

# EDspaces

Designing the Future of Education  
Charlotte, NC | November 7-9, 2023

## Elevating Student Learning Through Transformative Design

November 8<sup>th</sup> 2:00-3:00pm  
E220E/HON Classroom



# Today's Presenters



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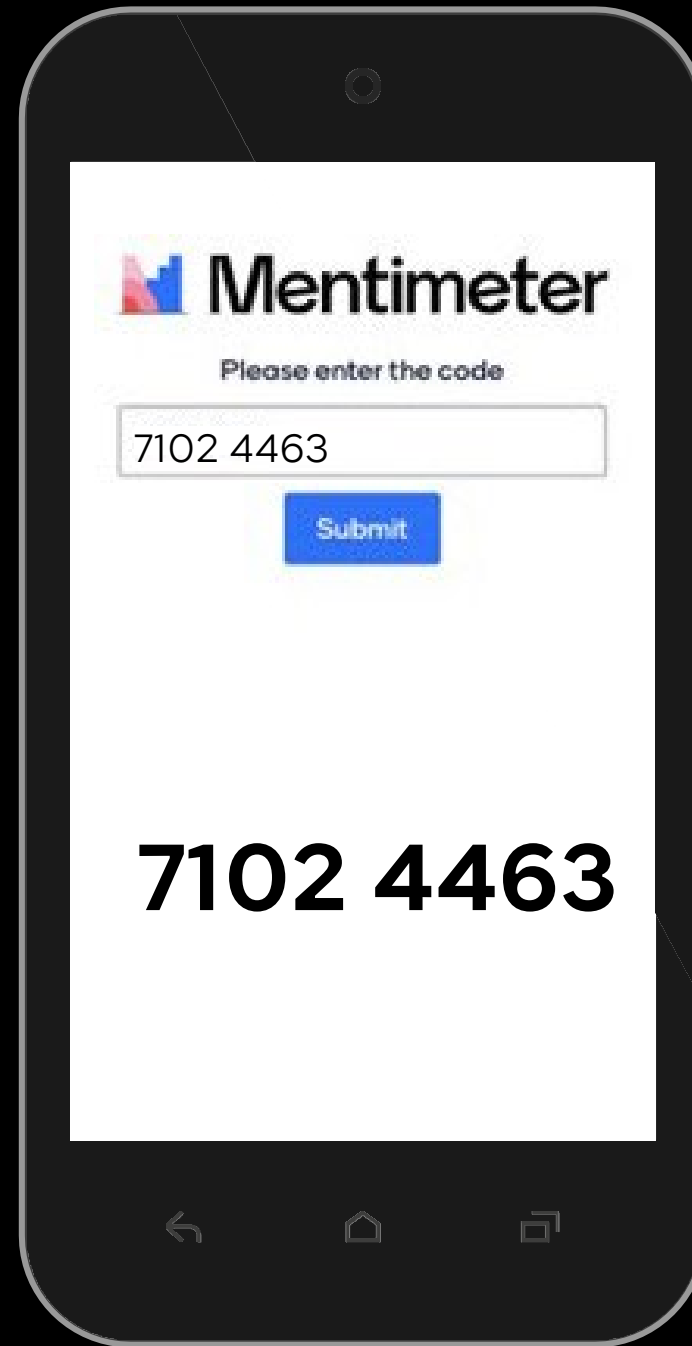
[BProctor@RATIOdesign.com](mailto:BProctor@RATIOdesign.com)







# Audience Engagement



OR



SCAN QR CODE

# GROWTH & EVOLUTION

A child's educational journey is a process of gradual and transformative change, coupled with the awakening of the individual's unique passions and talents. Each year holds new developmental opportunities and serves as a step forward into the future. As a child experience these transitions, they will grow mentally, physically, and emotionally, better equipping themselves at each turn. Our mission of educational design excellence is to elevate student engagement and empowerment throughout this learning experience, sparking curiosity to drive everyone's passion for life-long learning.



# Presentation Objectives

**AIA**  
**Design Principle 1**  
**Integration** (health)

What does it mean to 'personalize' a participatory learning environment, and how can instruction best leverage these learning tools to promote appropriate social / emotional well-being and positive behavioral traits?

**AIA**  
**Design Principle 2**  
**Equitable Communities** (welfare)

How does the sense of school community and identity factor into student success and well-being?

**AIA**  
**Design Principle 7**  
**Well-Being** (health)

How does biophilic and multi-sensory design factor into student outcomes within participatory and 'personalized' active learning environments?

**AIA**  
**Design Principle 10**  
**Discovery** (welfare)

How can the principles and 'paradigm shift' be applied to a fixed mindset in implementing student-centric instruction supported by participatory learning environments?



# Why, What, How?

## WHY?

How SEL impacts all learner's ability to engage and succeed.

- More than just a buzzword, real data showing the effects of SEL on student success
- Identifying SEL inhibitors
- Creating safe spaces for youth to experience emotions, express them, and learn about handling their own emotions and the emotions of others.

## WHAT?

Mindset, paradigm shift or 'pivot', personalized active learning spaces to engage the wide spectrum of where students are.

