

beautiful places balanced world*

CHARRETTE WORKSHOP #2

Creating Facility
Standards and a
Conceptual Framework



IT IS NOT BECAUSE
THINGS ARE DIFFICULT
THAT WE DO NOT DARE.
IT IS BECAUSE WE
DO NOT DARE THAT
THEY ARE DIFFICULT.

SENECA, ROMAN PHILOSOPHER & POLITICIAN

PURPOSE

To create Facility Standards that will inform the Moorhead Area Public Schools Facility Master Plan and to conceptualize what these might mean.





SESSION ONE...Yesterday

- Sharing Past and Parallel Studies
- Creating Facility Standards

SESSION TWO...Today

 Creating a Conceptual Framework for Design



LET'S REVIEW



21st CENTURY & BEYOND



FORCES OF CHANGE



LIMITING BELIEFS



INNOVATION



I SEE...
WE SEE

SHARED VISION

We envision safe, inviting, and inclusive learning environments that support a sustainable culture of excellence in 21st Century learning, while fostering meaningful and collaborative community partnerships.



OVERARCHING COMMITMENTS TO WHAT'S IMPORTANT FOR MOORHEAD AREA PUBLIC SCHOOLS



Attractive and Inviting

MAPS is committed to being a community development partner

- Promote our assets
- Develop relationships through community engagement
- Invest in people and facilities that IGNITE experiential learning



Community

MAPS is committed to fostering community and engagement within schools inclusive of all stakeholders within the district

- Facilities will share quality instructional and gathering space with community ED, community partners and citizens
- Explore strategic community partnerships that include shared investments of equipment, facilities and people



Future Focused / Adaptable and Flexible

Moorhead Area Public Schools is committed to providing adaptable and flexible facilities for our changing community and educational needs

- Ability to flexibly scale current and future facilities to reflect growing or reducing populations
- Facilities will provide environments for active learning for all learners, learning styles and instructional delivery methods
- Facilities will allow space for staff collaboration and storage for efficient use of time and resources



Student Centered

Moorhead Area Public Schools is committed to serving and inspiring innovative growth and learning to the Moorhead Students, staff and community

- Facilities conducive to a well thought out E-12 Progression
- Programs and facilities available to foster growth to learners with varying learning styles and ages



Quality and excellence in education

MAPS is committed to fostering quality and excellence in education.

- Facilities will inspire and foster creativity, problem solving, collaboration and communication.
- Facilities will have collaborative areas for active learning by all students and staff
- Facilities will have flexible spaces
- Facilities will enable teachers to promote 21st century learning and development of skills
- Facilities will serve all learners



Technology

MAPS is committed to supporting evolving learning approaches through technology

- Support for reliable and agile technology tools
- Support for community and beyond using various online resources
- Providing technology to support integrated learning



Safety

MAPS is committed to providing safe and secure learning environments for all community stakeholders

- School facilities will leverage smart structural, environmental technological, and process design
- All students, staff and community are participants in creating a culture of safety



Recap of Workshop ONE



Virtual TOUR



Past & Parallel STUDIES



FACILITY STANDARDS



Think Outside the BLOCKS

1. Basic Learning Space

Design with finishes and fixtures that promote collaborative and creative project work and allow for the design of learning experiences. Basic Learning spaces, at all levels, will be generously sized for variable teaching layouts, technology and individual or group arrangements. Characteristics include:

- 1) furnishings that can be used flexibly
- 2) designed for multiple ages, learning/teaching styles, changing class sizes and special learning needs
- 3) hands-on project space; sinks, adequate cabinets
- 4) visual display media and properly located presentation technology
- 5) visual connections to outdoors and to public areas
- 6) Standard guidelines for classroom space.
- 7)Spaces for visual and/or collaborative activities



2. Varied Space for Program Delivery

Provide a variety of sizes and character of learning space for different teaching and learning modes. Each school should have a variety of spaces to serve different purposes and group sizes, and that can be laid out in a variety of ways. Provide:

- 1) break-out space for groups to use *throughout* the basic learning space
- 2) efficient, flexible and adaptable space with consideration to sound issues and visibility
- 3) spaces for student groups/teams
- 4) spaces for independent and individual work
- 5) spaces for interdisciplinary work
- 6) space for extended projects and creative experiences
- 7) spaces permitting a "small school" learning experience



REVISED STANDARDS

3. Student Gathering Space

A student's social development is part of their education and growth. The school facility will provide spaces for class groups and students to gather, interact and study in safe, manageable **and inviting environment**. Example strategies include:

- 1) providing age appropriate multi-use spaces for gathering groups of varying sizes
- 2) develop outdoor gathering spaces
- 3) Provide bright, inviting, comfortable, flexible and moveable furnishings



5. Interdisciplinary Learning and Basic Learning Space

The school organization and its individual spaces will be designed to allow interdisciplinary teaching and teaming, and to strengthen natural connections between subject areas. Learning Spaces grouped with other facilities allow teachers of different subjects to work together with an identified group of students. Provide:

- 1) specialized space within the rooms; sinks/storage/tables with finishes for potential "wet" activities
- 2) physical and visual openings (doors, windows) to support connections among the spaces
- 3) staff collaboration spaces
- 4) easy access to technology
- 5) easy access to 'making' places where production and construction can occur



8. Special Services Needs

Provide space in each facility to support all students with special needs. Space is needed both to facilitate inclusion within the classroom and for special services in specific settings. Design an atmosphere conducive to learning, near other learning spaces, to meet the student's special physical, sensory, and emotional needs. Standards should be developed for spaces so as not to sacrifice for the needs of other spaces.

Provide for:

- Provide for.
- 1) learning support centers
- 2) space for related service providers
- 3) break-out spaces for individualized instruction
- 4) spaces within learning areas for one-on-one work, additional staff
- 5) assistive technology
- 6) ample storage space
- 7) adaptability for short-term specific needs



REVISED STANDARDS

9. Space for Young Children and Parents

The school system serves its learners well by reaching them at an early age. Provide facilities that address the specific

needs of young learners, including adequate support space. Address the following needs:

- 1) scale of environment (see #30, "Appropriately Scaled Space")
- 2) safe, child-proof spaces and fixtures
- 3) specialized space (e.g. large motor skills rooms, infant rooms)
- 4) space and features for early childhood special education
- 5) outdoor play and learning space
- 6) Appropriate size furniture for adults and families.



10. Places for the Individual

Design facilities that support efforts to personalize learning for all students. Recognize learner needs for places that allow them to take initiative and explore their interests, and for a place they can make their own. Consider a range of functions and types - perhaps not all at every location:

1) project rooms

- 2) adaptable display space celebrating student work
- 3) youth lounge/commons
- 4) individual workspace
- 5) lockers/cubbies/storage for individuals: 'home base'



11. Space for Enriching Activities

Because participation in co-curricular activities enhances the personal development of the participants, modern facilities with adequate space will be provided to support these activities. Activities include Athletics, Performing and Visual Arts, and Student Activities such as publications and clubs. Facilities for activities should include:

- 2) Performing and Visual Arts:
 - a) adequate storage and preparation space
 - b) areas for changing and loading
 - c) rehearsal space
 - d) display space
 - e) specialized acoustics, lighting, electrical and sound systems
 - f) access to performing space
 - g) Instrument storage sharing lockers between athletics, music and others.



12. Staff Resource and Collaboration Space

Provide staff space that will encourage collaboration, support interdisciplinary teaching and teaming and reduce staff isolation. Adequate and functional space for teachers to meet, plan and work are essential to successful educational service. Locate work/planning spaces to allow natural connections between students and staff. Characteristics include:

- 1) individual work space
- 2) planning/meeting space
- 3) access to storage space for curriculum materials, student portfolios, records, etc.
- 4) provisions for staff phones and computers
- 5) visual connections to students
- 6) casual interaction/eating space (Lounges) incorporated into spaces.



REVISED STANDARDS

13. Adult Learning Space

Provide space to allow for education of adults; both employees of the district and community members. Spaces should support **staff development**, Professional Learning Community (PLC) activities and learning. Characteristics include:

- 1) appropriately scaled furnishings
- 2) flexible, adaptable, technology-rich space
- 3) connected for distance learning



14. Daylighting and Views (Safety is a concern with all the light)

Rooms that house people should have windows for connection to the outside and for natural light. Designs must consider security and control of light, glare and heat gain/loss. Incorporate windows to other spaces for distribution of light and visual connections. Benefits include:

- 1) natural, adequate daylight improves learning and greatly enhances the comfort and utility of learning environments
- 2) views for supervision/security 'eyes on the site'
- 3) support curriculum e.g. seeing weather
- 4) reduced electricity through daylight harvesting
- 5) establish cleaning schedule to windows/lights, to increase light and reduce energy loads



15. Accessible Buildings

Each facility should apply the concepts of Universal Design as well as meeting ADA requirements, to make accessible features useful for all. Modify existing buildings to remove barriers to public spaces and provide convenient access to all levels as a first priority. Address:

- 1) school entries and public routes
- 2) stages
- 3) counters, cabinets, furniture
- 4) toilet facilities (fixtures, door openings)
- 5) Classroom space
- 6) Square Footage per student



