



A District's Journey in Project-Based Learning

The Story of Discovery High School & Odyssey Middle School

A wide-angle photograph of a modern school building at dusk. The building has a long, low profile with a light blue facade and numerous windows, some of which are illuminated from within. A central entrance area features a glass facade and is flanked by dark, vertical slats. The building is set against a sky with soft, pinkish clouds. In the foreground, there is a paved area and some young trees.

LearningSCAPES 2019 ▶

Introducing...



Jeff Snell, Ed.D.
Superintendent,
Camas School District



Aaron Smith
Principal,
Discovery High School &
Odyssey Middle School,
Camas School District



Rain Toney
Student,
Discovery High School



Karen Montovino,
AIA, ALEP
Principal Architect &
Educational Planner,
DLR Group



Tim Ganey, AIA,
ALEP, LEED AP
Principal Architect
& Sr. Designer,
DLR Group

A scenic landscape photograph showing a wide river valley. In the foreground, there are dark green evergreen trees on the left and bottom edges. The middle ground features a winding river, green fields, and some small settlements. The background consists of rolling hills and mountains under a hazy sky. The text "WELCOME TO CAMAS" is overlaid in large white letters.

WELCOME TO CAMAS

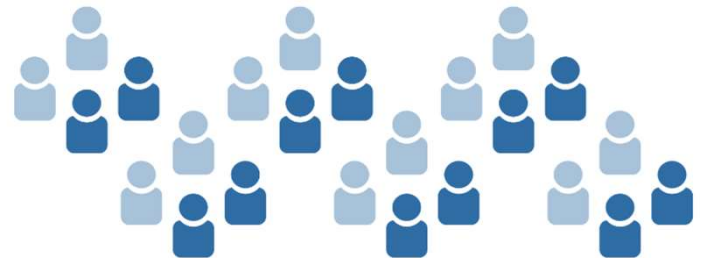
Caring, Quality and Growth

About the District

The mission of the Camas School District is to provide students with the ability to communicate effectively, use technology, reason, be self-confident, possess mental and physical health and work effectively with others. **In broader terms, our mission is to create a learning community where students, staff and citizens are involved jointly in the advancement of knowledge and personal growth.**



- 7,200+ students
- 1,000+ employees
- 6 elementary schools
- 3 middle schools
- 3 high schools



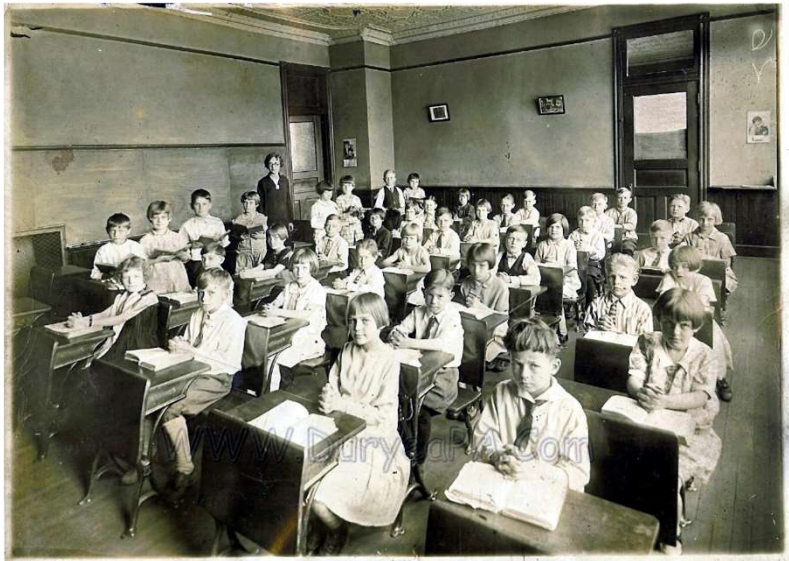
High School Reflection

Why Project-Based Learning?

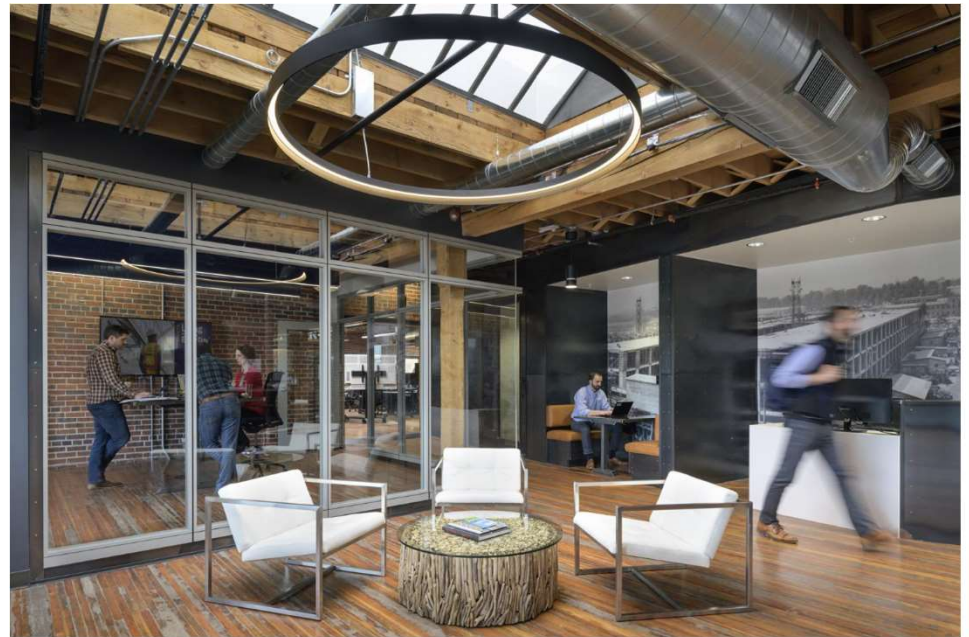
- 40 percent of people in the U.S. work as contract employees, moving from one project to another. By 2025, this is expected to grow to 60 percent.
- Almost all work, even in traditional companies, is organized by projects.
- The world has changed a lot in last 100 years, one would think education has also evolved.



Have they?



How about the workplace?





At Discovery High School, we engage with challenging, real-world problems. We interact with content through relevant and meaningful projects while developing collaboration, communication, creativity, and critical thinking skills that launch students into dynamic futures.
We learn for life!

