

# Transformational Strategies: Taking Existing Spaces into the 21st Century

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Association for Learning Environments  
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Presented by:

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# Learning Objectives:

- Understand how flexible learning environments support Universal Design for Learning.
- Understand how to develop partnerships with local business and community members to support new curriculum.
- Understand why transforming the learning environment is necessary to support "learn by doing" curriculum.
- Understand how to fund projects through donations from local businesses and charitable foundations - this isn't just for colleges and universities!

# Agenda:

**Three case studies:** how to transform small existing spaces into 21<sup>st</sup> Century **(Future Ready)** learning environments that have a big impact within the school and community

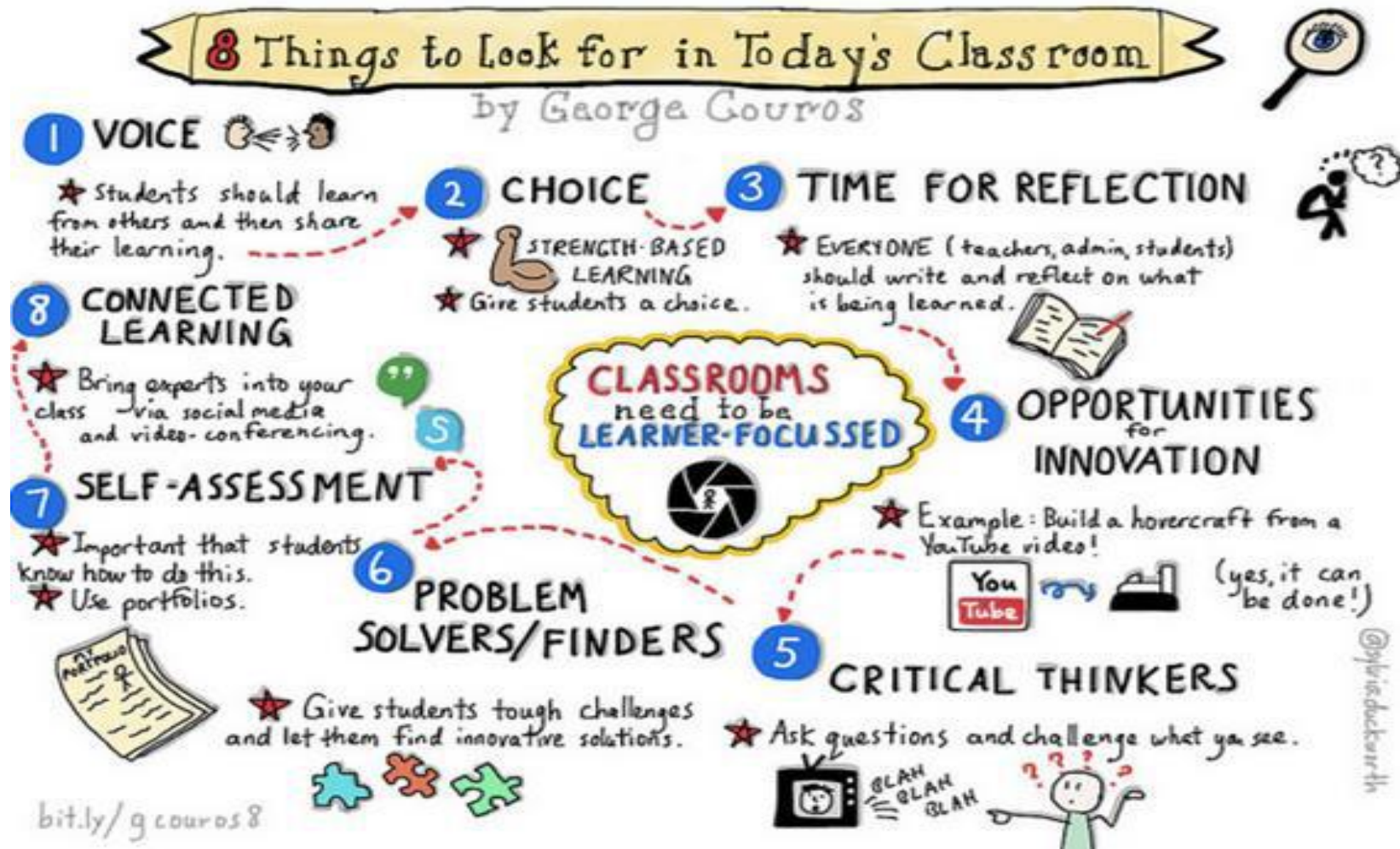
- **River Trails Middle School STEAM Lab**
  - River Trails School District 26, Mount Prospect, IL
- **Prairie Ridge High School Business Incubator Lab**
  - Community High School District 155, Crystal Lake, IL
- **Crystal Lake South High School Culinary Lab**
  - Community High School District 155, Crystal Lake, IL