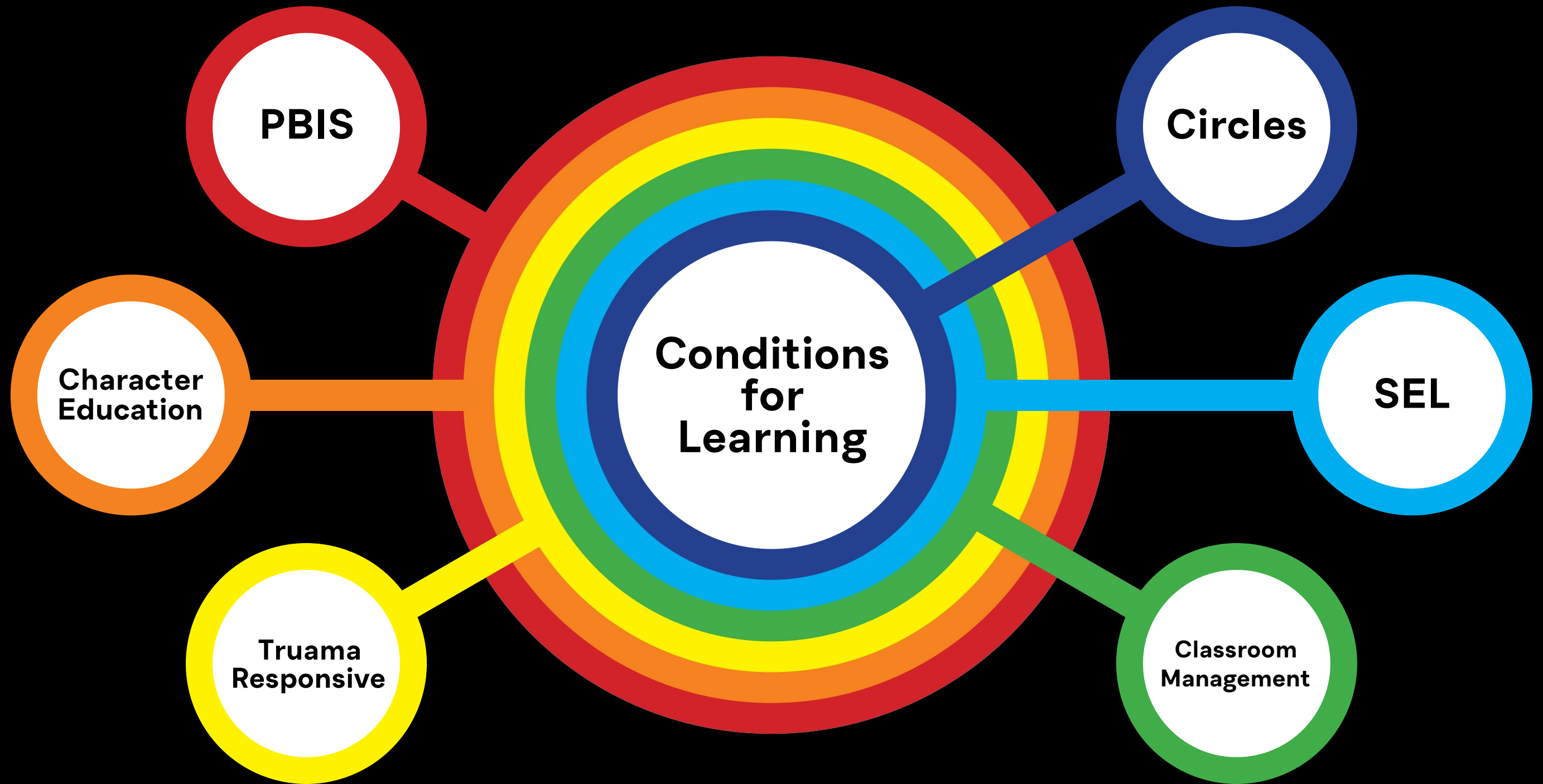
- Learner choice and education 'ownership'
- Promoting student self-regulation
- Student-centric, 'explorative' delivery

## HOW?

Learning spaces to support paradigm shift.

- Promoting flexibility / agility / movement
- Connections to nature and 'biophilic' learning elements
- Identifying with larger student 'communities'





