

**Final Results - BISD ECHS Science & Engineering Fair January 20, 2018**

<b>School</b>	<b>Category</b>	<b>Teacher</b>	<b>Student's Name</b>	<b>Project Title</b>	<b>Rank</b>
BECHS	Animal Science	J. Sada	Javier Resendez/Malu Cordova	A Comparison Between Different Pesticides	1
Veterans	Animal Science	D. McCleary	Nataly Castro/Summer Sosa	Hit the Lights	2
Lopez	Animal Science	V. Frady	George Jaime/Leonardo Lopez	Symptomatic Urchins and the War Against Microplastics	3
Pace	Animal Science	J. Fournier	Johanna Arguello/Catherine Gomez	Magnetic Field Effect on Invertebrates Growth	4
Hanna	Animal Science	N. Rogers	Elizabeth Gonzalez/Gabriella Rodriguez	Whoa! Did you know about the Protozoa?	5

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Rivera	Behaviora/Social	C. Rangel	Stephanie Fuentes/Daphne Alcala	Interpreting Children's Drawings	1
Pace	Behaviora/Social	D. Lopez	Alexa Morales/Jazmin Vasquez	Lights Out!	2
Hanna	Behaviora/Social	S. Chong	Victoria Martinez	Two Player Game	3
Hanna	Behaviora/Social	N. Rogers	Javier Vargas/Roberta Garza	Do you see what I see?	4
Veterans	Behaviora/Social	S. Sanchez	Hannah Valle/Carlos Lopez	Does Glamour Matter?	5
Porter	Behaviora/Social	J. Martinez	Jamie Ortiz	Is it in Motion	5

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Hanna	Biochemistry	S. Chong	Denisse Lopez	Don't Bite Me	1
Hanna	Biochemistry	N. Rogers	Rebekah Martinez/Kevin Moreno	Exploring Protein Crystallization	2
Lopez	Biochemistry	V. Frady	Priscilla Davila/Angelica Hernandez	What am I drinking?	3
Veterans	Biochemistry	D. McCleary	Ariel Garza	Determining the Optimal pH Range for the Enzyme Invertase's Sucrose to Glucose Conversion	4
Rivera	Biochemistry	C. Rangel	Diana Guevara/Carlos Saldana	Salty Much?	5

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School	Category	Teacher	Student's Name	Project Title	Rank
Rivera	Biomedical & Health w/ Computational Biology & Bioinformatics	C. Rangel	Carlos Soto/Mariana Flores	Every Body Farts	1
Pace	Biomedical & Health w/ Computational Biology & Bioinformatics	J. Fournier	Eric Garza/Victoria Martinez	Creating an Artificial Pancreas	2
Hanna	Biomedical & Health w/ Computational Biology & Bioinformatics	N. Rogers	Riddhi Bhakta	Don't be a BOOB, support BREASTFEEDING!	3
Hanna	Biomedical & Health w/ Computational Biology & Bioinformatics	N. Rogers	Karina Leos/Brianna Mendez	Sugar Halt: Best Insulin Available	4
Hanna	Biomedical & Health w/ Computational Biology & Bioinformatics	N. Rogers	Mia Garcia/Victoria Flores/ Estephania Aviles	A Comparative Study of the Erosive Effects on Teeth and the Effectiveness of Oil Pulling	5

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Hanna	Cellular/Molecular Bio	N. Rogers	Ashley Cho/Laura Guerra	Emotional Rice	1
Pace	Cellular/Molecular Bio	D. Lopez	Emily Arizpe/Vanessa Silva	Can You Feel the Wave?	2

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Pace	Chemistry	D. Lopez	Juan Herrera/Francisco Leal	Down to the Bone	1
Lopez	Chemistry	K. Posio	Wendy De La Cruz/Samantha Morales	Why Be Salty?: The effects of NaCl on H <sub>2</sub> O	2
BECHS	Chemistry	J. Sada	Leslie Ann Garcia/Adrianna Guillen	How hard can it be? A Comparison of the hardness of water from 2 Brownsville PUB Stations	3
Veterans	Chemistry	D. McCleary	Ryan Gomez/Carlos Rodriguez	Electrolytes in Sports Drinks vs Non Sports Drinks	4
BECHS	Chemistry	J. Sada	Natalie Garcia/Dora Figueroa	The pH variations of Resaca, Rio Grande and Boca Chica Beach waters	5

