Math Science Partnership has improved quality of learning experience for students

For nearly two years, Fulton County Schools (FCS) science teachers have participated in a professional development program funded by the Georgia Department of Education to take science learning to the next level. Entitled “Building Capacity for 3D Content, Practices & Crosscutting Integration”, the two-year, $680,872 Fulton Math Science Partnership (MSP) Grant enabled 39 elementary and 27 middle and charter school teachers to collaborate with science and engineering faculty from Georgia Tech and Georgia State University. The program is the brainchild of Dr. Donna Barrett-Williams, FCS’ Science Technology Engineering and Math (STEM) Director and grant manager. She collaborated with university partners to design the grant program to empower science teachers with enhanced understanding of three-dimensional learning and interactive teaching tools to make learning science more engaging for students.

Barrett-Williams had the first year of the program fully funded by 2016, recruited that fall and launched in early 2017 with nearly 70 teachers. During the 20 months, teachers began in-depth training on the science and engineering practices and curriculum resources aligned with the recently revised Georgia Standards of Excellence for science. The input from university faculty and Master FCS middle school teachers helped them gain a deeper understanding of science content and practices to develop lessons to prepare students to engage in scientific phenomena. “It had been several years since a university partnership grant had been implemented in Fulton,” said Barrett-Williams, “and I wanted to leverage the relationship with the two local higher education institutions.” This is the last year of funding for the MSP program which began in 2003. As a federal formula grant program, the MSP funds collaborative partnerships between institutions of higher education and high needs school districts.

The rigorous MSP training required six full-day Saturday classes, two school days and completion of an online course as well as a two-week summer professional development experience in 2017 and 2018. To conclude, the teachers took a day to debrief and share progress and results with one another and their principals.

Theresa Ellis, science teacher at Renaissance Middle School, said “This has been a truly wonderful experience for me. I’m a science geek and MSP has been a gift that I’m sharing with my students to help keep them engaged. I can see they want more; some have even indicated interest in the debate team, thanks to their work on argument-driven inquiry (ADI).”

Sabrina Grossman, Program Director in Science Education at Georgia Tech’s Center for Education Integrating Science, Mathematics and Computing (CEISMC), joined the brief session. Focusing on curriculum
development and teacher support in STEM classrooms, she shared how much she enjoyed working with FCS teachers.

“It’s great to see kids show interest in discovering something new,” said Chris Johnson of Hopewell Middle School. “They are yearning for hands-on opportunities and are ready to dive in.”.

Incentives included a stipend and a tool kit featuring trade books for Kindergarten through fifth grade and a digital microscope or digital probe ware for middle school. Of the 39 elementary teachers that participated, 34 will receive a K-5 science endorsement, to be added to their teaching certificate. And all participants were provided access to attend several state and one national science conference. Two program graduates, Robin Estavan of Taylor Road Middle School and Erica Carrillo of Independence High School, will even be presenting at two professional STEM conferences this year. Natalie Rachel of Stonewall Tell Elementary presented at the National Science Teachers Association conference in March of 2018.

In the meantime, graduates hope to share their new skill sets and resources with their colleagues for continued curriculum evolution.

Photos L – r:

- FCS Middle School teachers debriefing after two years of working on the Math Science Partnership grant professional development program
- Hopewell Middle School’s Chris Johnson shares positive student feedback
- Renaissance Middle School’s Theresa Ellis shows off her digital microscope
- Esther Shin, teacher at River Eves Elementary School

###

About the Fulton County School System. The Fulton County School System is the fourth largest school system in Georgia. More than 95,000 students attend 106 schools in the cities of Alpharetta, Chattahoochee Hills, College Park, East Point, Fairburn, Hapeville, Johns Creek, Milton, Mountain Park, Palmetto, Roswell, Sandy Springs, South Fulton and Union City.