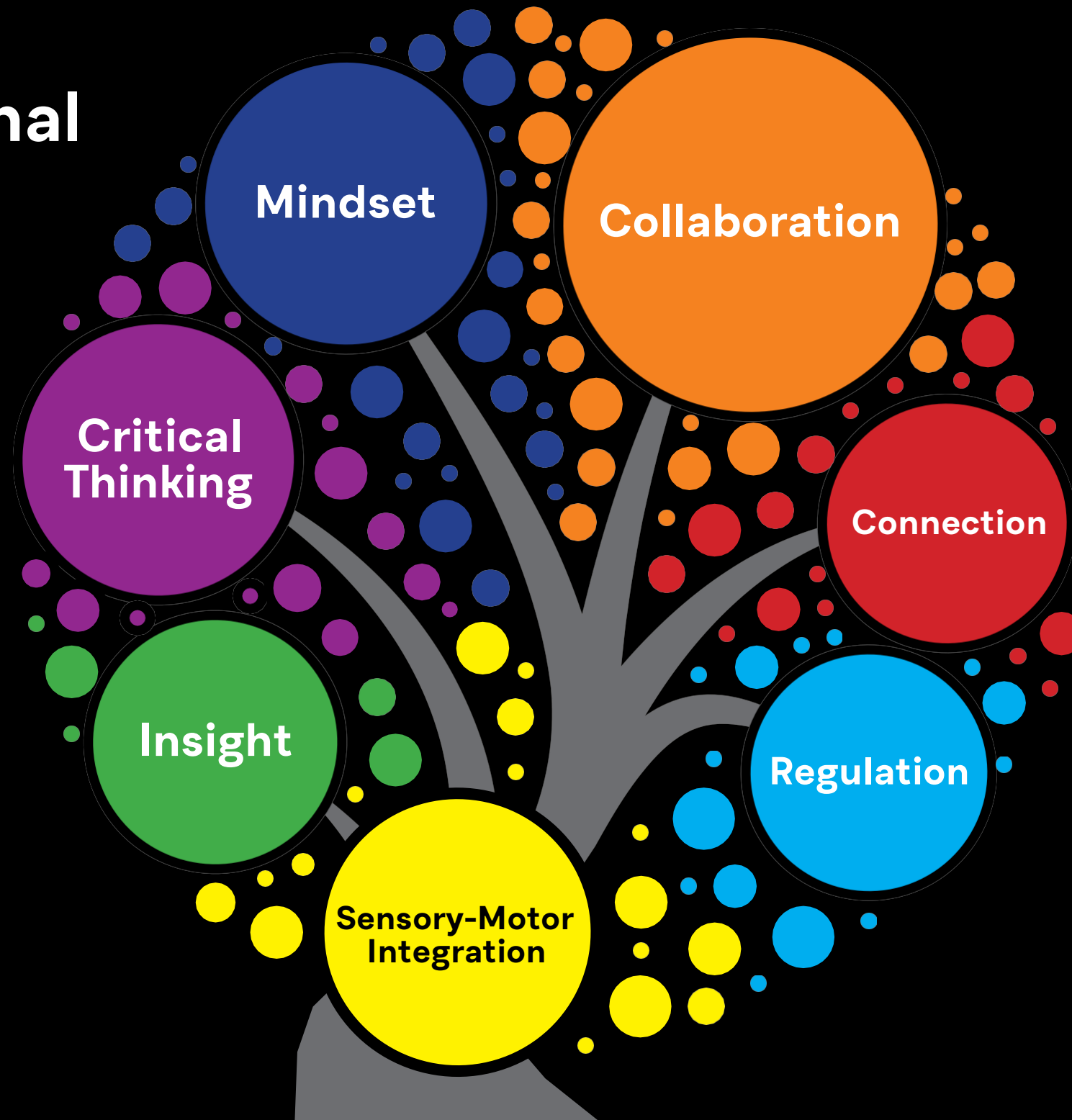


# Social-Emotional Learning

## Sensory-Motor Integration

The ability to have **body awareness** and recognize sensations in the body.

Gaining sensory-motor integration is an important skill for managing **transitions**, changing routines, **increasing alertness for learning**, and improving regulation.



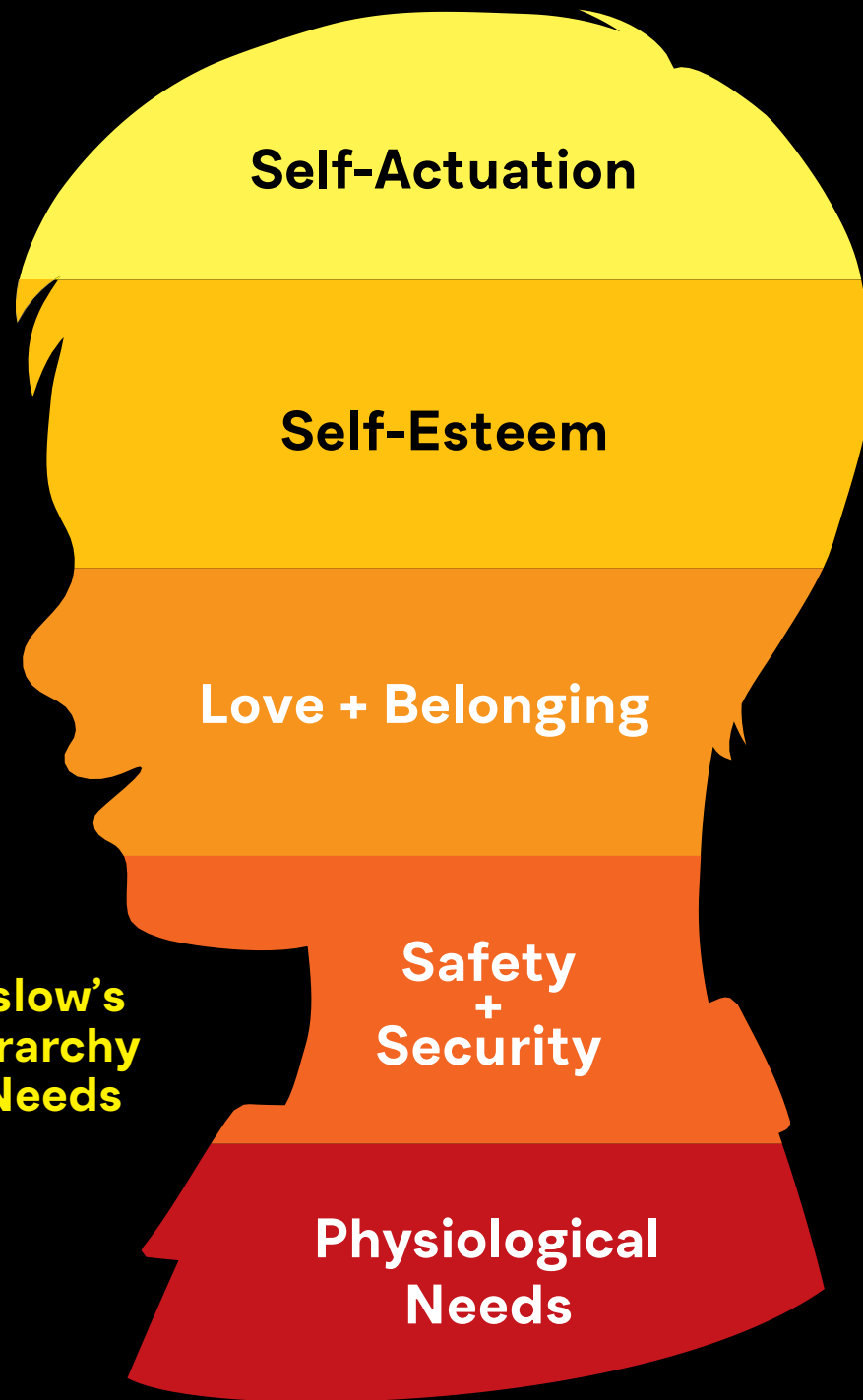
## Regulation

The ability to **recognize** and **manage** one's emotions.