Timeline



Creating a PBL Campus

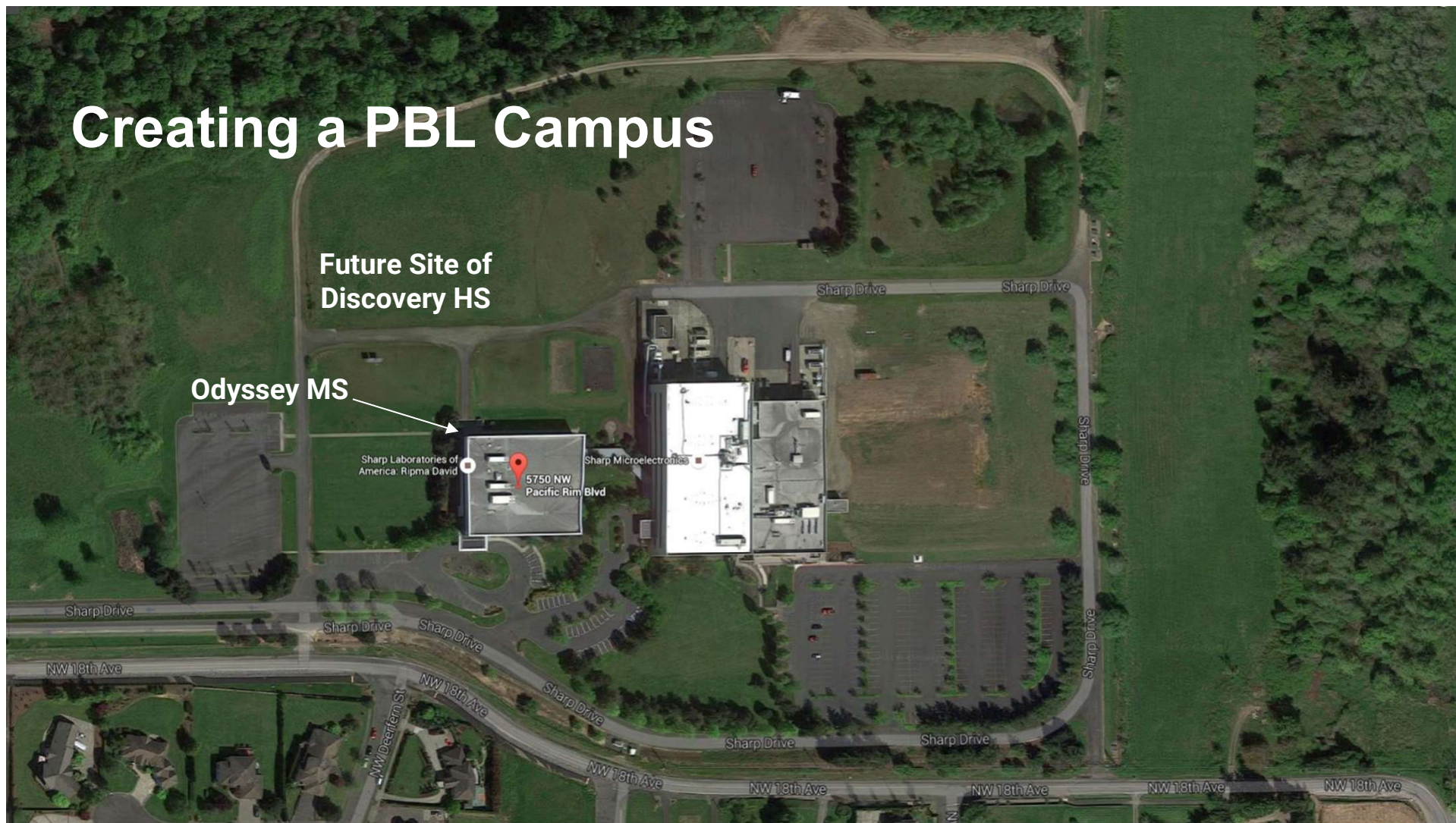
Future Site of
Discovery HS

Odyssey MS

Sharp Laboratories of
America: Ripma David

5750 NW
Pacific Rim Blvd

Sharp Microelectronics



Changing the Educational Approach from Workplace to Middle School





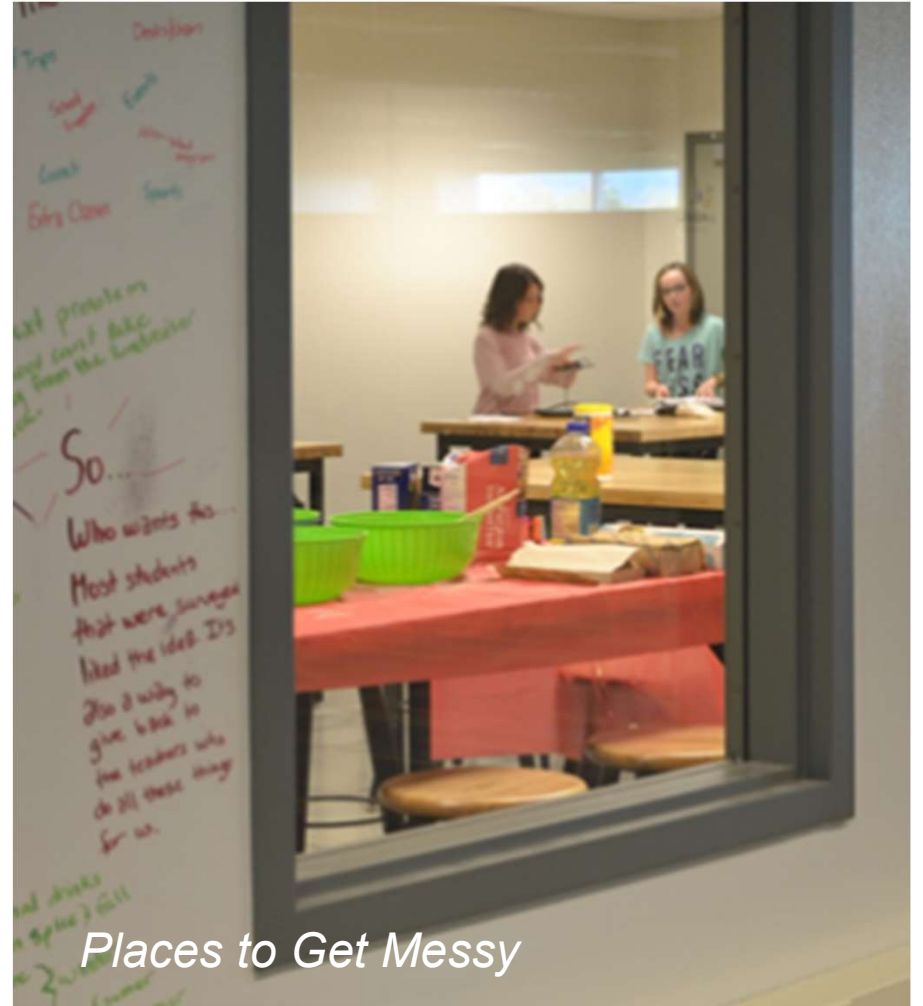
Odyssey Middle School



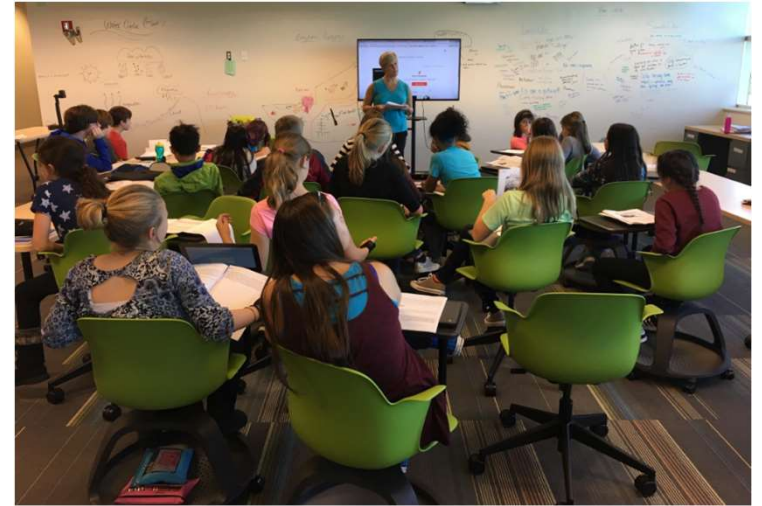
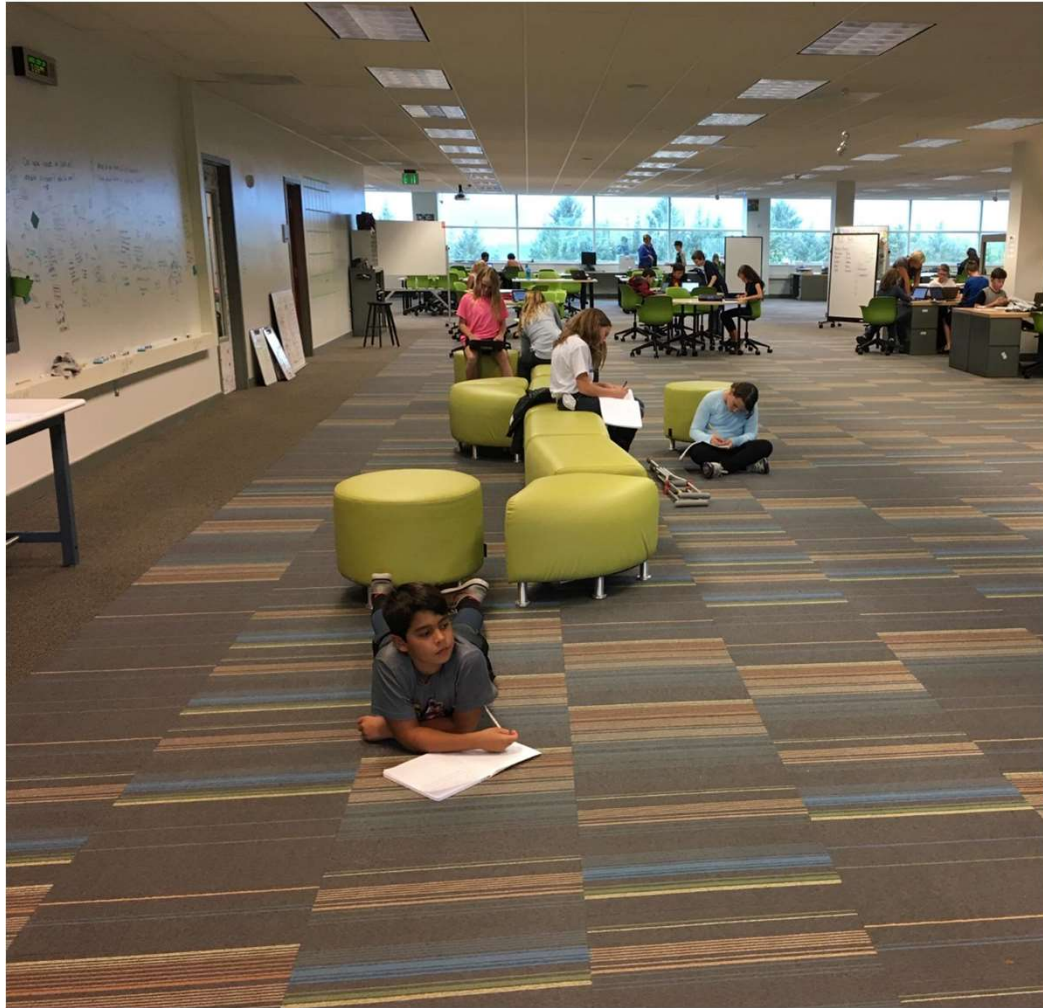
Movable Furniture



