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### ECTA Students Use Practical Learning in Geometry

East Tech Construction Technology's Geometry in Construction Program is much more than a hammer and nails. According to Irving Grijalva, last year's sophomore, it was the one program that helped strengthen his math skills. "I am not a math person, but the teachers taught this course for a reason. Geometry was first period and then we were allowed to apply our math lessons second period when we were building a custom shed. I could actually apply the Pythagorean theorem to square a building. In addition, we were able to learn leadership and incorporate East Tech's tenets, especially collaboration and communication. I am now a better student, more focused, and have a stronger mind." Mr. Gijalva, and four other juniors, spoke at East Tech's 2<sup>nd</sup> annual cutting ceremony on Wednesday, November 19th. Students were asked to tell the new class of sophomores what they learned and give their advice. They all agreed that the best advice was to "measure twice, cut once" to save materials and cost.

This year the sophomore class is going to construct two 8' x 6' storage sheds that will be used by the Nevada Partnership for Homeless Youth. Joseph Taylor, Programs Manager for NPHY, attended the cutting ceremony and was proud to make the "first cut" (picture below). Parents and students attended the ceremony and the Culinary Arts students, under the tutelage of Chef Watkins, supplied the refreshments. Once students complete the sheds, they will be placed at the NPHY drop center in Las Vegas.

The CT Program and the Geometry in Construction Program are geared toward learning life-skills and are taught in conjunction by Mr. Vega, CT Program teacher and Ms. Burton, Geometry and Algebra I teacher and former civil engineer. The math, for example, centers on skills used in building and is applied to tangible problems. To build a set of stairs, students need to know basic algebra and solve for X. To properly space trusses, they need to figure out load-to-weight. It is the same for English. Students in the CT Program work on technical manuals and technical writing; skills they will need later in life if they pursue careers in the building and manufacturing trades.

Projects like this give students a sense of community. Ms. Burton remarked, "It is important for the students to see math come to life as they use it on this project. I am happy to say I seldom hear the dreaded words, "When are we ever going to use geometry in real life?" Mr. Vega added, "Learn a trade and you will never be out of a job for the rest of your life." The proof of the program's worth comes from the students. Students are learning skills that will help them in future careers and, at the very least, may help them remodel their own home someday.

Training supplies for the CT Program are expensive and Mr. Vega welcomes material donations.

