

## The 2024 Hawaii State Science & Engineering Fair Junior (JR) Division Best in Category

JR - ANIMAL SCIENCES (ANIM)		
1 <sup>st</sup> Place	Tainui M. / Carl A. Moloka'i Middle School	ANIM-402 From Coop to Cash: Uncovering the Clucks of Chicken Market Value
2 <sup>ND</sup> Place	Zoe G. Niu Valley Middle School	ANIM-403 Salt vs. Mosquitos
3 <sup>RD</sup> Place	Henry W. Kailua Intermediate School	ANIM-405 Protect our Pollinators

JR - BEHAVIORAL & SOCIAL SCIENCES (BEHA)		
1 <sup>st</sup> Place	Peyton T. Ke'elikōlani Middle School	BEHA-415 Be Calm and Breathe On
2 <sup>ND</sup> Place	lan C. / Kaito K. / Colton T. Kaimukī Middle School	BEHA-412 Do Video Games Affect Cognitive Performance?
3 <sup>RD</sup> Place	Alina P. Maunawili Elementary School	BEHA-419 Colorful Cupcake Cravings

JR - BIOCHEMISTRY (BCHM)		
1 <sup>st</sup> Place	Alexander G. Punahou School	BCHM-408 Combustibility of Native vs. Non-Native Grasses
2 <sup>ND</sup> Place	Makai B. Hilo Intermediate School	BCHM-410 A Study in Conductivity (mS) of Hawaiian Grown and Imported Citrus
3 <sup>RD</sup> Place	Pai'ea G. Kamehameha Schools, Kapālama	BCHM-406 I Love Ice Cream, But It Doesn't Love Me: Understanding Lactose Intolerance

	JR - BIOMEDICAL & HEALTH SCIENCES (BMED)		
1 <sup>s⊤</sup> Place	Kristy K. Highlands Intermediate School	BMED-428 How Bad Could It Be? Sugar vs. Teeth	
2 <sup>ND</sup> Place	Abbie C. Kahuku High & Intermediate School	BMED-432 How Much CO2 Is Retained in Different Types Of Snorkels?	
3 <sup>RD</sup> Place	Chloe T. / Kyrie Y. / Brandalyn T. Kaimuki Middle School	BMED-424 Local vs. Imported Fruit Quality	

JR - CELLULAR AND MOLECULAR BIOLOGY (CELL)		
1 <sup>s⊤</sup> Place	Ezekiel A. Kawananakoa Middle School	CELL-434 What ElectroLYTES Your Day?

JR - CHEMISTRY (CHEM)		
1 <sup>st</sup> Place	Mace P. Hilo Intermediate School	CHEM-446 A pHantom Menace: Don't Be "Lead" Astray
2 <sup>ND</sup> Place	Dylan C. Kahuku High & Intermediate School	CHEM-445 A Potion for the Ocean
3 <sup>RD</sup> Place	Lola S. Niu Valley Middle School	CHEM-444 How Do Different Additives to Toothpaste Affect the Coloration of Teeth?

JR - EARTH & ENVIRONMENTAL SCIENCES (EAEV)		
1 <sup>s⊤</sup> Place	Lilikoi D. Kahuku High & Intermediate	EAEV-462 Assessing Coral Strength in a Changing Ocean
2 <sup>ND</sup> Place	Julia B. Aliamanu Middle School	EAEV-459 Chlorine: What's In Your Water?
3 <sup>RD</sup> Place	Nivea M. / Mikela A. Kamehameha Schools, Kapālama	EAEV-455 Hoʻomalu manu

JR - ENERGY SUSTAINABLE MATERIALS & DESIGN (EGSD)		
1 <sup>st</sup> Place	Keiko K. / Christopher B. Kailua Intermediate School	EGSD-472 Mini but Mighty
2 <sup>ND</sup> Place	Vivek V. Hilo Intermediate School	EGSD-475 Generation of Electricity from Rain Gutter
3 <sup>RD</sup> Place	Tanner M. Island School	EGSD-470 What Amount of Blades is the Most Efficient to Generate Energy with Wind Turbines?

