

Name of Award/Organization	Award description	Division	Award Ranking (if applicable)	Student Recipient	Title of Project
American Chemical Society, Virginia Chapter	High achievement in chemical research	Sr.	1st	Sydney Coffman	The Effect of Various Temperatures on Gel Electrophoresis Band Resolution
			2nd	Anvita Korrapti	The Effect of Different Light Sources on the Reaction Rate of Elemental Iodine with Oxalate Ions
			3rd	Trisha Taparia	The effect of different antioxidants on the chemiluminescence of luminol
American Institute of Chemical Engineers (AIChE)	The Tidewater section of AIChE presents this plaque to 3 Senior Division students with an exemplary chemical science project in the chemistry, engineering & environmental category.	Sr.	Chemistry (winner)	Roshan Sarangi	Effect of Titanium Dioxide on Solar Cell Energy Output
			Engineering (winner)	Namit Nallapeneni	The Effect of Wind Turbine Design on Cost Efficiency
			Environmental Science (winner)	Estelle He	The Effect of Natural Coagulants on the Turbidity of Water
American Meteorological Society	Judged on areas of atmospheric and related oceanic and hydrologic sciences	Jr.		Abhinav Tadinada	The Effect of Water Temperature on the Oil Spill Cleanup efficiency of Ferrofluids
American Society for Non-destructive Testing (ASNT)	ASNT is involved in detecting defects, such as cracks or corrosion, on or within a structure before it becomes compromised. The group is interested in Quality control , product reliability and measurement techniques.	Jr.	1st	Isabella Kenney	The Effect of Different Filters on the Intensity of Blue-Light Emissions from a Smartphone
			2nd	Nayan Mehta	The Effect of material between mobile device and receiver on the amount of radiation received.
American Society for Non-destructive Testing (ASNT)	ASNT is involved in detecting defects, such as cracks or corrosion, on or within a structure before it becomes compromised. The group is interested in Quality control , product reliability and measurement techniques.	Sr.	1st	Finn (Thomas) Rowley	Computational Estimation of Patient-Specific Stiffness of the Infrarenal Abdominal Aorta with Magnetic Resonance Imaging
			2nd	Annabel Puritz	The Effect of Heating Thermoplastics on Tensile Strength
American Psychological Association (APA)	Outstanding research in psychological science under the category of behavioral and social sciences or any category related to animal science, computer science, environmental science, medicine & health.	Sr.		Philip Naveen	The Effect of Sight-Reading on Conditioned Reflexes
ASM Materials Education Foundation	The best materials engineering project	Sr.		Annabel Puritz	The Effect of Heating Thermoplastics on Tensile Strength

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John B Fenn	Recognizes the most promising young scientist(s) for an “innovation in applied science that incorporates trans-disciplinary research”	Sr.	1 of 2	Abhay Dharanikota	Application of Various Hydroxide Treatments to Increase Plastic Waste Ratio as a Substitute for Sand in Concrete Solutions
			2 of 2	Cameron Sharma	The Effect of Meteor Impact Location on the Energy Transmitted
Association for Women Geoscientists	Project done by a woman that increases the public awareness of geosciences, illustrates the interdisciplinary nature of Geosci. Or promotes the sensitivity to the earth as a global system	Sr.		Madelyn Akins	The effect of saltwater acidity on Zostera marina growth
Lemelson Early Inventor Prize	An inventor who solves a critical societal problem that improves the lives of others in an environmentally responsible manner	Sr.		Camellia Sharma	The Effect of Hull Cross Sections on the Efficiency of a Watercraft
Mu Alpha Theta	Demonstrate Most challenging, original, thorough, and creative investigation of a problem involving math	Sr.		Nikki Kumar	Statistical Analysis of United States Influenza Coverage 2010-2019
NASA Earth System Science Award	Project that offers the Greatest Insight into Earth’s Interconnected Systems	Sr.		Surya Shanmugaselvam	The Effect of Anthropogenic Carbon Dioxide Concentrations on Potential Intensity of Tropical Cyclones
NA-YGN North American Young Generation in Nuclear Science & Technology Award	Project based on exemplary principles of nuclear science and technology	Jr.		Isabella Kenney	The Effect of Different Filters on the Intensity of Blue-Light Emissions from a Smartphone
National Oceanic and Atmosphere Administration (NOAA)	Project focus is on Ecosystems, Climate, Weather & Water, and Commerce & Transportation	Sr.		Surya Shanmugaselvam	The Effect of Anthropogenic Carbon Dioxide Concentrations on Potential Intensity of Tropical Cyclones
Office of Naval Research Naval Science Award	Projects that demonstrate accomplishments in STEM research and reflect US Navy applicability where able	Jr.	1 of 3	Camellia Sharma	The Effect of Hull Cross Sections on the Efficiency of a Watercraft”
			2 of 3	Aarushi Rao	The effect of how many electrons are extracted from different natural resources using a microbial fuel cell”
			3 of 3	Melody Ngo	The effect of Acute Stress on Short-Term Memory Test Performance

