creating new thinking spaces for students
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creating new thinking spaces for students & teachers building GENIUS
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WHO WE ARE

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MASLOW'S HIERARCHY OF NEEDS

1. Physiological Needs
2. Safety and Security Needs
3. Belonging and Love Needs
4. Esteem Needs
5. Cognitive Needs
6. Aesthetic Needs
7. Self Actualization Needs
PROPOSED SCHOOL FACILITY HIERARCHY OF NEEDS

- Physiological needs
- Safety and security needs
- Core educational needs
- Social and emotional needs
- Esteem needs
- Individual learner needs
- Aesthetic needs
- Self actualization needs
**Our Strategies**

**ONE:**
We will ensure unique, innovative learning experiences for **all** students.

**TWO:**
We will ensure a **student-focused** environment that expands learning beyond the traditional expectations to engage students.

**THREE:**
We will establish a support network that will identify and address students’ physical, social/emotional, and mental health needs to allow each student to reach their **full** potential.

**FOUR:**
We will attract and retain talented and invested staff by ensuring they feel **valued and supported**.

**FIVE:**
We will create and foster mutually beneficial relationships **throughout** the community.
LEARNING EXPERIENCES:

• Relevant, innovative personalized academic pathway that promotes passion and pride
• A learning environment that fosters curiosity and the thirst for achievement and discovery
• Commitment to the whole person resulting in student growth and confidence
Each student will engage in complete learning experience that develops the whole person and fully prepares them for their future.

Each student will explore and develop their emerging talents and interests to fulfill their unique potential and live it with passion, courage and confidence.
What is a Classroom?

Dovey and Fisher (2014)

Imms, Mahat, Byers & Murphy (2017)
The learning space integrates the three tenets of classroom design:

• The classroom furniture must be **mobile and flexible**
• Each collaboration area must have **access to digital display**.
• Each collaborative area must have a **writeable surface**.

Dr. Sally Lindgren, Director of Technology and Innovation
BREAKOUT SPACES
SOCIAL AND COLLABORATIVE SPACES

Sills, Digby, and Russ (1991)
PERIPHERAL SPACES
Participation from the edge.

Charles City Middle School
RESTORATIVE SPACES
EXPLORATORY SPACES

Kolb (1984)
PLACEMAKING
AND
INCLUSION
STICKY SPACES
FUSION SPACES
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THINKING BIG
Developing our BOLD facility plan.

1. EMPATHY
   - futures workshops
   - exemplar visits
   - educators talking to educators

2. DEFINE
   - teachers / students DRIVING the definition of future-focused learning environment

3. IDEATE
   - teacher / students DRIVING the selection of concepts

4. PROTOTYPE
   - “hacking” the environment: staging with furnishings and technology

5. TEST
   - teachers develop and implement new lesson plans in the prototype

PREP WORK
- establish educational leadership team

RESEARCH
- quantify effectiveness of design
GOAL: Create facilities that are future-focused and research-based to enhance student outcomes.

- Academies model Middle School program
- Combined Montessori Program
- Fine Arts Integration School
- Standard prototype for elementary design, to be mapped across the district’s elementary facilities
1: futures workshop

Stephen Decatur Middle School
2: define

Cognitive Maps and Graffiti Maps with Students
3: ideation
4: prototype

Project Based Learning Classroom

Maker Space

Working Café
Prototype Video
Project Based Learning space
Student feedback
Feedback

I like that they are making things for children in need. Danaiyah.

I really like the VR models. School is the best!!!

It was cool.

I like the print process.

I think we could have this next year. Let's try it when they come.

We should keep it.

Very creative concept.

It's a creative class.

Hi,

I like the chairs that are out in the gallery.

This is the best cool like the chairs.
If I could I'd come to this from every class. I think the 3D printing thing is cool and can be very useful.

I want it.

I want more 3D printers so we can examine cells and stuff.

I like the 3D printer for science because it will help us learn more. It would really be nice to see this in school.

3D Printing in Math Class would be a more fun and interactive way to learn.

Print tell you can't print no more. I feel like I'd like it.

Maker Space
Do you understand how to use these spaces and how they could be used in the future?

- Yes: 84.4%
- No: 11.1%
- No opinion: 4.5%

Which option best describes how you feel students will respond to these spaces next year?

- Will not care: 23.3%
- More excited to come to school: 65.6%
- No opinion: 11.1%
Did the furniture help you feel more focused or more distracted?

- More focused: 87.8%
- More distracted: 10%
- No opinion: 2%

Were the clear walls in classrooms distracting or did you like being able to see what was going on outside these spaces?

- I liked them: 57.8%
- Distracting: 22.2%
- No opinion: 20%
WCIA video
PLAM PANEL SYSTEM:
WILSONART ASHTEE OAK w/
ALIGNED TEXTURE FINISH

GALVANIZED CORRUGATED METAL
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When it's too nice out to be inside, we read on the balcony. They were begging to do it again next week. #cultureofreaders #8thgradersdoread
Opportunities for learning through story.
The risk that the people at the top of the economic scale (successful districts) frequently take (inadvertently) is the missed opportunity that can come from taking a different path, because they don't have to…..

Research addresses that risk…..

evidence based design study

This study is designed to measure before and after renovation/construction effects on student outcomes by analyzing a relationship between the following variables:

**MOVEMENT PATTERNS**
(density, distance to open space, traffic flow)

**STIMULATING ENVIRONMENT**
(color, aesthetics, furnishings, wonder)

**LEARNING SETTINGS**
(acoustics, climate control)

**STUDENT BEHAVIOR**

**STUDENT ENGAGEMENT**

**ACADEMIC ACHIEVEMENT**
Hypothesis #2
Students that learn in an environment that they report to be more stimulating will also report higher levels of engagement.

No change in engagement?

Students reported on engagement scores in the pre- and post-test survey.

Score was created as an average of 9 items.

Pre (mean, 95% CI) = 2.55 (2.43 - 2.67)
Post (mean, 95% CI) = 3.74 (3.65 - 3.84) ±

While there is a slightly positive relationship between stimulation and engagement, a stimulating physical environment alone may not produce a dramatic change in student engagement in grades 5-8.
Hypothesis #3
In schools designed to meet the individual needs of the learner, teachers will report higher student achievement.

Teachers were asked to rate different aspects of their environment (flexibility, accommodations, degree students can work at their own pace, sound levels, etc.) using a scale of 1 to 5, with 1 being inadequate and 5 being excellent.

The four items with the largest positive differences, and the largest negative differences.

Reconfigure for activities (1 = inadequate, 5 = excellent)
Accommodations (social) (1 = inadequate, 5 = excellent)
Accommodations (quiet spaces) (1 = inadequate, 5 = excellent)

Our analysts concluded that learning setting design was primarily responsible for the increases in perceived student achievement.
Teachers see students achieving more in learning spaces that can be reconfigured and which create a social and collaborative environment.
Collective Teacher Efficacy

With an effect size of 1.57, CTE is ranked as the number one factor influencing student achievement (Hattie, 2016)
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