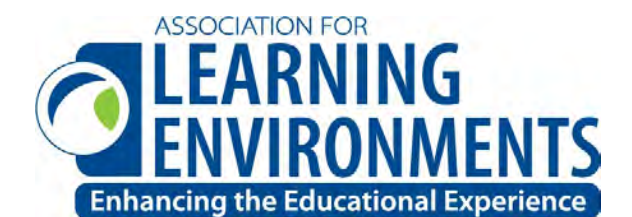


# **Growing Minds, Grounded Spaces:** Nature–Centered Design for Early Adolescents

APRIL 22, 2026



**CORGAN** 

# Learning Objectives

1

## COMMUNITY ENGAGEMENT

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Apply insights from community-engaged design processes to envision learning environments that integrate wellbeing, nature, and aspirational design to inspire growth and belonging in early adolescent learners.

2

## STUDENT GROWTH AND DEVELOPMENT

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Understand the developmental characteristics of early adolescence (grades 5–6) and how learning environments can be calibrated to support students' growing independence, curiosity, and need for connection.

3

## EVIDENCE-BASED DESIGN STRATEGIES

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Explore how research-informed, developmentally aligned design strategies can foster inquiry-based learning, collaboration, and a strong sense of community for intermediate-level students.

4

## NATURE-CENTERED DESIGN

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Examine the role of nature-centered design – including outdoor learning spaces, landscape connections, and access to daylight – in supporting student wellbeing, engagement, and holistic development.