Transparency

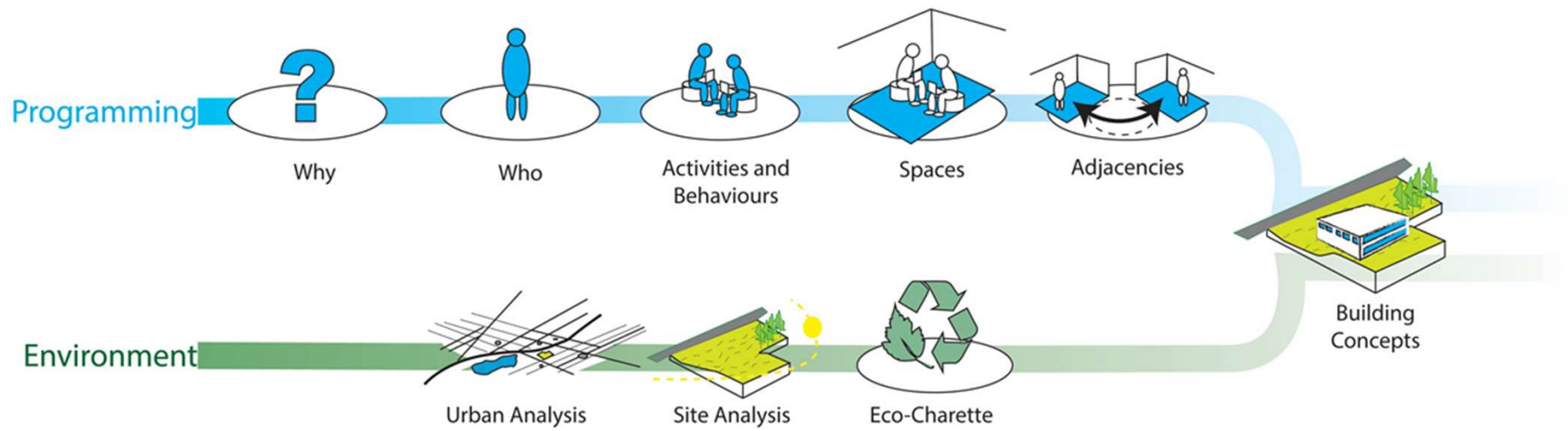


Places to Get Messy





Process



Tours

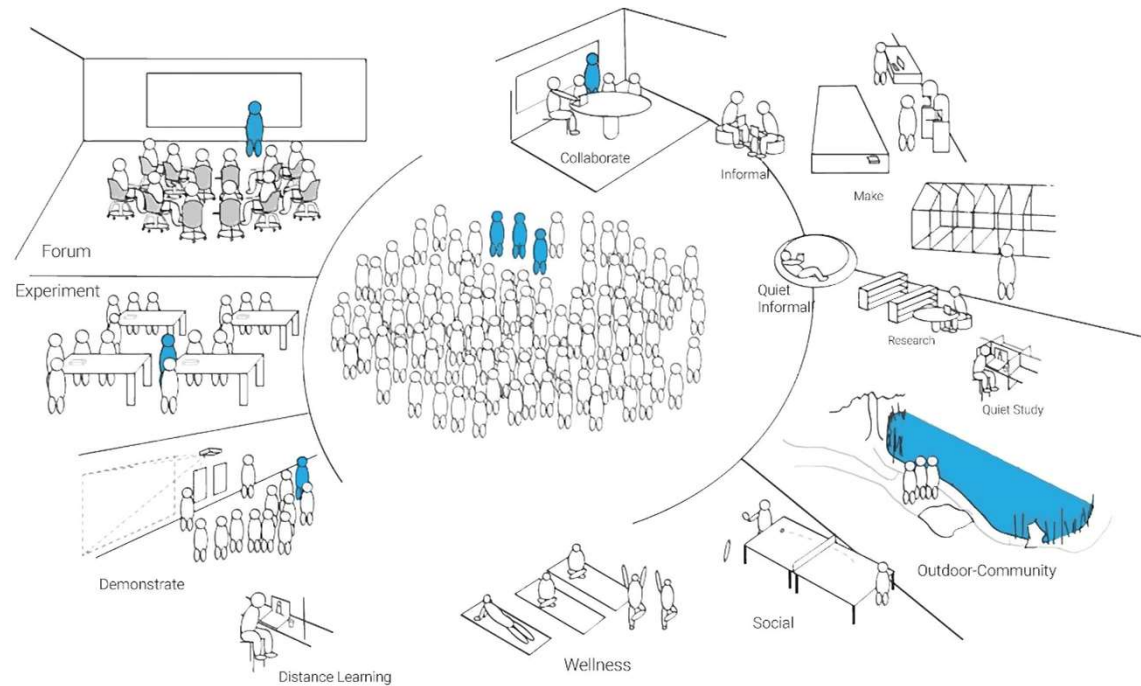


Guiding Principles

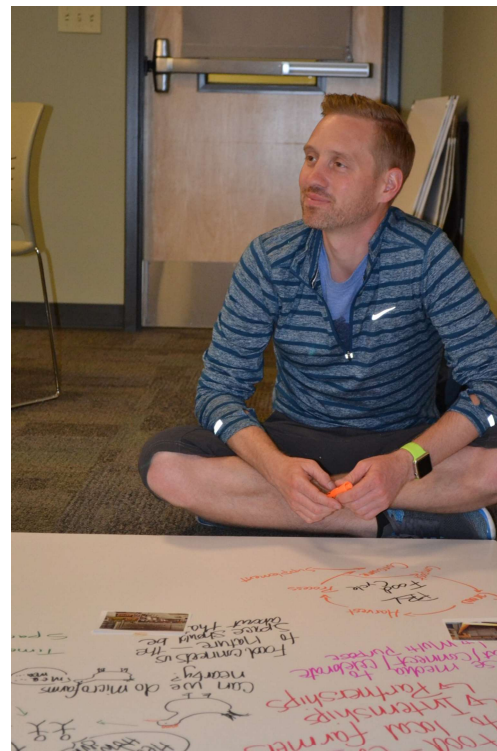
- Personalized learning that's engaging, active, and inspiring
- Students and teachers collaboratively design learning
- Flexible and adaptable
- Contribution to community

Five Areas of Opportunity

- Research
- Food
- Fitness
- Production
- Presentation



Deeper Dive Project Wall

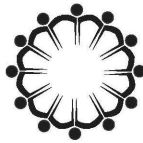


Result: A Learning Continuum

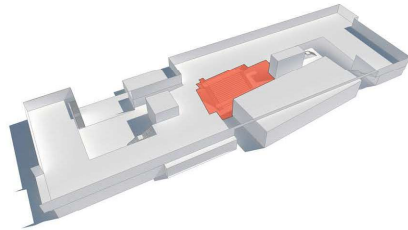


PEDAGOGY DRIVES DESIGN

SPACES SUPPORT STUDENT BEHAVIOR

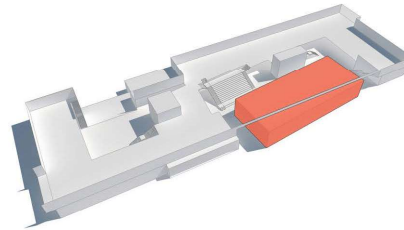


ENGAGE



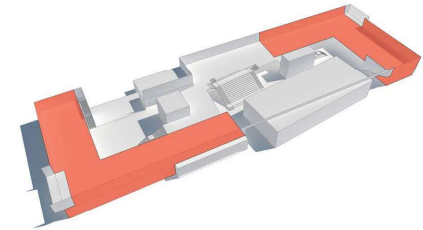
HUB

Center of Culture and Community
Flexible Assembly Space for Entire School



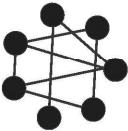
FLEX EXHIBITION

Flexible Presentation and fitness

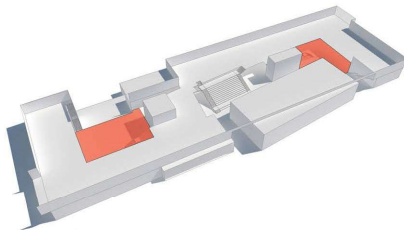


R+D PODS

Flexible Core Learning Spaces
Four suites (two stacked at each end)
150 students per suite

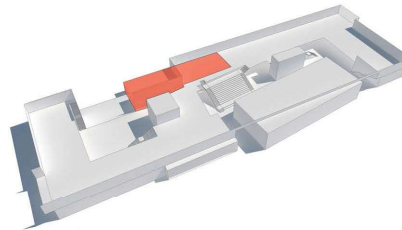


CONNECT



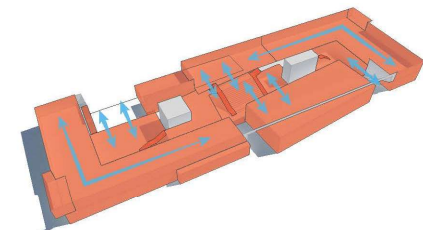
R+D COMMONS

Two Research Commons for 300 Students
Connected to each R+D Pod
Direct Access to the Outdoors.