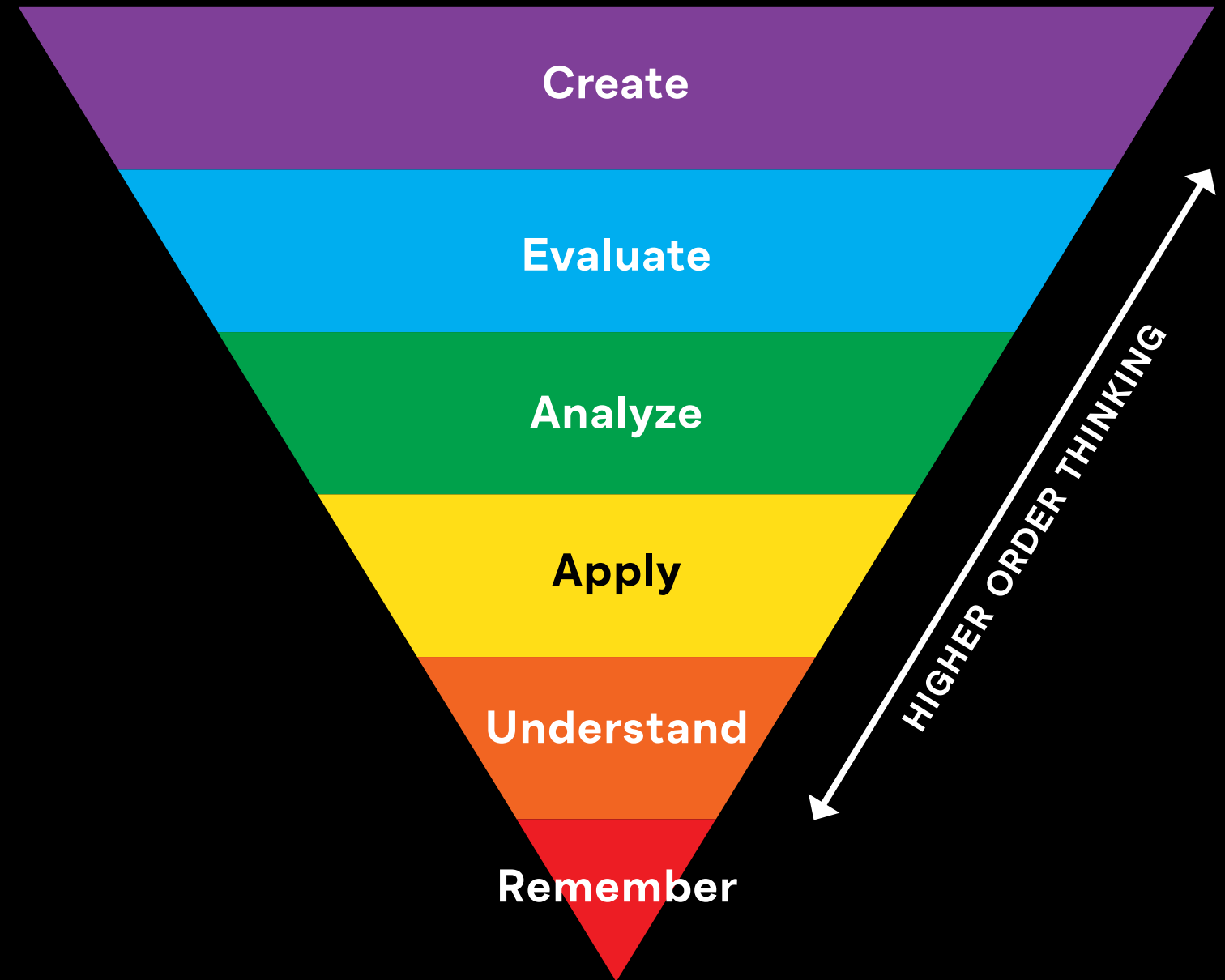
Regulation skills build positive self control, positive self-discipline, and impulse control.

# Whole Child Learning

Maslow's  
Hierarchy  
of Needs



Higher Order Thinking (Bloom's Revised Taxonomy)





## **Benefits for Staff and Learners**

### **Natural Light / White-Tunable Lighting**

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#### **Minimize Distractions**

- Works to Decrease Stimulation
- 

#### **Spaces that Foster Collaboration**

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#### **Color Coding / Creating Community**

- Awareness of Location in Building (Wayfinding)
- 

#### **Intentional Infusion of Nature**

- Grass, Carpet, and Visuals

# Achieving Greater Well-Being and Better Performance Through Biophilic Design

## SIX WAYS TO CREATE ENVIRONMENTS THAT SUPPORT HOLISTIC DEVELOPMENT

### 1 INCORPORATE LIVING WALLS

Living walls, also known as vertical gardens, are a space-efficient way to add real greenery, improving students' well-being and their performance.

### 2 USE NATURAL MATERIALS, SHAPES, AND PATTERNS

Materials like wood, stone, and bamboo create a calm and inviting atmosphere.

### 3 DISPLAY BIOPHILIC ART AND IMAGERY

Murals depicting landscapes, wildlife, or natural elements can transport students into a serene natural setting, fostering a sense of tranquility and inspiration.

### 4 PROVIDE ACCESS TO NATURAL (OR NATURE-INSPIRED) LIGHTING

The benefits of sunlight are well-known and include improved mood, increased productivity, and better concentration. Designing classrooms with large windows, skylights, or light shelves can maximize natural light penetration. If you're working with a pre-existing space, incorporating dynamic lighting that mimics natural daylight cycles can help regulate circadian rhythms, promoting better sleep patterns and alertness.