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Pace	Computer Science: Embedded Systems w/ Systems Software	D. Lopez	Andrea Nunez/Luis Quiroz	MegaBites!	1
Veterans	Computer Science: Embedded Systems w/ Systems Software	S. Sanchez	Stefanie Thompson/Raul Trevino	Life Alert	2
Hanna	Computer Science: Embedded Systems w/ Systems Software	P. Fuentes	Dominic Chavez	May the WI-Fi Be w/ You	3
Hanna	Computer Science: Embedded Systems w/ Systems Software	S. Chong	Anakin Martinez/Juan Angel Montemayor	A Fractacular Project	4
Porter	Computer Science: Embedded Systems w/ Systems Software	J. Martinez	Judith Orozco/Miguel Zamarron	A New Programming Language	5

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Pace	Earth & Environmental Science	J. Fournier	Ezequiel Sanchez	Turn Up the Heat	1
Pace	Earth & Environmental Science	D. Lopez	Kasia Molina/Cornelio Silguero	Polar Blues	2
Hanna	Earth & Environmental Science	N. Rogers	Samantha De La Garza/Veronica Castillo	Operation Eutrophication	3
Rivera	Earth & Environmental Science	D. Espinosa	Cassandra Alaniz/Misty Martinez	Resaca Rescue The Sequel	4
Pace	Earth & Environmental Science	J. Fournier	Victoria Garcia/Jayda Ramirez	Environment's Battle w/ Magnetic Fields	5



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Pace	Energy: Chemical w/ Energy: Physical	D. Lopez	Natalia Buenrostro/Bella Sanchez	Unbe-leaf-able Energy	1
BECHS	Energy: Chemical w/ Energy: Physical	J. Sada	Alessandra Guest	Fuel Cells: Powering the Future	2
Lopez	Energy: Chemical w/ Energy: Physical	K. Posio	Vanessa Quintero	Venting on VAWT	3
Veterans	Energy: Chemical w/ Energy: Physical	S. Sanchez	Diana Martinez/Emilio Rodriguez	Radiant-Waves	4
BECHS	Energy: Chemical w/ Energy: Physical	J. Sada	Josue Vasquez/Emily Ramirez	Go! Go! Battery	5

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Rivera	Engineering Mechanics	U. Weisse	Andres DeLa Torre/Melanie Beattie	ROVer in Your Pool	1
Hanna	Engineering Mechanics	N. Rogers	Sophia Montiel	Shedding Light on Energy Efficient Bulbs	2
Veterans	Engineering Mechanics	S. Sanchez	Brandon Cortez/Lemuel Bonite	Dragster Aerodynamics	3
Pace	Engineering Mechanics	D. Lopez	Carolina Navarrete/Mariana Mijangos	The Light w/in	4
Hanna	Engineering Mechanics	N. Rogers	Noe Guerrero/Jesus Perez	Trash In Your Hands	5

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School	Category	Teacher	Student's Name	Project Title	Rank
Veterans	Environmental Engineering	A. Abete	Alondra Gonzalez	Bio Water: The process of using mucilage to purify water from toxins, sediments and foreign objects	1
BECHS	Environmental Engineering	L. Guillen	Roger McGrath	S.P.P.F. 2	2
Pace	Environmental Engineering	D. Lopez	Jaime Reyna/Alejandro Toriz/Grecia de la O	Power by Design 2.0	3
Hanna	Environmental Engineering	N. Rogers	Christie Padron/Veronica Eckersley	75% of Our World	4
Veterans	Environmental Engineering	D. McCleary	Jorge Mares/Ivan Villanueva	Best Water Purifier	5

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Hanna	Materials Science	M. Banda	Tamara Yip/Abigail Morales	Muscular Dystrophy: Gaining New Strength	1
Veterans	Materials Science	S. Sanchez	Juan Amieva/Hannah Obregon	Gone in 5 seconds	2
Porter	Materials Science	J. Martinez	Viviana Franco/Stephanie Guerra	Sun Flower Power	3
Veterans	Materials Science	S. Sanchez	Monica Fortuny/Tesa Muzquiz	To Seal or not to Seal	4
Hanna	Materials Science	N. Rogers	Isabella Tatum	Soak It Up!	5