FAB LAB

Central Fabrication Space for all 600 students



FLEXIBILITY

Variety of Spaces
Flexibility of Use
Readily Adaptable



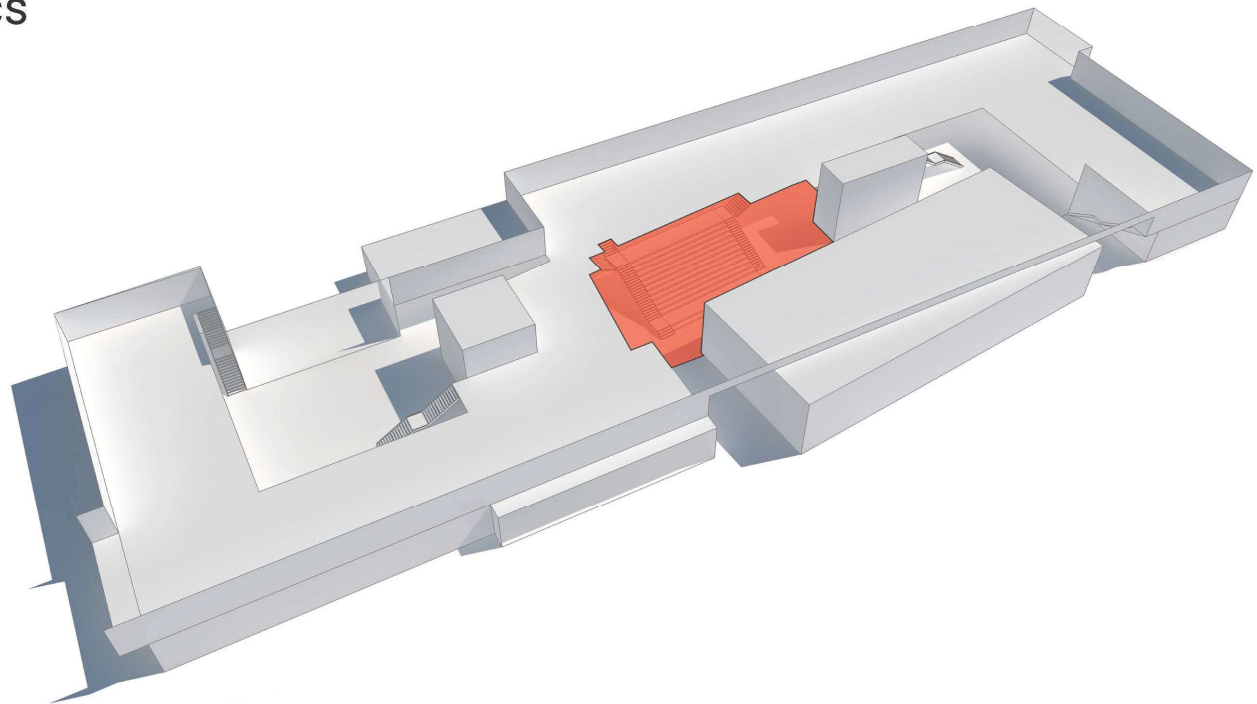
DISCOVER

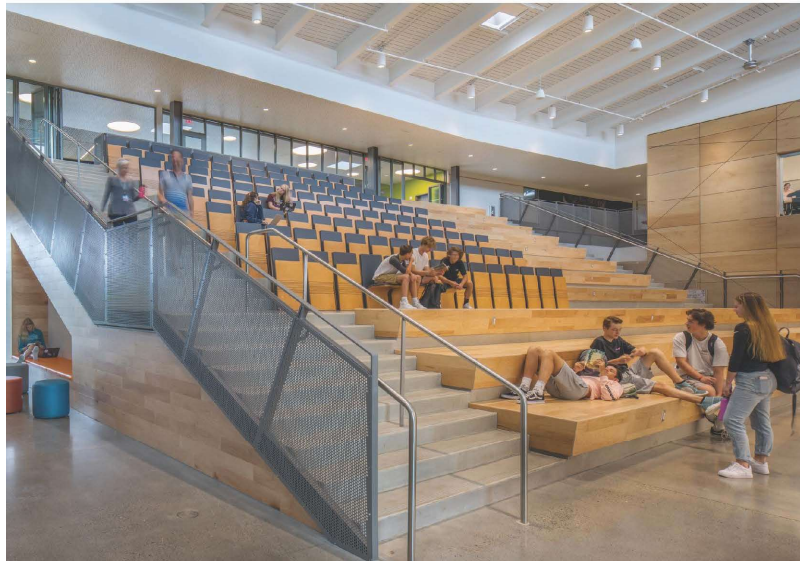
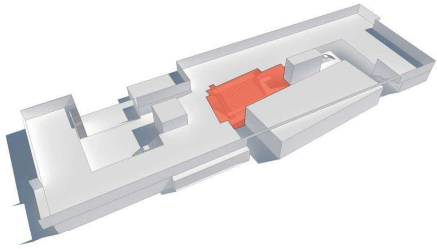
HUB

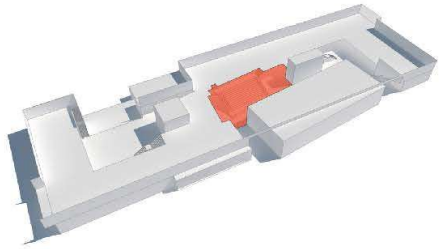
FLEXIBLE ASSEMBLY SPACE FOR ENTIRE SCHOOL

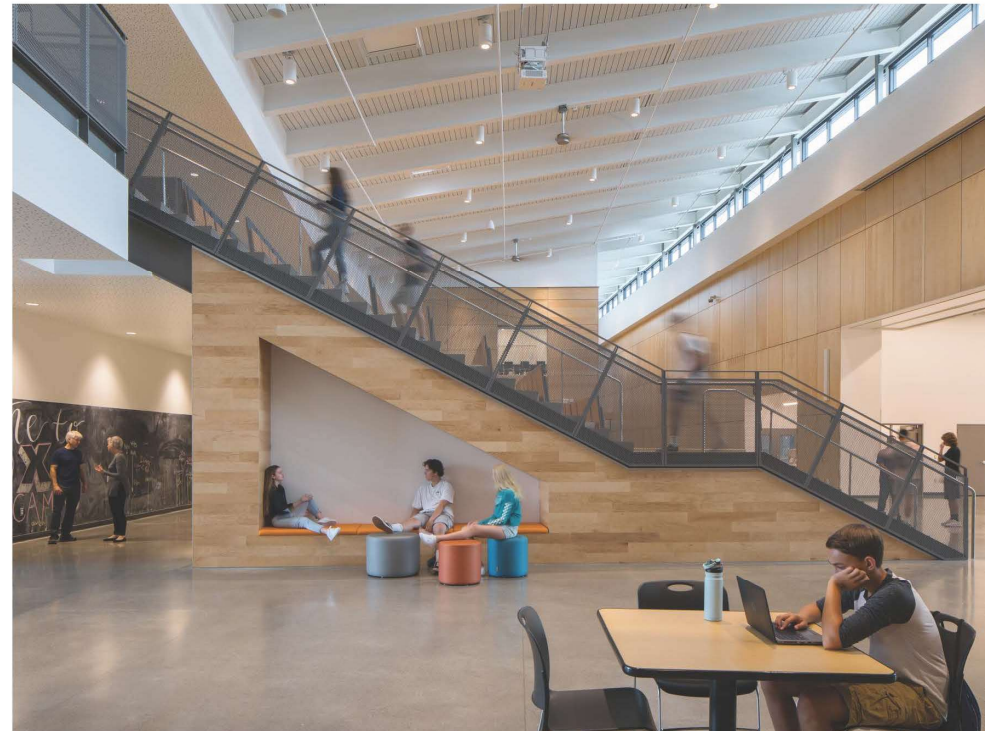
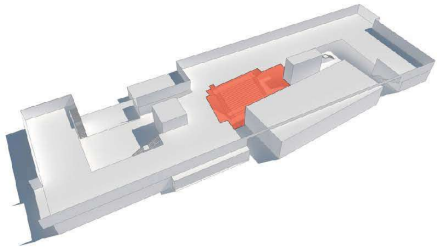
Activities/Characteristics

- Heart of the school
- Center of culture and community
- Open and centrally located
- Flexible seat stair
- Formal lecture or “hangout”
- Performance or lounging
- Gathering or leaving
- Eating or sleeping







