



2021 CATEGORY WINNERS



[Behavioral and Social Sciences]

Place	First Name	Last Name	Grade	School	Project Title
1st	Ajay	Krishnaney	11	The University School-Chagrin Falls	The Struggles of the Integration of Refugees Into Local Communities
2nd	Lauren Elizabeth	Ravas	9	Beaumont School-Cleveland Hts	The Stroop Effect Explored

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

Place	First Name	Last Name	Grade	School	Project Title
1st	Kaitlyn	Ernst	9	Laurel School-Shaker Hts	The Effects of a Protein Nitrotyrosine Modification on the Tumor Immune Microenvironment
2nd	Jonathan	Jang	12	The University School-Chagrin Falls	Analysis of Vitamin A Consumption of High School Students During Quarantine
3rd	Sohum	Kapadia	12	The University School-Chagrin Falls	Morphology and Treatment Implications of the Tricuspid Valve Changes in Patients with Mitral Valve Disease

[Biochemistry & Cellular and Molecular Biology & Microbiology]

Place	First Name	Last Name	Grade	School	Project Title
1st	Sunay	Rastogi	12	The University School-Chagrin Falls	THE ROLE OF SERPINB3 ON GLIOBLASTOMA CANCER STEM CELLS
2nd	Kavneer Singh	Majhail	8	The University School-Shaker Hts	The Effects of Ultraviolet Light on E. coli growth
3rd	Concetta Florence	Yormick	8	St Paschal Baylon-Highland Heights	Tiny Titans: Can Silver Nano particles Neutralize E. coli Bacteria?

[Chemistry]

Place	First Name	Last Name	Grade	School	Project Title
1st	Ryan	McGinnis	11	West Geauga HS-Chesterland	Gelatinization and Hysteresis of Organic Compounds to Create Edible Shelf Stable Adhesives
2nd	Omar	Elbadawy	7	Birchwood School-Cleveland	Bioplastic: An Investigation of the Relationship between Bioplastic Composition, Tensile Strength, and Flexibility
3rd	Adam	Khan	9	Roosevelt HS-Kent	The Effect of Different Solvents on Cholesteric Liquid Crystals



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[Computational Biology and Bioinformatics & Embedded Systems & Mathematics & Robotics and Intelligent Machines & Systems Software]

Place	First Name	Last Name	Grade	School	Project Title
1st	Jacob Mathew	Rintamaki	11	Westlake HS-Westlake	Deep-Learning Analysis of Extreme Climate Events to Predict Future Losses for Wheat in Kansas
2nd	Nathan	Mu	11	The University School-Chagrin Falls	Utilizing QSAR Models to Predict Biological Molecule and Polymer Interactions
3rd	John Nathaniel	Shin	10	Hawken School-Gates Mills	Developing COVID-19 Diagnostic Programs Using Artificial Intelligence with Chest X-ray Data

[Earth and Environmental Science & Environmental Engineering]

Place	First Name	Last Name	Grade	School	Project Title
1st	Abem	Fetene	11	The University School-Chagrin Falls	Seaweed Carbon Sequestration
2nd	Rachel	Tomasko	12	Padua Franciscan-Parma	The potential of Elophila oblitalis larvae (waterlily leafcutter moth) as a biological control for the invasive aquatic plant Nymphoides peltata (yellow floating heart)
3rd	Abigail	May	12	St Vincent St Mary-Akron	The Effects of Agricultural Runoff From Livestock on Water Quality

[Energy: Sustainable Materials and Design & Materials Science]

Place	First Name	Last Name	Grade	School	Project Title
1st	Andrew	Ciccotelli	12	St Vincent St Mary - Akron	Computational investigation of the mechanochemistry of a helical zinc-bidipyrrin complex
2nd	Destynn	Keuchel	11	Hawken School-Gates Mills	Improving the Antimicrobial and Filtration Effectiveness of Face Masks
3rd	Audrey Margaret	Zorman	12	Beaumont School-Cleveland Hts	The Influence of Carbon-Black Concentration on the Electrical and Mechanical Properties of a Silicone Composite

[Engineering Mechanics]

Place	First Name	Last Name	Grade	School	Project Title
1st	Onyx	Leasure	11	North HS-Akron	Pandemic Perfect: A Supply Cart for Social Distancing and Safety
2nd	Adharsh	Narendrakumar	7	Birchwood School-Cleveland	The Social Distancing Sensor



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[Physics and Astronomy]

Place	First Name	Last Name	Grade	School	Project Title
1st	Michelle	Park	11	Solon HS-Solon	A Novel Method for Identifying Kepler Exoplanet Habitability Using Python-Based Analysis of Standardized Transit Light Curves and Calculated Parameter Values
2nd	Olivia Kristen	Lewis	8	St Helen-Newbury	Magnetometers vs. Solar Storms
3rd	Abigail Grace	Detzel	8	St Paschal Baylon-Highland Heights	Forensics: How Does the Height of the Drop Affect A Blood Spatter's Diameter?