



2022 CATEGORY WINNERS



[Animal Science & Plant Sciences]

Place	First Name	Last Name	Grade	School	Project Title
1st	William	Miller	8	The University School-Shaker Hts	Plants in a Future World
2nd	Margaret	Brady	10	Beaumont School-Cleveland Hts	How Different Pollutants Affect the Heart Rate of Daphnia Magna
3rd	Isabella	Doss	6	Holy Family-Stow	The Effects of Soil Based Probiotics on Soybean Growth

[Behavioral and Social Sciences]

Place	First Name	Last Name	Grade	School	Project Title
1st	Lucy	Furjanic	9	Beaumont School-Cleveland Hts	How the Smell of Peppermint Oil Affects Memorization
2nd	Vishwum	Kapadia	9	The University School-College Prep-Chagrin Falls	Correlation of Biofeedback Parameters with the Perception of Relaxation
3rd	Haniyah	Imran	11	Mentor High School-Mentor	Nurse Habit Changes due to COVID-19 Pandemic

[Biomedical Engineering & Biomedical and Health Sciences & Translational Medical Science]

Place	First Name	Last Name	Grade	School	Project Title
1st	Hans	Swain	10	The University School-College Prep-Chagrin Falls	Effect of Excess Dietary Iron on Intestinal Tumorigenesis
2nd	Kaitlyn	Ernst	10	Laurel School-Shaker Hts	BG34-200 Engagement with Integrin CD11b for Modulating Tumor-Associated Myeloid Cells in Pancreatic Cancer
3rd	Julia	Zhu	10	Hathaway Brown - Shaker Heights	C19orf12 Ablation Caused Mitochondrial Dysfunction and Susceptibility to Ferroptosis in Neuronal Cell Model of MPAN

[Microbiology & Cellular and Molecular Biology & Biochemistry]

Place	First Name	Last Name	Grade	School	Project Title
1st	Julia	Rea	7	St Sebastian-Akron	Vitamin C: Keeping it Cool
2nd	Ryan	Haas	7	Incarnate Word Academy-Parma Hts	Will Different Liquids Affect the Weight of Gummy Bears?



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[Chemistry]

Place	First Name	Last Name	Grade	School	Project Title
1st	Caroline	Lu	7	Birchwood School of Hawken-Cleveland	Determination of Vitamin C Concentration in Different Types of Orange Juice Using Titration
2nd	Elena	Kagel	6	St Raphael-Bay Village	Gee Whizz...How Much Fizz?
3rd	Abigail	Alberta	7	Holy Family-Stow	The Price is Right... Or is It? A Study on the Correlation of Price and Effectiveness of Stain Removers

[Earth and Environmental Science & Environmental Engineering]

Place	First Name	Last Name	Grade	School	Project Title
1st	Grace	Chen	11	Mentor High School-Mentor	The Effects of Pyrolysis on Upcycling Polyvinyl Chloride (PVC) in Gloves Through Reattaining Hydrochloric Acid (HCl) For Higher-Value Applications
2nd	Elizabeth	McAndrew	8	St Paschal Baylon - Cleveland	Does the type of fabric affect the amount of ultraviolet rays that pass through?
3rd	Ava	Lewandowski	8	St Helen-Newbury	Plastics Into Food

[Computational Biology and Bioinformatics & Embedded Systems & Engineering Technology: Statics and Dynamics & Mathematics & Robotics and Intelligent Machines & Systems Software]

Place	First Name	Last Name	Grade	School	Project Title
1st	Emily	Berdis	11	West Geauga High School - Chesterland	The Discovery of Exoplanets
2nd	Carlton	Cort	12	The University School - College Prep - Chagrin Falls	Designing and Testing a Prototype Automatic Electronic Control System for Active Magnetic Levitation of a Ferromagnet Toward Magnetically Deflected Ballistic Mass Technology
3rd	John	Shin	11	Hawken School - Chesterland	Utilizing Intelligent Data Partitioning to Improve Machine Learning Models

[Energy: Sustainable Materials and Design & Materials Science]

Place	First Name	Last Name	Grade	School	Project Title
1st	Destynn	Keuchel	12	Hawken School - Chesterland	Deployment of Thermoplastic and Thermosetting Technologies to Improve the Durability of Solar Sails
2nd	Evan	Dan	8	Solon Middle School - Solon	What are the Effects of Phase Change Materials on the Temperature of an Enclosed Area
3rd	Matthew	Devine	10	The University School - College Prep - Chagrin Falls	Ultraviolet: A Clean Way to Clean Up Invasive Species; Using Ultraviolet Light to Degrade Adhesives Similar to Byssal Thread Adhesives



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[Physics and Astronomy]

Place	First Name	Last Name	Grade	School	Project Title
1st	Adonis	Wazni	8	The University School - Shaker Heights	The Ways a Room Influences Safety Against SARS-CoV-2
2nd	Mariska	Jeske	8	St Raphael - Bay Village	Magnet Fever
3rd	Bryn	Morgan	11	West Geauga High School - Chesterland	A Modern, Software-Based Approach to Celestial Navigation