REVISED STANDARDS

18. Clear Main Entry

Create a clear, identifiable main entry with direct access to the main office. Consider the concept of a "welcome center" to orient visitors and control access. Contributing elements:

- 1) parking lot location/circulation to reinforce main building entry
- 2) signage, flag poles and landscaping
- 3) increased scale of entry elements
- 4) **Entry space** for wind, rain and sun protection
- 5) if buses bring students to a second entry, it should have comparable quality



20. Health Services Space

Health Services within the schools address basic needs for physical health through direct and educational/preventative services. Include:

- 1) location convenient to main office and vehicle approach
- 2) space for on-site and itinerant staff
- 3) conference room (access) for educational efforts
- 4) privacy and security yet easy supervision
- 5) finishes to address sanitation issues
- 6) Proper labeling of nurse's office for non students to locate in building



22. Food Service

Food Service areas will include space for efficient production and serving of nutritious, healthy food. Accommodate the shift to greater preparation from fresh ingredients to support the focus on health and wellness. In addition, they should be designed to be appealing to students and others in the buildings. Design for:

- 1) pleasant, welcoming dining areas with variety of furniture, layout and finishes
- 2) adequate size/capacity of dining and servery to serve students within a respectful time
- 3) extended dining areas where appropriate, including outdoors
- 4) flexibility for other uses outside of dining hours
- 5) serving areas offering choices, such as salad bars
- 6) Acoustical treatments



25. Plumbing Core

Adequate restrooms, drinking water and custodial closets are critical to a well-run school facility. Restrooms must be in good condition and distributed in locations allowing convenient use. Restrooms meet ADA requirements. Some guidelines include:

- 1) provide staff /parent/volunteer restrooms
- 2) custodial closets should be sized properly for equipment and supplies
- 3) finished with durable/cleanable materials
- 4) durable construction in all restrooms to deter vandalism, maintain privacy

Do students and teachers need to uses separate restrooms? (in reference to High School High video)



REVISED STANDARDS

26. Building and Energy Codes

Construction projects will have to account for current building, fire, accessibility and energy codes. Issues to consider include:

- 1) access/egress requirements based on size and use of classrooms/labs/assembly areas
- 2) building meets or exceeds energy efficiency standards; **include** renewable energy
- 3) sustainable design and operations wherever possible



27. Internal Circulation

Spaces for movement between and among learning settings are integral to the learning experience, in support of the learning "anytime, anywhere" philosophy. They must support flow in a respectful and safe manner, while maximizing the opportunities for even corridors to be places of learning and collaboration.

- 1) wide enough to support the volume of learners moving through
- 2) include places for informal interactions and learning along the way
- 3) consider impact of *ample* lockers and display



29. Flexible/Adaptable Space

Design learning environments to address short and longer term modifications in response to educational program - hourly/daily and longer term/yearly changes in use. Characteristics:

- 1) easily moveable/reconfigurable furniture
- 2) multiple marker boards/screens and power for different room layouts
- 3) use of movable or re-locatable shelving and standard cabinets. **use of shared** cabinets, less casework in classrooms/instructional spaces to support marker boards and screens.
- 4) provisions for openings/doors between rooms
- 5) consider plumbing rough-ins
- 6) pathway systems for power and technology cabling wall construction that supports change, but is appropriate to function/characteristics required



30. Appropriately-Scaled Space

Building design must be appropriate to the student age/size. Schools will recognize and respect their learners' physical, intellectual and emotional characteristics. Characteristics:

- 1) appropriate mounting heights for counters, boards, dispensers (soap, paper towel, etc.) and toilets with adjustable mounting heights
- 2) equipment and furniture scaled for the age level
- 3) equipment and furniture which allow height adjustment
- 4) properly scaled spaces, considering ceiling height, acoustics and other factors
- 5) consider adult user needs
- 6) Layout of building or footprint appropriate for age level.



35. Ample Electrical Service Systems and Lighting

Power capabilities of all schools will include sufficient, distributed electrical outlets and clean power to support anytime anywhere learning. Lighting will provide multiple light levels for efficiency and function Recommendations:

- 1) consider special events needs
- 2) utilize floor outlets, including data wiring, in selected areas for flexibility
- 3)
- 4) adequate individual access to power (for devices, e.g. Juice bars)
- 5) address special battery charging/electrical needs for custodial equipment
- 6) study and employ alternative energy systems as appropriate and fiscally responsible
- 7) alternative vehicle charging/fueling



36. Technology Infrastructure and Hardware

Technology systems are a key tool for learning and in communications among staff, administration, students and parents. Technology system/network access in the school will be distributed throughout the schools and allow for expansion and change. Consider:

- 1) access anywhere, anytime, by appropriate users
- 2) flexible design to adapt to rapid technological change
- 3) distance learning options/software and connections
- 4) administrative and support software systems
- 5) security, e.g. video cameras for surveillance/confidentiality and security facility
- 6) voice amplification systems in instructional areas **considering need for small group sound amplification**



REVISED STANDARDS

37. Technologically Enhanced Systems

Digital controls for ventilation, lighting and power systems allow for central control/monitoring and improved energy efficiency. Consider:

- 1) building automation and energy management plan implemented district-wide
- 2) utilize light sensors with central/timed switching
- 3) tied to security systems/plans
- 4) recognizing outside school use schedules
- 5) Inventory management



39. Traffic Control

Reduction of traffic conflicts between buses, cars, bicycles and pedestrians is a critical component of site safety.

Locate bus pick-up and drop zones separate from parent pick-up and drop zones, and size the bus area to handle the

full number of buses at each school. Define and control pedestrian and bicycle walkways on the site. Design visitor

parking areas to coordinate with parent pick-up zones. Operational management is critical: publish and enforce rules for site use.

- 1) analyze **student and adult** traffic patterns
- 2) recognize neighborhood traffic patterns in setting parent drop-off capacity
- 3) limit bus and parent drop-off to single lane, curb side configuration
- 4) provide dedicated fire lanes where required
- 5) provide signage to communicate configurations



43. Outdoor Learning Settings

Outdoor environments can add valuable space for learning, and help students make connections between their studies and the physical environment. Each site will strive to have at least three types of outdoor learning settings: gardens, small and large gathering spaces and outdoor "classrooms."

- 1) nature areas with possible gardens as outdoor labs
- 2) gathering spaces, informal "stage"
- 3) amenities to support outdoor learning (e.g. hose bib for watering gardens)



REVISED STANDARDS

44. Planned Expansion

Plan each school site keeping open possibilities for future expansion and the flexibility to handle changes in the number and characteristic of learners without sacrificing quality of structure or experiences. Design in:

- 1) hallways/circulation systems that can be extended
- 2) core facilities arranged to grow as classrooms are added
- 3) site layouts to accommodate expansion without loss of specialized learning areas



























Recap of Workshop ONE



Virtual TOUR



Past & Parallel STUDIES



Creating FACILITY STANDARDS



Think Outside the BLOCKS

THINK OUTSIDE THE BLOCKS DESIGN EXERCISE



What can we do with what we have?



WHAT YOU WANT.



SHARED VISION

We envision safe, inviting, and inclusive learning environments that support a sustainable culture of excellence in 21st Century learning, while fostering meaningful and collaborative community partnerships.



WHAT YOU HAVE.

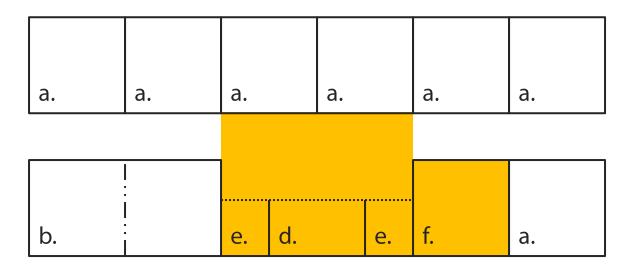


a.	a.	a.	a.	a.	a.

a.	a.	a.	a.	a.	a.

cells and bells a. classroom

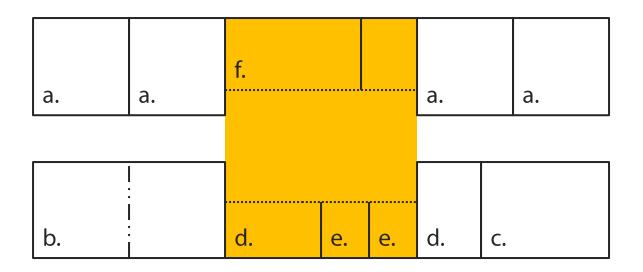




cells and bells + differentiation

- a. classroom
- b. double classroom
- c. project studio
- d. medium group
- e. small group
- f. staff collaboration

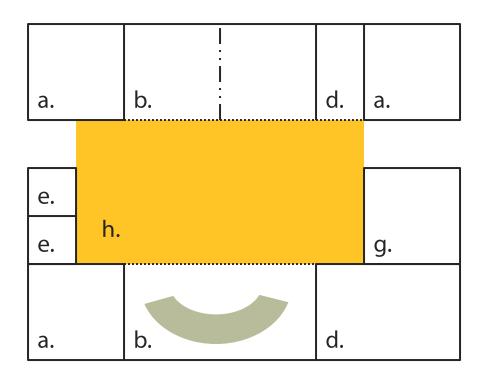




cells and bells + differentiation + informal learning

- a. classroom
- b. double classroom
- c. project studio
- d. medium group
- e. small group
- f. staff collaboration





- a. classroom
- b. double classroom
- c. open double
- d. project studio
- e. small group
- f. medium group
- g. staff collaboration
- h. innovation commons*

learning neighborhood

*innovation commons supports individual and small group work, and is usually counted as 1 or 2 teaching stations.



