

HIGH SCHOOL

(ANIM) Animal Science

Hailey Park, Sivani Manchikalapudi, Nisha Patel
Social Isolation and Stress in Males and Females
Peachtree Ridge

Arnav Naik
Conditioning Fruit Flies to Associate Food With Color
Peachtree Ridge

(BCHM) Biochemistry

Chloe Johnson
Which Leavening Agent Works Best to Make Cupcakes Rise?
Brookwood

Cindy Lor
Effects of Solution on Fresh and Wilted Leaves
Duluth

Christian Serrano
Communication between ants through pheromones
McClure

Seriah Vanderpool, Kevin Romo Salas
How the pH of a solution affects plants rate of growth
Paul Duke STEM

Jasmine Delgado, Khang Tran
Electrolysis Versus Photosynthesis
Paul Duke STEM

(BEHA) Behavioral & Social Science

Christina Joseph, Katie Alvarez
Comforting Methods Regarding Teenagers Mental Health
Brookwood

Jayden Dayal
Texting Effects on Human Reaction Time
Brookwood

Jiayi Huang
How do dreams affect people's work quality?
Duluth

Kelvin Addo
Sound and memory effect
McClure

Lesly Cabrera-Chamorro
Will Drawing For a Time Help Improve Your Drawing Skills?
McClure

Danica Huang, Diya Manacherry
The impact of the olfactory system on cognitive processes
North Gwinnett

Candace Cang
The model minority myth and mental health of Asian Americans
Paul Duke STEM

Sophie Richardson
Relationship between age and self-knowledge
Paul Duke STEM

HIGH SCHOOL

Noah Budnitz

Interest in federally subsidized rural broadband infrastructure

Paul Duke STEM

Harper Kucik

Opinions regarding transgender children bathroom use in school

Paul Duke STEM

(BMED) Biomedical & Health Science

Hannah Le

Effect of mental disorders on menstrual cycles

Paul Duke STEM

Seamus 'Fiona' Watson, Lily Curtis

Effectiveness of Antibiotic Spectrum in the Treatment of E.Coli

Brookwood

Simrah Qaddus

No Need for Needles? Model: Insulin Shot vs. Insulin Pill

Brookwood

Lauren Allen, Sahar Hamkar

A Cohesive Study on the Effectiveness of Facial Coverings (CSEFC)

Brookwood

Kyle Kolb, Johnny Ho

Filthy Water, Fruit Peels, and Filtration

Brookwood

Rayna Chang, Jason Dong

Effect of EMF on the Activity of Drosophila melanogaster

GSMST

Sopiia Tran

The connection between heart rate and sodium

content in food

McClure

Diya Lakwani, Trisha Huynh

The Attack of Plaque

McClure

Jaydy Martinez, Naia Arcila

Quality of water and drinks to combat dehydration

McClure

Nurhiam Trejo-Cano

Can fruit consumption improve gallbladder function?

Paul Duke STEM

Lakeisha Vaclin Michaud

Discrimination in maternal healthcare

Paul Duke STEM

Brittany Cornejo Matias

Knowledge and predictors of food allergies

Paul Duke STEM

Krystina Iturbe

Does the model of face mask worn effect acne breakouts in teens?