# River Trails Middle School STEAM Lab:

## About District 26:

- Two PreK-5 Buildings and 1 Middle School – 1,500 students, approx. 500 at Middle School
- Fully aligned Common Core in ELA, Math and Science
- 1:1 Chromebooks in grades 1-8
- Middle School - 96,865 SF
- STEAM Lab Construction Budget: \$235 - \$264/SF
- Construction Cost: \$247/SF (\$417,924)

# District 26 Framework Visualized



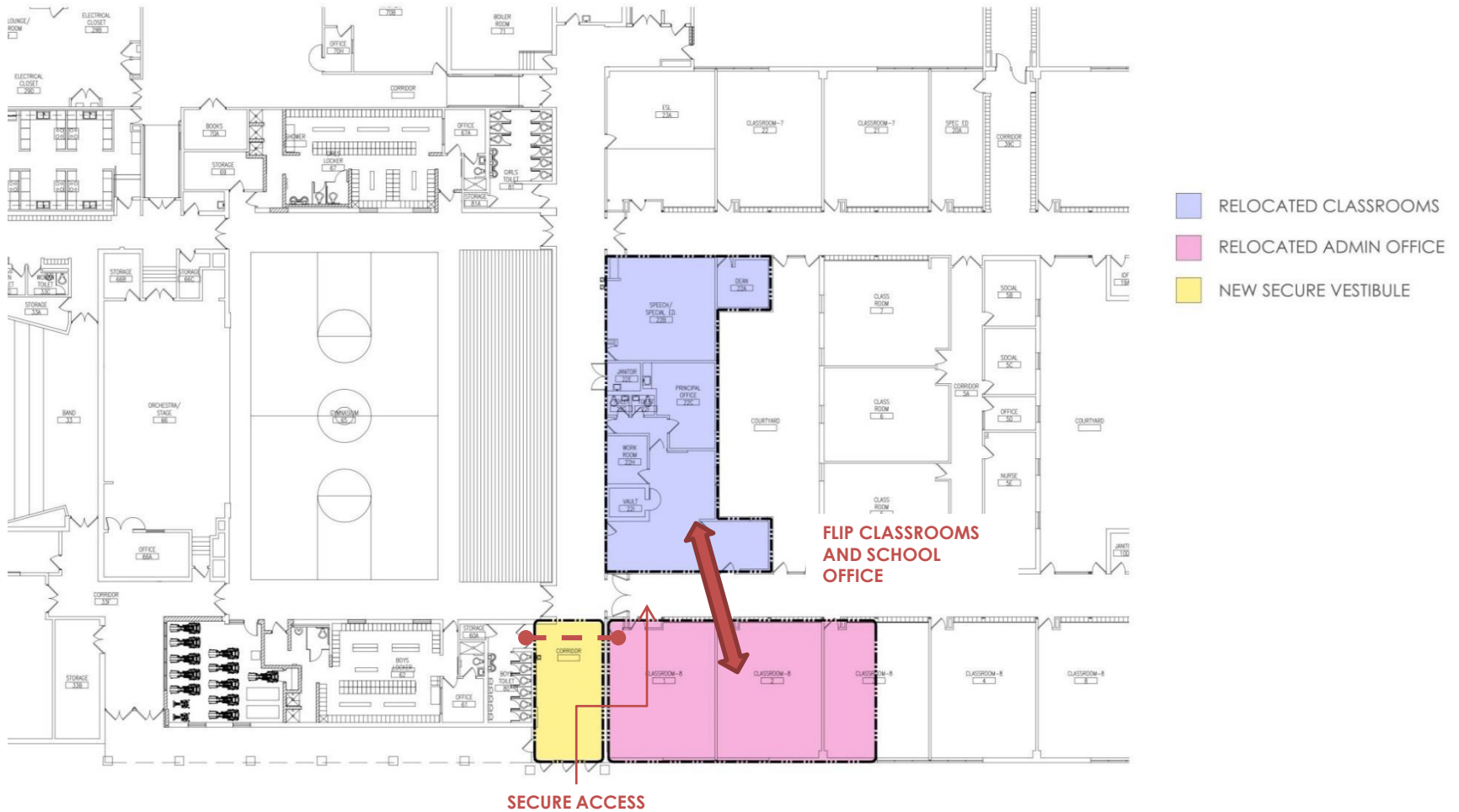
# Typical Classroom Learning versus 21st Century Classroom Learning

