

HIGH SCHOOL

(ANIM) Animal Science

Niti Jani

GSMST

Behavioral Sensitization in Planarians Using Ibuprofen Drugs

Rohey Jasseh

Peachtree Ridge HS

Effects of Isolation and Trauma on Individuals in Social Settings

(BCHM) Biochemistry

Gwyneth Lim, Pranjali Patel

GSMST

Best Common Hair Base Products for the Tensile Strength of Hair

(BEHA) Behavioral & Social Science

Elizabeth McKenzie

North Gwinnett HS

Fixing the Demographic Divide/Inequality in current SAT testing

(BMED) Biomedical & Health Science

Rachel Wetherington

Brookwood HS

Effectiveness of Environment Friendly Masks

Daniel Gohourou

Central Gwinnett HS

Can aloe vera decelerate COVID-19 severity?

Jessica Borders

GSMST

Using Seaweed in Order to Protect Skin from UV Rays

Nazaha Bryant

Makkah International

The Effectiveness of Hand Sanitizer

Tahrira Jubery, Shrinath Parikh

Parkview HS

Effects of M. alternifolia isolates on growth of S. mercescens

Arjan Kohli

Peachtree Ridge HS

AIMS: An AI-Powered Multiple Sclerosis Diagnosis Assistant

Radha Amin

Peachtree Ridge HS

Effects of Sendai Reprogramming of FMR1 Gene in Mice Generations

(CBIO) Computational Biology & Bioinformatics

Ammar Razzak

McClure HS

5 Choices, 1 Answer

Deborah Olorunisola

Brookwood HS

A Sensitivity Analysis of COVID-19 Social-Distancing Parameters

Bimisola Dairo

Brookwood HS

Eval. of lung cancer rates- genetic rel. in males vs. females

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(CBIO) Computational Biology & Bioinformatics

Nivedha Natarajan

GSMST

Drug Accuracy in Targeting the APP Protein in Alzheimer's Disease

Anson Tao

GSMST

Computer Vision for Interpretable MRI-Diagnosis of Alzheimer's

(CELL) Cellular & Molecular Biology

Christine Le

Central Gwinnett HS

Diffusion Properties of the Cell Membrane

(CHEM) Chemistry

Jean Yu

GSMST

Analyzing Cosmetic Products Safety using AI

(EAEV) Earth & Environmental Science

Benjamin Van Doorn, Kate Hunter

Archer HS

The Impact of Climate Change on Sea Turtle Populations

John Garrett, Evan Schumaker, Logan

Cummings

Archer HS

The Physical and Chemical Imbalances in Local Water Samples

Lydia Chafin, Annabelle Payne

Archer HS

Emissions Output

Jackson Cersey, Brandon Woolfork

Archer HS

Water Pollution in Local Areas

Carson Ball, Ryan Kanning, Brendon Dlearo

Archer HS

Results of Fire Retardants on Forestry

Kaelyn Young, Zoe Anthos, Yaritza Franco

Archer HS

Alternatives to Single Use Plastics: Environmental Implications

Aamir Syed

Brookwood HS

Decomposition rate of school trays vs. bioconversion of styrofoam

Ricky Correia

Brookwood HS

Electricity's Effect on pH

Silmi Keshwani

Brookwood HS

Plastic Degradation with Pseudomonas and Tenebrio Mealworms

Baleke Ganda, John Nguyen

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Testing Methods of Soil Stabilization to Reduce Soil Erosion

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Rayan Afsar

GSMST

*A Holistic Analysis of Wildfire Suppression Techniques***Amy Patel**

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*The Best Concentration of Wood Chips to Water for Denitrification***Vikram Bharadwaj, Angela Park**

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*A Chemical Solution to Plastic Pollution in the Ocean***Hana Burhani**

GSMST

*Factors Effecting Energy-Related CO2 Emissions in the US***Mireya Ramirez**

North Gwinnett HS

*Galleria Mellonella Biodegradation of Polyethylene by Digestion***Katheryn Antonowich**

Paul Duke

*Measuring the Correlation Between Income Level and Water Quality***(EBED) Embedded Systems****Alidina Zeeyan**

Peachtree Ridge HS

*Hearing for Seeing: Glasses for the Visually Impaired***(EGPH) Energy: Physical****David Jameson, Tyler Callaway**

Archer HS

*What is the Most Efficient Renewable Energy Source?***Keval Joshi**

Brookwood HS

*Economic Dispatch Model for Distributed Electricity Optimization***Christina Lee**

Collins Hill HS

*Energy Storing Blocks***Ishaan Shah**

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*Harvesting the Vibrations of Animals using TENGs - Telemetry Tag***Noah Parayil**

GSMST

*Alternative Method to Produce Electricity By Using Mud***Nishat Kayum**

McClure HS

*Which substance: salt, sugar, or sand will melt ice the fastest?***(ENBM) Biomedical Engineering****Nathaniel Morgan, Timothy Nguyen, Roshan****Saigal**

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*Automated UVC Sanitizing of Money***Mariah Rogers, Angel Uribe**

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Emergency Alerter for the Deaf and Vocally Disabled