### 5 USE FLEXIBILITY TO PROMOTE OUTDOOR CONNECTIONS

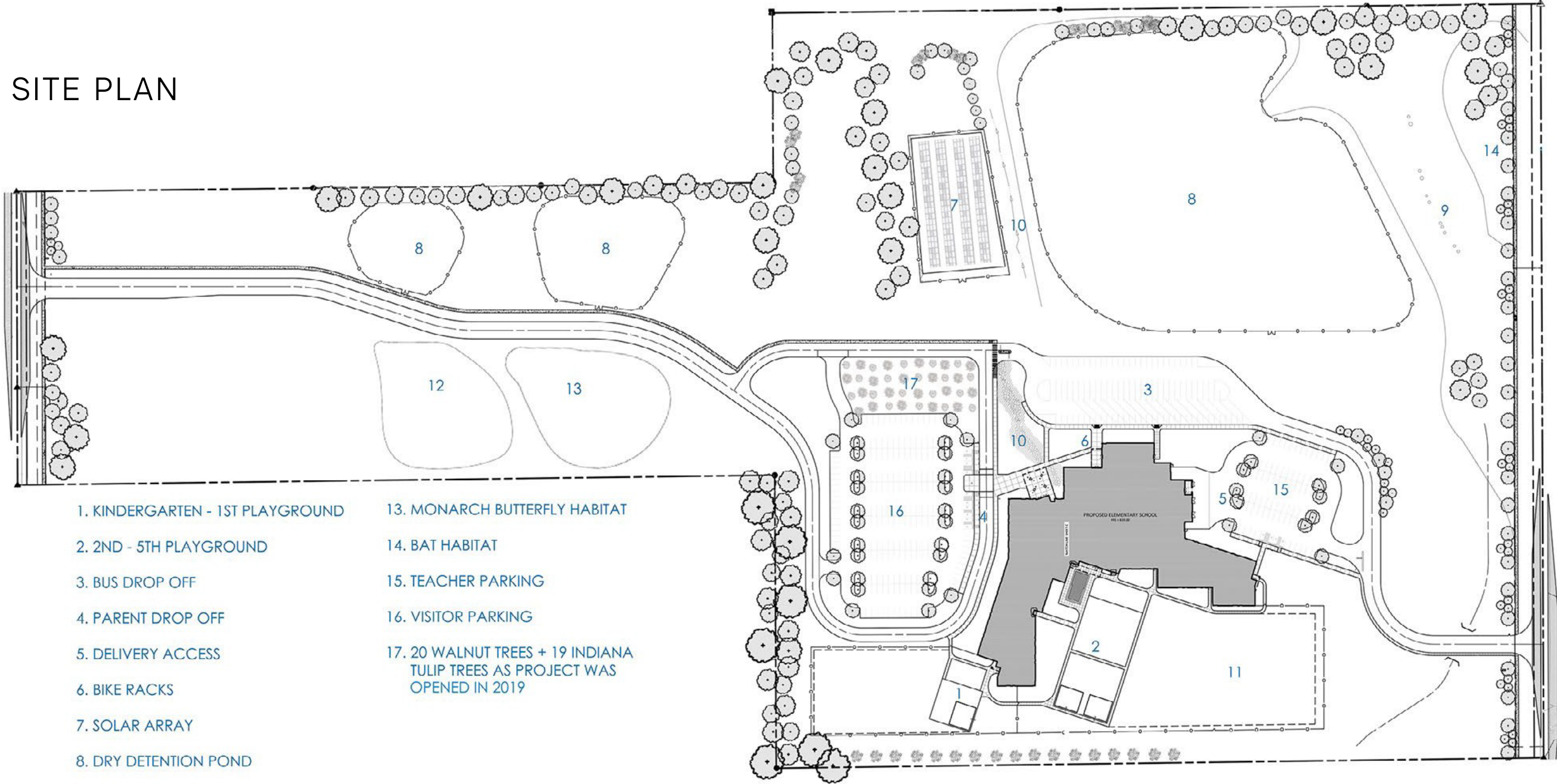
Learning spaces that seamlessly connect indoor and outdoor environments are a hallmark of biophilic design. Extending the classroom outside school walls offers opportunities for hands-on learning and exploration, as well as physical activity to burn excess energy. If you don't have access to a courtyard or terrace, try bringing mobile indoor/outdoor furniture onto the school lawn.

### 6 INTEGRATE GARDENS AND GREEN SPACES

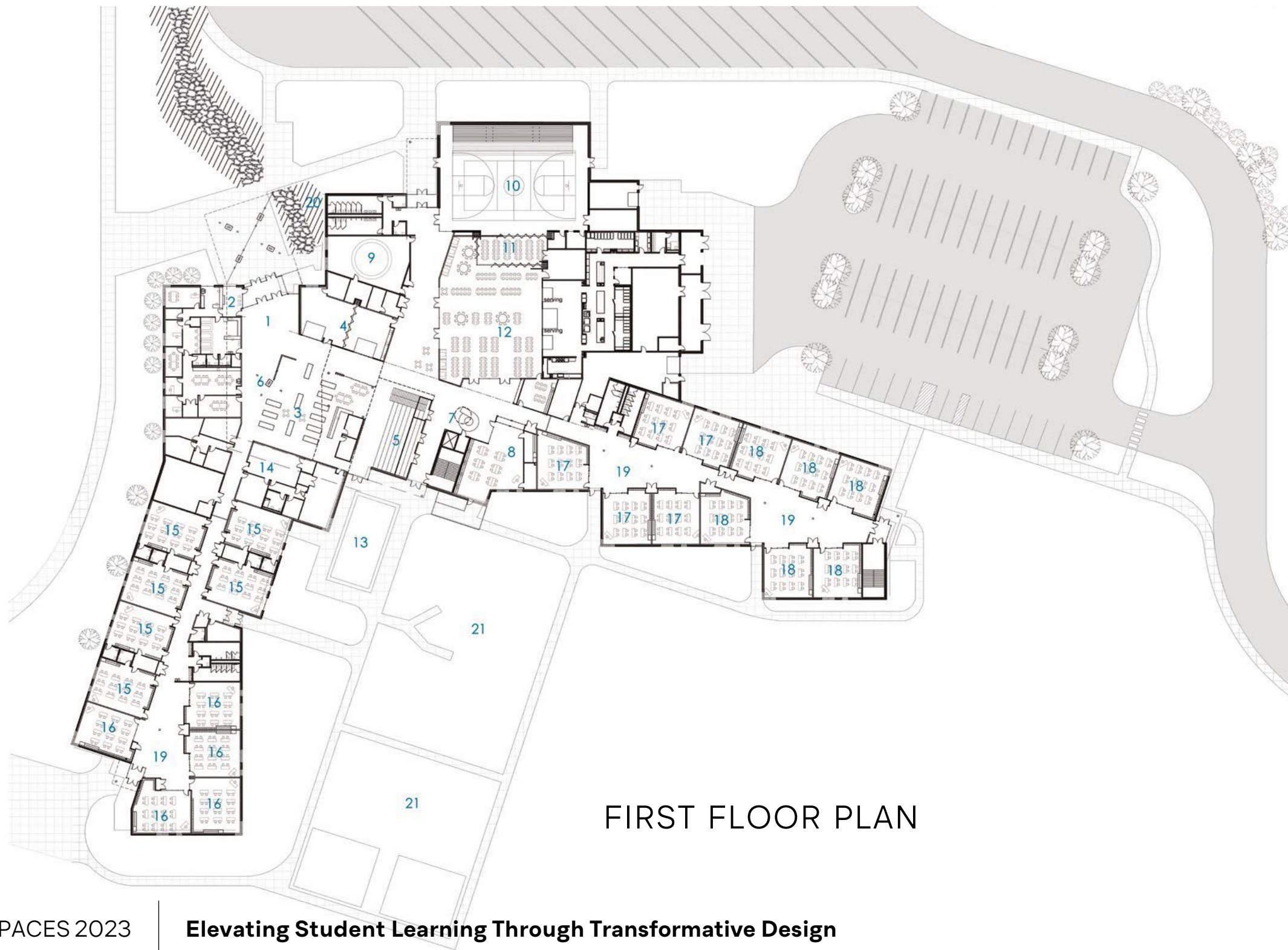
Allowing students to care for their own living greenery can foster a sense of responsibility, enhance critical thinking skills, and promote environmental awareness. These firsthand experiences with the natural world can also be active meditations, helping students to relax and unwind.



