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Students demonstrate their learning through performance-based assessments and express their conclusion through elaborated explanations of their thinking.

Munster High School prides itself on challenging students to demonstrate their learning through performance-based assessments. Currently, teachers in all classes (both STEM and non-STEM) have been challenged to create performance-based assessments for each class that they teach. These assessments are part of a district-wide initiative to create teaching units that follow the Jay McTighe's and Grant Wiggins Understanding by Design (UbD) model, which requires learning to be assessed through multiple channels. The goal is to not only assess student learning through more traditional means, such as objective tests, but to also provide the opportunity for students to apply their knowledge to real-world situations. Since we are still in the early stages of this initiative, teachers are required to have one unit in place by the end of this year. Teachers will continue to create units until multiple measures, including performance-based assessments, will be used to evaluate the learning of all students in all subject areas. Not surprisingly, many teachers in the STEM and STEAM disciplines had already incorporated performance-based assessments into their curricula.

Students in Physics I apply their knowledge of physics, chemistry, and biology to escape the zombie apocalypse by building a working stick car and then develop weapons to defend Fort MHS from the attacking zombie hordes. Project Lead the Way (PLTW) students use their knowledge of digital design to create a circuit that will display their birthdate on a single-seven digit display. These students also are required to work in teams to design solutions to resolve issues encountered by manufacturers (both real and fictional) caused by flaws in the original designs. Other science students work in collaborative groups to act as members of a committee charged with the responsibility of convincing residents that using the old Munster Steel Plant property to build a nuclear power plant is a good idea. Math students use their knowledge of sequence and series to create proposal for a sports stadium that meets the parameters for pricing, seating, and scheduling set by a client who hired them to construct the most cost efficient design.

Performance assessments are not limited to the traditional STEM classes. Journalism and Photography students use Photoshop and Publisher, among other programs, to create sophisticated publications that have been recognized nationally. Technical Theater students breathe new life into classic silent films by designing and creating soundtracks that combine music and sound effects that reflect both the mood and the action on the screen. Students who attend the area career center design and construct cabinetry and furniture.

Currently most of our performance-based assessments are seen only by the teacher and students who are part of that particular class. MHS is investigating ways to showcase the talents of our students to more stakeholders within the school and within the community. The STEM process has highlighted the need for more collaboration time so the entire school population can celebrate our successes and recognize the universality of STEM principles throughout the entire curriculum.