SCIENCE OLYMPIAD

Exploring the World of Science

NEW SCIENCE OLYMPIAD TEAM FINDS ITS COMPASS IN A STRONG FIRST YEAR

The 2024-25 school year marked the debut of the new Boyd-Buchanan Science Olympiad Team that quickly made a name for itself despite a late start. Formed shortly before competition season, the team embraced the Science Olympiad slogan—Exploring the World of Science—and found its "compass" not in prior experience, but in determination, curiosity, and teamwork.

With only a rough map, the team began their journey and, with each practice, charted a course of discovery through topics ranging from towers to forensics, from bungee drop to entomology. Their efforts paid off at the regional competition at Columbia State Community College, where the team medaled in 12 out of 22 events—an impressive feat for a first-year squad.

BBS *finished*

1ST IN ENTOMOLOGY
Carter Brown and Kylie Beagle

1ST IN FORENSICS
Cole Brewer and Paul Tran

2ND IN ANATOMY AND PHYSIOLOGY
Eshanth Eriki and Jillian Schuster

2ND IN BUNGEE DROP
Zachary Moses and Pierce Nelson

2ND IN WIND POWER
Lance Wamaitha and Noah Weeks

3RD IN HELICOPTER
Lance Wamaitha

3RD IN MICROBE MISSION
Jillian Schuster and Kylie Beagle

3RD IN TOWER
Eshanth Eriki and Royce Robertson

4TH IN ECOLOGY
Channing Edmonds and Paul Tran

4TH IN GEOLOGICAL MAPPING
Carter Brown and Zachary Moses

4TH IN OPTICS
Lance Wamaitha and Cole Brewer

4TH IN ROBOT TOUR
Majdi Alameddine

Encouraged both by their success and the tremendous amount of fun they had, the team is already planning ahead. Next year they aim to expand and field two teams, giving even more students the opportunity to explore the world of science and discover where their own compass may lead them.

Vimalnath Selvam

THE REWARD BOX:
MERGING IMPULSE CONTROL AND ENGINEERING TO MOTIVATE BETTER HABITS

CONCEPT:
At its core, **The Reward Box** is a student-built behavioral modification system—designed to **incentivize positive habits using technology and psychology.** By requiring a user to complete a self-defined goal before a reward box unlocks, Vimalnath's project bridges electronics, app development, and cognitive theory in a unified device that makes discipline more engaging, and achievement more tangible.

PURPOSE & INSPIRATION:
The concept began with a simple question: How do we train ourselves to follow through? With inspiration drawn from psychology and the concept of positive reinforcement, Vimal's original prototype in 2022 explored whether a locked physical box—containing a treat, video game, or personal incentive—could be digitally triggered to open only after a specific goal was met.

Over time, the idea matured into a refined senior project **focused on goal tracking, delayed gratification, and digital accountability.**

Why it matters:

This project isn't about locking snacks in a box—it's about rethinking how technology can reinforce good behavior, strengthen discipline, and encourage young people to accomplish their goals with measurable structure. It's a fusion of smart tech and psychology that teaches users how to self-regulate, not just how to unlock a reward.

CLUB *Spotlight*

ROBOTICS *program*

Since 2014, the Boyd-Buchanan Robotics Team has proudly represented our school on the global stage through the FIRST Robotics Competition—the premier international contest in high school robotics. Each year, more than 3,700 teams from across the world tackle a brand-new, complex engineering challenge that demands teamwork, innovation, and advanced problem-solving. Boyd-Buchanan holds the distinct honor of being **Chattanooga's only school to compete** in this elite event, showcasing not only technical excellence but also leadership, creativity, and school spirit.

"This season was one of our best in recent years, and the team truly came together to tackle every challenge. Their collaboration and determination led to some impressive successes, surpassing what we've accomplished in the past. At the Rocket City competition in Huntsville, our team showed exceptional skill and ingenuity.

This year's challenge involved placing several 3-inch PVC pieces onto a stand, scoring a 16-inch round ball into a hoop, and having the robot lift itself off the ground by hanging onto a chain, all while avoiding opponent robots. Every year, I'm amazed by how well our students design and build the robot with minimal guidance, but this year they truly exceeded expectations.

From the business team, who handled all the logistics and unexpected hurdles, to the scouting team, who gathered critical information about the competition, to the mechanical and electrical teams, whose work on the robot was outstanding—everyone played an essential role. **It was a fantastic team effort, and I couldn't be prouder of what we achieved."**

Jason Owens, Robotics Team Mentor