Growing Minds, Grounded Spaces: Nature-Centered Design for Early Adolescents

# Introductions



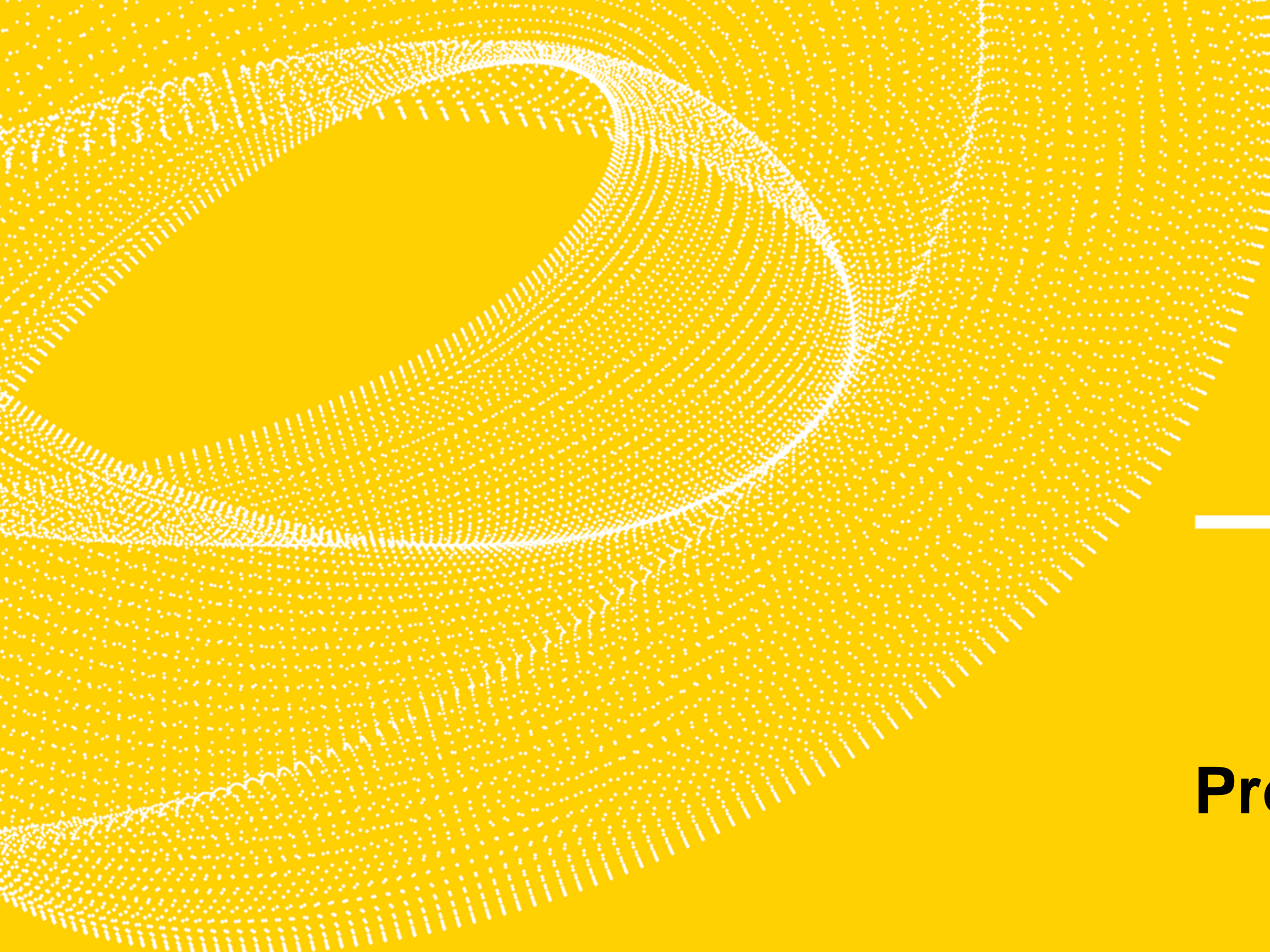
**Keith Cummins**

Senior Project Manager – Associate  
Principal

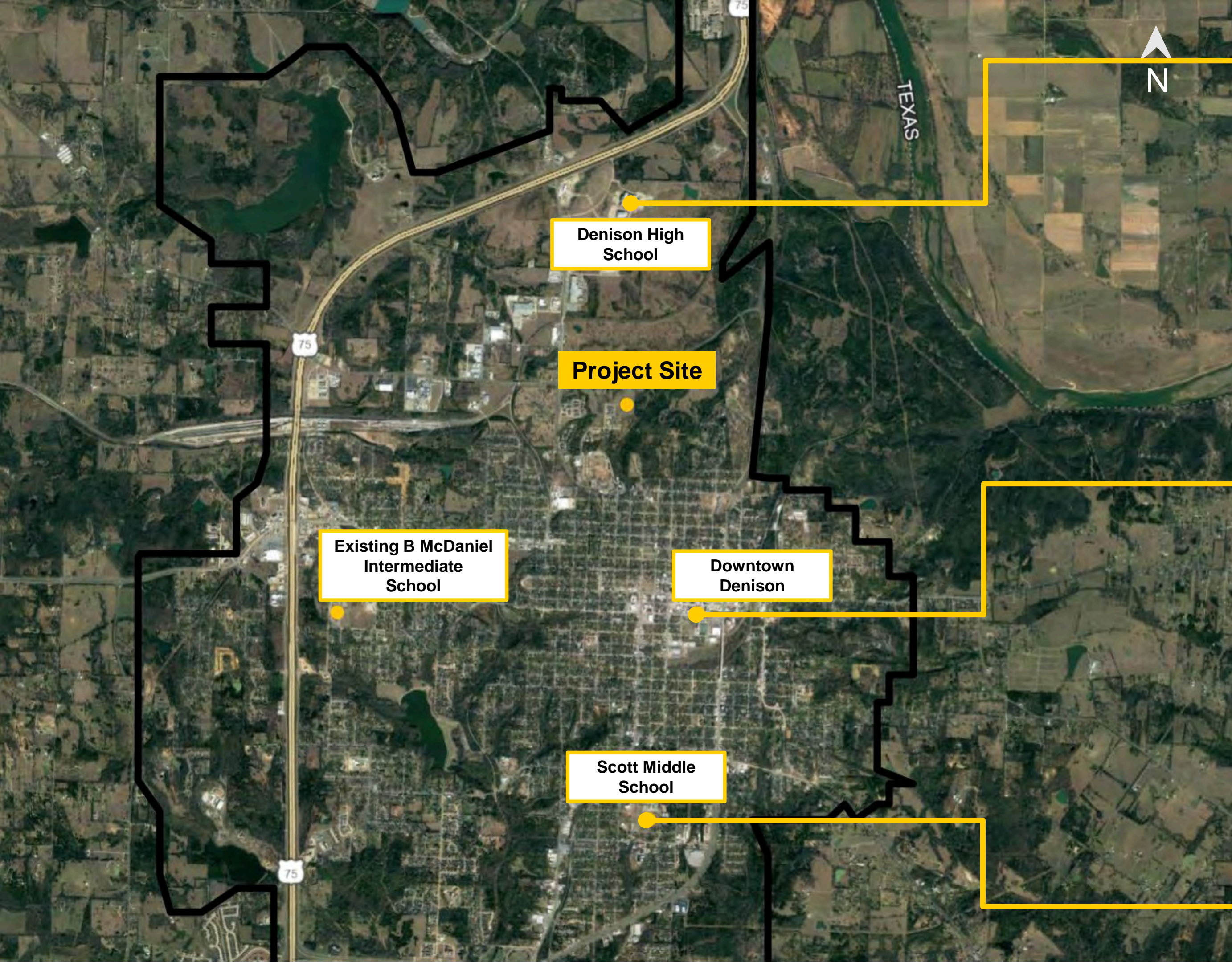


**Kelly Arredondo**

Interior Design Project Manager



## **Project Background**





B MCDANIEL  
INTERMEDIATE  
SCHOOL

400

FIRE LANE NO PARKING

FIRE LANE NO PARKING

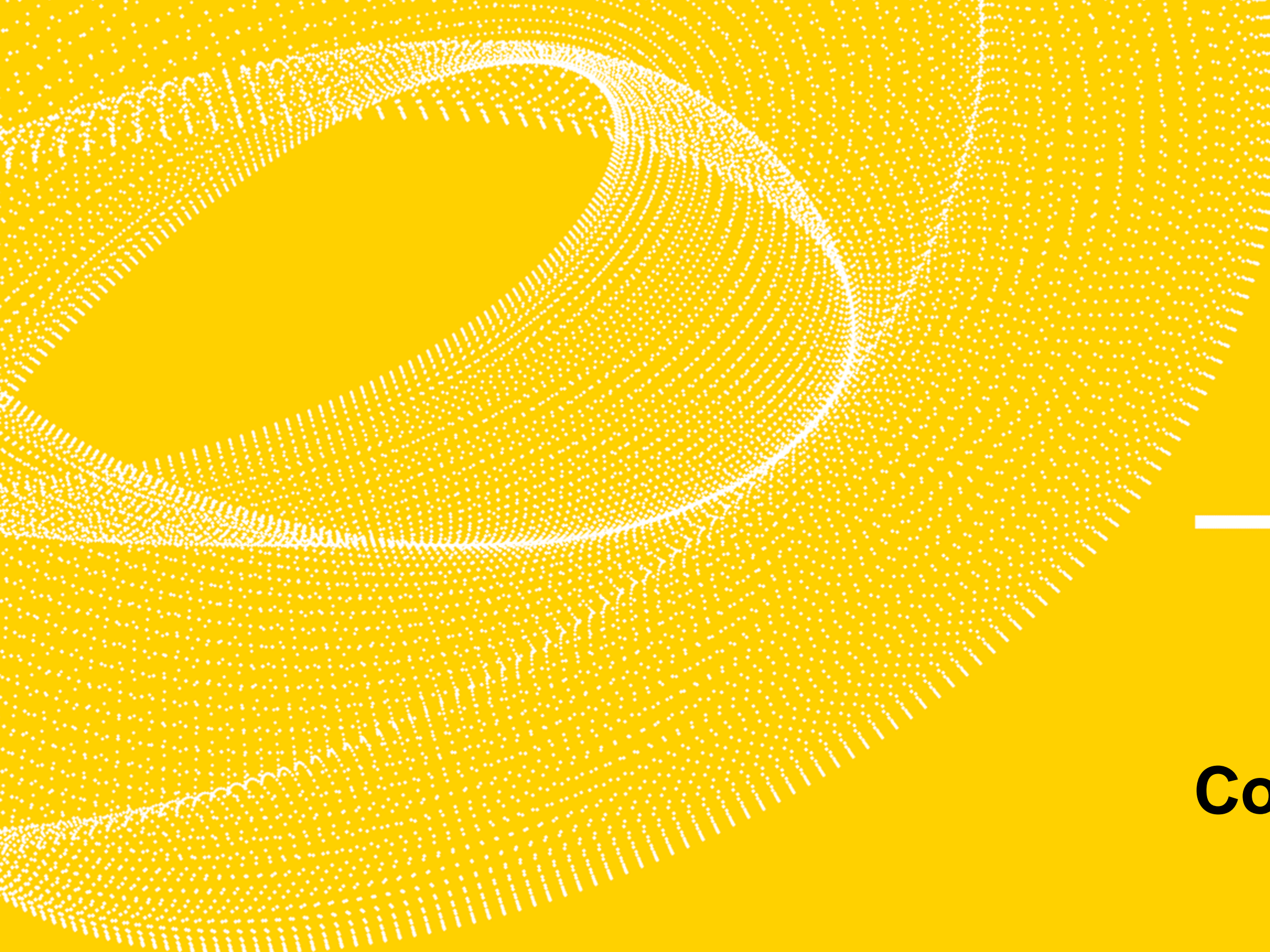
FIRE LANE NO PARKING

Existing B McDaniel Intermediate School



B McDANIEL INTERMEDIATE SCHOOL  
1000

New B McDaniel Intermediate School



**Community Engagement**

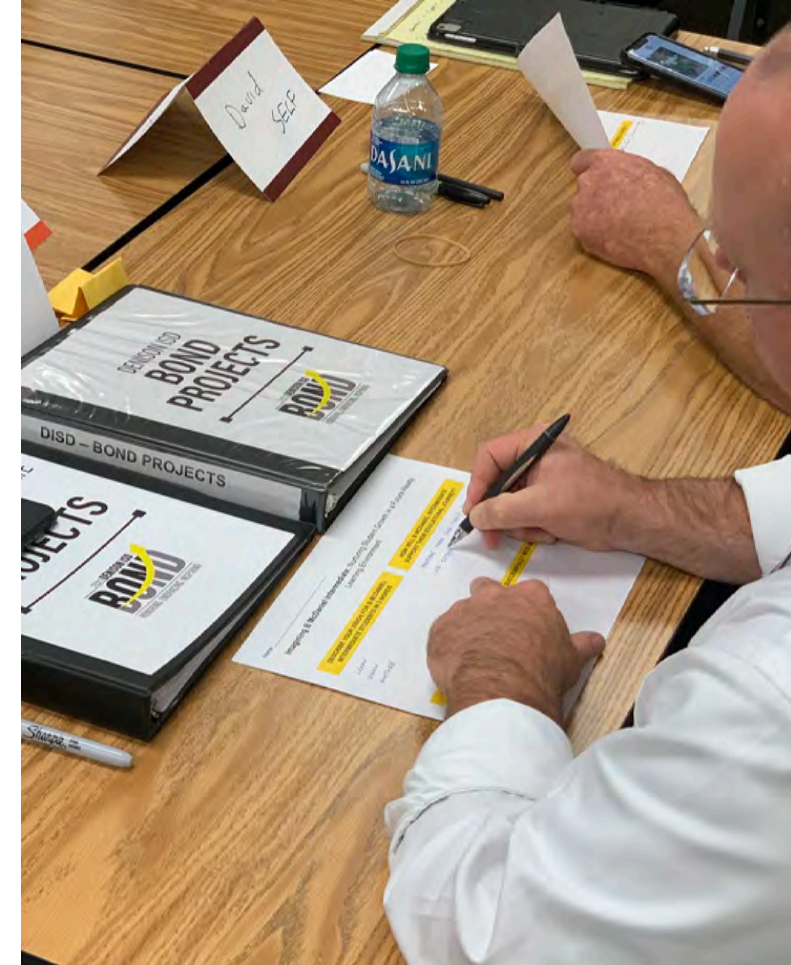
Community Engagement

## Shaped by the Community

*Well-informed design begins with a deep understanding of a community's unique needs, challenges, aspirations, and goals for their project.*

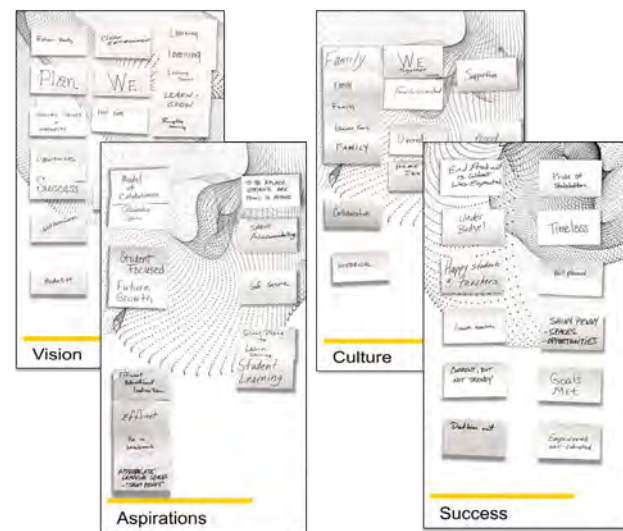