Paul Duke STEM

Chloe Au

Does Working in the Nail Industry Increase the Risk of ALS

Paul Duke STEM

(CBIO) Computational Biology & Bioinformatics

Sarah Tan

A Genomic Approach to Liver Cancer Treatment

Paul Duke STEM

HIGH SCHOOL

(CELL) Cellular & Molecular Biology

Jean Yu

The role of ribosomal RNA modifications in ribosome biogenesis

GSMST

(CHEM) Chemistry

Elijah Gause, Mohammed Shariff, EJ

Ughwahogho

Dirty Aqua Pure

Archer

Clea Coard, Brienna Carter

The Heat of the Kill

Central Gwinnett

Hiteshri Chudasama

Creating Oxidation in Pennies

Duluth

Dembe Mutebi

Computational Examination of Bound vs. Unbound Factor Xa Ligands

GSMST

Tony Ho, Judy Mammen

The Skinny on Our Moisturizer

McClure

Xavier Powers

The Effects of Oxalic Acid on Preservation of Food

Paul Duke STEM

Jorge Valdez, Jennifer Dinh

Measuring Ice Cream's Melting Point

Paul Duke STEM

Ruqayya Siddiqui

Ideal Flour for Raising Sourdough Starter in

Bread

Paul Duke STEM

Kyle Xu, Tinsaye Henock

Changing the Taste of Edible Water Bottles

Paul Duke STEM

Nadid Ruhan, Nathan Ankorn

An Analysis of Soap Types on E. Coli Growth

Peachtree Ridge

Arwen Dale

Peachtree Ridge

Megan Lee, Akshaya Chander

Sustained Heat Using Calcium Chloride and Gelatin

Peachtree Ridge

Ji Eom, Vivian Zhang

Cellulose Retting: The Future of Environmentally Safe Plastics

Peachtree Ridge

Kayla Kim

Determination of Accuracy of Methods of Quantifying Tartrazine

Wesleyan School

(EAEV) Earth & Environmental Science

Carson Ball, Jackson Cersery

Algae's Effect on Carbon Dioxide in the Atmosphere

Archer

Allan Ndamukong, Sean Ndamukong, Brandon Woolfork

Soil Composition's Effect on Water Filtering

Archer

HIGH SCHOOL

Vinh Pham, Bao Nguyen

Flamin' Matter

Brookwood

Kyle Ssendagire, David Nwadike

The Power of Potatoes

Brookwood

Nancy Nunez-Arroyo, Uriel Mendez

Water Purity and Surface Tension

Central Gwinnett

LanAnh Doan, Inhyuk (Daniel) Hwang, Branden Kim

Algae Removal: Determining the Best Flocculant

GSMST

Haelin Lee

Impacts of Extreme Weather on the Savannah

River Water Quality

GSMST

Dua Bashir

The Effect of Powdered Orange Peel on the

Removal of Textile Dye

GSMST

Tiffany J. Pulley

Petroleum Jelly and Saltwater Experiment

McClure

Anabel Coronado, Blanca Barrera Alberto, Brittney Cisneros

Did we go to the Moon or not?

Meadowcreek

Annabel Lee, Elisa Banks

Organic Vs. Non-Organic Fertilizers Effect On

Worm Populations

Paul Duke STEM

Allison West

The Effects of Microplastics on Daphnia

Paul Duke STEM

Mihir Pai

The Effect of Urbanization on the Acidity of Soil

Paul Duke STEM

Abdillah Van Orden

Composition of the Types of Waste in Compost

Paul Duke STEM

Insha Charania, Ishika Narsingani

The Effects of Microplastics on Algae Growth

Peachtree Ridge

Priyanka Mitra

Roofing Releasing

Peachtree Ridge

Grace Kouassi

Ocean Rescue: Oil Spill Clean Up

South Gwinnett

(EBED) Embedded Systems

Isaiah Iwayemi, Thomas Rodriguez

A More Portable and Recyclable Signal Booster

GSMST

Shayla Kelley

The development of a live motion-captured hologram

Paul Duke STEM

Ananya Saxena, Yeeun Yi

Color Sensor to Measure Ripeness

Peachtree Ridge

(EGCH) Energy: Chemical

Tayhan Ahmed

Does temperature effect battery life?

Meadowcreek

HIGH SCHOOL

(EGCH) Energy: Chemical

Tatyana Mcvay

Harvesting Energy from Passing Cars

Paul Duke STEM

(EGPH) Energy: Physical

Simon Ignjatovic

Development of a spring-based piezoelectric generator

GSMST

Ricardo Guardado Chacon, Bryan Nguyen, Raymond Zheng

Providing Safety with the Piezoelectric Bike

GSMST

Courtney Palmeri, Shobana Santhanam

Scoring Glass to Create Efficient and Roof-like CdTe Solar Panels

GSMST

Mecca Brandley

Folded or Flat Paper Towel: Which One Absorbs More Water?

McClure

Nohemi Roldan, Mario Diaz-Perez

Is it even possible?

