

Elementary Teaching and Learning

A presentation for the Community Bond Committee

September 22, 2016

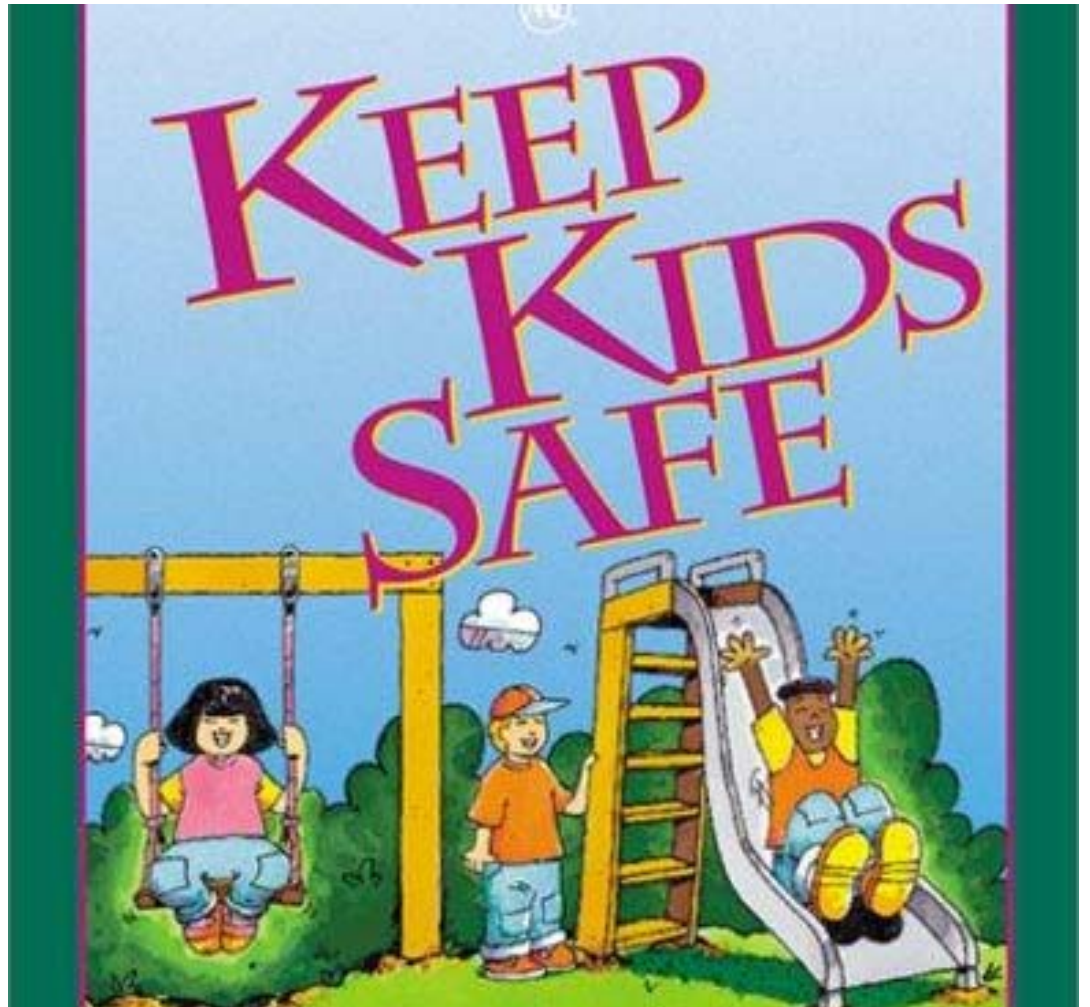


SAFETY

*Building Entry

*Classroom Entry

*Antiquated Doors



FACILITIES

- *Heating & Cooling
- *Lighting
- *Lockers
- *Bathrooms (odor, gender neutral, upgraded plumbing)
- *Windows
- *Emergency Exits that are accessible
- *Cafeterias
- *Kitchens
- *Storage
- *Narrow hallways
- *Handicap Accessibility
- *Traffic Flow & Parking
- *Electronic Signage



Classroom Design in 21st Century

- Reflect diverse learning of the whole child
 - Gardner's Multiple intelligences
- Inspire creative problem solvers
- Develop intellectual risk takers
- Promote social interactions

Reflect diverse learning of the whole child

Multiple intelligences

- Small spaces
 - provides choices in learning spaces that work best for students
 - Students can work collaboratively
 - Provides opportunities to communicate
 - Engage in critical thinking
- Private spaces
 - Focus is on student thinking, work, & collaboration
 - More student-centered classroom
 - Space and time for "me"
- Movement space
 - Utilize natural link between the brain and the body
 - When students move, learning improves
 - Collaboration space available for individual or groups of classes

