Heights Junior College



Best Use of Flour Award

Sponsored by the Baking Industry Research Trust

Presented by Carol Duffield on behalf of the Trust

FIRST PLACE

Sarah Spargo

Off the Wheaten Path

Howick College



**BAKING INDUSTRY
RESEARCH TRUST**

SECOND PLACE

Joanne Ting

Sanraj Hayer

Fluffin Muffins

Mission Heights Junior College

Auckland Transport Travelwise Award

Sponsored by Auckland Transport

Presented by Allison Kennedy, Auckland Transport

Brad Kroef

Logan Brown

Get a Grip

Pukekohe High School



Presentation of Special Awards

The Student Encouragement Awards

Sponsored by Auckland Science Teachers Association

Presented by Catherine Hunter,
Auckland Science Teachers Association

Jenna Gawn

Shanna Steffany

Is Coconut Water All It's Cracked Up To Be?

Howick College

Isadora Tunai

Jennifer Thonrithi

Corned Beef

Southern Cross Campus



The Environment Award

Sponsored by NIWA

Presented by Ken Becker, Regional Manager (Auckland)

Emma-Rose Sears

Future of Compost

Pukekohe Intermediate School



Award for Best Application of Electronics

Sponsored by NIWA

Presented by Ken Becker, Regional Manager (Auckland)

Emma-Rose Sears

Future of Compost

Pukekohe Intermediate School

Presentation of Special Awards

Prize for Best Year 7 Innovation, Invention, or Investigation

Sponsored by NIWA

Danielle Mayer

Margarine or Waterine

Saint Kentigern College

Prize for Best Year 8 Innovation, Invention, or Investigation

Sponsored by NIWA

Ethan McCormick

Mangemangeroa Medical

Somerville Intermediate School

Prize for Best Year 9 Innovation, Invention, or Investigation

Sponsored by NIWA

John Yang

Bill Wong

Ryan Ngo

Misconception

Mission Heights Junior College

Prize for Best Year 10 Innovation, Invention, or Investigation

Sponsored by NIWA

Avinash Sathiyaseelan

Samson Ireland

Propelling the Drone

Mission Heights Junior College



Presentation of Special Awards

Prize for Best Year 11 Innovation, Invention, or Investigation

Sponsored by NIWA

Timothy Dreadon

Dehumistify – To Dry or Dehumidify?

Manurewa High School

Prize for Best Year 12 Innovation, Invention, or Investigation

Sponsored by NIWA

Aimen Sana

Garlic: To Wait or Not!

Manurewa High School

Prize for Best Year 13 Innovation, Invention, or Investigation

Sponsored by NIWA

Brad Kroef

Logan Brown

Get a Grip

Pukekohe High School



Presentation of Special Awards

New Zealand Heritage Award

Sponsored by NIWA

Presented by Ken Becker, Regional Manager (Auckland)

Ethan McCormick

Mangemangeroa Medical

Somerville Intermediate School



Best Application of the Scientific Method

Sponsored by the University of Otago

Presented by Xenia Bilton

Prabhjot Kaur

Long Live Lactose

Manurewa High School



The Eric Clague Kiwanis Award

Sponsored by Kiwanis Clubs of Counties Manukau

Presented by Megan Allen, on behalf of the
Kiwanis Clubs of Counties Manukau

Danielle Mayer

Margarine or Waterine

Saint Kentigern College



Brad Kroef

Logan Brown

Get a Grip

Pukekohe High School

Premier Award for Best Exhibit of the Fair

Sponsored by NIWA

Presented by Ken Becker, Regional Manager (Auckland)

Ethan McCormick

Mangemangeroa Medical

Somerville Intermediate School



Presentation of Special Awards

The John Bell Award

Presented by John Bell, past Committee member

Beryl McKinnell

Treasurer

Christine Howard

Past Convenor



Special Thanks to our Judges and Committee

Our team of judges are recognised as specialists in their fields. Judges are a mixture of professionals from local schools, universities, technology institutes and the science and technology industries.

Chief Judge

Catherine Hunter

Assistant Chief Judges

Carol Duffield

Lynn Dunbar

Judges

Xenia Bilton
Alastair Caine
Jamie Chow
Steph Collingwood
John Cook
Dion Cowley
Chandar Dewan
Rowan Ewens
Stephen Gobey
Denny Govender
Laura Kelly
Allison Kennedy
Ruby Huang
Yan Liu
Kareena Mantis

Vicky-Lee Mueller
Su Mukund
Ian Paterson
Shikha Pundir
Nicolette Rattenbury
Keith Ripper
Charlotte Robertson
Chris Ryan
Shamim Shikh
Susan Stokes
Shaun Tan
Lisa Wong
Karlo Yakich
Sophia Yakich
Jinfeng Zhao

Science Fair Committee

Convenor
Secretary
Treasurer
Sponsorship
Judging convenor
Registration co-ordinator
Webmaster

Catherine Hunter
Liz Palmer
Beryl McKinnell
Melanie Kindley
Catherine Hunter
Dion Cowley
Ben Doughney

A special thanks to Mission Heights Junior College for hosting the NIWA Manukau Science and Technology Fair, to the support of Manurewa High School the Mission Heights Junior College Family and Friends, and the Kiwanis Club of Papatoetoe.

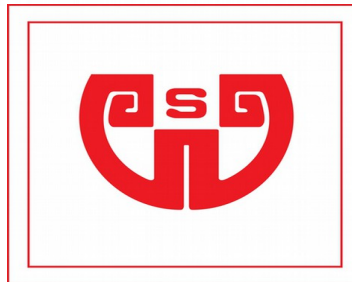
We would also like to thank teachers for their ongoing commitment in supporting students entering the Fair.

Website: www.sciencefairmanukau.org.nz

2015 Participating Schools

Alfriston College
Clevedon School
Drury School
Elim Christian College
Howick College
Howick Intermediate School
Manurewa High School
Maraetai Beach School
Mission Heights Junior College
Pukekohe High School
Pukekohe Intermediate School
Rosehill Intermediate School
Saint Kentigern College
Sancta Maria College
Somerville Intermediate School
Southern Cross Campus
Tyndale Park Christian School
Zayed College for Girls

Thank you to our Sponsors



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UNIVERSITY
of
OTAGO



Te Whare Wānanga o Ōtāgo