McClure

(ENBM) Biomedical Engineering

Hakimuddin Kitabwalla, Luc Nguyen

3D Printed Modular & Adjustable Pediatric Prosthesis Pylon

GSMST

Carter Tussi

A Vibrational Feedback System for Tactile

Sensory Rehabilitation

GSMST

Khadija Ayub, Jada Taylor

Preventing Bacterial Spread from Hand Dryers

GSMST

Zain Arfoosh, Sohun Trivedi

2in1 Incentive Spirometer and Positive Expiratory Pressure Device

GSMST

Nafisa Bangura, Susanna Lee, Debra Villatoro

THE DEXTEROUS DETANGLER: A HAIR BRUSH FOR THE DISABLED

Peachtree Ridge

(ENEV) Environmental Engineering

Kathryn Dodson, Ruthie Hendrix, Carlee Eldredge

Polly the Pollution Paddle

Archer

Eliana Littlefield, Chloe Hendrixson

Garbage to Garden

Archer

Dylan Frierson, Gavin Frierson

Care-Free Compost

Archer

Nailah Montgomery, Trinity Porter, Meghan Martinez

Sporo Bora

Archer

Alexander Marshall, Riley Kashella

Spher-E

Archer

HIGH SCHOOL

Ellie Royal

Preventing the Spread of Forest Fires

Archer

Ashkan Jiwani

They Hybrid Piezoelectric Solar Powered Future City

Brookwood

Anika Mathur

A Novel Method of Soil Erosion Prevention

GSMST

Saima Ahmed

Automated Water Irrigation System for Drought Affected Areas

GSMST

Kevin Jacob

Buoyant Reflective Surface to Reduce the Melting of Glaciers

GSMST

Yashvi Chhabhaya, Aishvi Jariwala

Creating Oil-Sorbent Cotton Sponges for the Cleanup of Oil Spills

GSMST

Reeyan Khimani, Jade Lasanajak

Crop Specific Automated Irrigation For Homemade Vertical Systems

GSMST

Katha Patel, Elizabeth Singh

Extinguishing Fires Using Sound

GSMST

Catalina Camacho Rondon, Mercy Ewoodzie, Irene Gonzalez Gutierrez

Modified Sewage Systems - The Prevention of Trash Pollution

GSMST

Genesis Cruz, Kaelynn Danso, Seth Shekell

Recycle and Get (RAG)

GSMST

Loan Hoang, Chameli Tissera

Temperature-Controlled Turtle Nest

GSMST

Amay Shah

Using Thermal Imaging to efficiently detect Wildfires from a UAV

GSMST

Esmeralda R. Ochoa-Escobar

Cleaning Mint

McClure

Vanessa Long, Lilyana Cantua

Magnetic Remediation

Peachtree Ridge

Daniel Lee

Portable Water Filter and Pump

Peachtree Ridge

Aahil Lakhani

Collapsible Planter Boxes For Low Space Environments

Peachtree Ridge

Vivian Chen, Yujin Lee

Filtering Copper using Avocado and Lemon Peels

Peachtree Ridge

Maika Hirata, Allison Oh

RE: VASTUM⁷ : A RECYCLING APP

Peachtree Ridge

Katie Wang, Christie Kwon

CALCULATE CARBON FOOTPRINT AND OFFSET EMISSIONS VIA APP

Peachtree Ridge

HIGH SCHOOL

Paul Baisier

Development of Pocket Park "City Springs II" in Sandy Springs, GA.
Wesleyan School

(ENMC) Engineering Mechanics

Jacob Bell, Sean Kim, Brady Smith

AGVER
Archer

Kelly Lenox, Kevin Adjato

Algae Glider
Archer

Yuwei Yang

How to construct a hover car using a drone and car body
Brookwood

Dylan Schmidt

S.C.O.R.P
Central Gwinnett

Eesh Trivedi

Brain-Computer Interface: Home Environment Control for Paralyzed
GSMST

Joey Gorman, Jonathan Gutknecht

Small Satellite and Launch Vehicle for Climate Change Research
GSMST

Hristo Bogdanov, Kenneth Chang

Constructable Wheelchair Ramp
Peachtree Ridge

Andrew Kwak, Benjamin Nguyen

Device to Assist the Pouring of Liquids for the Disabled
Peachtree Ridge

Rayed Chowdhury, Owen Ho

Ionizing Air to Generate Air Flow
Peachtree Ridge

Justin Ni, Jihyeok Kim

Body Heat Powered Flashlight
Peachtree Ridge

Larkspur John

Give Me a Brake
Shiloh HS

Henry Moore

The Development of a Hydrogen-Powered Minibus
Wesleyan School

(MATH) Mathematics

Aaron Ho

An algorithm to predict the price fluctuation of collectibles
Paul Duke STEM

(MATH) Mathematics

Gavin Stanley, Madison Williams, Kaitlyn Vallotton

MicNO Plastics
Archer

Otto Paul-Tafur, Nhu Nguyen,

Plant Paper
Brookwood

Jonathan Pattassery, Zarik Rafiq, Atif Momin

Functional Captain America Shield
Brookwood

Ava Layson

Heat Resistant Gloves
Brookwood

HIGH SCHOOL

Jonah Leopold, Ryan Vo

Most Effective Biodegradable Fabric for Filtering Particles

GSMST

Aleesha Bhatti

Road Temperature Regulator

GSMST

Rakshna Anithadevi Sivakumar, Zahra Farooqi, Maryam Obalanlege

Testing Particle Penetration of Biodegradable Mask Filters

GSMST

Ethan Stephens, Evan Wright,

Utilizing Recycled Tires for Housing Insulation

GSMST

Chase Lin

The Smudge Factor: Best gel pen for notetaking

North Gwinnett

Wyatt Moses, Justin Lee, Justin Sinclair

The functions, limitations, and potential of wireless charging.