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Office of Naval Research Naval Science Award	Projects that demonstrate accomplishments in STEM research and reflect US Navy applicability where able	Sr.	1 of 3	Charles Hamilton	Bio-Bike: A Novel, Injection Molded Cargo Bicycle Designed Using AI Based Generative Design
			2 of 3	Fareed Sheriff	Using Deep Convolutional Neural Networks to Predict Atomization Energies of Molecules from their Coulomb Matrices
			3 of 3	Abhay Dharanikota	Application of Various Hydroxide Treatments to Increase Plastic Waste Ratio as a Substitute for Sand in Concrete Solutions
Passion for Process	Passion and enthusiasm for scientific inquiry	Sr.	1st	Elizabeth Eroshenko	The Effect of Nanoparticles on the Radicle Length of Pisum sativum
			2nd	Chirayu Nimonkar	The Effect of Magnetic Shielding Geometry on Focality for Transcranial Magnetic Stimulation
Randolph-Macon College Scholarship	Outstanding work in the field of science	Sr.	1st	Elizabeth Eroshenko	The Effect of Nanoparticles on the Radicle Length of Pisum sativum
			2nd	Charles Hamilton	Bio-Bike: A Novel, Injection Molded Cargo Bicycle Designed Using AI Based Generative Design
			3rd	Angela Nguyen	The effect of different liquids on the solubility period of iron supplements
Richmond Astronomical Society	Outstanding work in the field of Astronomy	Sr.		Cameron Sharma	The Effect of Meteor Impact Location on the Energy Transmitted
Richmond Beekeepers Association	Agriculture and Natural Resources	Sr.	1 of 2	Saanvi Gandham	The Effect of various Types of Fertilizers on Eutrophication
			2 of 2	Carter Morris	The Effect of Iron on the Photosynthesis of Cyanobacteria at Various Temperatures
RICOH Sustainable Development Award	Outstanding project that addresses issues of environmental responsibility and sustainable development (all categories)	Sr.		Abhay Dharanikota	Application of Various Hydroxide Treatments to Increase Plastic Waste Ratio as a Substitute for Sand in Concrete Solutions
Society for InVitro Biology	NOT GIVEN THIS YEAR				
Stockholm Junior Water Prize	Projects on outstanding water-related research at HS Level	Sr.	1 of 2	Bhavana Adhikari	The Effect of Different Aquatic Plants and Seagrasses on the Difference in pH of Carbonic Acid Rich Saltwater
			2 of 2	Robert Newman	A Study of Soil Composition on the Electrical Voltage Output from a Microbial Fuel Cell
USAID	The project should be relevant to international development programming and priorities.	Sr.		Maria Angel Zamora	The Comparison Between Two Prominent Salt Tolerance Mechanisms; Sodium Secretion in C. quinoa and Sodium Compartmentalization in G. hirsutum