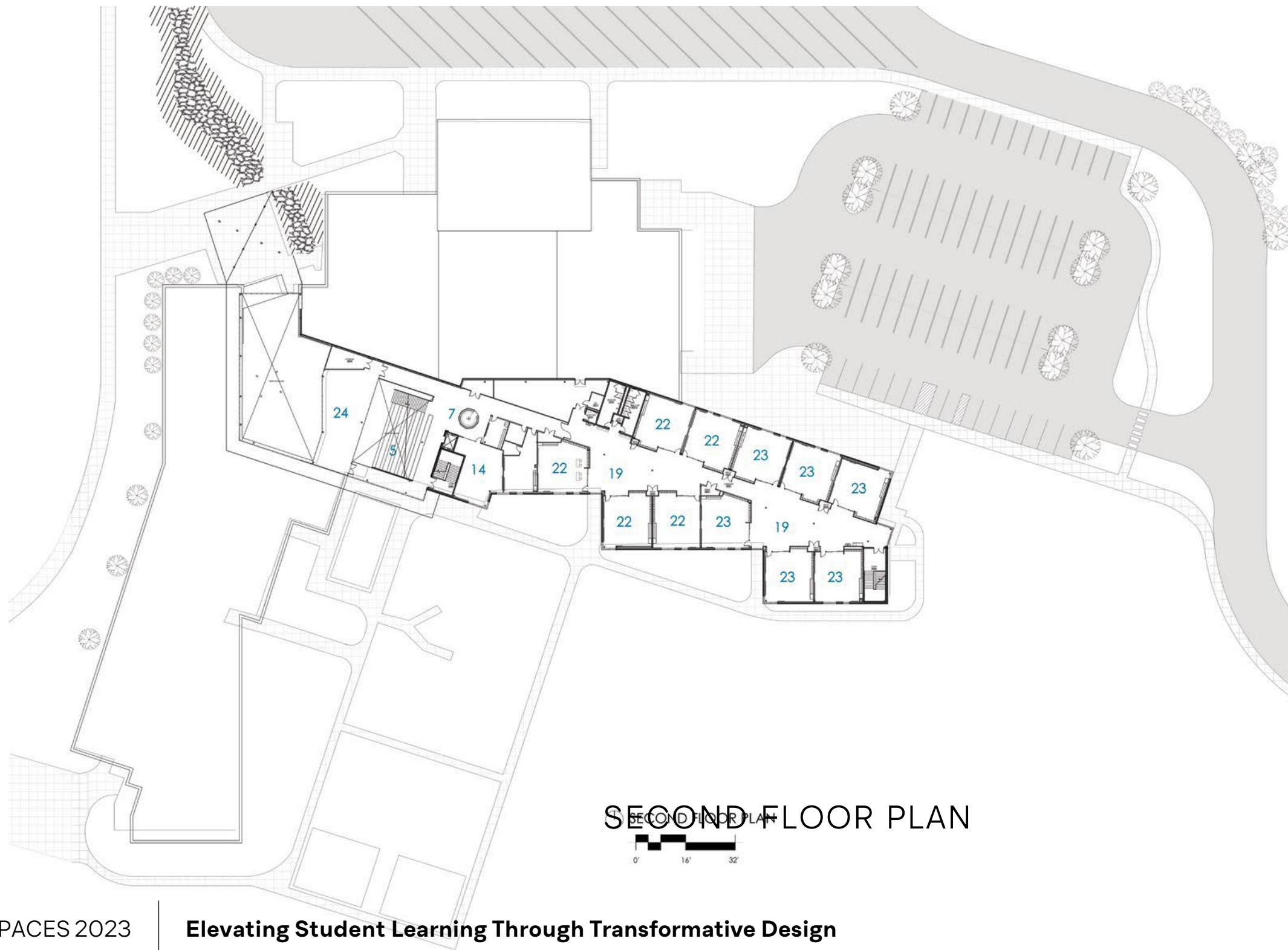
SITE PLAN



- |                                  |                                                                                  |
|----------------------------------|----------------------------------------------------------------------------------|
| 1. KINDERGARTEN - 1ST PLAYGROUND | 13. MONARCH BUTTERFLY HABITAT                                                    |
| 2. 2ND - 5TH PLAYGROUND          | 14. BAT HABITAT                                                                  |
| 3. BUS DROP OFF                  | 15. TEACHER PARKING                                                              |
| 4. PARENT DROP OFF               | 16. VISITOR PARKING                                                              |
| 5. DELIVERY ACCESS               | 17. 20 WALNUT TREES + 19 INDIANA<br>TULIP TREES AS PROJECT WAS<br>OPENED IN 2019 |
| 6. BIKE RACKS                    |                                                                                  |
| 7. SOLAR ARRAY                   |                                                                                  |
| 8. DRY DETENTION POND            |                                                                                  |
| 9. WETLAND / FROG POND           |                                                                                  |
| 10. DRAINAGE SWALE               |                                                                                  |
| 11. GEOTHERMAL FIELD             |                                                                                  |
| 12. BEE POLINATOR PROJECT        |                                                                                  |