You have the opportunity to design an ideal learning environment!



As a table, choose one of the following grade levels:

PK-5

6-8

9-12

(we need at least one table of each)



As a table, each participant needs to choose a role...

Parent - Student - Teacher Administrator - Community Member - Other? (but you have to choose to be someone other than you are)



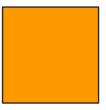
As a table, using the materials provided, describe three-dimensionally your ideal learning environment – you can do a whole school or part of a school – think about how space is used, relationships between spaces, and how you feel in the space...



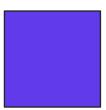
BLOCK COLOR KEY



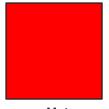
learning space



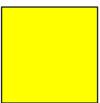
staff/admin.



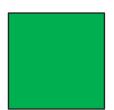
specialized learning space e.g. science, art



small/medium group space



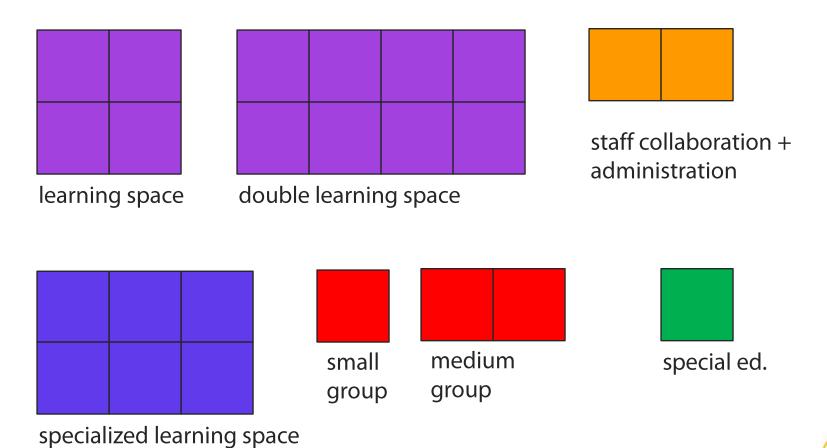
gym/café/media center/performance



special ed.



KIT OF PARTS









Alexandria Area High School Alexandria Public Schools, Alexandria MN



THERE ARE NO WRONG ANSWERS!



Vision is the art of seeing the invisible.

- Jonathan Swift



PERMISSION

Public schools did not exist forever. They did not come out of the forehead of a Greek or Roman God; they were contrived by ordinary men and women...and for just this reason they can be rebuilt or reconceived, dismantled or replaced, not by another set of Gods but by plain men and women. You and I can leave school as it is, change it slightly, or turn it inside out and upside down.

Jonathan Kozol



REFLECTIONS Next Steps...



KEY

GREEN - MEETS OR EXCEEDS STANDARDS

YELLOW - WORKABLE

RED -- DOES NOT MEET STANDARD

BLUE -- NOT APPLICABLE



Application of Standards in Planning: Gap Analysis

13. Adult Learning Space	3	1	5	3	1	1	3
Provide space to allow for education of adults, both employees of the district and community members. Spaces should support Professional Learning Community (PLC) activities and learning. Schools should serve as a professional development "home" for staff.							
14. Daylighting and Views	1	5	4	3	3	1	2
Rooms that house people should have windows for connection to the outside and for natural light. Designs must consider security and control of light, glare and heat gain/loss. Incorporate windows to other spaces for distribution of light and visual connections.							
15. Accessibility	5	5	5	3	5	5	3
Each facility should apply the concepts of Universal Design as well as meeting ADA requirements, to make accessible features useful for all. Modify existing buildings to remove barriers to public spaces and provide convenient access to all levels as a first priority.							