Corgan partnered with district leadership to conduct **four focused visioning sessions** with key district stakeholder groups:

- Denison ISD District Leadership
- B McDaniel Intermediate Campus Groups
  - Students
  - Faculty
  - Community



# Experience

Imagining the look and feel



- **Future-Ready Learning:** Building skills and passions for what comes next.
- **Sense of Safety:** Secure, welcoming spaces where learning can thrive.
- **Spirit of Community:** Fostering connection, belonging, and school pride.
- **Inspire Curiosity:** Encouraging exploration through visible, inquiry-driven learning.

# Aesthetics

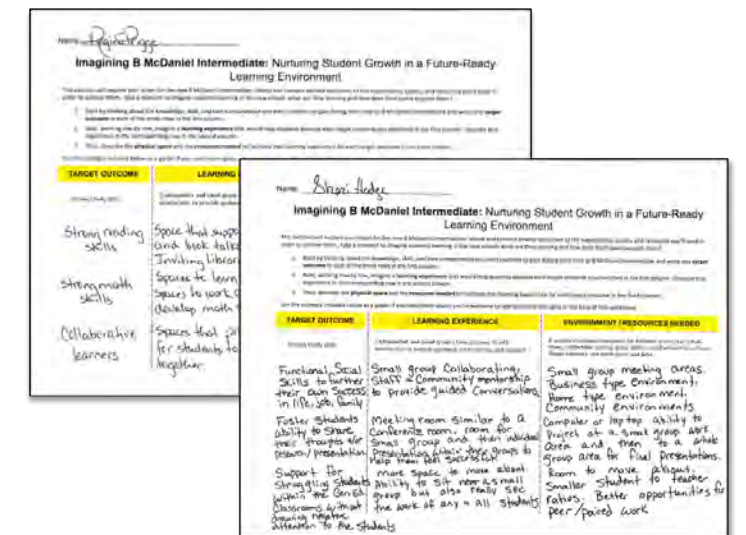
Defining aspirations, goals, and desired opportunities



- **Traditional, Yet Modern:** Timeless design with a contemporary edge.
- **Balanced Materiality:** Natural textures and color in warm, harmonious balance.
- **Connection to Nature:** Daylight, materials, and views that bring the outdoors in.