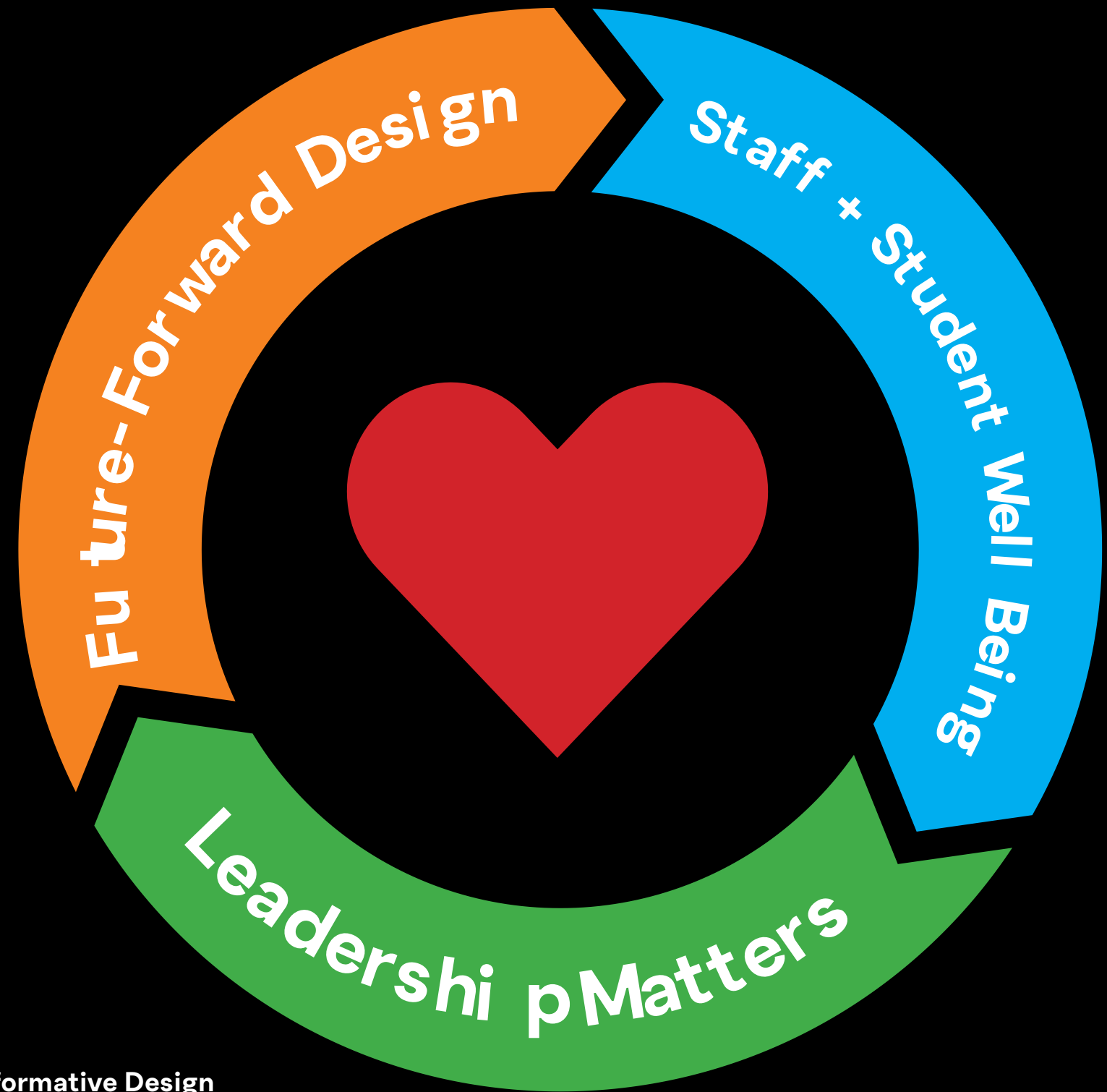






1. LOBBY
2. ADMINISTRATION
3. INNOVATION CENTER
4. STEM LAB
5. LEARNING RISER
6. LEARNING TREE
7. SLIDE
8. ART
9. MUSIC
10. GYMNASIUM
11. STAGE
12. CAFETERIA
13. OUTDOOR LEARNING LAB
14. SPECIAL EDUCATION
15. KINDERGARTEN CLASSROOMS
16. FIRST GRADE CLASSROOMS
17. SECOND GRADE CLASSROOMS
18. THIRD GRADE CLASSROOMS
19. COLLABORATION COMMONS
20. RAIN GARDEN
21. PLAYGROUND
22. FOURTH GRADE CLASSROOMS
23. FIFTH GRADE CLASSROOMS
24. LARGE GROUP INSTRUCTION

# LOVE what you DO!







# Leadership MATTERS!

## What is your leadership lens?

The right culture connects emotions with design.

Without it, we have a system of compliance and routines without a vision.



# What Impact are You Leaving for Your Scholars?

**In a world that is constantly changing,  
are you impacting it in a way that changes ideas,  
provokes creativity, and inspires positive thinking?**



# Your Mindset Changes the Outcome!

How does your  
environment  
impact student  
learning,  
emotional growth,  
and personal  
experiences?

