

Grant Review Report - 2016

1. CNC Plasma Cutter, West High School

Amount Requested: \$13,556

Amount Recommended: \$13,556

The funding from this grant would purchase a Torchmate CNC (Computer Numerical Controlled) plasma cutting machine. It will greatly impact student learning and instructor effectiveness in the area of manufacturing and design courses such as Welding and Fabrication, Mechatronics, PLTW, Art, and Science. Students will be able to implement self-directed learning and innovation skills, information interpretation skills, math, technical reading, and communication skills in their interaction with the new machine. The impact of this machine will engage students to harness their skills in preparation for being productive in various career pathways including: art communication, agriculture resources, information technology, engineering technology, and math and science technology. The shared vision as a technology education department is one of collaboration. They would love to see students from Science, Art, or other courses apply a practical application for using a CNC plasma cutting system. This machine has replicable results and is self sustaining.

2. Global Studies – Global Issues Readers, DMMS and PWMS

Amount Requested: \$2,061

Amount Recommended: \$2,061

The proceeds of this grant would purchase the Global Issues series of books at three reading levels covering 11 of the most important geographic and environmental issues today. These readers have informational text for social studies and language arts classes. They are high-interest topics with awesome photography. Each book includes vocabulary and many graphics. The three levels covered in each book are: on level, below level and above level. This ensures that most, if not all, of our 600 8th grade students at Prairie Winds and DMMS are reading something that meets their reading level with a common topic. The books will be used through the school year during the various units taught.

3. Fab Lab Expansion: Laser Engravers/Cutters, East and West High Schools

Amount Requested: \$35,000

Amount Recommended: \$28,008

The funding from this grant would be used to purchase two Laser Engravers/Cutters for both East and West High Schools. Laser engravers/cutters are part of an overall “Fab Lab” (Fabrication Laboratory) concept that Mankato Public Schools is implementing at both East and West High Schools to teach critical thinking and problem solving through STEM/STEAM principals across all content areas. The students will use the laser engravers/cutters in the Fab Lab to work on projects that provide meaning to their school, community, or home life. Students in a variety of content areas such as Tech Ed, PLTW, Math, Art, and Science will also use the laser engravers for project-based learning and inquiry-based best practice.

The vision for a Fab Lab (fabrication Laboratory) is one that allows students to take any project, across any content area and grade level, and use innovation and the engineering design process to create solutions. Multiple pieces of equipment within a space or school allow students to have unlimited opportunities in their approaches to solving problems.

Total 2016 Grant Budget: \$43,626

Total Amount Requested: \$65,617

Total Amount Recommended: \$43, 626

13 Grant Requests in '09 – for \$71,685	\$54,259 awarded
15 Grant Requests in '10 – for \$155,417	\$56,000 awarded
17 Grant Requests in '11 – for \$113,800	\$50,723 awarded
19 Grant Requests in '12 – for \$299,579	\$56,999 awarded
13 Grant Requests in '13 – for \$234,500	\$63,146 awarded
13 Grant Requests in '14 – for \$118,951	\$55,000 awarded
7 Grant Requests in '15 – for \$98,496	\$64,209 awarded