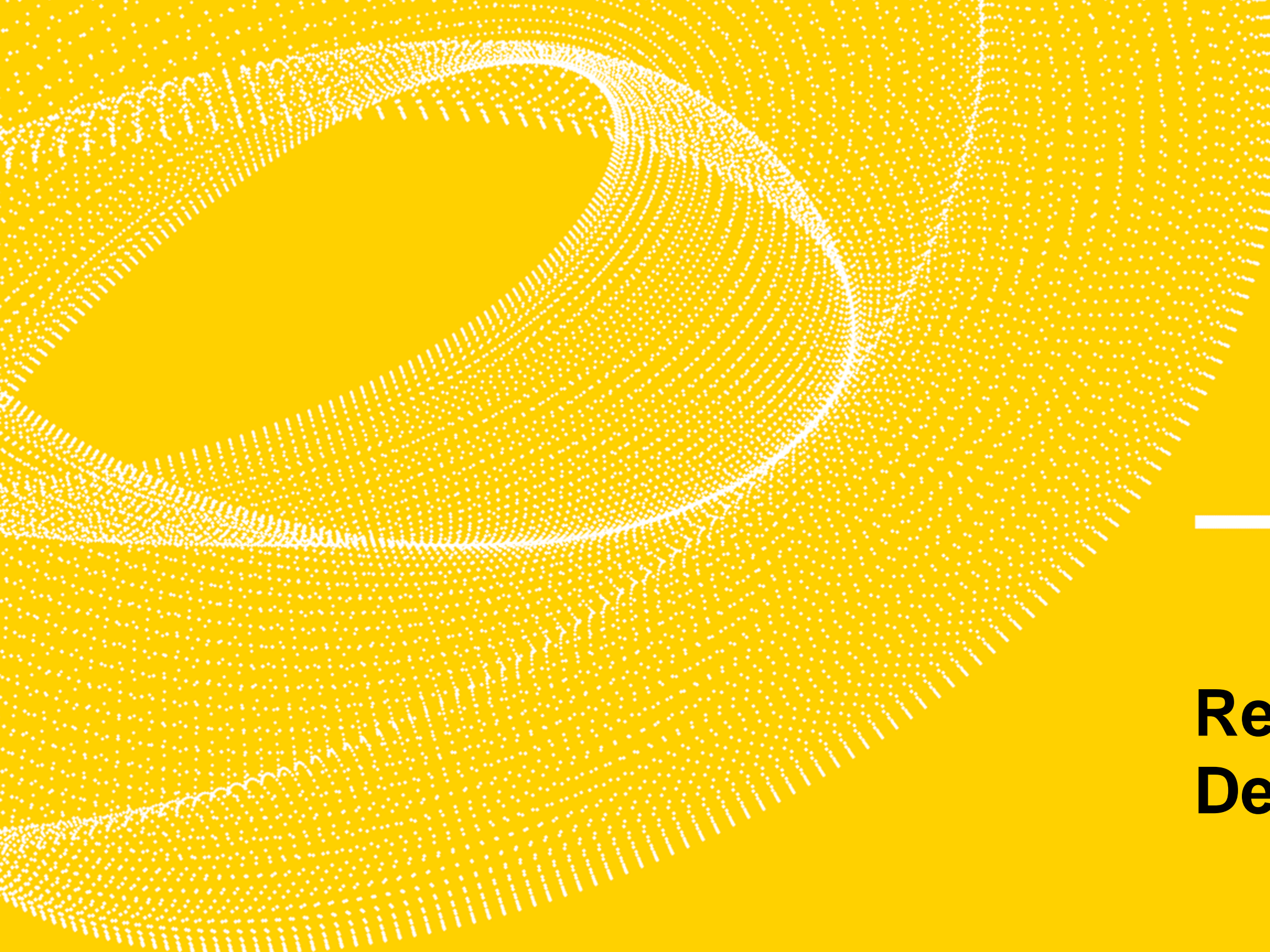
# Function

Defining learning opportunities and affordances



- **Flexibility:** Spaces that adapt to multiple learners, groups, and activities.
- **Variety of Opportunities:** Inspiring environments for creativity, connection, and exploration..
- **Direct Accessibility:** Equitable access to shared spaces and resources from every classroom.

Collaborative Environment	Connection to Nature	Safety and Security	Community Feel	Support for Growing Independence
Direct access and equal proximity to collaboration spaces from all classrooms	Celebrate the natural beauty of the site with views and access to the outside	Create layers of security to provide a feeling of protection	Break down the larger scale of the school with smaller pods	Balance monitoring and teacher support with opportunities for student-led learning
Create transparency and strategic connections between spaces	Embrace the topography of the site in the building massing and placement on the site	Design for a gradient of public to private space to provide privacy and separation	Design aesthetic should be timeless and classic, yet modern to reflect the Denison community	Create collaborative spaces for small group interaction and project work
Provide workspaces and spaces for teacher collaboration to support teaming and co-teaching	Provide nature-based learning experiences and amenities, including outdoor learning spaces and garden beds	Courtyard should be an enclosed, defensible space that feels open yet secured	Create natural gathering spaces within the school where students, teachers, and the broader community can come together	Support “future-ready learning” with integrated technology and spaces geared for skills-based experiences
Furniture should be easily reconfigurable and flexible for different group sizes and activities	Utilize natural materials like stone, brick, and wood	Design for psychological safety – consider visibility (internal and external) and opportunities for refuge	Integrate graphics and branding that reflect the community and integrate history	Ensure programs that nurture student passions are on display- arts, athletics, STEM, and outdoor learning



# **Research-Informed Design Solutions**

## LEARNING AND DEVELOPMENT

Understanding developmental characteristics of early adolescence.

## SUPPORTING WELLNESS

Exploring how the educational environment can support whole learners and faculty.

## RESEARCH-BASED DESIGNS

## BELONGING AND SENSE OF PLACE

Activating “place” to foster meaningful connection, community, and school pride.

## FUTURE-READY LEARNING

Anticipating what’s next to prepare students for future success.

# Developmental Characteristics of Early Adolescence



Developmental Characteristics of Early Adolescence

# Immersion

The transition from home to school during early childhood introduces students to a new environment brimming with challenging experiences and opportunities to explore, connect, and grow.