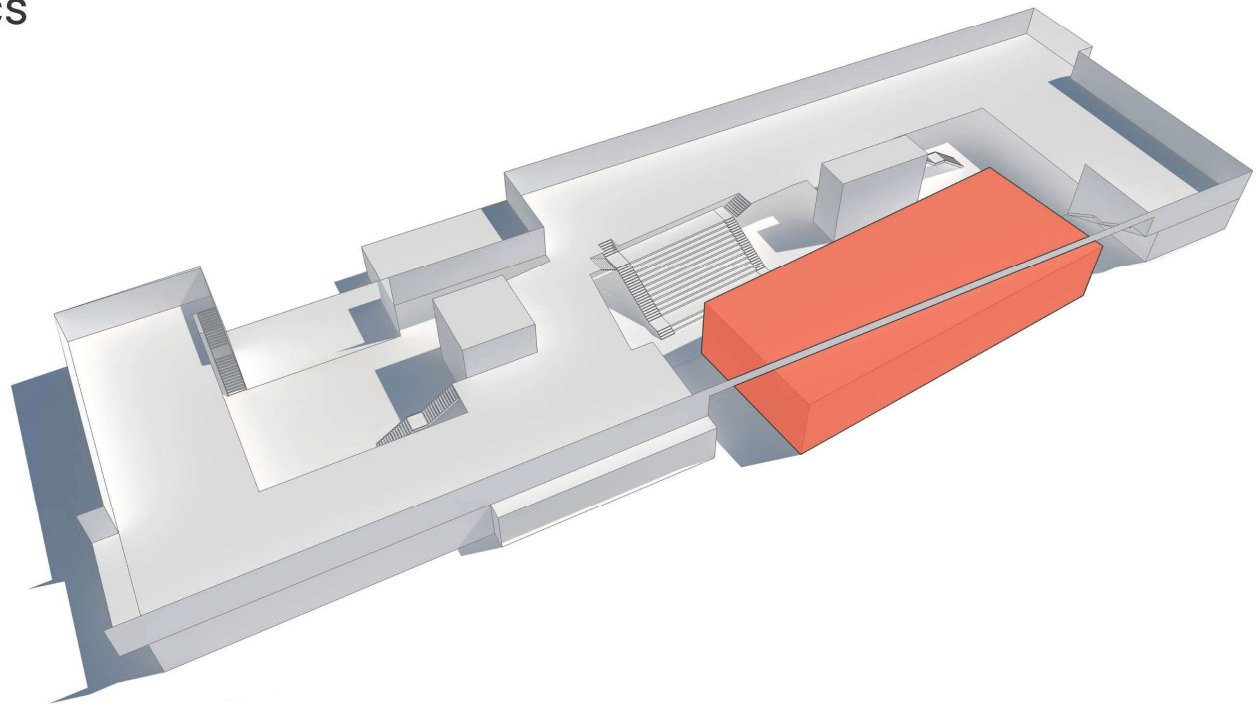


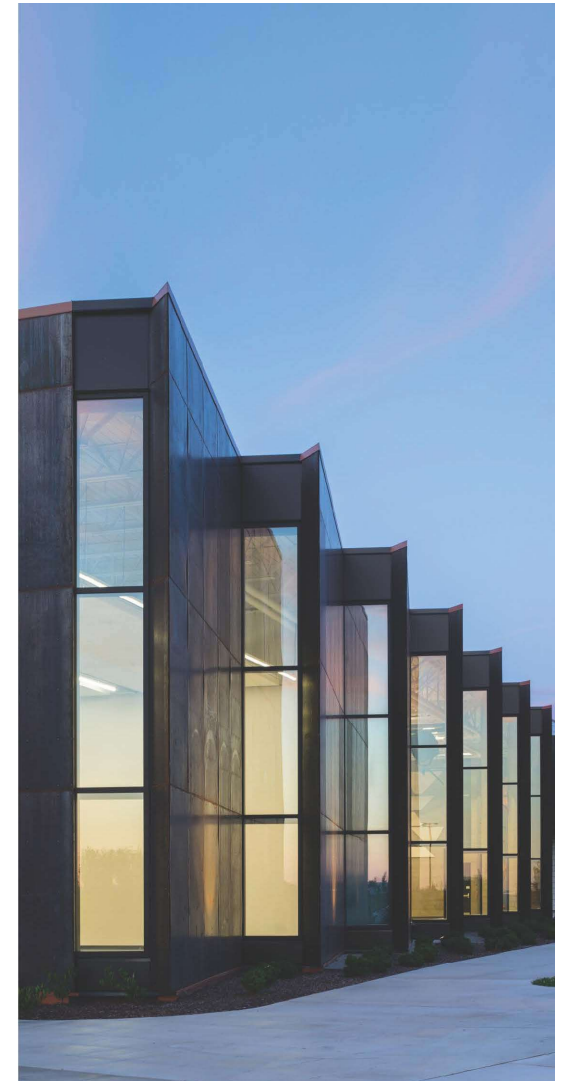
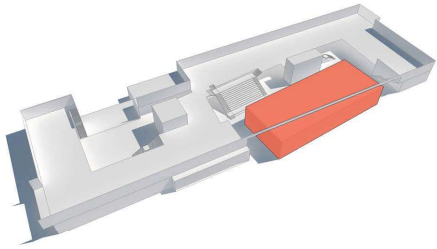
FLEX EXHIBIT

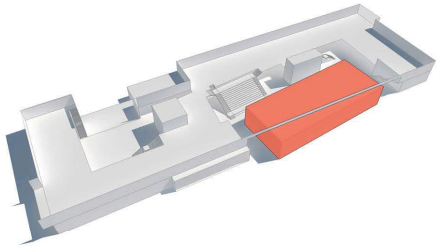
FLEXIBLE PRESENTATION & FITNESS

Activities/Characteristics

- Adaptable exhibition space
- Open, closed, active, or quiet
- Gymnasium or fitness studio
- Curated gallery or music room
- Stage or backdrop
- Performance or lecture





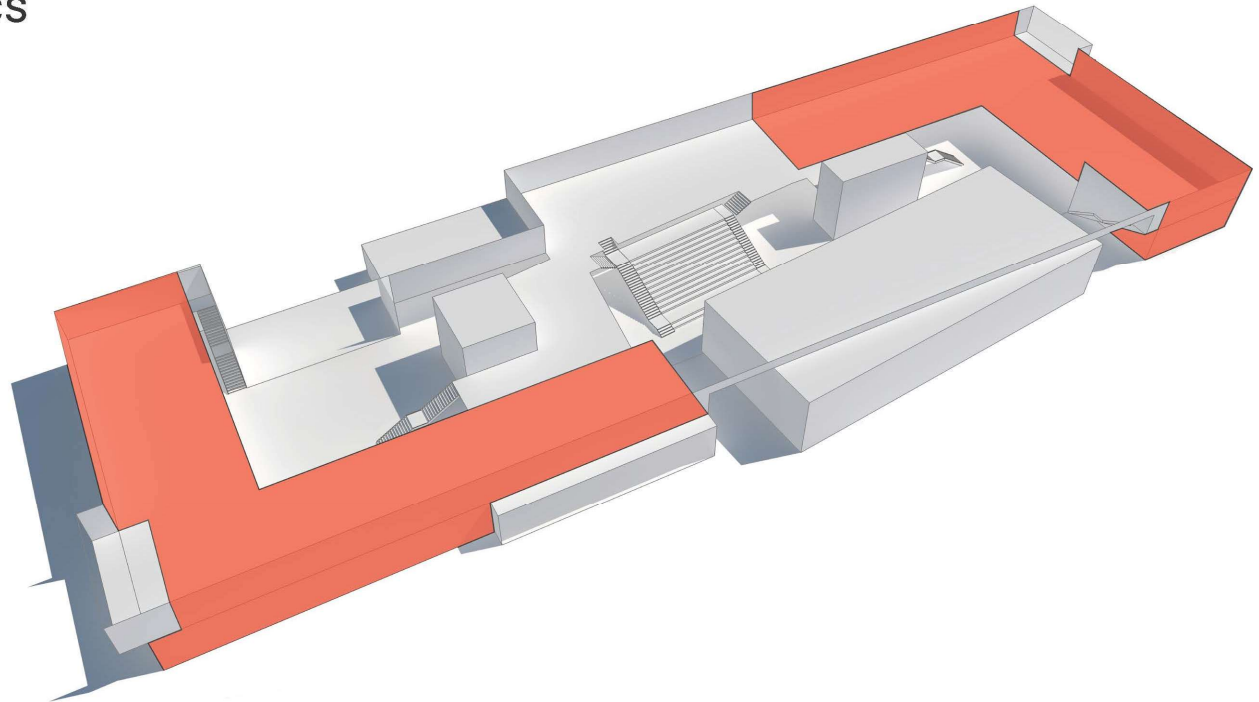


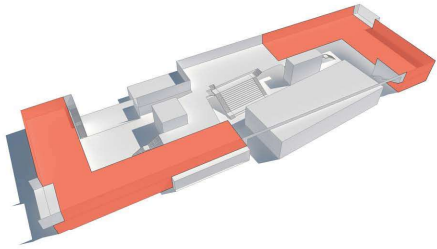
R & D PODS

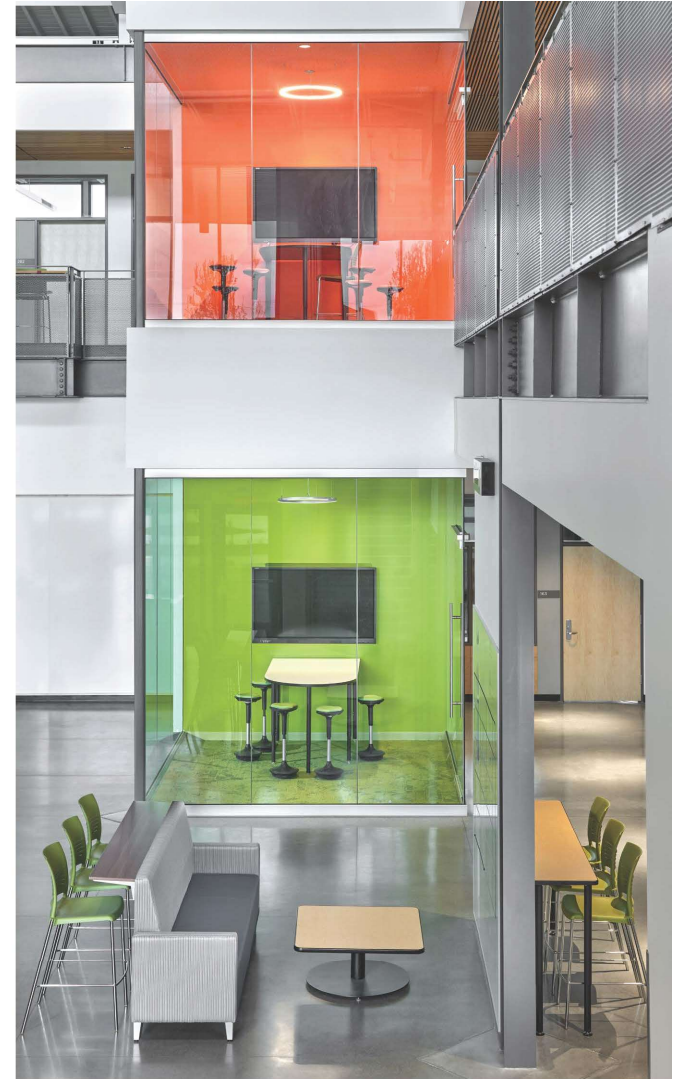
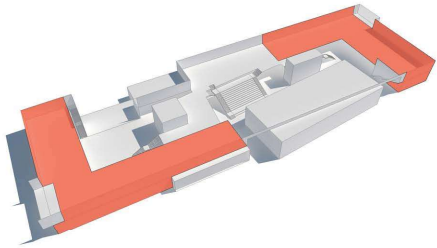
FLEXIBLE CORE LEARNING SPACES

