

# SOUTH & EAST AUCKLAND NIWA SCIENCE & TECHNOLOGY FAIR



Proud sponsors of Regional Science and Technology Fairs

**NIWA**  
***South and East Auckland***

**2023**

***Science & Technology Fair***

Hosted at:  
Mission Heights Junior College  
25 August 2023

Prizegiving at:  
Sancta Maria College  
29 August 2023



Proud sponsors of Regional Science and Technology Fairs

# Sponsor's Message

Kia ora koutou

A very warm welcome to the 2023 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, innovation, and hard work. Across the country, thousands of students have been involved in researching, constructing, and presenting exhibits. Investigating a science topic is a powerful learning tool, but above all else, participation 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 for the next generation of scientists.

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.

Ngā mihi nui  
Mia Blyth

NIWA Science Fairs Coordinator



Proud sponsors of Regional Science and Technology Fairs

# Category Awards

## Category 1: Years 7 and 8 Living World

### FIRST PLACE

**Ezekeal Bodle**  
Somerville Intermediate School

### SECOND PLACE

**Thomas McLaren**  
Somerville Intermediate School

### THIRD PLACE

**Shahar Meshulam-Weiss**  
Somerville Intermediate School

### HIGHLY COMMENDED

**Shanaya Krishna**  
Tyndale Park Christian School

**Halen Rhynd**  
Farm Cove Intermediate School

**Laura Yang & Jingyi Zhao**  
Farm Cove Intermediate School

**Olivia Hargreaves-Judd**  
Somerville Intermediate School

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

### FIRST PLACE

**Hannah Hutchings**  
Somerville Intermediate School

### SECOND PLACE

**Kahlan Allen & Emma Bloxham**  
Howick Intermediate School

### THIRD PLACE

**Navia Rachhod & Maxine Camus**  
Howick Intermediate School

### HIGHLY COMMENDED

**Isaac Wong**  
Saint Kentigern College

**Daniel Pokorny**  
Somerville Intermediate School



Proud sponsors of Regional Science and Technology Fairs

# Category Awards

## Category 3: Years 7 and 8 Environmental Science

### FIRST PLACE TIE

**Mevuni Ariyasinghe**  
Somerville Intermediate School

**Zoe Lee Hine**  
Somerville Intermediate School

### THIRD PLACE

**Paige Mclachlan-Roberts**  
Somerville Intermediate School

### HIGHLY COMMENDED

**Harvey Powell**  
Somerville Intermediate School

## Category 4 : Years 7 to 13 Consumer Science

### FIRST PLACE

**Isabella Pienaar & Ruby Mapson**  
Somerville Intermediate School

### SECOND PLACE

**Arush Gupta & Jonathan Philip**  
Somerville Intermediate School

### THIRD PLACE

**Nadia Bland**  
Elim Christian College

### HIGHLY COMMENDED

**Shi Ming Erb**  
Howick Intermediate School

**Alex Kirke**  
Saint Kentigern College



Proud sponsors of Regional Science and Technology Fairs

# Category Awards

**Category 5 : Years 7 to 10  
Technology and Innovations**

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

FIRST PLACE

**Allie Denton**  
Pukekohe Intermediate School

FIRST PLACE

**Harleen Kaur**  
Mission Heights Junior College

SECOND PLACE

**Shelson Small & Sebastian Johnson**  
Howick Intermediate School

THIRD PLACE

**Ben McKay**  
Somerville Intermediate School

HIGHLY COMMENDED

**Ryan Melville**  
Howick Intermediate School

**Lucas Zhao**  
Somerville Intermediate School

**Archie Gilchrist**  
Howick Intermediate School

**Josh Arnold**  
Elim Christian College



Proud sponsors of Regional Science and Technology Fairs

# Category Awards

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

FIRST PLACE

**Oliver McGuinness & George  
McGuinness**  
Saint Kentigern College

SECOND PLACE

**Micah Chen**  
Saint Kentigern College

HIGHLY COMMENDED

**Audrey Lin**  
Saint Kentigern College

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

FIRST PLACE

**Melanie Yin**  
Saint Kentigern College

SECOND PLACE

**Rylee Barrett**  
Howick College

HIGHLY COMMENDED

**Bethsharon Mattocks**  
Tangaroa College



Proud sponsors of Regional Science and Technology Fairs

# Category Awards

**Category 10: Year 6  
Science and Technology**

FIRST PLACE

**Israel Pearce**  
Elim Christian College

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

FIRST PLACE

**Ivy Wang**  
Saint Kentigern College

SECOND PLACE

**Sean Wang**  
Saint Kentigern College





# Special Awards

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



**Daniel Pokorny**  
Somerville Intermediate School

**Thomas Costar**  
Somerville Intermediate School

**Best Application of Electronics Award**  
Sponsored by the Science Fair Committee



**Saanvi Sethi**  
Mission Heights Junior College

**Best Use of Statistics Award**  
Sponsored by the NZ Statistical Association



**Ivy Wang**  
Saint Kentigern College

**Best Project by a Māori Student**  
Sponsored by Manukau Institute of Technology