# Identity

As a learner develops their capabilities and interests, a passion for independence and exploration grows. The ability to uniquely impact their surroundings and make meaningful connections strengthens and molds their identity.

# Purpose

Emerging adults are shaped by their experiences, passions and a developing sense of purpose. The jump into the "real-world" is a significant one that provides both opportunity and stress.

*Primary*

*Secondary*

*Higher Education and Workforce*



**What will I discover?**



**How can I make my mark?**



**Do I have what it takes?**

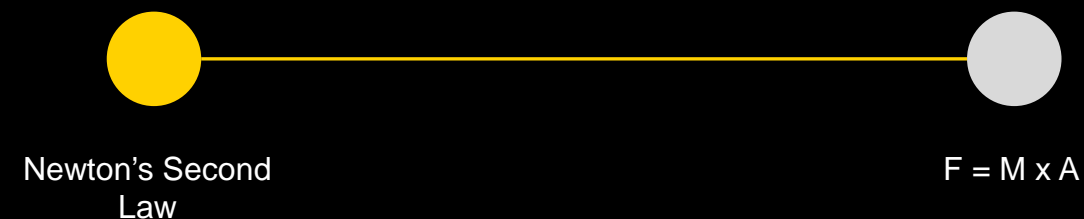
## Developmental Characteristics of Early Adolescence

## Passive Learning

Focuses on the cognitive experience of internalizing new information presented by a teacher or expert.

Students listen, but are not physically engaged, experimenting, or exploring as they learn.

Passive Learning creates **weaker, more limited neural connections.**



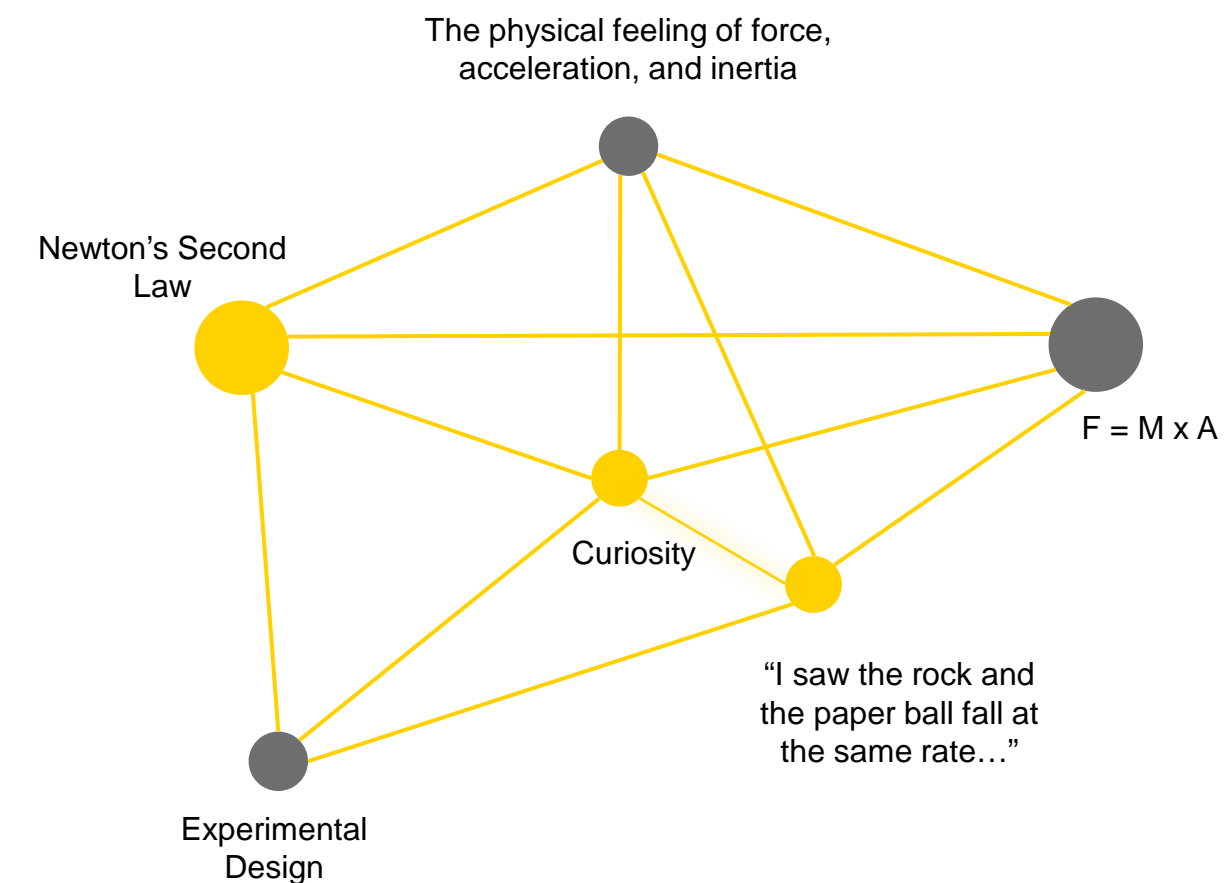
(Hoogendoorn, 2015; Herold, 2019)

## Active Learning

Encourages students to engage their mind, their body, and their environment as they learn.

Student-led, hands-on, inquiry-based experiences.

Active learning forms more deeply embedded and more easily retrievable memories and **more effective learning outcomes.**



## Developmental Characteristics of Early Adolescence

### MIND

- Learning is student-led and inquiry-based
- Creativity and problem-solving are encouraged through divergent and critical thinking
- The formation of generalized knowledge is the goal

### BODY

- Movement is encouraged through hands-on activities
- Increased sensory engagement takes advantage of the body's natural perceptual capabilities

### ENVIRONMENT

- Engage the social, cultural, technological, natural, and material environment
- Holistic learning environments connect students to the real world
- Integrate real-life experiences into the classroom

## What is Active Learning?

Treats **learning as a process based in experience** — Integrates a student's mind, body, and environment

ENVIRONMENT

MIND

BODY

Generation Alpha

# Designing for Generation Alpha and Beyond

## WELLNESS

- Outdoor Learning
- Natural Elements and Materials
- High Quality Environment
- Holistic Perspective
- Mitigate Sources of Stress

## DEVELOPMENTAL ALIGNMENT

- Spatial-Developmental Compatibility
- Adaptability and Flexibility
- Experiential Focus
- Affordances and Learning Opportunities
- Collaboration and Mentorship