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Julie Cao

GSMST

4-in-1 Anodyne Therapy

Christie Castor, Salam Castor, Christie Castor

Makkah International

Decreasing the Prevelence of Breast Cancer

Elizabeth Figueroa, Anamika Sharif

McClure HS

Optimizing Microbial Fuel Cell Energy Production

Trinity Dibartolo

North Gwinnett HS

Feasability of Microtubule Medicinal Delivery for Sickle Cell

Daanyal Pesnani, John McMahon

Peachtree Ridge HS

Heel, Full of Brace, the Lord is with Knee

Arwen Dale

Peachtree Ridge HS

Spiderweb-Inspired Liquid Bandage

Amal Patel, Kazem Moussa

Peachtree Ridge HS

Foot Guard

Mashal Alidina

Peachtree Ridge HS

Mouthguard: Preventing Dental Trauma

(ENEV) Environmental Engineering

Allan Ndamukong, Sean Ndamukong, Mason Hill

Archer HS

Compost vs Landfills: Difference in Decomposition of Food Waste

Amanda Robinson, Casey Moore

Archer HS

Microfiber Mishap

Ciara Mitchell

Brookwood HS

Acetobacter Xylinum & the Dev'p of an Alt. Biodegradable Textile

Ohemaa Gaisie, Awo Owusu, Andrea Trejo

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Farming Chip

Terukimi Hayashi, Sharona Huang, Rachna

Rajesh

GSMST

Autonomous Waste Management Boat

Rajveer Singh

Peachtree Ridge HS

Removing Microplastics and Bisphenol-a from Drinking Water

(ENMC) Engineering Mechanics

Jacob Ball Michael Williams Andrew Schnupp

Archer HS

The Stirling Situation

Ashkan Jiwani

Brookwood HS

Smart City: Piezo Electric Roads that Generate Electricity

Kenny Dinh, Julio Sorroza Caballero, Jason

Tong

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Maglev Vacuum Train: The Future of Transportation

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Anika Mathur, Kristina Yu

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Portable Method of Detecting Oncoming Fires

Abbygale Smith

GSMST

Refugee Housing: A Smarter Way to Build and Organize

Avneesh Prabakar, Eesh Trivedi

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AdaptaLight: Fiber Optic Smart Headlight that Automatically Dims

Sarah Andrews

Lanier High School

Stratos: High Altitude Balloon at a Low Cost

Triem Le, Claire Murphy

Parkview HS

Urban Air Mobility: Efficiency in Drone Delivery

Nadia Bozeman Negar Oromi

Peachtree Ridge HS

WHEELCHAIR ATTACHMENT FOR TRAVERSING ON STAIRS

Janice Kim, Christina Kim

Peachtree Ridge HS

WHEELED SCISSOR JACK FOR HEAVY OBJECTS

Shreena Parikh

Peachtree Ridge HS

The Stair Climber

Chandni Pari Chandni

Peachtree Ridge HS

Optimization of Navigating Intersections

Zahid Omar

Peachtree Ridge HS

Airfoil height and how it influences aircraft speed

(MATH) Mathematics

Zachariah Dawood

GSMST

Adapting "Natural Packing" to Partisan Gerrymandering Models

(MATS) Materials Science

Ellie Royal, Paige Sandidge

Archer HS

Plastic vs Alternative Eco-Friendly Sciences

Joshua Flores

Brookwood HS

Living Life in the Fast LANE

Danny Puie, Liam Scarborough, Leon Wang

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The Impact of Insulation Types on Change in Temperature

Will Lucas

North Gwinnett HS

Countering the Increasing Brightness of Halogen Headlights

Jheel Dhruv, Devki Patel, Yatree Patel

Parkview HS

Effects of Calcium Carbonate Concentrations on Fire Retardancy

Brandon McClain

Peachtree Ridge HS

The Insulating and Water Resisting Effectiveness of Xerogel putty

Shalin Mehdi

Peachtree Ridge HS

Fire Safe Fabric Softener

HIGH SCHOOL

(PHYS) Physics & Astronomy

Samad Hakani

GSMST

Kibble-Zurek Scaling on a Classical First-Order Phase Transition

(PLNT) Plant Science

Mollie Connor

Archer HS

Plant Growth on a Small Scale for Urban Areas

Riley Stewart, Emma Busboom

Archer HS

A Study in the Use of Organic vs Inorganic Soaps on Moss Health

Ronia Ufomadu, Chisom Oraka

Archer HS

The Marvelous Power of Mealworms

Sowmya Krithivasan, Disha Rachur

GSMST

The Impact of Seed Storage Temperature on Kale Height

Tracy La, Jocelyn Sanchez

McClure HS

The Effect of Water pH on the Growth of Pinto Beans

Kelly Xie, Shirley Licona

McClure HS

How does acid rain impact the growth of plants?

Vivian Chen, Joanne Lee

Peachtree Ridge HS

The Effect of Advil on Plants

Vivian Zhang, Arushi Raza

Peachtree Ridge HS

BAAP: an Alternative to Plastics

Debra Villatoro

Peachtree Ridge HS

Electricity and Plants: What's the Effect

(ROBO) Robotics & Intelligent Machines

Anisah Ashi-Sulaiman, Shing Chow, Ryan Lee

GSMST

Automatic Obstacle Avoidance Robot

Matthew Kim

GSMST

Disaster Scenario Reconnaissance and Mapping Robot

(SOFT) Systems Software

Jayson Fong, Trinh Nguyen, Miles Chippindale

Discovery HS

Injection and Licensing for Protecting Intellectual Property

Utkarsh Borikar, John Prewitt, Samarth

Shridhar

GSMST

Kinect Analysis of Obstacles & Feedback for the Visually-Impaired

Hrishikesh Bagalkote, Justin Lee, Ronald Zhang

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COVID-19 Risk Neural Network

Jordan McEntyre

Paul Duke

Feasibility of Programming DSRC Units for Toll

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Services

Christine Ao, Kruti Bhanderi

Peachtree Ridge HS

*SPEECH CORRECTION: A DEVICE TO IMPROVE
PRONUNCIATION*

Katharine Wang, Christie Kwon

Peachtree Ridge HS

App That Tracks Carbon Footprint

(TMED) Translational Medical Sciences

Maryam Shariff

Archer HS

Physical Activity vs Cancer