	JR - ENGINEERING TECHNOLOGY: STATISTICS AND DYNAMICS (ETSD)		
1 <sup>s⊤</sup> Place	Claire Y. Aliamanu Middle School	ETSD-492 The Uncertainty of Solar Cars	
2 <sup>ND</sup> Place	Michael M. / Hayden S. Kihei Charter School	ETSD-490 Mini Tesla Coil	
3 <sup>RD</sup> Place	Daniel S. Aliamanu Middle School	ETSD-491 Water Powered Hydraulic Wooden Arm	

JR - ENVIRONMENTAL ENGINEERING (ENEV)		
1 <sup>st</sup> Place	Sofia B. St. Andrew's Priory	ENEV-481 Does High and Low Intensity Charcoal Have an Effect on How Grasses Grow?
2 <sup>ND</sup> Place	Lilo R. Niu Valley Middle School	ENEV-482 Are Flies Picky?
3 <sup>RD</sup> Place	Jaxen D. / Jedai H. Kapa'a Middle School	ENEV-486 Sorbent Showdown

JR - MATERIAL SCIENCES (MATS)		
1 <sup>st</sup> Place	Shea-Michelle S. / Ka'iwa'iwa L. Kamehameha Schools, Kapālama	MATS-496 That's to DYE for!
2 <sup>ND</sup> Place	Tory E. Pearl Harbor Christian Academy	MATS-503 Do you Hear That?
3 <sup>RD</sup> Place	Isabella T. Kihei Charter School	MATS-498 Rome Wasn't Built in a Day

JR - MICROBIOLOGY (MCRO)		
1 <sup>st</sup> Place	Charlotte M. Hilo Intermediate School	MCRO-509 Chemical Vs. Mineral Sunscreen: Which is More Effective at Protecting DNA from UV Exposure?
2 <sup>ND</sup> Place	Luke R. / Preston H. Stevenson Intermediate School	MCRO-504 How Effective is Soap?
3 <sup>RD</sup> Place	Amelia R. / Kenzie F. 'Aikahi Elementary School	MCRO-507 Natural Bread Preservatives

JR - PHYSICS & ASTRONOMY (PHYS)			
1 <sup>s⊤</sup> Place	Emma A. / Lyngel P. Iao Intermediate School	PHYS-515 The Star that's been Exploding for Millions of Years	
2 <sup>ND</sup> Place	Addai W. Hilo Intermediate School	PHYS-518 Listening to High Frequency Radio Beacons to See the Effect of Geomagnetic Storm Events	
3 <sup>RD</sup> Place	Erin D. Pearl Harbor Christian Academy	PHYS-524 How High Can You Send a Payload?	

JR - PLANT SCIENCES (PLNT)			
1 <sup>st</sup> Place	Alexander W. Niu Valley Middle School	PLNT-532 The Effect of Eggshell Fertilizers on the Growth of Green Onions	
2 <sup>ND</sup> Place	Sofia M. St. Joseph School, Hilo	PLNT-530 Grounds for Protection	
3 <sup>RD</sup> Place	Michelle K. / Aliya G. / Kalie K. Kaimukī Middle School	PLNT-528 Invasive Algae: Friend or Foe?	

JR - ROBOTICS & INTELLIGENT MACHINES (ROBO)			
1 <sup>s⊤</sup> Place	Madilyn C. St. Michael School	ROBO-541 My Mess Vs. My Robot	
2 <sup>ND</sup> Place	Finn B. Hilo Intermediate School	ROBO-540 Weed Detection Using Remote Sensing and Machine Learning	
3 <sup>RD</sup> Place	Kalen V. Kailua Intermediate School	ROBO-539 Would You Like Some Water?	

JR - SYSTEMS SOFTWARE (SOFT)			
1 <sup>st</sup> Place	Naomi H. Washington Middle School	SOFT-543 From Spot It! To Personalized Learning: Unveiling the Potential of Finite Projective Planes	
2 <sup>ND</sup> Place	Dillan L. Waipahu Intermediate School	SOFT-547 TMS - Time Management Software	
3 <sup>RD</sup> Place	Suyoung J. St. Andrew's Priory	SOFT-544 Object Detector on RPi by Low-code	

JR - TRANSLATIONAL MEDICAL SCIENCE (TMED)		
1 <sup>st</sup> Place	Lillian T. / Joanna T. Waiākea Intermediate School	TMED-548 Investigation of a Safer Treatment for Cardiovascular Diseases Using the Antioxidant Properties of <i>Morinda</i> <i>citrifolia</i> (Noni)