## HANDS-ON LEARNING

- Innovative, Exploratory Learning
- High-Fidelity Environments
- Industry Partnerships
- Integrated Technologies
- Balanced Grounded / Tech Experiences



# Belonging and Sense of Place



Belonging and Sense of Place

# The Power of Place: What is Our Environment Communicating to Us?



## BELONGING

Place Attachment  
 Safety and Security  
 Connection  
 Identity  
 Pride



## VALUE

Show students they are valued and cared for by providing a high-quality learning environment



## HEALTH

Nature  
 Holistic Support  
 Biophilia  
 Restoration  
 Quality Environment



## BEHAVIOR

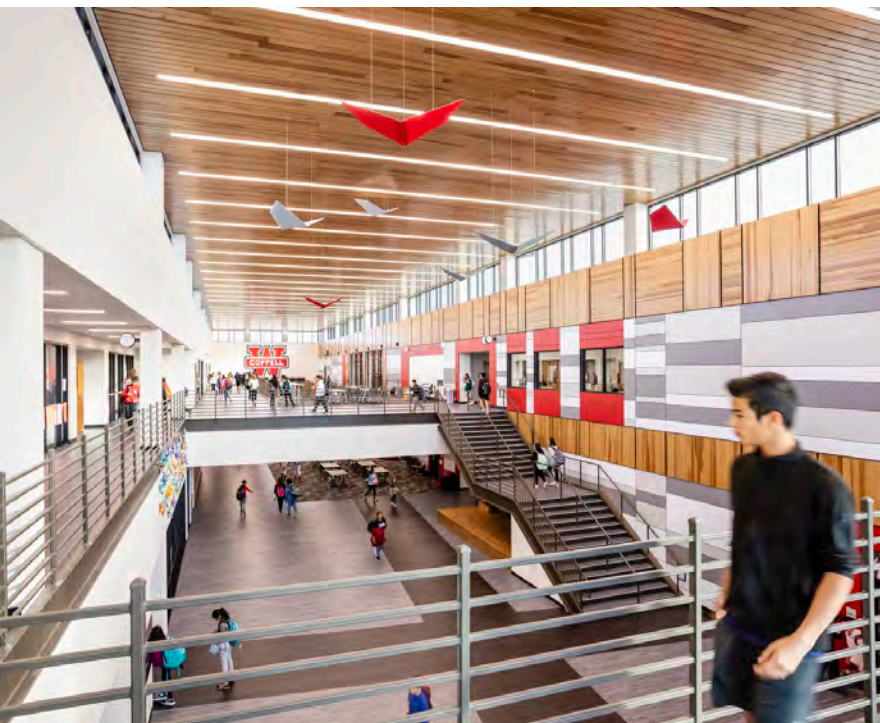
Cues in the environment guide behavior. Encourage learning, exploration, and interaction.



## OPPORTUNITY

Experiences  
 Tools  
 Technologies  
 Connections  
 Possibilities

## Belonging and Sense of Place



# Creating Places for Young Adolescents

**1 Promote Connectivity**  
Encourage cross-disciplinary thinking, peer interaction, and mentorship. Connect learning to the real world

**2 Support Growth**  
Provide opportunities for students to build autonomy and self-efficacy, discover passions, and develop their identity

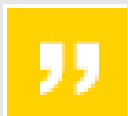
**3 Nurture Wellbeing**  
Promote the health and wellbeing of the whole student with restorative spaces and supportive features in a high-quality learning environment

## Connecting to “Place”

### *Place Attachment Theory*

**Place Attachment** is a cognitive-emotional bond between person and place

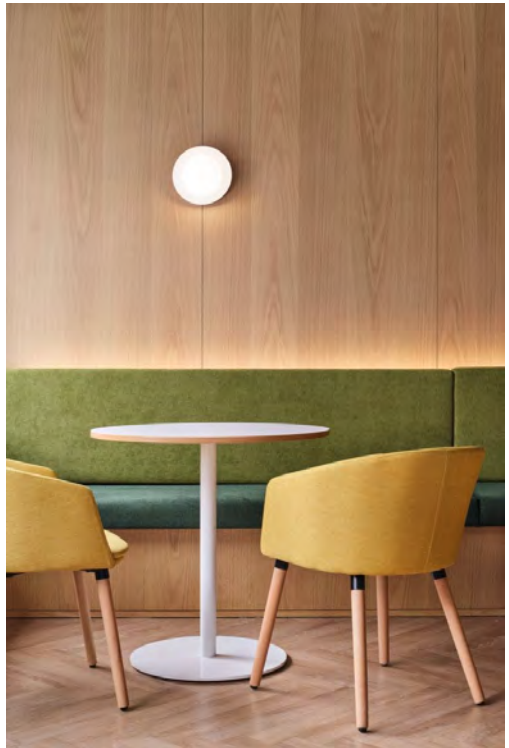
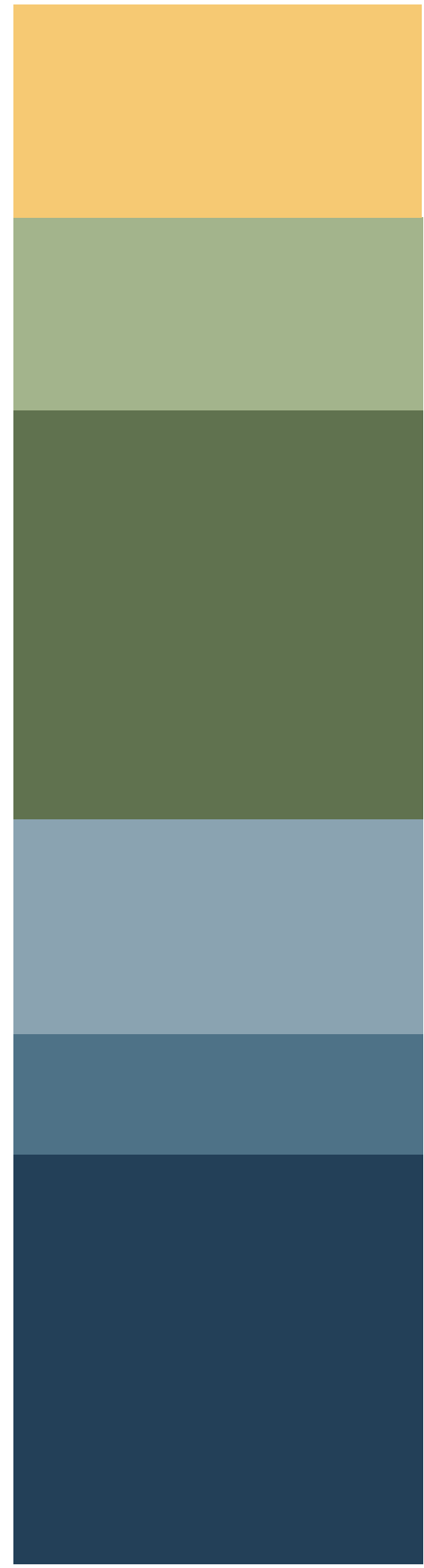
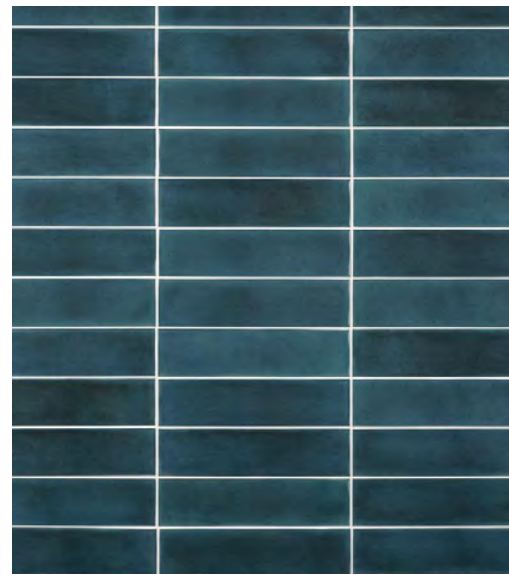
- **Development and Identity**
  - Shift from sensory to cognitive engagement with the world during adolescence
  - Memories, **goal attainment**, and connection to culture
- **Wellbeing**
  - **Belongingness** and social capital
  - Implications for **quality of life**, health, and life satisfaction
- **Place-Based Learning**



