
From Classroom to Discovery: WCCS Science Club Students Explore the Science Behind Medicine



For 10 WCCS Science Club students, a visit to Southern Research offered an opportunity to see how the science they study in class can help answer questions that affect human health.

Led by Dr. Sheree Finley and Mr. Marvin Tolbert, students from Selma High School, Dallas County High School, Southside High School and Ellwood Christian Academy participated in Southern Research's STEM Education Outreach Program. Through an immersive laboratory experience titled "Pathways to Treatment: The Science of Drug Development," they explored the research and scientific principles involved in developing and delivering medications.

The visit connected classroom lessons with practical applications in biomedical research, giving students opportunities to use laboratory equipment, analyze data and investigate how chemistry and biology work together.

Putting Science into Practice

Students began by exploring medicine and pharmacology through an investigation centered on the question, “How Harmful Is It?” The activities introduced them to data analysis, color theory and colorimetry—a technique that uses measurements of color to help determine the concentration of a substance.

They also explored the Beer-Lambert Law, which describes the relationship between light absorption and a substance’s concentration. Using a colorimeter, students conducted a colorimetric assay, moving beyond learning about a scientific principle to applying it through a laboratory procedure.

Throughout the experience, students practiced asking questions, collecting and interpreting data, collaborating with their peers and using evidence to understand scientific problems.



Understanding How Medicines Work

The afternoon brought another layer of discovery as students explored pharmacokinetics, or how the body processes medications, along with drug delivery systems, pH and bioavailability.

Through experiments involving acidity and drug delivery, students examined factors that influence how medications are delivered and become available for the body to use. These activities helped make complex concepts more accessible while demonstrating the connections among chemistry, biology and medical research.

The experience also introduced students to potential career pathways in biomedical science, pharmacology and laboratory research, helping them connect their interests in science with future educational and professional opportunities.

Expanding Opportunities for Local Students

For Wallace Community College Selma, experiences such as this field trip extend learning beyond the classroom and create opportunities for students to explore where their curiosity can lead.



Dr. Finley and Mr. Tolbert praised the students' enthusiasm, professionalism, curiosity and willingness to participate throughout the visit. Their engagement reflected the value of giving young people opportunities to encounter science firsthand and discover its relevance to their lives and futures.



WCCS extends its appreciation to President Dr. Donitha Griffin, Camisha Brown, Kateri Lee, Michelle Spears, the Transportation Department, Student Support coaches, and the participating high school principals and counselors for helping make the experience possible.

By connecting local students with hands-on learning and new career possibilities, Wallace Community College Selma continues its work of building pathways, creating opportunities and changing lives.