KEY

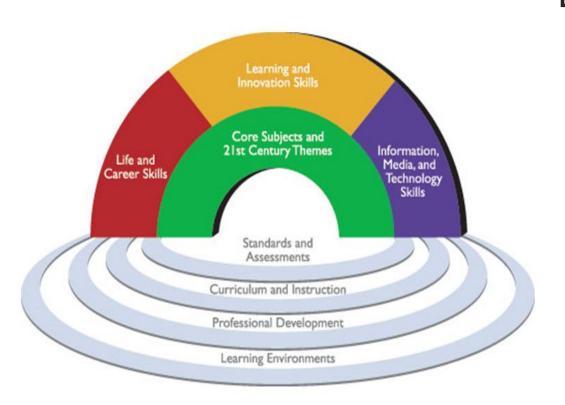
CUNINGHAM

CHARRETTEWORKSHOP #1

Creating a Shared Vision for Facilities



21 C. AND BEYOND



Educational Trends

21st Century Skills

- Critical thinking
- Innovation
- Creativity
- Problem solving
- Effective communication
- Citizenship



Educational Trends

- Learning is Personal mass customization of learning
- Learning Happens Everywhere and is formal and informal
- Flexibility and Adaptability of space and furniture is important and I
- •Collaboration students need to see adults model working together
- Project Based Learning increases relevance
- **Technology** is a Ubiquitous Tool BYOD



Learning is PERSONAL

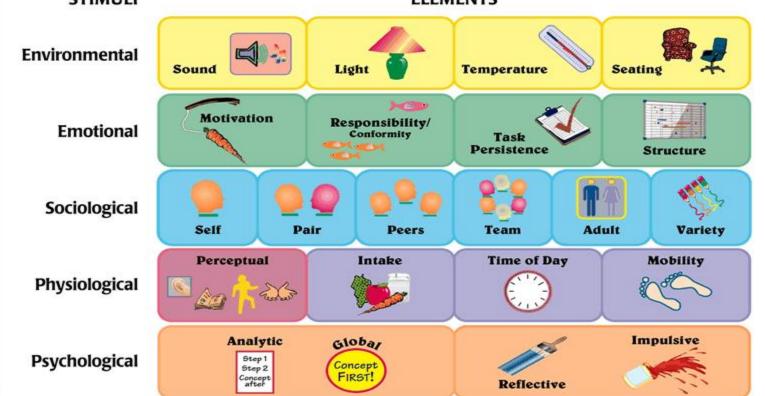


Dunn and Dunn Learning Style Model

Designed By Dr. Rita Dunn and Dr. Kenneth Dunn Graphic Design by Susan M. Rundle



ELEMENTS







"It was an amazing experience. I can't wait to bring it to life."