Small Spaces – provides small group teaching and learning; hands on activities; station work; technology; concrete hands on explorative activities; the ability to change and vary activities to integrate differentiated instruction

Gardner's Intelligences:

- Linguistic
- Logical/Mathematical
- Intrapersonal



Personal Spaces – provides for quiet place child can call their own; reduce tension for highly sensitive children; provides place to reflect; provides self guided discovery& learning

Gardner's Intelligences:

- Intrapersonal
- Linguistic
- Naturalistic
- Logical Mathematical



Movement Spaces-

brain/body breaks; club meeting places; volunteer support/spaces; parent council; community activities/events; school performances

Gardner's Intelligences:

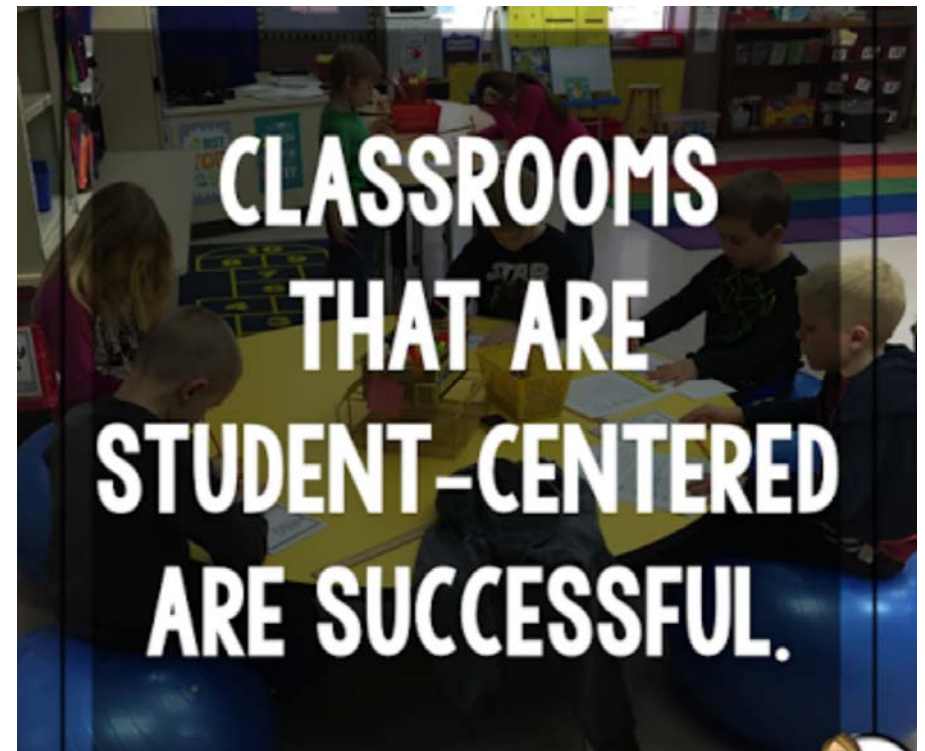
- Visual/Spatial
- Bodily/Kinesthetic
- Musical
- Linguistic
- Interpersonal
- Naturalistic - for outdoor spaces



Rethinking the Classroom: Spaces Designed for Active and Engaged Learning and Teaching

Flexible Classrooms: Providing the Learning Environment that Kids Need

FLEXIBLE SEATING



What is Flexible Seating?

Flexible classrooms give students a choice in what kind of learning space works best for them, and help them to work collaboratively, communicate, and engage in critical thinking.

Edutopia.com



How can we achieve this?

Teaching 21st century learners

In the future we hope to...

- Have equality across the district in regards to access to resources and facilities
- Create facilities that have a design and layout that reflects the needs and varied learning styles of all students.
- Let students take control of their learning by having the options to chose a learning space, personal space, and flexible seating options
- Continue to provide excellence in education teaching 21st century learners

STEAM Space



Booker T. Washington
STEAM Academy
Champaign, IL

<http://thethirdteacherplus.com/booker-t-washington-stem-academy/>



What would it look like?

- Large, open room
- Spaces for collaboration
- Storage for materials
- Mobile furniture
- Heavy-duty design

<http://www.contrax.com/high-impact-learning-ideabook/learn-center/articles/Type/Research/a-holistic-multi-level-analysis-identifying-the-impact-of-classroom-design-on-pupils-learning.html>



Why?