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US Metric Association	Project involves quantitative measures which best and correctly uses the SI metric system for those measures.	Sr.	1 of 2	Camellia Sharma	The Effect of Hull Cross Sections on the Efficiency of a Watercraft
			2 of 2	ONLY ONE AWARD GIVEN	
US Air Force	Studies in STEM areas and where possible recognize projects that offer Air Force applicability	Jr./Sr.	1 of 4	Maxim Avrutin	The Effect of Number of Blades and Blade Shape of a Wind Turbine on Generated Voltage
			2 of 4	Zachary Schwehr	The Effect of Liquid Type on Electrolyte Levels
			3 of 4	Alexander Coffman	The Effect of Wing Design on Load Factor of Aircraft
			4 of 4	Haasita Akkala	The Effect of Hydraulic Force on the Efficiency of Oxygen-Rich Blood Pumped by the Cardiac Muscle
Virginia Lakes and Watershed Association (VLWA)	Promotes scientific efforts to protect the quality and uses of Virginia's water resources and watersheds. (Junior Division)	Jr.	1st	Aahana Puri	The Effect of Magnetic Stimulation on the Behavioral Response of Drosophila Following Traumatic Brain Injury (TBI)
			2nd	Nihal Pothunoori;	Effect of Polymer Additives on Boundary Layer Drag
Virginia Lakes and Watershed Association (VLWA)	Promotes scientific efforts to protect the quality and uses of Virginia's water resources and watersheds.	Sr.	1st	Emily Lionberger	The Effect of Biochar on its Ability to Promote Growth in a Post-Wildfire Environment
			2nd	Abhay Dharanikota	Application of Various Hydroxide Treatments to Increase Plastic Waste Ratio as a Substitute for Sand in Concrete Solutions
Virginia Dental Association	The best project in science demonstrated.	Sr.	Grand Prize	Charlie Hamilton	Bio-Bike: A Novel, Injection Molded Cargo Bicycle Designed Using AI Based Generative Design
				Aditya Kotha	Deletion of the Akt2 Kinase Reveals Sex-Specific Roles in Allergic Inflammation
				David Kang	Investigation of novel tryptophan derivatives from the human gut microbiome on cancer cells and pathogenic bacteria: Identifying novel endogenous candidates for anticancer and antibiotic treatment
				Perisa Ashar	Discovery of Novel Exosomal miRNAs for Lung Cancers: Development of a Biomarker Panel for Rapid Identification of Lung Cancer by Blood Tests
				Nikki Kumar	Statistical Analysis of United States Influenza Coverage 2010-2019

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Virginia Water Environment Association (VWEA)	Projects on outstanding water-related research.	Sr.	1st	Bhavana Adhikari	The Effect of Different Aquatic Plants and Seagrasses on the Difference in pH of Carbonic Acid Rich Saltwater
			2nd	Robert Newman	A Study of Soil Composition on the Electrical Voltage Output from a Microbial Fuel Cell
			Honorable Mention	No Honorable mention given	
Yale Science and Engineering Association	Select Best 11th grade Project in the area of Computer Science, Engineering, Physics, Biochemistry or Chemistry	Sr.		Perisa Ashar	Discovery of Novel Exosomal miRNAs for Lung Cancers: Development of a Biomarker Panel for Rapid Identification of Lung Cancer by Blood Tests
American Water Works Association (AWWA), Virginia Section	Top projects relating to water issues	Jr.	1st	Peize Wang	The Effect of Household Hygiene Products on the Generation of Microplastics
			2nd	Yana Shah	The Effect of Nano-silver on the Quality of Belle Isle Water
			Honorable Mention	Renn Clark	The Effect of Sunscreen Containing Oxybenzone or Zinc-Oxide on the Growth Rate of Aquatic Plants
American Water Works Association (AWWA), Virginia Section	Top projects relating to water issues	Sr.	1st	Estelle He	The Effect of Natural Coagulants on the Turbidity of Water
			2nd	Nikhil Amin	The Effect of SODIS on Bacterial Growth of Pond Water
			Honorable Mention	Evan Tuckley	The effect of alternate water purification methods on bacteria and its overall potability