Activities/Characteristics

- Heart of the Collaborative Project based Learning
- Open, closed, active, or focused
- Team studios
- Classrooms
- Project Labs
- Science Labs
- Think Tanks





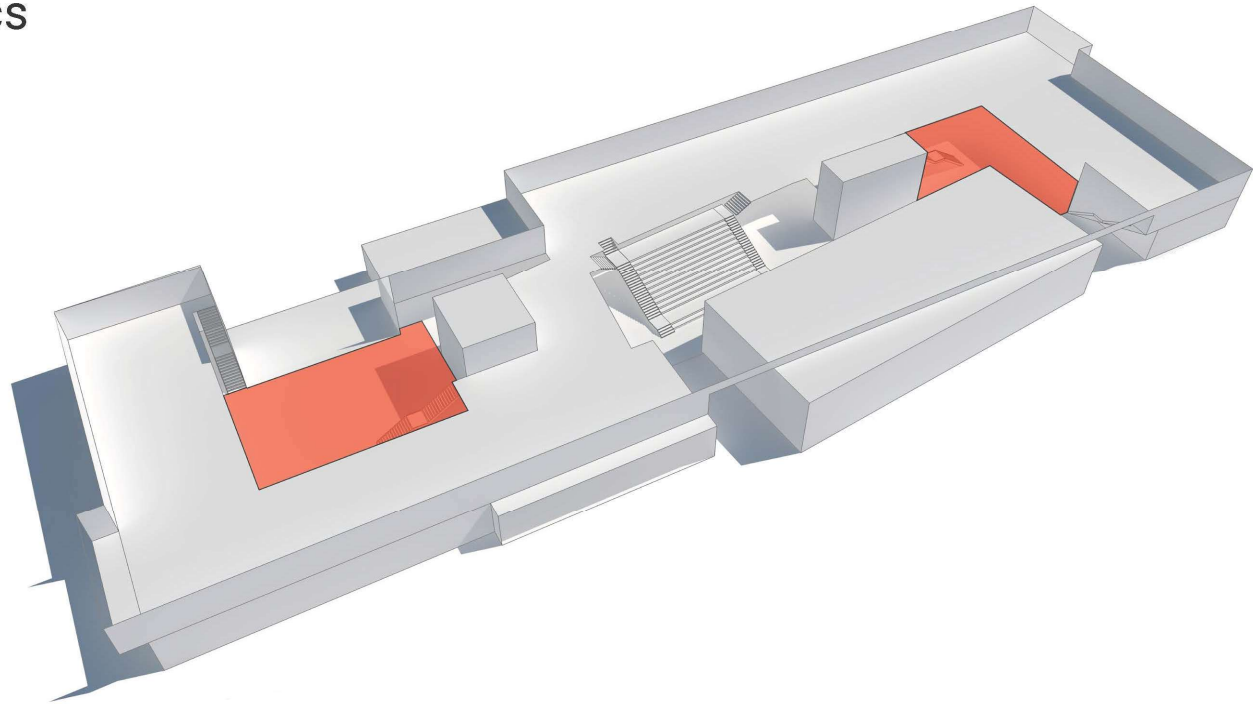


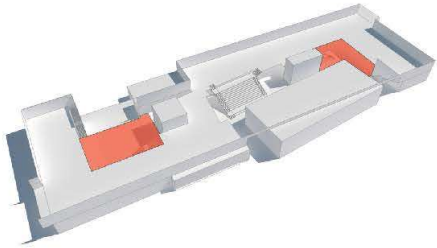
R & D COMMONS

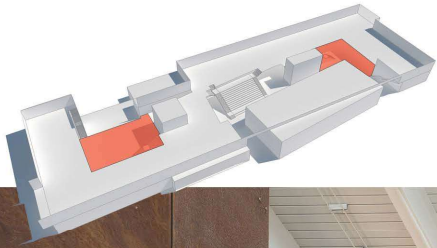
FLEXIBLE CORE LEARNING SPACES

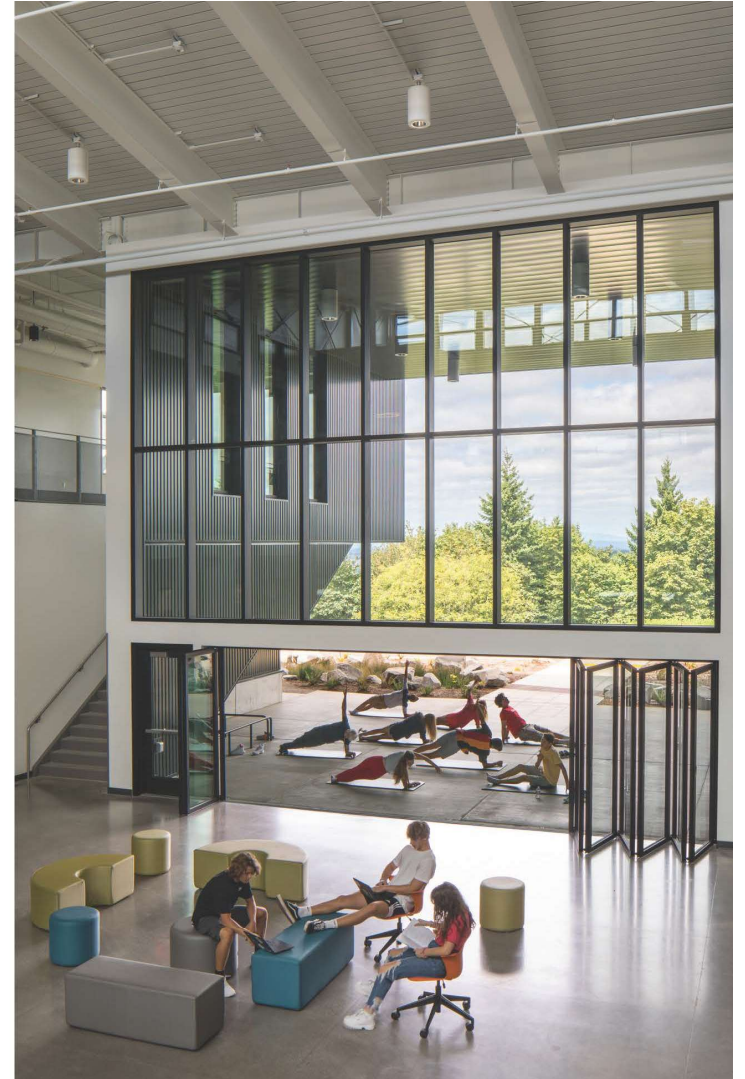
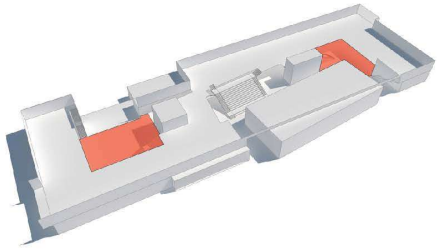
Activities/Characteristics

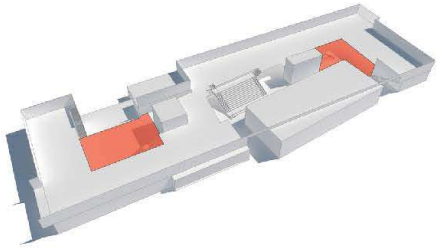
- Two Research Commons for 300 Students
- Connected to each R+D Pod
- Open, closed, active, or focused
- Direct Access to the Outdoors
- Collaborative
- Technology Infused