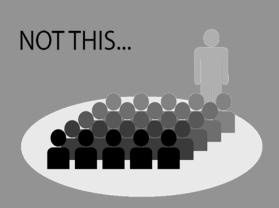
JOEL ROSE SCHOOL OF ONE DEVELOPER NYC DEPARTMENT OF EDUCATION

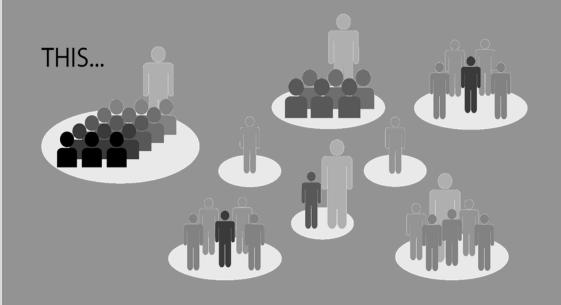






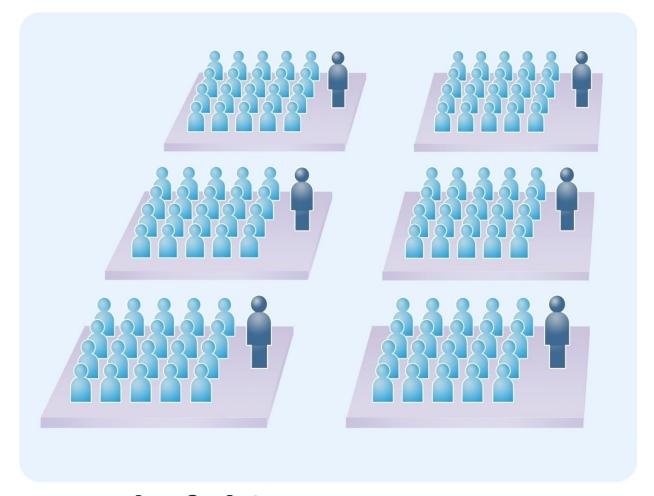




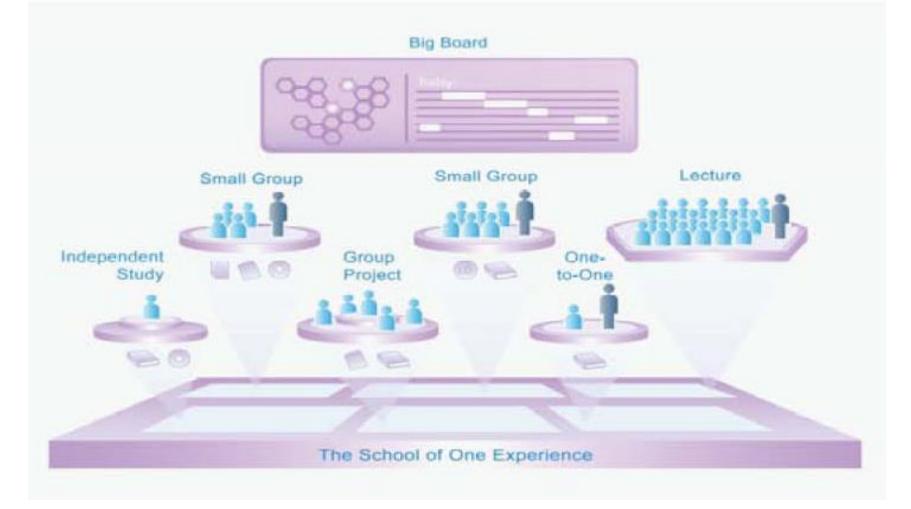


SCHOOL OF ONE

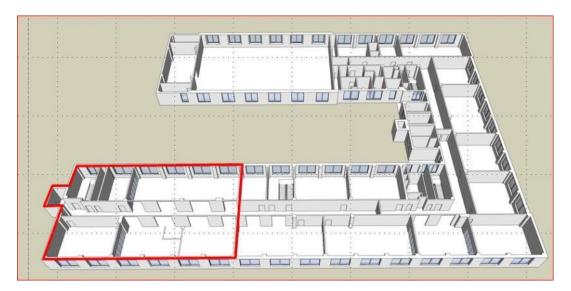




Instead of this...



THIS.







Learning Happens EVERYWHERE



FAIR School Downtown

Minneapolis, MN

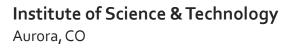




Natrona Center for Advanced Professional Studies (CAPS) Casper, WY



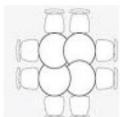








FLEXIBILITY & ADAPTABILITY



learning studios



Variety of spaces for all learning styles.



We believe in forming spaces that **form ideas.**



Creating your unique

kit of parts.





Nooks to meet with others and team up.



Surfaces that are multifunctional.

small group



Vertical display surfaces encourage ideation and interaction.



Designed to support information sharing —whether it's an individual or a group of peers conversing







gathering space

encourages mixing and mingling











Acts as the vibrant and dynamic heart of the landscape-



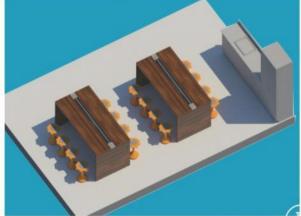




A creation space for : project experiements & more....



making stuff



Surfaces that are multifunctional.

