

# Northwest Collegiate and Technical Academy

## Media Newsletter

Northwest's Earth and Environmental Science Class visited North Carolina State University's Solar House on March 24, 2023. The Solar House tour and science workshop was presented by The Engineering Place, a student centered workshop for students grades 6 –12. Northwest's students participated in a lesson on "How to Make a Magnetic Motor." The students built their own motor.



A student makes a magnetic motor. **The coil makes electrical contact with the paperclip, allowing a current to run through the coil.** The coil is an electromagnet.



Students view the Solar Home on the campus of North Carolina State University.

## NC State University Field Trip Continued



The student's workshop was held in the Solar garage.

Teachers Mrs. Nancy Shaw, an electrical engineer, and professor at North Carolina State University along with student volunteer's Kaleb Jolley and Addison Lane assisted the students in designing their own magnetic motor. They reviewed the engineering process: What is the problem? Brainstorm, and come up with ideas, then plan and select your idea, build things, test your idea, and How can you make your design better?



Dr. Steve Terry explained how Solar Home work: Solar power works by converting sunlight into electricity through the photovoltaic (PV) effect. The PV effect is when photons from the sun's rays knock electrons from their atomic orbit and channel them into an electrical current. Using PV solar panels, sunlight can be used to power everything from calculators to homes to space stations.

## The Lake Gaston Area Links Incorporated Presents a Science Workshops



Left to Right: Mrs. Magnolia Clanton, Dr. Georgette Kimball, Mrs. Carolyn Spain, Ms. Khadisah Nicholson, Mrs. Edna Williams, and Mrs. Tracy Brinkley.

The Services to Youth Committee of The Lake Gaston Area Links, hosted its Hour of Code program at Northwest Collegiate and Technical Academy. The presenter was Khadisah Nicholson, Application Analyst for NC Department of Information Technology. She is a 2012 graduate of Northwest Halifax High School. The students learned how to code.

The Lake Gaston Area Links National Society of Black Engineers Junior ([#nsbejr](#)) students learned new dimensions of STEM at Northwest Collegiate and Technical Academy on Dec. 15, 2022. The featured speaker was Erica D. Smith, Ms. Smith is an Engineer.



Ms. Erica Smith, an Engineer gave a STEM workshop at Northwest.