- Improve students' skills in
 - Science
 - Technology
 - Engineering
 - Art
 - Mathematics
 - Collaboration
 - Problem solving
- Prepare students for future jobs
- Provide additional & different learning opportunities

Community Space



- *Ideas for how to use the space:*

- MSU classes and students
- Meetings (IEPs, 504s, etc.)
- Parent Council meetings
- Parent volunteers
- After school events
- “Community Center”

- *Why a community space is important:*

- Family support
 - Healthy families, healthy kids
 - Equitable access
- Community outreach
- Relationship with MSU



Collaborative Space For Support Staff



East Lansing provides a wide range of support services to meet the diverse needs of our students.

Why is additional space important:

- Number of programs
- Number of itinerant staff
- Paraprofessional support
- IEP requirements
- Offices used as classrooms

Ideas for how this space would be utilized:

- Private space to work on IEP goals
- Common area for student work
- Quiet spaces
- Team meetings
- Full access to technology
- Equitable access





Community Garden and Learning Space



- * Local organic produce for E.L Families
- * Farm to Cafeteria program
- * Community Supported Agriculture
- * Relationship with MSU





Garden-Based Learning

- Hands on Learning Experiences For All Grade Levels
- Promotes Healthy Eating Through Farm to Cafeteria Project
- Cross Curricular Learning Opportunities
- Supports New Generation Science Standards for Kindergarten Through Middle School

Pictures courtesy of Reeths Puffer
Elementary Community garden in
Muskegon, MI



Elementary Performance Space

Stage for music performances at all grade levels.

Tall ceilings with proper acoustics for lunch time and performances

Room for all students to meet for assemblies

Projection screens and access to microphones

Additional learning space for multiple classrooms to work collaboratively.

Movement-Enriched Environment

active kids learn better



physical activity at school is a win-win for students and teachers

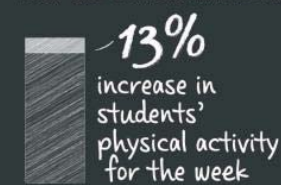
GRADES:



STANDARDIZED TEST SCORES:

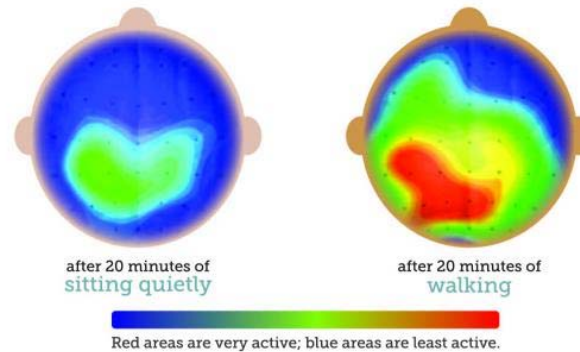


JUST ONE PHYSICALLY ACTIVE LESSON CREATES:



physically active kids have more active brains

BRAIN SCANS OF STUDENTS TAKING A TEST:



MORE RESULTS:

after 20 minutes of physical activity:
students tested better in reading, spelling & math and were more likely to read above their grade level

after being in a physically active afterschool program for 9 months:
memory tasks improved 16%

SOURCES: Donnelly J.E. and Lambourne K. (2011). Classroom-based physical activity, cognition, and academic achievement. *Prev Med.* 52(Suppl 1):S36-S42. Hillman C.H. et al. (2009). The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. *Neuroscience.* 159(3):1044-1054. Kamijo K. et al. (2011). The effects of an afterschool physical activity program on working memory in preadolescent children. *Dev Sci.* 14(5):1046-1058. Kibbe D.L. et al. (2011). Ten years of TAKE 10: integrating physical activity with academic concepts in elementary school classrooms. *Prev Med.* 52(Suppl 1):S43-S50. Nelson M.C. and Gordon-Larson P. (2006). Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors. *Pediatrics.* 117(4): 1281-1290.

Learn more about why active kids learn better and how schools can help at activelivingresearch.org/activeeducationbrief.

Movement-Enriched Environment



- ~ Classrooms need space to accommodate diverse learning styles
- ~ The power of choice
- ~ One size does not fit all
- ~ Project-based learning space to collaborate and create
- ~ Movement throughout the day with different seating options increases focus, concentration, motivation

Movement-Enriched Environment



- ~ Active students make better learners
- ~ Several studies to support movement breaks in the classroom throughout the day
- ~ Space for a "Movement Lab" would integrate curriculum with movement
- ~ Physical activity + Learning = Opportunities for all students to be as successful as possible

QUESTION & ANSWER

THANK
YOU!