<b>Traditional</b>	<b>Future Ready</b>
<b>Combination Desk/Chair</b>	<b>Flexible and Mobile Furniture</b>
<b>Period-based curriculum scheduling</b>	<b>Blended/Integrated curriculum scheduling</b>
<b>Primarily Test Assessment based feedback</b>	<b>Blended assessment/Authentic product based feedback and reflection</b>
<b>Technology is used as an enhancement to learning</b>	<b>Technology is integrated along with all tools as another option for learning</b>
<b>Most learning is directed by the teacher Sage on the Stage!</b>	<b>Student choice and failure is a feature in all content areas. Guide on the Side!</b>
<b>Pacing of curriculum is set by a (district) guide</b>	<b>Curriculum is adapted to student needs and strategies such as PBL, Inquiry, Design Thinking, STEM focused learning</b>

## Universal Design for Learning philosophy adopted by District 26

- Universal Design for Learning (UDL) is an approach that is built on the premise that there is **not only “one” kind of learning- or one kind of teaching.**
- UDL allows accessibility to the curriculum by ensuring that students **learn through activities and instruction** aligned with their own learning styles, interests and intelligences.
- A variety of tools can assist teachers in **reducing barriers** and providing opportunities for interest-based instruction and exploration.

# Context:





# Objective - STEAM as a focal point!!!

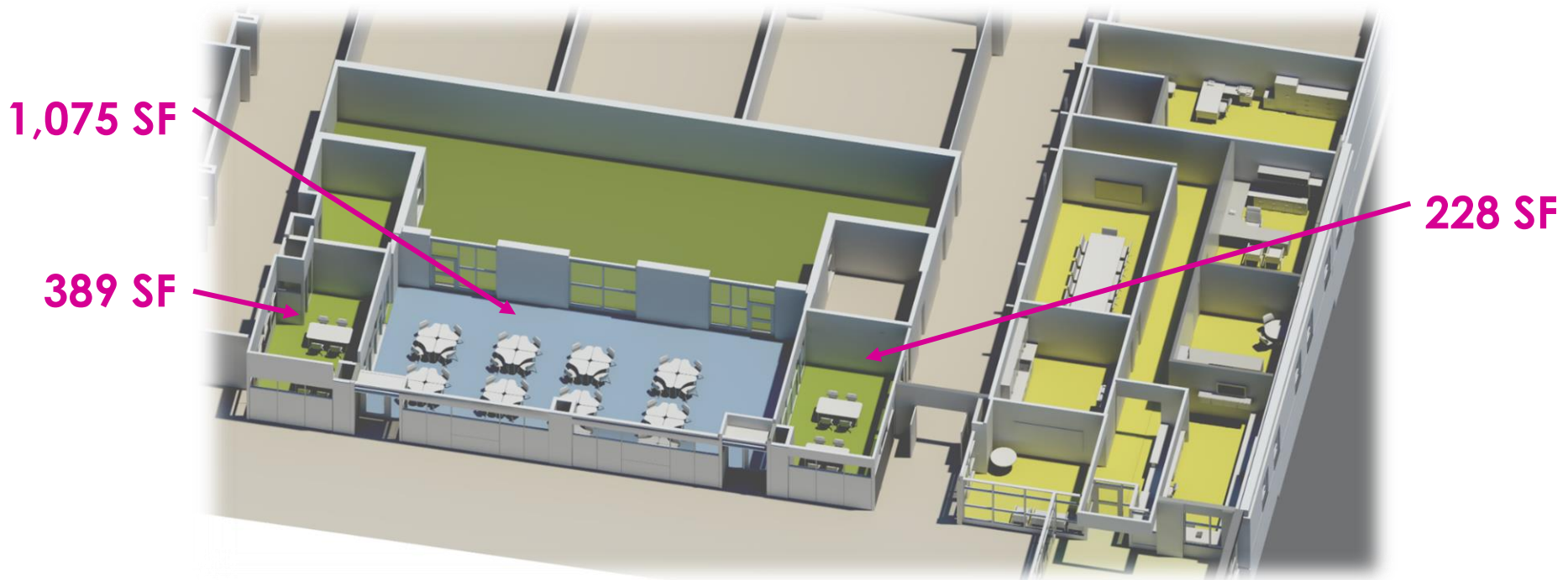


“We want students to gain strong design thinking and problem-solving skill sets. We want to prepare students for (their) future (not our past) which will most likely include the development of critical thinking skills, ability to communicate with peers and the global community through all types of social media and traditional medium, the experience and understanding of collaborating in real time as well as in virtual environments, and finally, be open to creativity and the spirit of innovation.”