**Josh Arnold**  
Elim Christian College



**Best Project by a Pasifika Student**  
Sponsored by Manukau Institute of Technology

**Faazil Muhammed**  
Mission Heights Junior College



# Special Awards

## Best Use of Flour Award

Sponsored by the Baking Industry Research Trust

**Thomas McLaren**  
Somerville Intermediate School



**BAKING INDUSTRY  
RESEARCH TRUST**

## Ballance Sustainable Agricultural Award

Sponsored by Ballance Agri-nutrients

**Ezekeal Bodle**  
Somerville Intermediate School



## Environmental Award

Sponsored by NIWA

**Melanie Yin**  
Saint Kentigern College



Proud sponsors of Regional Science and Technology Fairs

## Student Encouragement Award

Sponsored by Science Fair Committee

**Sheldon Small & Sebastian Johnson**  
Howick Intermediate School



# Special Awards

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

Sponsored by NIWA



Proud sponsors of Regional Science and Technology Fairs

### Year 7

**Allie Denton**

Pukekohe Intermediate School

### Year 8

**Isabella Pienaar & Ruby Mapson**

Somerville Intermediate School

### Year 9

**Bethsharon Mattocks**

Tangaroa College

### Year 10 Equal

**Oliver McGuinness & George McGuinness**

Saint Kentigern College

**Melanie Yin**

Saint Kentigern College

### Year 13

**Ivy Wang**

Saint Kentigern College

## Runner-up & Premier Awards for Best Exhibits of the Fair

Sponsored by NIWA



Proud sponsors of Regional Science and Technology Fairs

### Runner-up

**Isabella Pienaar & Ruby Mapson**

Somerville Intermediate School

### Premier Award

**Ivy Wang**

Saint Kentigern College

# 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

|           |             |   |
|-----------|-------------|---|
| Dion      | Cowley      | St Kentigern College  |
| Chandar   | Dewan       | Tangaroa College  |
| Ben       | Doughney    | Mission Heights Junior College  |
| Lynn      | Dunbar      | Farm Cove Intermediate School   |
| Catherine | Hunter      | Mission Heights Junior College  |
| Ayesha    | Kumar       | Howick College  |
| Lyndi     | Le Fay      | NZ Defence  |
| Anson     | Liu         | Science scholars, University of Auckland                                      |
| Freddy    | Lyzwa       | Research Fellow, University of Auckland                                       |
| Stuti     | Misra       | Senior research fellow, University of Auckland                                |
| Fatima    | Moses       | Science scholars, University of Auckland                                      |
| Sneh      | Patel       | WeSTEM project manager, Te Hononga Akoranga COMET                             |
| Andy      | Peacock     | Fellow of Institution of Engineering and Technology                           |
| Olivia    | Pearce      | Science scholars, University of Auckland                                      |
| Jai       | Prakash     | Hort and Arable Specialist, Ballance Agri-Nutrients                           |
| Avezha    | Rizvi       | Science scholars, University of Auckland                                      |
| Dania     | Shafiq      | Science scholars, University of Auckland                                      |
| Haruna    | Suzuki-Kerr | Research Fellow, University of Auckland                                       |
| Vadim     | Tokarev     | Lead Engineer, Institution of Engineering and Technology                      |
| Jie       | Zhang       | Senior research fellow, University of Auckland                                |
| Julia     | Zhou        | Programme Coordinator, Fonterra and Institution of Engineering and Technology |
| James     | Zingel      | Science scholars, University of Auckland                                      |

## Science Fair Committee

Co-Convenors

Treasurer

Chief Judge

Registration / Webmaster

Judging Day Support

Richard Henty and Catherine Hunter

Dion Cowley

Chandar Dewan

Ben Doughney

Lynn Dunbar

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)



Proud sponsors of Regional Science and Technology Fairs

# 2023 Participating Schools

Botany Downs Secondary College

Elim Christian College

Farm Cove Intermediate School

Howick College

Howick Intermediate School

Mission Heights Junior College

Ormiston Junior College

Pukekohe Intermediate School

Saint Kentigern College

Somerville Intermediate School

Tangaroa College

Tyndale Park Christian School



Proud sponsors of Regional Science and Technology Fairs

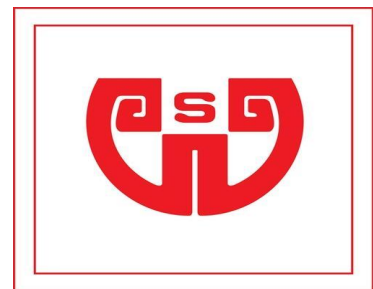
# Thank you to our Sponsors

## Premier Sponsor



Proud sponsors of Regional Science and Technology Fairs

## Category Sponsors



# Thank you to our Sponsors

## Special Prize Sponsors



BAKING INDUSTRY  
RESEARCH TRUST



MANUKAU  
INSTITUTE OF  
TECHNOLOGY  
Te Whare Takiri o Manukau



Te Pūkenga

