

Niles North and West High Schools



Lab Zone



Think Tank



Observation window

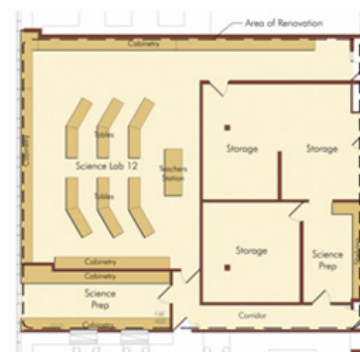
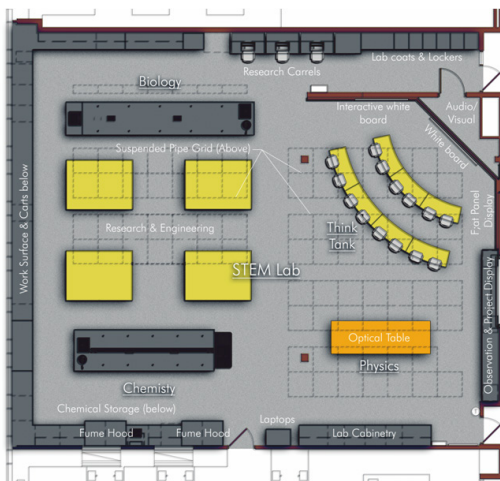
Science/Technology/Engineering/Mathematics (STEM) Labs

STEM labs at Niles North and West High Schools were carved out of existing space in each school. In the new labs, chemistry, biology, and physics merge with engineering and mathematics. The 2,860 SF (North) and 2,970 SF (West) labs offer collegiate-level applications and sophisticated technologies to optimize research, interaction, and critical thinking.

Each lab has two primary zones that allow independent study and group sessions to occur simultaneously. The **Think Tank** encourages students to think out loud and supports global conferencing. It offers full AV input and output, a plasma TV, projectors/screens, and interactive white boards.

In the **Lab Zone**, students have everything they need to apply lessons toward real-life problem solving: flexible configurations, storage, places to plug in, and equipment.

Movable tables and individual work carts that roll under counters give students the flexibility to conduct many experiments. Computer storage with internal charging stations allows students to use their laptops for research or interface with lab equipment (e.g., bomb calorimeter, shaking tables, spectrophotometer). An overhead gridding system and large tabletops allow for optimal connections to equipment, while speakers and microphones transmit throughout the lab.



Floor plan (before) - Niles North

Floor plan - Niles North

Niles North and West High Schools



"The STEM labs have catalyzed our science curriculum with collegiate level applications."
 ~ Paul O'Malley, Assistant Superintendent for Business Services

Materials play an important role in the lab design. Glass walls along the corridor and glass cabinets showcase activity and equipment to get students excited about STEM applications. Epoxy resin lab tables, exposed ceilings, rubber sheet flooring, and metal/wood highlights create an atmosphere that blends industry and science.



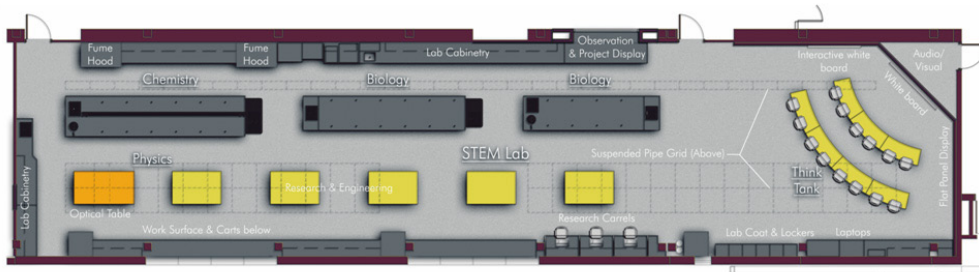
Niles Township High School District 219 hosted the STEM Student Research Forum. Administrators and educators from over 30 high schools and 8 colleges and universities, along with leading scientists and engineers, toured the STEM lab at Niles North.



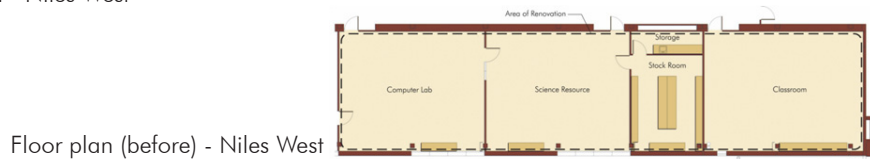
Lockable carrels



Work table



Floor plan - Niles West



Floor plan (before) - Niles West