



Proud sponsors of Regional Science and Technology Fairs

*NIWA South and East Auckland  
Science & Technology Fair*

*Monday, 7 September, 2020  
Mission Heights Junior College*

If you have opted for a cheque, instead of a direct deposit,  
it will be found in this envelope.

Please ensure the cheque is cashed no later than December 31, 2020.

# *Sponsor's Message*

A very warm welcome to the 2020 NIWA South and East Auckland Science & Technology Fair.

It's a great pleasure for NIWA to support this outstanding event once again, and we congratulate all the students, parents, teachers and supporters who have worked so hard to ensure its success.

NIWA Science & Technology Fairs are a wonderful opportunity for students to showcase their talent and enthusiasm for science, and to gain recognition for their excellence and innovation. Across the country, thousands of students have been involved in researching, constructing and presenting exhibits. Participation is on its own a powerful learning tool, but above all else they should be fun.

Naturally, NIWA has a vested interest in nurturing a passion for science and technology among young New Zealanders. Enhancing knowledge in NIWA's key areas of scientific focus – the atmosphere, the ocean, and freshwater – is critical to the sustainable growth of New Zealand as a nation. We need fresh enquiring minds to maintain this momentum. A career in science and technology is as rewarding as it is important – and right here is where we hope a spark may be lit.

NIWA is the main sponsor of the South and East Auckland, Auckland City, North Harbour, Waikato, Bay of Plenty, Wellington and Canterbury-Westland Science and Technology Fairs. These events form part of our long-term commitment to enhancing engagement with science and technology by young New Zealanders.

Thank you to the organising committee, judges, schools and other sponsors for your commitment and support in promoting the NIWA South and East Science & Technology Fair. Without you, this exciting event simply wouldn't happen.