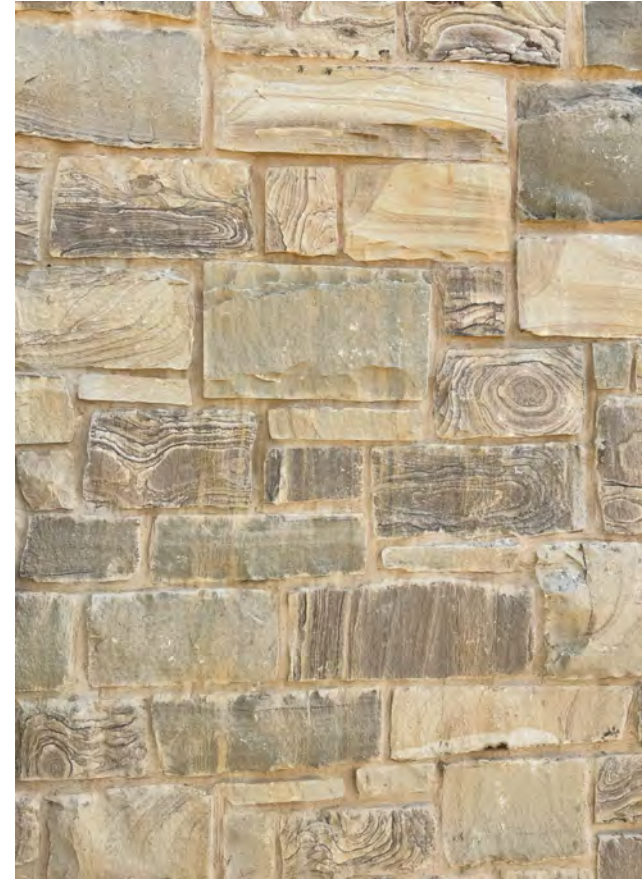
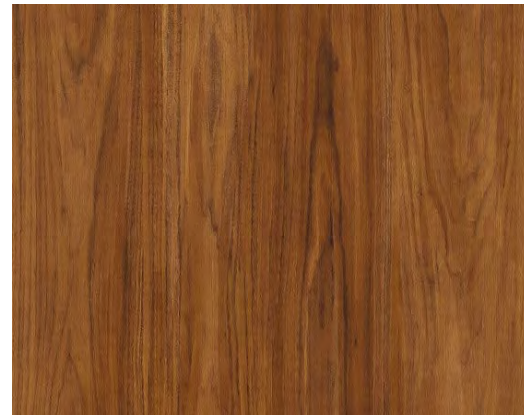
When the **socio-physical features of the place match the individual’s needs and goals**, place attachment is more likely.

*Scannell and Gifford - “The Experienced Psychological Benefits of Place Attachment”*