North Gwinnett

Kendra Kim, Sandra Pang, John Kim

The relationship between mask color and light absorption

North Gwinnett

Christina Banh, Hakyung Chae

Biodegradable Plastic

Peachtree Ridge

Rajveer Singh

Creating Biodegradable Cellulose Microbeads

Peachtree Ridge

(MCRO) Microbiology

Tianna Rowser

Germ Killers

Central Gwinnett

Pari Bakshi, Abhiram Kapaganty, Ryan Lin

An Investigation of Ayurvedic Extracts on Escherichia Coli

GSMST

William Turcios, Isabella Castro

BACTERIA VS THE FOUR COMMON ANTIBIOTICS

Meadowcreek

Saffiyah Akanmu, Shreya Gupta

The Effects of Ammonium Hydroxide on

Unicellular Fungi

Paul Duke STEM

Meagan Harris

Flu Vaccines: Do we need one every year?

Paul Duke STEM

Aiyana Kedir, Aya Jilalu

Effect of sound on the preservation of chicken

Paul Duke STEM

Kevin Hoang, Tom Kim

Face Mask Material and E. Coli Transfer

Peachtree Ridge

Dahlia Ramirez-Villegas

Xylem Filter: Nature's Water Filter

Peachtree Ridge

Anna Penning

Salad Spinner Face Mask Washer

Peachtree Ridge

Daniel Hyun, Kyle Lee

The Effects of Bacteriophages on Antibiotic

Resistance in E. Coli

Peachtree Ridge

HIGH SCHOOL

Nashra Khan

The Antimicrobial Effect of Herbal Essential Oils on E. Coli K-12
Shiloh

(PHYS) Physics & Astronomy

Jacob Anderson

Blind Archery: How Sound Guides the Brain
Brookwood

Cory Austin

Reducing the Amount of Electricity Used by a Wire Recorder
GSMST

Ryan Duong, Ernesto Gurrola, Gabriel Orellana

Flying Towards the Future
Meadowcreek

(PLNT) Plant Science

Logan Cummings, John Garrett, Evan Shumaker

Effects of Light on Plant Growth for Use in Space
Archer

Jonah Ferguson, Braden Callaway, JohnMark Christopher

Pollination Station
Archer

Kyra Fortner, Stefani Gordon

Battling Algae Growth in Aquaponics
Archer

Logan Cumming, John Garrett, Evan Shumaker

Effects of Light on Plant Growth for Use in Space
Archer

Ryan Kanning

Effects of Electrolytes on Plant Growth
Archer

Phoebe Qui, Abby Awol

Comparing the Rate of Plant Growth in Crystals vs. Soil
Brookwood

Kelly Vallejo

Seed Germination on Martian Regolith Using Simulated Urine
Collins Hill

Trifity Vu, Diyar Tahir

Can Plants Stop Soil Erosion?
McClure

Preston Goforth, Kaylee Liang

Plants & Pollutants
Paul Duke STEM

Ian Warbington, Jackson Harris

How the age of trees affects their CO2 intake
Paul Duke STEM

Baylor Brown

Gatorade as compared to water on the growth of different herbs
Paul Duke STEM

Lena Ho, Rebekah Kim

Acetic Acid on Plant Growth in Drought Conditions
Peachtree Ridge

Binh Nguyen

Preliminary Radiation in Seeds and Plant Growth
Peachtree Ridge

Savanna Kaufmann

Plant Trauma
Peachtree Ridge

Sherlyn Rodriguez Vasquez

The effects of environmental stressors on flower odor
Shiloh

HIGH SCHOOL

(ROBO) Robotics & Intelligent Machines

Krish Saxena

CogAssist: Cognitive Assistant Based on AI for Nonverbal Patients

Collins Hill

Matthew Kim

Search and Rescue System Using Omni-Orientation Mapping Robots

GSMST

Jay Park, Joshua Park,

ANTI-SEIZURE GLASSES

Peachtree Ridge

(SOFT) Systems Software

Jayson Fong

Universal Framework for Payment-Gateway Interaction

Discovery

Daniel Tsiporkin, Zijie Yan

GSMST Traffic Congestion Simulator

GSMST

Hrishikesh Bagalkote, John Prewitt, Samarth

Shridhar

Image-Classifying LiDAR Wearable for the Visually Impaired

GSMST

Mitesh Shah, Julian Varga, Sanjar Zaman

Neural Network to Predict Close Prices in Volatile Penny Stocks

GSMST

Parv Mahajan

Turning a Hearing Aid into an App

GSMST

Donny Nguyen

Use of LIDAR as an assistive device for the visually impaired

Paul Duke STEM

Alex Thorne

An App to Combat Social Media Addiction and Procrastination

Wesleyan School

(TMED) Translational Medical Sciences

Arjan Kohli

Peachtree Ridge