Virginia Junior Academy of Science Symposium of Accepted Papers 2021

Botany

Sassan Fiske & Estee Ruiz 10th grade The Effect of Different Amounts of Greywater Filtration on the Growth Rate of Radishes

Matthew Huson 10th grade The Allelopathic Effect of Allelochemicals such as Juglone in Juglans Nigra On Zea Mays and Glyphosate Resistant Weed Amaranthus Retroflexus

Noor Long 9th grade The Effect of the Contaminant on the Growth of the Radish Plant

Chemistry

Haley Baasansukh 9th The Effect of Mordant on the Weight of Yarn Chemistry

Richard Chen 9th The Effects of Antifungal Agents on the CO2 Production of Baker's Yeast Chemistry

Ramon Dayan 10th The effect of Fruit on the Alcohol level of Kombucha

Engineering

Eyuel Berhanu 9th The Effect of 3D Printing Material on 3D Print Strength

Ella McNally 10th The Effect of Different Wavelengths on the Photovoltaic Electricity Produced

Environmental & Earth Science

Thomas Ackleson 11th Modeling Oncorhynchus nerka Populations Near Pebble Mine, Alaska

Elizabeth Adams 9th The Effect of Crumb Rubber on the Height of Tall Fescue Grass Environmental & Earth Science

Kathryn Boerckel & Allison Grove 9th 9th The Effect of Weather Patterns on the Spread of Airborne Plastic

Caroline Tessa & Colucia Muldowney 10th The Effect of Different Plants on the Amount of Soil Eroded

Elina Coutlakis-Hixson 9th The Effect of Fertilizer on Algae and How it Impacts Dissolved Oxygen in Freshwater

Andrew Edmondson 10th The Effect of Conflict on Air Pollution

Sarah Eichorn 9th The Effect of Acidity Level on Paper Degradation

Madison Goeke 10th A Solution to Plastic Pollution: An Investigation into Microplastic Removal from Water Using Ferrofluid

Maya Kent 9th The Effect of Different Nutrients on Plant Growth

Ava Lansbury 10th The Effect of the pH of Simulated Acid Rain on Radish Seed Germination

Erin Leland 10th The Effect of Population Density on Soil Quality

Lillian Moo 10th The Effect of Materials in Compost on Compost Temperature

Ellie Potts 10th Effect of Soil Acidity on Rate of Decomposition of Paper

Zachary Roman 9th The effect of different fertilizers on plant height

Harriet Shapiro 9th The Effect of Plant Type of a Green Roof on Internal Building Temperature

Adam Stievater 11th The Effect of Distance from I-95 on Prevalence of Epiphytic Lichen

Benjamin Tsai 10th The Effect of Time on Surgical Mask Degradation

Ivy Watson 10th The Effect of Firework Display Length and Frequency on Amount of Particulate Matter 2.5 in the Air

Mathematics: Theoretical & Modeling

Rose Haron 10th Predicting Ideal Group Sizes for COVID-19 Pooled Testing Using Mathematics

Medicine & Health

Lina Aniss 10th The Effect of Tissue Thickness on Temperature Change Induced by Cellular Radiation

Jacob Bayer 9th The effect of comorbidities on COVID - 19 mortality rate Medicine & Health

Malek Ben Hammouda 9th The Relationship Between Exposure to Fine Particulate Matter During Pregnancy and Preterm Births.

Jonah Bierman 10th The Effect of Mask Type on Ability to Block Droplets from Passing Through

Sarah Bolles & Lucy Anderson 10th The Effect of Homeopathic Antifungals on Yeast CO2 Production

Natalie Cecil 10th The Effect of the Type of Cardiovascular Exercise on the Number of Calories Burned

Charlotte Cunningham 10th The Effect of Elapsed Time on the Thickness Level of Commercial Kefir as Measured by the IDDSI Flow Test and Framework

Maryam Elgindy 9th The Effect of Public Health Policy on COVID-19 Mortality

Kara Felker 10th The Effect of the Occurrence of CD226 Gene Variants on the Death Rate of COVID-19

Caroline Fern & Caleigh Sleeth 9th The Effect of Cellular Device Type on the Amount of Electromagnetic Radiation

Anne Licato 10th The Effect of Proximity and Particles Exhaled Based on Breath Rate on the Number of COVID-19 Virus Particles Accumulated

Sofia Reyes 10th The effect of different types of tinted sunscreens on how much light goes through a solar panel measured in kilowatts

Lauren Rylander 10th Knowledge of Tissue Donation Survey Project

Lewis Wearmouth & Brady Krohl 10th The Effect of Building Age on the Amount of Lead in Water

Abby Welker 9th Race vs. the amount of Confirmed Covid-19 Cases in the US

Microbiology & Cell Biology

Ella Cohen 9th The Effect of Temperature on Concentration of Sugar After 10 Days in the Musa acuminata

Physics & Astronomy

Angelica Bain 10th The Effect of Different Blue Light Mitigation Techniques on LED Blue Light Irradiance

Maya Kaminski 9th The Effect of Artificial Lighting on the Ability to View the Night Sky

Statistical Analysis & Inferences

Natalia Chahil 10th The Effect of Natural Disasters on the Severity of Cholera in Africa

Rory McAndrew 10th The Effect of the Occupation on the Difference in Pay Between Males and Females Statistical Analysis & Inferences

Ambica Sharma 10th The Effect of Algorithm Based Neural Network Machine Learning on the Projection of the Basis and Progression of Alzheimer's Disease

Zoology

Rachel Dickerson 9th Prevalence of Mixed Species Herding with Giraffe Calves

Anujin Enkhee 9th The Effect of Water pH on the Heart Rate of Daphnia magna