

STEM Curriculum at Innovation Academy

By Foundation Board Member Chuck Tyler

Grant Recipient: Marjorie Murphy, Ben Davis Ninth Grade Center

The Innovation Academy at the Ben Davis Ninth Grade Center is focused on a STEM curriculum (Science, Technology, Engineering, Math) and was looking for additional ways to provide hands-on experiences for their students outside of specific class time. The staff requested funding for new tools and kits which involve circuitry, simple machines, energy & motion, and the study of forces. The kits are being made available during the Impact Period (home room) and the students explore independently or in teams to develop problem-solving, creative thinking, and an awareness of process/outcome. The kits were obtained in mid-October and the impact has been significant.

Student “Melissa” was immediately drawn to the electronics and circuitry kit. It was like solving a puzzle but with electricity. She has noticed she is better at problem solving now and can anticipate the result of certain combinations of parts. More importantly she has begun to apply the problem solving skills to her other classes. It is changing how she approaches those assignments and is making her a better student.

“Martin” is a bright student, the kind who jumps ahead before all of the needed information is available and experiences mixed results. He has been working with the simple machines kit and is finding out the importance of following directions to achieve specific outcomes. He’s now setting his sights on becoming an engineer.

The student collaboration and inquiry is having an impact on the teaching staff as well. The academy staff is working more closely together and other academies are reaching out to this group to see how they might reinforce these skills during their own Impact Periods. Excitement is building. Administrators are now talking about pursuing STEM certification for the entire building.