a space for hands on exploration













Columbia Heights, MN













Saint Paul, MN







Saint Paul, MN



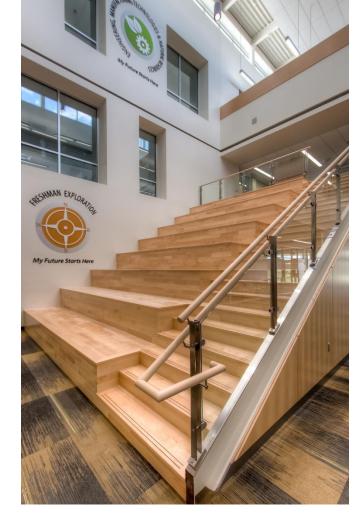
COLLABORATION





Alexandria Public Schools, Alexandria MN















Alexandria Area High School Alexandria Public Schools, Alexandria MN

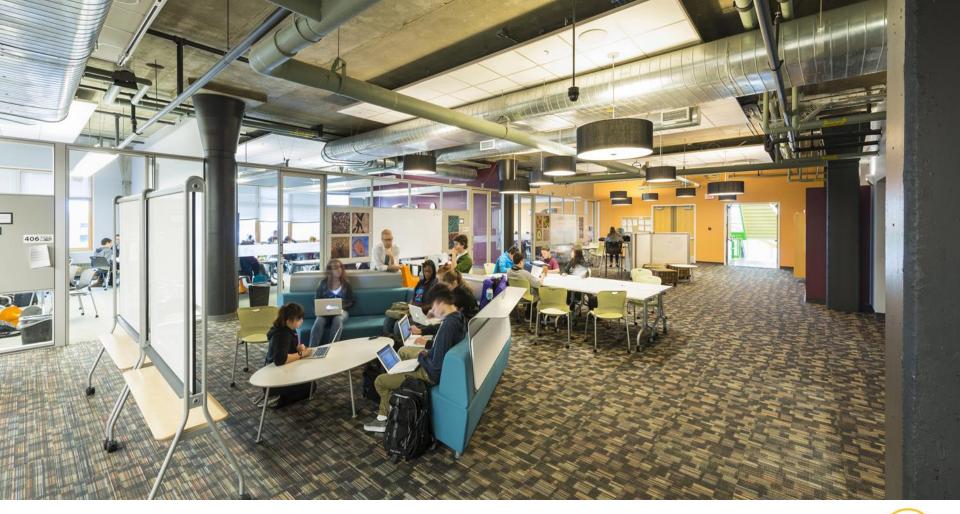






Alexandria Area High School Alexandria Public Schools, Alexandria MN







Minneapolis, MN







Minneapolis, MN

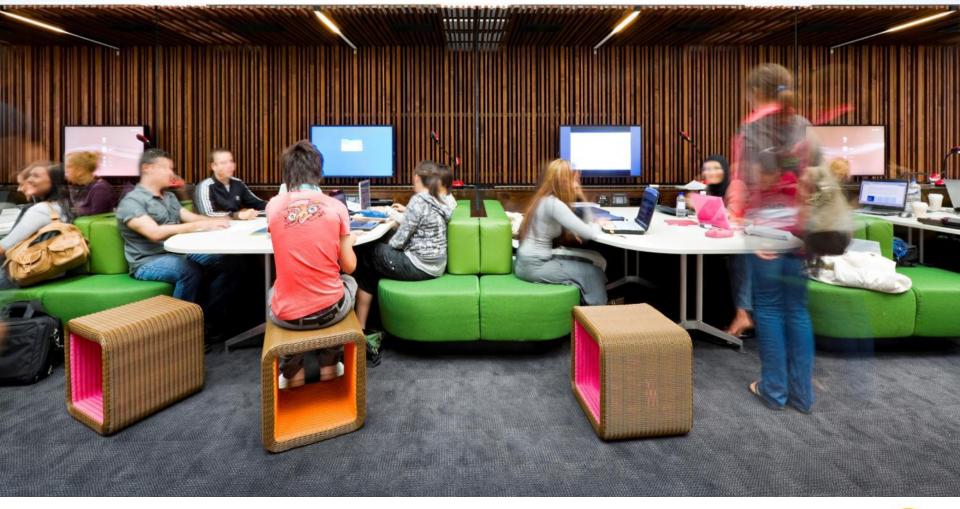








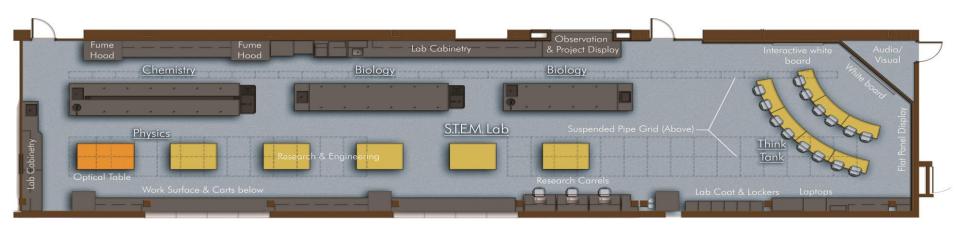






Project Based LEARNING













New High School Campus: Center for Advanced Professional Studies & Roosevelt HS Natrona County School District, Casper WY





New High School Campus: Center for Advanced Professional Studies & Roosevelt HS Natrona County School District, Casper WY









New High School Campus: Center for Advanced Professional Studies & Roosevelt HS Natrona County School District, Casper WY



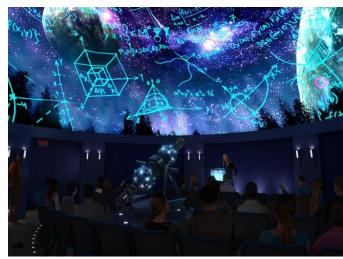














New High School Campus: Center for Advanced Professional Studies & Roosevelt HS Natrona County School District, Casper WY



TECHNOLOGY









Cherry Creek School District







Institute of Science & Technology Cherry Creek School District







Institute of Science & Technology Cherry Creek School District











Teacher's Guide To Google GL/SS edudemic.com

