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Best Practice: Contextual Learning

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population of 12,000 - 15,000 people. (The discussions and decisions incorporate the research and investigation done by students in their School Groups. The considerations, restrictions, and decisions are guided by student questions and consultant expertise. The high school students act as scribes for these meetings while recording the important information, discussions, and decisions made by each Expert Team.) The key negotiations are with the Planning and Zoning Team to determine the types, numbers, and locations of the municipal buildings, the modes/location of transportation, the types/location of utilities, and the general land use in the community.

After the second interdistrict session, each School Group is given a computer-generated map of one of the quadrants of the community which includes all of the agreed upon community structures. This quadrant is the neighborhood in the community that the School Group must develop. Students vote via email and a name is selected for the new community. During the next two interdistrict sessions, the Expert Teams are given design challenges and begin to create and construct the community's buildings, bridges, utility poles, etc. with the guidance of the teachers, consultants, college professor and students, and the high school students. The School Groups are issued building permits based on their quadrant maps and they begin the creation and construction of the housing and businesses in their neighborhoods using a computer program. The digital quadrant maps are enlarged (16x) by the town GIS technician and one large community map is assembled and glued to cardboard backing. The structures are placed on the map as they are completed by the Expert Teams and School Groups. The final interdistrict session is a celebration of learning and new friendships. The completed map is displayed. Expert Team members talk about their contributions to the map and reflect on what they learned. The Planning and Zoning Team show their multimedia presentation about the new community.

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Best Practice: *Contextual Learning*

Best Practice Nominator: Philip A. Reed

Description of Best Practice: Elementary teachers have an enormous amount of responsibility for planning and grading multiple subjects. Technology education at this level is often viewed one of two ways – either as another subject area to teach or as a

unifier that brings relevance to other subjects. The second method of teaching technology education is a best practice for elementary teachers because it makes learning relevant for children. Additionally, the use of contextual learning could be used as a best practice for secondary teachers. The current focus on accountability has secondary technology teachers identifying their role in standardized testing and school accountability procedures. Elementary teachers that have successfully utilized contextual learning can help in this task by providing materials and guidance. Linda Harpine, for example, is a retired elementary teacher who now shares her experience of contextual learning with all levels of technology educators. Through state and national presentations, Linda demonstrates how she integrates technological content into language, science, mathematics, and social science lessons. She was instrumental in establishing the Virginia Children's Engineering Council and for organizing their annual convention (see <http://www.vtea.org/ESTE/>). Additionally, Linda is the co-founder of Children's Engineering Educators, which is a company that writes and consults on contextual learning practice at the elementary school level.

The value of contextual learning is regarded very highly by the National Science Foundation as seen in the significant amount of funding being provided for Science, Technology, Engineering, and Mathematics (STEM) initiatives. Incorporating these best practices into secondary programs will surely help identify the role of technology education.

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Best Practice: *Green Technology*

Best Practice Nominator: Sharon A. Brusic

Description of Best Practice: Students at Greencastle Middle School in Greencastle, Indiana are presented with a problem to create a piece of furniture made entirely from recycled and “unorthodox” items. Working in small teams, students must incorporate at least three different materials to make their “new” piece of furniture. Since students are not allowed to purchase materials, their solution must be made entirely from scrounged materials. As a result of this problem, students have created a wide assortment of furniture pieces from a variety of recycled items such as tire rims, old tarps, foam insulation, and broken products. For example, one team recently made a fold-up bed from old closet doors. This activity has received much support from the school's administration and has also received positive public relations in local newspapers.