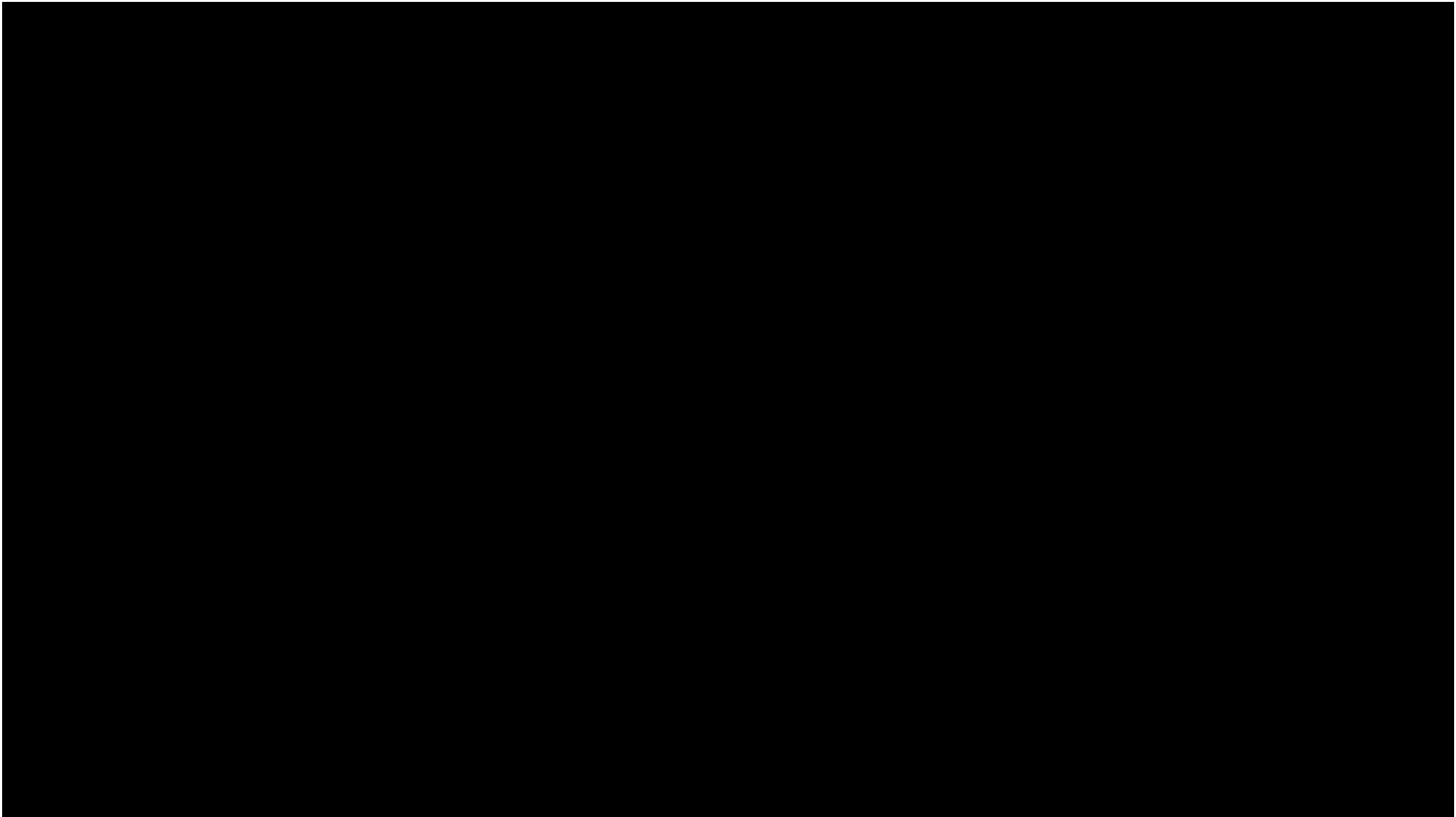


# HAPPINESS is an AMAZING Feeling!

How can this positively  
affect a students social and  
emotional well-being?



**Love How You Learn!**





**Change the OUTCOME!**

**Children in constantly fearful environments struggle to regulate their nervous systems.**

**Instead of understanding their fear, we often punish their behaviors.**

**Schools can be the safe spaces where we model neural exercise for regulation.**



# Interconnectedness of 'Innovative' Learning Environments

All of it has a purpose.

It's not about being fearful or a pioneer.

It's about being proactive and  
connecting innovative learning  
environments to the needs of  
our quickly changing learners.



# Have a Vision That Challenges Your Design Lens

Invest in the learner that  
hasn't started school yet.

Your vision is focused on students,  
not whether the teacher desk and  
filing cabinets are large enough.

Change is a good thing  
in education!



# Will Your Environments Support Kids in 5, 10, or 20 Years?

Past practice shouldn't  
define future needs.

Value learner changes today.

Pivot your thinking  
for growth tomorrow.



# Responsibility to be Responsive with Design

**Prioritize what we do  
for our staff and students.**

**The environment  
must connect with all  
scholars and educators  
in a responsive and  
responsible manner.**



The background image shows a spacious, modern library or learning center. In the foreground, a large area of artificial green grass is installed on the floor. A person is lying on their back on the grass, reading a book. Another person is sitting on the grass, also reading. To the right, there are several tall, white bookshelves filled with books. The walls are made of wood paneling, and the ceiling is high with large windows and modern lighting fixtures. The overall atmosphere is bright and inviting.

# Think CREATIVE! Dream Big! Have Fun!

A positive culture understands space, realizes the potential of all, and relates to culture and climate.

Leaders need to dream bigger than what they ever experienced as a learner!



## TRADITIONAL



**Be Different,  
Think Different!**

## FUTURE-FORWARD DESIGN



# Applying 'PAL' Environment Principles to Existing Schools

Walnut Grove  
Elementary K-2



# Applying 'PAL' Environment Principles to Existing Schools

**Walnut Grove  
Elementary K-2**



# Applying 'PAL' Environment Principles to Existing Schools

**Walnut Grove  
Elementary 3-5**

# Applying 'PAL' Environment Principles to Existing Schools

**Walnut Grove  
Elementary 3-5**



# Thank You!



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# Thank You!

Please scan the QR code to  
provide session feedback.



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