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Hanna	Mathematics	N. Rogers	Ricardo Vargas/Briana Ramirez	Genderprints	1
Pace	Mathematics	K. Gomez	Elimelek Acuna/Alexandra Gracia	Polarization of Light	2
Veterans	Mathematics	D. McCleary	Lessly Garza/Sofia Trevino	The Polluted Brain	3
Hanna	Mathematics	N. Rogers	Fernando Covarrubias/Vanessa Maldonado	The Dead End	4
Hanna	Mathematics	N. Rogers	Leslie Castillo/Elva Conde	Eyes & Ears vs. Dizziness	5

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Veterans	Microbiology	M. Oddo	Diandra Trevino/Frida Rangel	A Case Study: The Bacterial and Nutrient Relationship of Wastewater Effluent as Measured by Distance From the Wastewater Treatment Plant	1
Pace	Microbiology	D. Lopez	Megan Villelda/Savannah Borland	Zap a Zit	2
Rivera	Microbiology	C. Rangel	Valeria Rocha/Jocelyn Quintero	Now You See Me, Now You Don't: Testing Bacterial Endurance under Ultraviolet Rays	3
Hanna	Microbiology	N. Rogers	Samantha Lambert/Jonathan Martinez	Save the Bees	4
Hanna	Microbiology	N. Rogers	Daniel Ledezma/Alondra Melendez	Man vs. Plants: Bacteria Be Gone!	5

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Hanna	Physics/ Astronomy	N. Rogers	Diego Luna/Jose Chacon	Deep Knee Bends: Measuring knee stress w/ a mechanical model	1
Rivera	Physics/ Astronomy	U. Weisse	Estefany Dorado/Sergio Belmontes	Black Holes	2
Pace	Physics/ Astronomy	D. Lopez	Paola Vergara	How Much Radiation Does Your Microwave Leak?	3
Pace	Physics/ Astronomy	K. Gomez	Guillermo Arredondo/Samantha Garcia	The Relationship Between Shape and Kinetic Energy in a Free Fall	4
Pace	Physics/ Astronomy	K. Gomez	Christopher Lira	Newton's First Law: The Code of Motion	5

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Veterans	Plant Sciences	J. Garica	Hailey Leal/Mariangela De Leon	Spatial Arrangements Effect On Soil	1
Hanna	Plant Sciences	N. Rogers	Mayeli Luna/Diana Cavazos	Anticoagulant Plants	2
Veterans	Plant Sciences	A. Abete	Samantha Avila/Allison Pineda	O2 High	3
Hanna	Plant Sciences	N. Rogers	Kimberly Fernandez/Melanie Longoria	Stayin' Alive	4
Hanna	Plant Sciences	N. Rogers/S. Chong	Bianey Ramirez/Tamara Guerrero	pHases of Chemical Warfare	5



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Hanna	Robotics & Intelligent Machines	N. Rogers	Maria Chaparro/Natie Rivera/Miguel Abrego	Scopper the Robot	1
Pace	Robotics & Intelligent Machines	D. Lopez	Benjamin Gracia/Sandra Cerda	DooDoo-Bot	2
Pace	Robotics & Intelligent Machines	L. Delgado	Liza Acosta	Is It Ripe Yet?	3
Veterans	Robotics & Intelligent Machines	D. McCleary	Juan Trevino	The helping hand.	4
Hanna	Robotics & Intelligent Machines	S. Chong	George Zamfir/Jesus Guillen jr.	Emergency Robotical Services	5

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**Grand Champion and Runner Up - BISD ECHS Science & Engineering Fair January 20, 2018**

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Pace	Energy: Chemical w/ Energy: Physical	D. Lopez	Natalia Buenrostro/Bella Sanchez	Unbe-leaf-able Energy	Grand Champion
Veterans	Plant Sciences	J. Garica	Hailey Leal/Mariangela De Leon	Spatial Arrangements Effect On Soil	1st Runnerup
Veterans	Microbiology	M. Oddo	Diandra Trevino/Frida Rangel	A Case Study: The Bacterial and Nutrient Relationship of Wastewater Effluent as Measured by Distance From the Wastewater Treatment Plant	2nd Runnerup
Veterans	Environmental Engineering	A. Abete	Alondra Gonzalez	Bio Water: The process of using mucilage to purify water from toxins, sediments and foreign objects	3rd Runnerup