Rocky Mount Middle School seventh-grader Madison French, 13, solders one-pin sockets to a circuit board while building an optical heart rate monitor Monday during Cynthia Carpenter's class at the school.

SCHOOL OF HEART
Engineering project aids needy

BY COREY DAVIS
Staff Writer

Rocky Mount Middle School science teacher Cynthia Carpenter wants students engaged in the field of engineering. She also immersed her students in a project that helped supply heart rate monitors to needy countries.

In collaboration with Engineering World Health, N.C. State University and a Bright Ideas Grant from Wake Electric, seventh-grade students from Carpenter's science class Monday built optical heart rate monitors, which could be distributed around the world to people in areas who cannot afford them. Bright Ideas provides funding for innovative, classroom-based projects. A grant of more than $2,000 was given to Rocky Mount Middle to supply the materials to build the heart rate monitors, Carpenter said.

"The whole idea is to allow the students to know there is another world out there other than the neighborhoods they are from," she said. "Projects like this one help students gain an understanding that no matter how challenging your life may be, there is always a way to make changes for the better. They gain insight through hands-on experience. I love teaching engineering, and I'm proud of the students for their interest and involvement."

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Engineering has piqued the interest of Nakyah McNeal.

“I never thought about being an engineer, but I’ve learned a lot from being in Mrs. Carpenter’s class, and what we’re doing is fun,” McNeal said.

Carlos Amaral, student problem coordinator from Engineering World Health, helped around the classroom by offering hands-on instruction to the students. His nongovernmental organization specializes in creating and running Biomedical Equipment Technician Training Programs in impoverished areas such as Ghana, Cambodia, Rwanda and Central America.

“The kids seemed to be actively engaged, and we’re hoping this will be a good experience to push them forward to obtain engineering or medical careers,” Amaral said.

To prepare for building the heart rate monitors and the impact it could have, students read the book, “Gifted Hands,” by Dr. Ben Carson, then wrote a book of their own: “Gifted Hands Make Gifted Minds.” The book, completed in cooperation with the language arts department, is a collection of poems.

Shanika Bratts, seventh-grade language arts teacher, said the book consisted of 30 poems and 30 pictures expressing what each poem was about.

She said a copy of the book will be sent to Carson in the hope of the students having a chance to meet him in the future.

Bratts said parents and the public can purchase the book at the middle school office.

Rocky Mount Middle School seventh-grader Kevin Johnson, 13, solders while building an optical heart rate monitor as classmates Nakyah McNeal, left, and Ethan Perrin hold the circuit board Monday at the school.