Tracey Burton

NIWA Science Fairs Co-ordinator

# Category Awards

## **Category 1 Years 7 and 8 Living World**

### FIRST PLACE

**Aashi Golcha**  
Mission Heights Junior College  
“The Microwave Myth”

### SECOND PLACE

**Valerie Perez**  
Somerville Intermediate School  
“Homemade Liquid Fertilizer From Food Waste”

### THIRD PLACE

**Nyesa Khurana**  
Somerville Intermediate School  
“Blue Light Has a Dark Side”

### HIGHLY COMMENDED

**Charlotte Radford**  
Somerville Intermediate School  
“DIY Masks – Who Nose?”

## **Category 2 Years 7 and 8 Physical and Material World**

### FIRST PLACE

**Annabelle Olsen**  
Somerville Intermediate School  
“Grip or Slip”

### SECOND PLACE

**Jake Newbould**  
Howick Intermediate School  
“Hair Force One”

### THIRD PLACE

**AJ McConnell**  
Howick Intermediate School  
“AirPods hot or watt”

### HIGHLY COMMENDED

**Maria Christophers**  
Farm Cove Intermediate School  
“Glass or pass”

**James Wu**  
Farm Cove Intermediate School  
“Does Hot Water Freeze Faster than Cold?”

**Stella Donaldson**  
Howick Intermediate School  
“How Loud is Too Loud”

# Category Awards

**Category 3**  
**Years 7 and 8**  
**Environmental Science**

FIRST PLACE

**Ben McLaren**  
Somerville Intermediate School  
“The Sustainable Garden”

SECOND PLACE

**Blake Nankivell**  
Howick Intermediate School  
“Composting – it’s in the Bag”

HIGHLY COMMENDED

**Kaeden McGillivray**  
Pukekohe Intermediate School  
“Dirty Cars”

**Category 4**  
**Years 7 to 10 Consumer Science**

FIRST PLACE

**Kelly Ma**  
Somerville Intermediate School  
“Be Gone, Glad Wraps”

SECOND PLACE

**Linaya Rungan**  
Mission Heights Junior College  
“Don’t Have a Cow”

THIRD PLACE

**Tiffany Ong**  
Somerville Intermediate School  
“Battle of the Toilet Paper”

HIGHLY COMMENDED

**Georgia Sole and Kate Sole**  
Somerville Intermediate School  
“Blasting Bliss Balls”

# Category Awards

**Category 5**  
**Years 7 to 10 Technology / Innovations**

FIRST PLACE

**Mika Ramsing**  
Mission Heights Junior College  
“Duct Power”

SECOND PLACE

**Noah Birchall**  
Pukekohe Intermediate School  
“Colour Detector”

THIRD EQUAL

**Andre O’Callaghan**  
Pukekohe Intermediate School  
“Smarter Driving”

**Die-Anche Rautenbach**  
Somerville Intermediate School  
“A Gauge from Dad’s Book”

HIGHLY COMMENDED

**Asher Coomes**  
Somerville Intermediate School  
“Love Your-Shelf”

**Joseph Kim and Andrew Wang**  
Farm Cove Intermediate School  
“Eco-Friendly Garbage Scow”

**Category 6**  
**Years 9 and 10 Living World**

FIRST PLACE

**Phimphisa Vongsaly and  
Toafa Laurenson**  
Aorere College  
“Quantifying the antioxidant effect  
of different teas”

SECOND PLACE

**Kaylee Ghezzi and Aliona Dalmatava**  
Mission Heights Junior College  
“To mask or not to mask?”

# Category Awards

**Category 7**  
**Years 9 and 10 Physical and**  
**Material World**

FIRST PLACE

**Stephanie Ly and Nishwitha Kappuluri**  
Mission Heights Junior College  
“Catch the Wind”

**Category 8**  
**Years 9 and 10**  
**Environmental Science**

FIRST PLACE

**Michelle Do and Tanvi Dass**  
Mission Heights Junior College  
“Peeling Away Droughts”

HIGHLY COMMENDED

**Julia Koeman**  
Saint Kentigern College  
“Sea Sparkle”

# Category Awards

**Category 9**  
**Primary Science and Technology**

FIRST PLACE

**Euan Hooi and Jeremy Lee**  
Elim Christian School  
“Do rewards motivate children  
to do more work?”

**Category 10**  
**Years 11 to 13 Senior Science**

FIRST PLACE

**Helen Thai and John Thai**  
Aorere College  
“The Race Against Myrtle Rust”

SECOND PLACE

**Heeju Rho**  
Saint Kentigern College  
“Mitotic Root Growth and the  
Potassium Ion”

# Special Awards

**The IET Innovation Awards**  
Sponsored by the Institution of  
Engineering and Technology



## JUNIOR AWARD

**Andre O’Callaghan**  
Pukekohe Intermediate School  
“Smarter Driving”

## SENIOR AWARD

**Mika Ramsing**  
Mission Heights Junior College  
“Duct Power”

**Award for Best Application of Electronics**  
Sponsored by Sociological Association of Aotearoa  
NZ (SAANZ)



**Manveer Singh Saini**  
Howick College  
“Are my Plants Thirsty?”

**Science Award Trust (Years 7 and 8 Only)**  
Sponsored by Science Award Trust



**Tiffany Ong**  
Somerville Intermediate School  
“Battle of the Toilet Paper”

**Best Use of Statistics Award**  
Sponsored by the Science Fair Committee



**Celina Tsui**  
Saint Kentigern College  
“The Anti-Bacterial Effects of Manuka Honey”



# Special Awards

## Best Project by a Maori or Pasifika Student

Sponsored by the Geography Programme, Massey University



### Phimphisa Vongsaly and Toafa Laurenson

Aorere College

“Quantifying the antioxidant effect of different teas”

## The Environment Award

Sponsored by NIWA



### Morgan Alley

Somerville Intermediate School

“Bio-plastic Fantastic”

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## Best Soil Science Related Project Award

Sponsored by NZ Society for Soil Science



### Michelle Do and Tanvi Dass

Mission Heights Junior College

“Peeling Away Droughts”

## Best Use of Flour Award

Sponsored by the Baking Industry Research Trust



**BAKING INDUSTRY  
RESEARCH TRUST**

### Violet Taylor

Saint Kentigern College

“Covid Cupcake Crisis”

# Special Awards

## Prizes for Best Innovation, Invention, or Investigation by Year Level

Sponsored by NIWA

### Year 7

**Aashi Golcha**

Mission Heights Junior College

*“The Microwave Myth”*



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### Year 8

**Annabelle Olsen**

Somerville Intermediate School

*“Grip or Slip”*

### Year 9

**Mika Ramsing**

Mission Heights Junior College

*“Duct Power”*

### Year 10

**Phimphisa Vongsaly and Toafa Laurenson**

Aorere College

*“Quantifying the antioxidant effect of different teas”*

### Year 11

**Helen Thai and John Thai**

Aorere College

*“The Race Against Myrtle Rust”*

### Year 12 -- *Not Awarded*

### Year 13

**Heeju Rho**

Saint Kentigern College

*“Mitotic Root Growth and the Potassium Ion”*

## Premier Award for Best Exhibit of the Fair

Sponsored by NIWA

**Helen Thai and John Thai**

Aorere College

*“The Race Against Myrtle Rust”*



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# 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.

## Judges

<b>Chief Judge:</b> Chandar Dewan, Tangaroa College	
<b>Guy Coulson</b> , NIWA	<b>Lola Mugisho</b> , Faculty of Medical & Health Sciences, University of Auckland
Ben Doughney, Mission Heights Junior College	<b>Sneh Patel</b> , Department of Chemistry, University of Auckland
<b>Lyn Dunbar</b> , Farm Cove Intermediate	<b>Andy Peacock</b> , Institution of Engineering and Technology
<b>Stella Huggins</b> , Science Scholars, University of Auckland	<b>Angela Rees</b> , Elim Christian College
<b>Catherine Hunter</b> , Mission Heights Junior College	<b>Haruna Suzuki-Kerr</b> , Faculty of Medical & Health Sciences, University of Auckland
<b>Malaaha Hussain</b> , Science Scholars, University of Auckland	<b>Jie Zhang</b> , Faculty of Medical & Health Sciences, University of Auckland
<b>Lyndi Matthews</b> , Science Scholars, University of Auckland	<b>Julia Zhou</b> , Institution of Engineering and Technology

## Science Fair Committee

Co-Convenors

Secretary

Treasurer

Chief Judge

Registration / Webmaster

Richard Henty and Catherine Hunter

Angela Rees

Dion Cowley

Chandar Dewan

Ben Doughney

A special thanks to Mission Heights Junior College for hosting the Fair.

We would also like to thank teachers for their ongoing commitment in supporting students with their projects.

Website: [www.sciencefairmanukau.org.nz](http://www.sciencefairmanukau.org.nz)



# *2020 Participating Schools*

*Aorere College*

*Elim Christian School*

*Farm Cove Intermediate School*

*Howick College*

*Howick Intermediate School*

*Mission Heights Junior College*

*Pukekohe Intermediate School*

*Saint Kentigern College*

*Somerville Intermediate School*

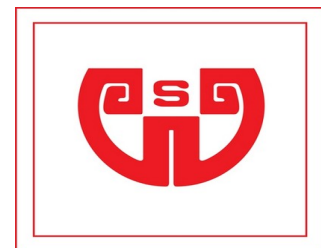
# Thank you to our Sponsors

## Premier Sponsor



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## Category Sponsors



## Special Prize Sponsors