Dr. Matt Silverman – Assistant Superintendent for Curriculum and Instruction

## Flexible Space – Layout:

- Flexible Seating
- Multiple work/seat surfaces
- Versatility of teaching location within room - no traditional “front” of room
- Shared resources
- Flex the space to the learning/curriculum needs
- Flexible, movable furniture – nesting tables and chairs on casters
- Less whole - group, direct instruction, more personalized guided conferencing.





**“Being able to collaborate with a team of professional architects and designers has allowed us to work in the very same manner we are striving to teach. We want students to know that each one of us doesn’t need to be an expert at everything. But each one of us has an expertise to share with the team, which strengthens the team to bring about the best outcomes. This has served as a model for success that I share with my students.”**

Jeannine Wagner – STEAM program teacher, Project Lead The Way, Gateway to Technology



## Flex the space to the learning/curriculum needs:

- Demountable partitions
- Non-traditional Teaching Wall w/ integrated monitors
- Flooring compatible with robots

“The STEAM Lab versatility allows for more creative scheduling options; we are increasing cross-curricular integration to enhance collaboration between the learning disciplines.”

Keir A. Rogers –  
River Trails Middle  
School Principal



## Flex the space to the learning/curriculum needs:

- Mobile furniture
- Flexible Seating
- Reconfigurable/nesting tables





## Flex the space to the learning/curriculum needs:

- Less direct instruction, more personalized guided learning
- Building personal relationships



Before:





After:





# Business Incubator and Culinary Labs:

## About Community High School District 155:

- Four High School Buildings and One Alternative School – Approx. 6,200 students
- 1:1 Chromebooks in grades 9-12
- Prairie Ridge High School – 267,395 sf, approx. 1500 students
- Crystal Lake South High School – 325,404 sf, approx. 1700 students
- Business Incubator Construction Budget: \$300 - \$350/SF
- Construction Cost: \$368/SF (\$500,480)
  
- Culinary Lab Construction Budget: \$450 - \$500/SF
- Construction Cost: \$560/SF (\$1,019,200)

# District 155 Prairie Ridge High School - Business Incubator Lab

## Goals:

- Create a professional environment for collaboration
- Small group workstations, central “third space”, cubby storage, and conference room
- Flexible, mobile furniture – nesting tables and chairs on casters
- Multiple worksurfaces and seating options
- Multiple focal points throughout the space
- Space flexes to support changing learning/curriculum needs
- Less whole-group, direct instruction - more personalized, guided conferencing.









“The Incubator room allows students to get a feel for what a true real-world work environment is like. The learning space can be organized into a wide variety of layouts to satisfy almost every type of learning environment desired including small group, presentation, board meeting, and traditional style classrooms. It allows students to practice anything from board presentations to team meetings with the feel of a “business environment.”

Kevin Koeppen – Industry & Careers Division Leader  
Prairie Ridge High School

District 155 Prairie Ridge High  
School Business Incubator Lab

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# Collaboration and developing the business idea:



# Presenting the business idea:





# Prototyping and testing the business solution:



## Selling the business idea “Shark Tank style”:





# Community Support:

The Business Incubator Lab was completely funded by generous donations from two local businessmen – The Foglia Family Foundation and The Dombek Group. They wanted to give back to their community and encourage students to develop entrepreneurial interests and skills.



# Funding and Resources

- Community business leaders working with the students



Before:





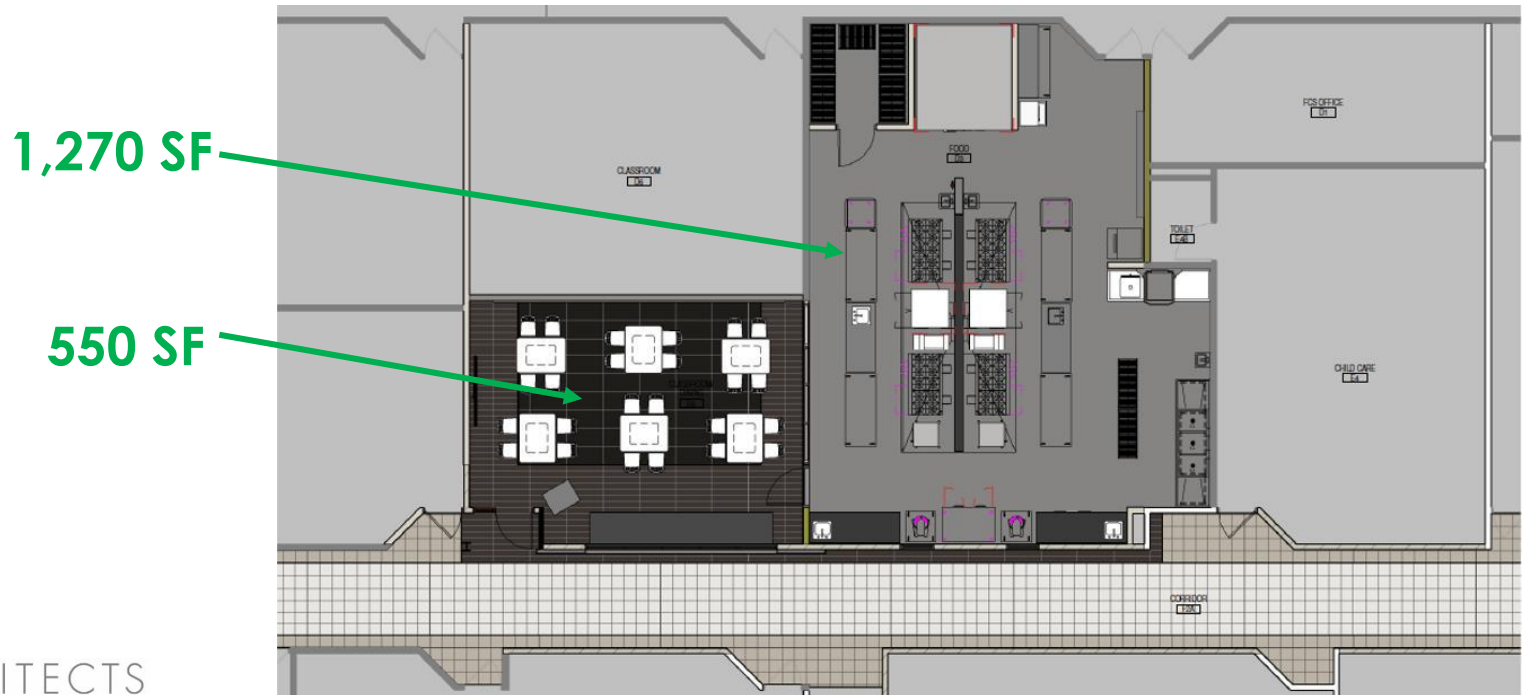
After:



# District 155 Crystal Lake South High School - Culinary Lab

## Goals:

- Create a Professional Culinary Lab and Dining/Classroom for 24
- Flex the space to the learning/curriculum needs
- Commercial kitchen layout and equipment mimic real-world work experience
- Hands-on learning, not only direct instruction
- Give students the opportunity to test potential career paths
- Movable, acoustical glass panels link the Dining/Classroom to the demonstration island
- Culinary Lab areas are visible to students passing by





# Culinary Lab - Rendering





# Culinary Lab - Rendering













“I hope with these classes we can encourage our students that desire to contribute to the world and take these skills of collaboration, communication, and teamwork, outside of this learning environment. **This space has become more than a commercial kitchen, it has become a personalized learning environment giving the students the ability to collaborate and use higher level thinking to succeed on a daily basis, while getting real world experiences of working in a restaurant on a very small scale.**”

Michelle Kidd – Division Leader  
Industry & Careers  
Crystal Lake South High School

District 155 Crystal Lake South High School  
Culinary Lab

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“This year, I have seen more students interested in the culinary field and I feel it is based on the facility that we have built. As we are certifying all students with ServSafe Food Handler, students are able to make the connection with the learning and hands on experiences. Students have even questioned or reiterated conversations that we had in the classroom to the lab. I would say that 50 percent of our students want to go into the culinary field, whether opening their own bakery or restaurant or becoming an executive chef. We currently have 3 students traveling from another school in our district to use our facility. They have expressed how grateful they are for this opportunity to get real-life experience while in high school.”

Kristin Diaferio – Family & Consumer Sciences teacher  
Crystal Lake South High School

District 155 Crystal Lake South High School  
Culinary Lab

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Culinary Lab areas are visible to students passing by







Before:





After:



# Thank you!

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