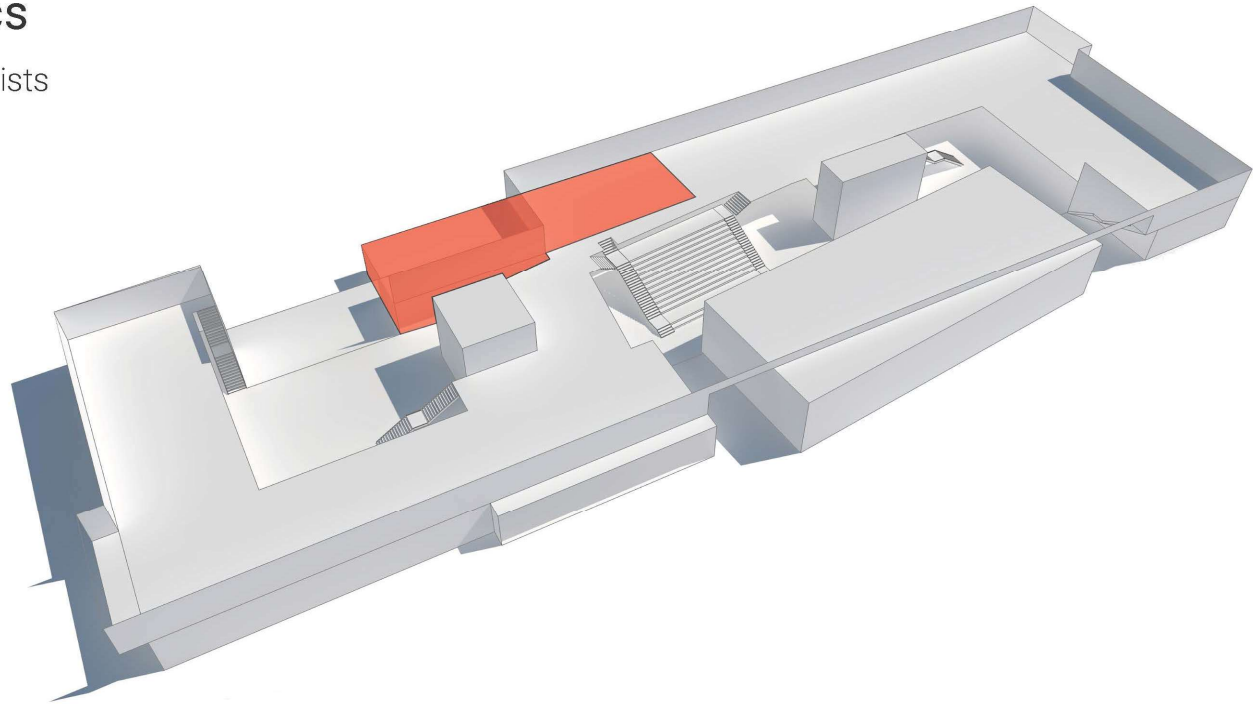


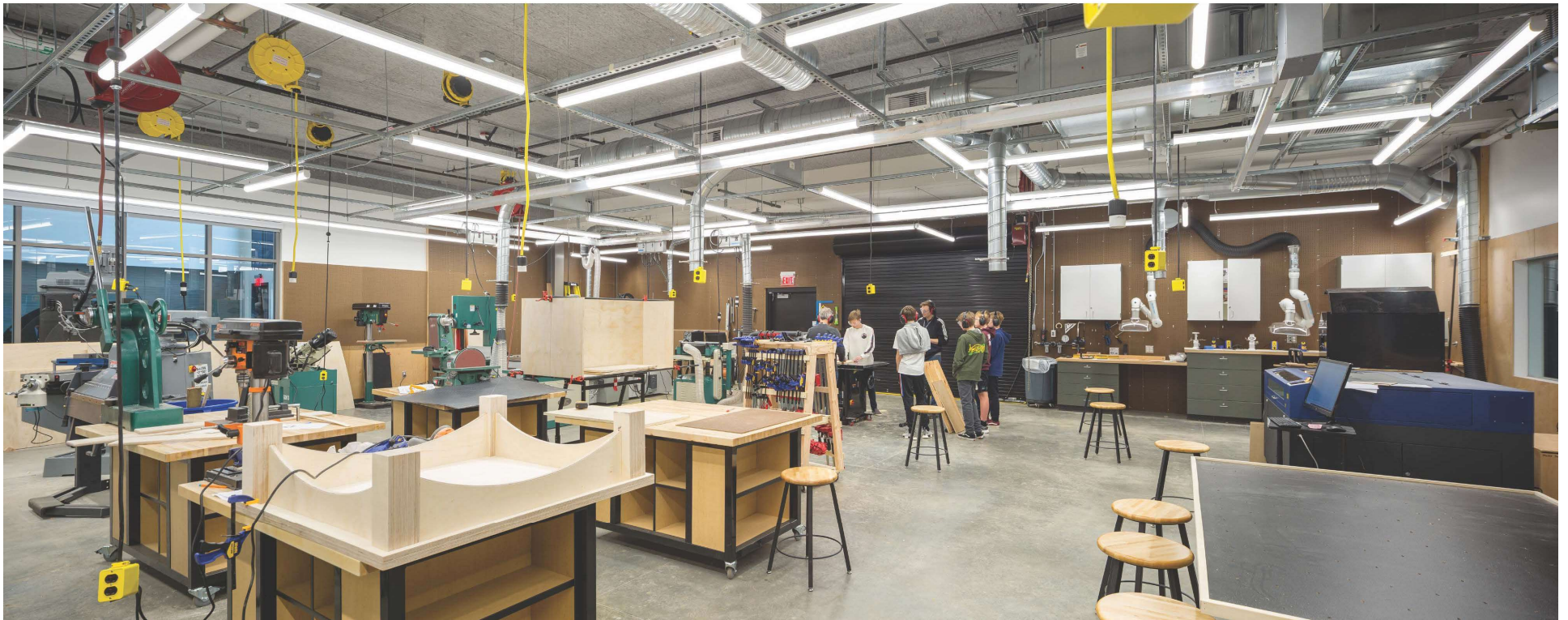
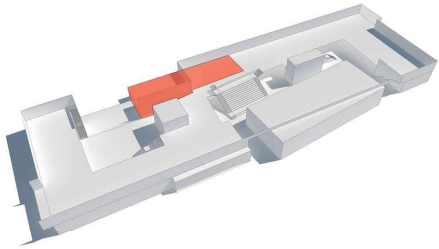
FAB LAB

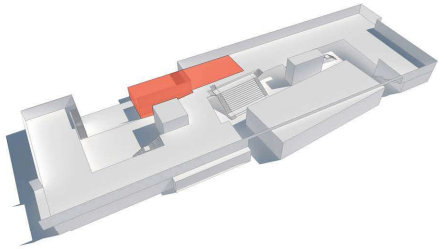
CENTRALLY LOCATED FABRICATION SPACE

Activities/Characteristics

- Managed & Supervised by Specialists
- Fabrication area
- Industrial equipment
- Digital control room
- Digital lab
- Tools exchange
- Outdoor Fabrication area
- Direct Access to the Outdoors
- Collaborative
- Technology Infused
- Transparent





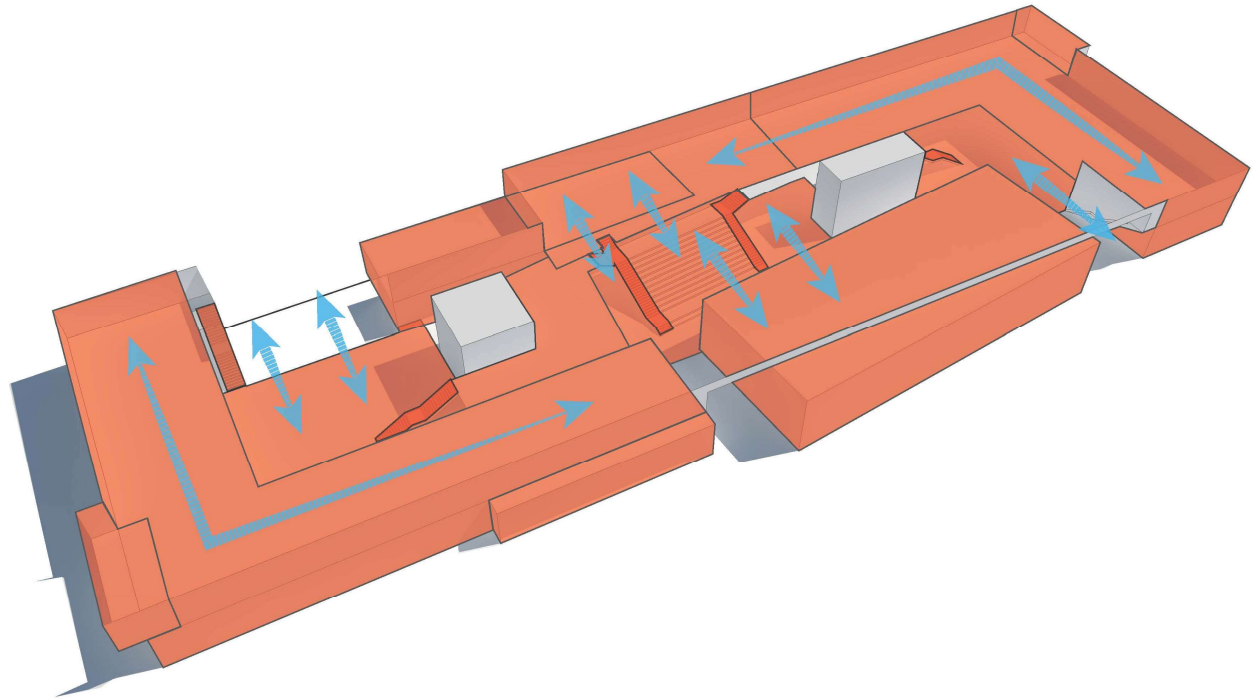


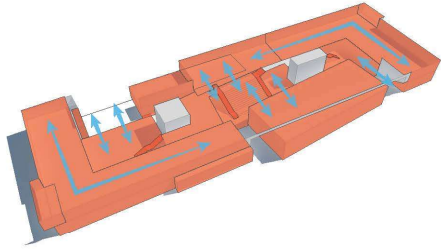
FLEXIBILITY

ADAPTABLE SPACES

Activities/Charactersi

- Variety of Spaces
- Flexibility of Use
- Readily Adaptable
- Strategic Infrastructure Location





VARIETY OF SPACES

WORKING SPACES - LOW BAY

2
INDIVIDUAL
120 SF
THINK TANK
OFFICE
STORAGE

8
SMALL GROUP
300 SF
THINK TANK
CONFERENCE ROOM
COPY ROOM
WORK ROOM
STORAGE

18
LARGE GROUP
500 SF
CONFERENCE ROOM
SPECIAL NEEDS
STAFF PLANNING
WORK ROOM

TEACHING SPACES - LOW BAY

28
STUDIO
900 SF
COMMUNICATION ARTS
CREATIVE / TECHNICAL WRITING
MATH
FOREIGN LANGUAGES
BUSINESS
HISTORY / WORLD STUDIES
SOCIOLOGY
HEALTH / WELLNESS
BUSINESS

