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NEWS RELEASE

Local students help design safety displays

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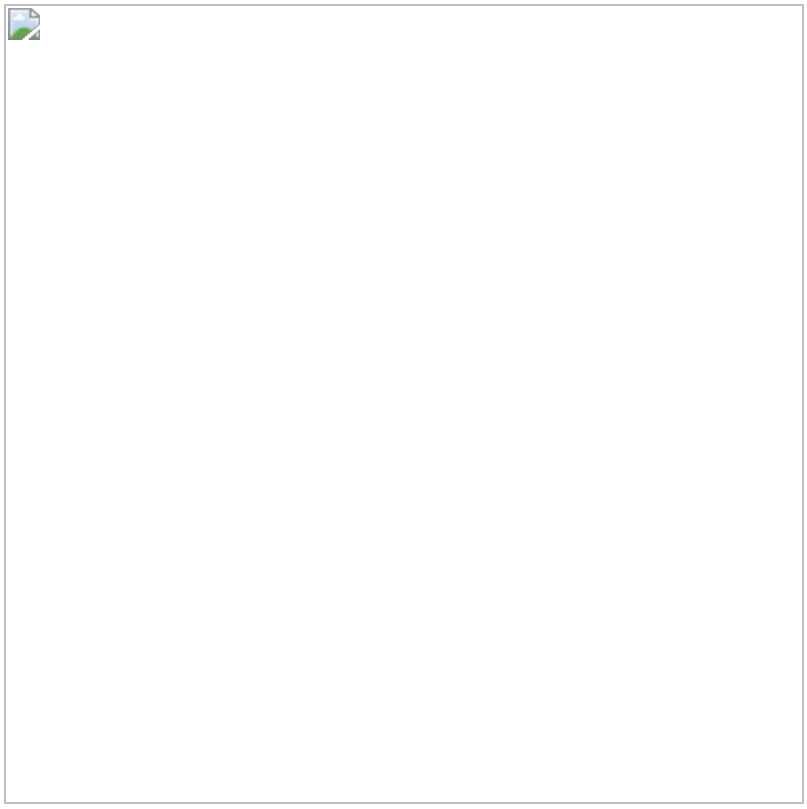


Left to right: Lowry student Edward J., Bechtel's Julio Martin, teacher Scott Santos, and student Violet A. put together a safety display.

High school students in Winnemucca, Nevada are helping keep the Thacker Pass construction workforce safe.

Students in Lowry High School's Manufacturing Program used 3D printers, common building materials, scale models and research into OSHA safety rules to help build tabletop safety displays for Bechtel's Thacker Pass safety

school.

Learning aids

Bechtel, the engineering, procurement, and construction management contractor for Thacker Pass, uses classroom environments where construction workers learn about safety situations they may encounter in the field. The tabletop modules will be combined with life-sized equipment, tools and other displays.

Topics include working at heights, safety around heavy construction machines, cranes and suspended loads and confined spaces.

The “why” behind the rules

“This was valuable for the students to go in and research OSHA guidelines that pertain to their safety module and consider why those guidelines were written,” said Scott Santos, Manufacturing Program teacher at Lowry. “People can be aware of safety hazards on the job before they even get on a site.”

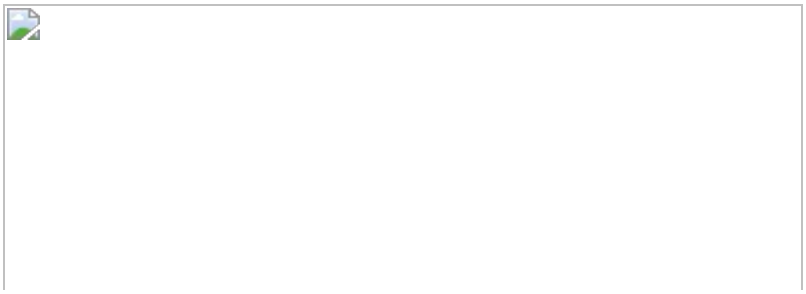
“The OSHA rules are there because someone years ago had an incident,” said student John F. “Like, there’s a 5-4-3-2-1 rule in trenching (that prevents wall collapses and cave-ins).”

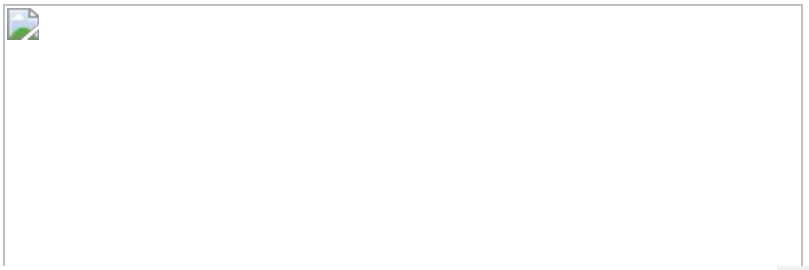
Lessons in design and engineering

The project also involved understanding requirements and working with computer-aided design (CAD) software.

“We went through a couple of designs in Autodesk Inventor and did prototypes, measured the boxes, and figured out how to make everything fit,” said student Violet A. “We went off the components we had and what we wanted to be in the scene. For the box structures, we didn’t want sand leaking through any cracks.”

Not only will the project help the current Thacker Pass workforce, the students also learned about a potential career path. With up to five phases and an 85-year mine life, Thacker Pass will be a major employer in construction and operations in northern Nevada for years to come.





Student Violet A. unboxes miniatures for the safety school display.

Student Kain G.N. works with a tower crane model.