28
SMALL WORKSHOP
1,200 SF
DESIGN STUDIO
2D ART STUDIO
EARTH SCIENCE
INFORMATION LINKS
JOURNALISM
SPECIAL NEEDS
PHOTOGRAPHY
NUTRITION
CHILD CARE

28
LARGE WORKSHOP
1,450 SF
PHYSICS
HORTICULTURE
3D ART STUDIO
STUDENT STORE
CULINARY ARTS
CHEMISTRY
ENGINEERING LAB
PRINT SHOP
PHOTOGRAPHY

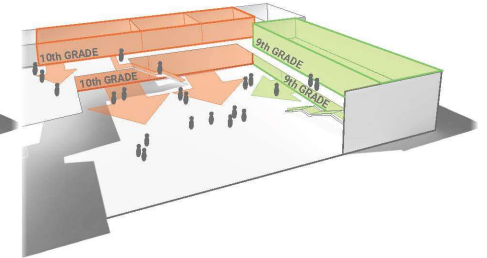
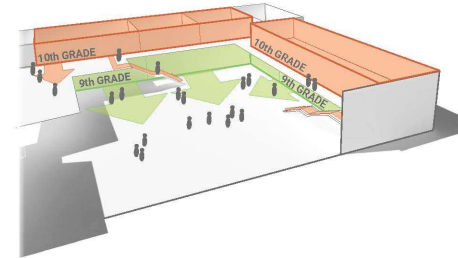
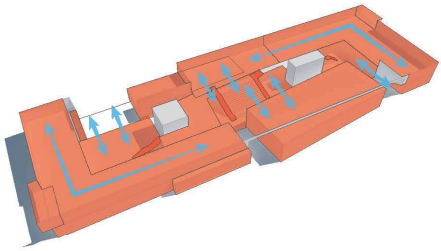
56
INTERDISCIPLINARY STUDIO
1,600 SF
TEAM TEACHING LAB
MATH / BUSINESS
MATH / HOME ECONOMICS
MATH / ENGINEERING
COMM. ARTS / HISTORY
COMM. ARTS / SOCIOLOGY
COMM. ARTS / BUSINESS

TEACHING / ASSEMBLY SPACES - HIGH BAY

75
SMALL BOX
2,000 SF
FABRICATION LAB
WOOD SHOP
BLACK BOX
CHOIR / VOCAL
STUDENT STORE
CULINARY ARTS
DANCE STUDIO
WRESTLING
WEIGHT ROOM
BROADCAST
OPEN BOX

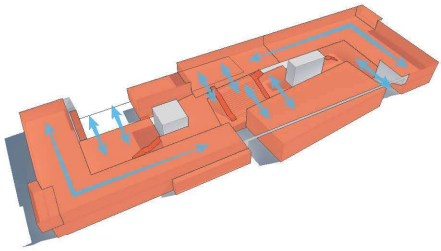
150
BIG BOX
4,000 SF
INSTRUMENTAL MUSIC
DRAMA
AUTO SHOP
DINING AREA
BAND
MEDIA CENTER

500
SMALL ASSEMBLY
8,000 SF
AUX GYMNASIUM



The R+D Pods are designed to provide grade level organizational agility. Programmatic elements are strategically stacked and mirrored to allow the building to be zoned by grade level either vertically across two floors, or horizontally across a single floor.

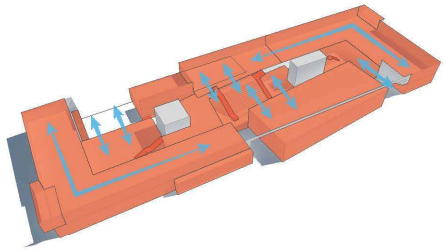


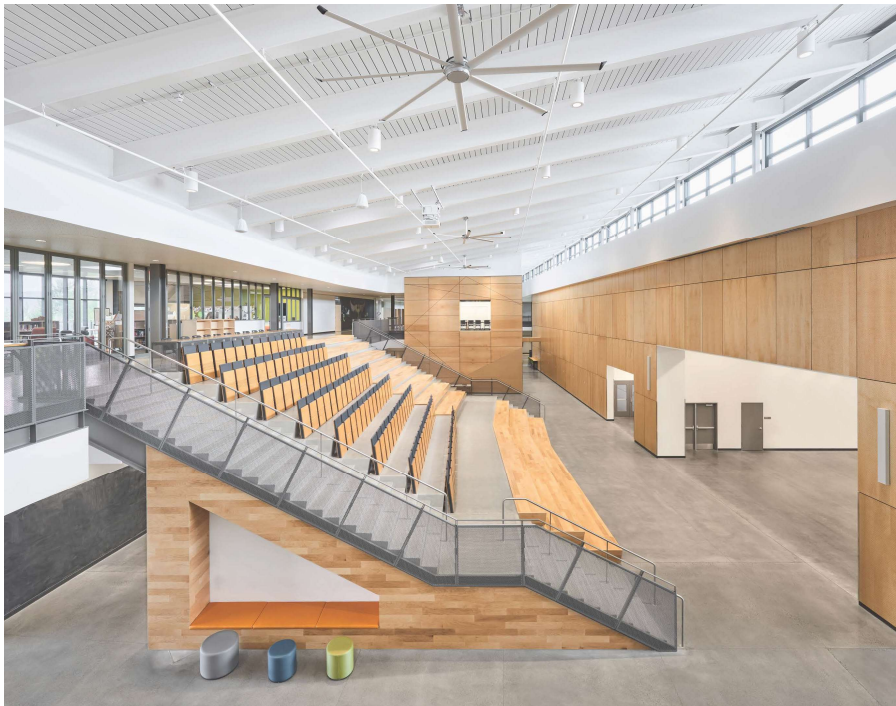
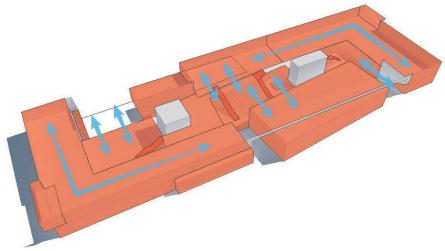


OUTDOOR LEARNING

Covered outdoor learning areas allow for a connection to nature and a variety of learning environments.







What Else Makes Odyssey & Discovery Unique?

- Students taught by teaching teams
- Teaching teams have autonomy to use time flexibly
- Passion projects
- Standards-based-learning
- Collaboration and communication
- We want students to be EPIC - Entrepreneurs, Producers, Innovators, and Contributors



Example: 9th Grade LEAP Project

The Problem

The farming population is aging; **the average age of farmers in the world is 60.** The population demographic is increasing and changing - we need to **increase our production of food by 70% by 2050** to nourish the world's population. Simultaneously, agricultural productivity is stalling; and young people do not always see a lucrative future in agriculture but prefer to seek employment in urban areas.



Example: 9th Grade LEAP Project

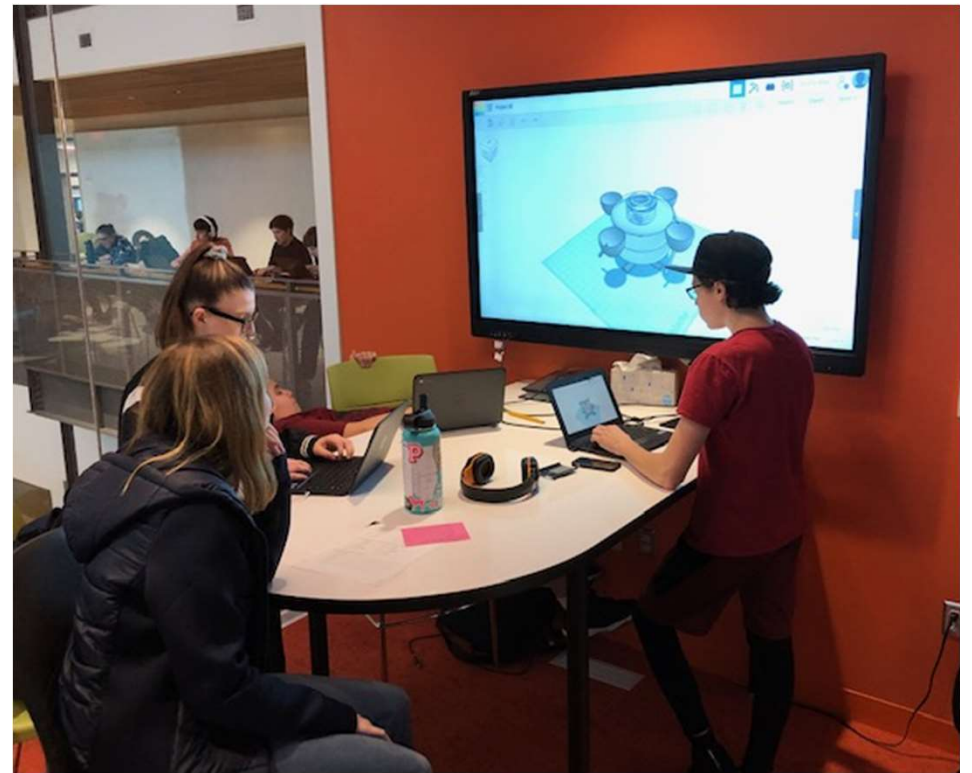
The Challenge

The objective of this project is to design and build a new technology for resource-poor youth to help increase the productivity and profitability of vegetable production.

What you create should be exciting and inspiring so that young people see the benefit and opportunity in working in the agricultural sector.



Example: 9th Grade LEAP Project





Student and Parent Voice

THANK YOU!