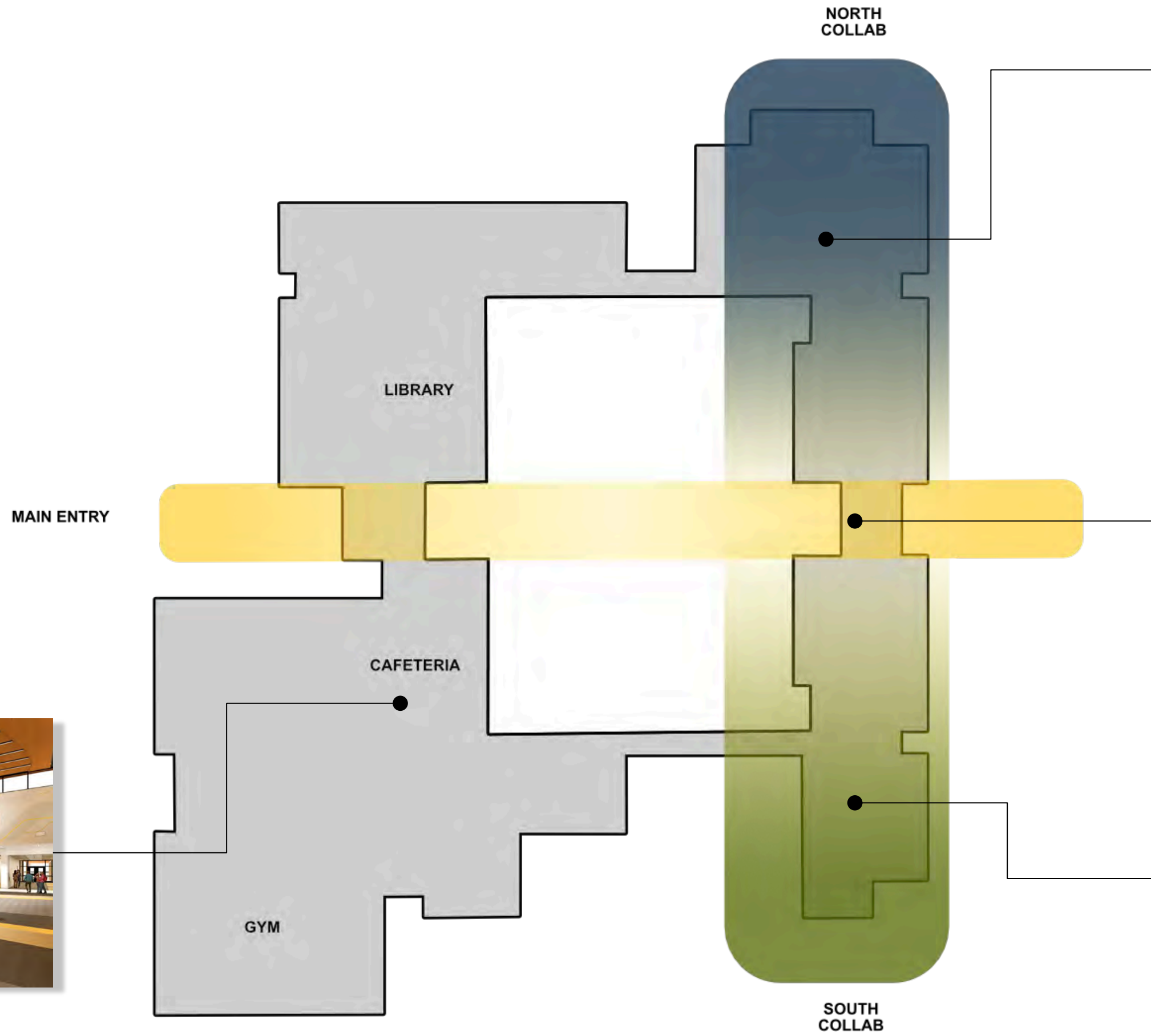




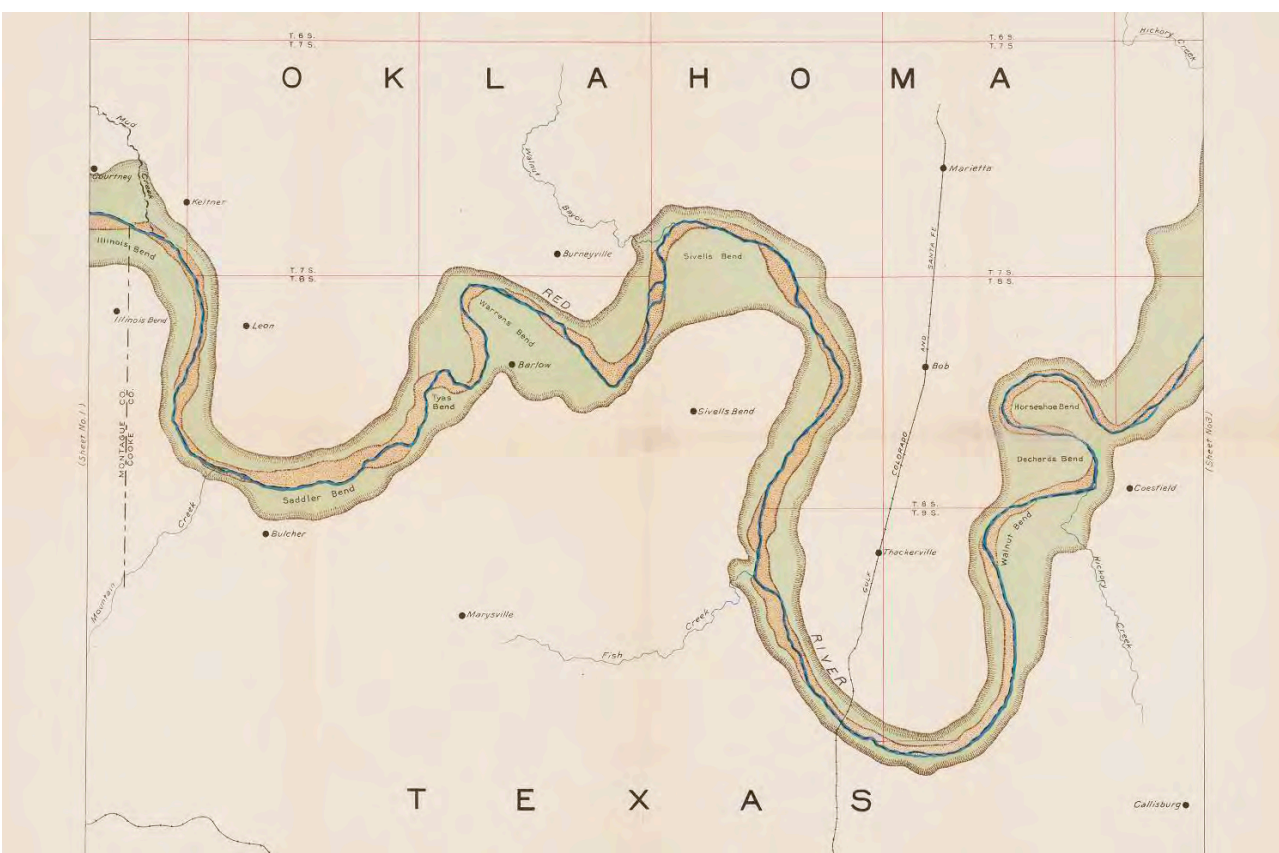
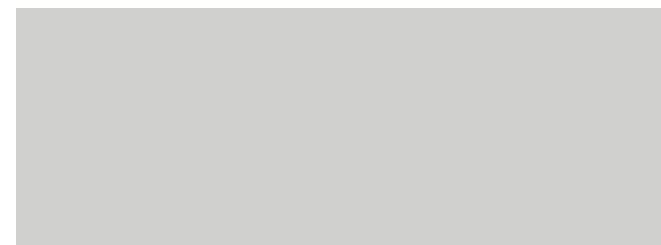
Nature  
Movement  
Warmth  
Identity  
Modern

# Branding & Identity



# Branding & Identity: Inspiration





Cafeteria

**B. McDANIEL  
YELLOW JACKETS**



North Classroom Pod



South Classroom Pod

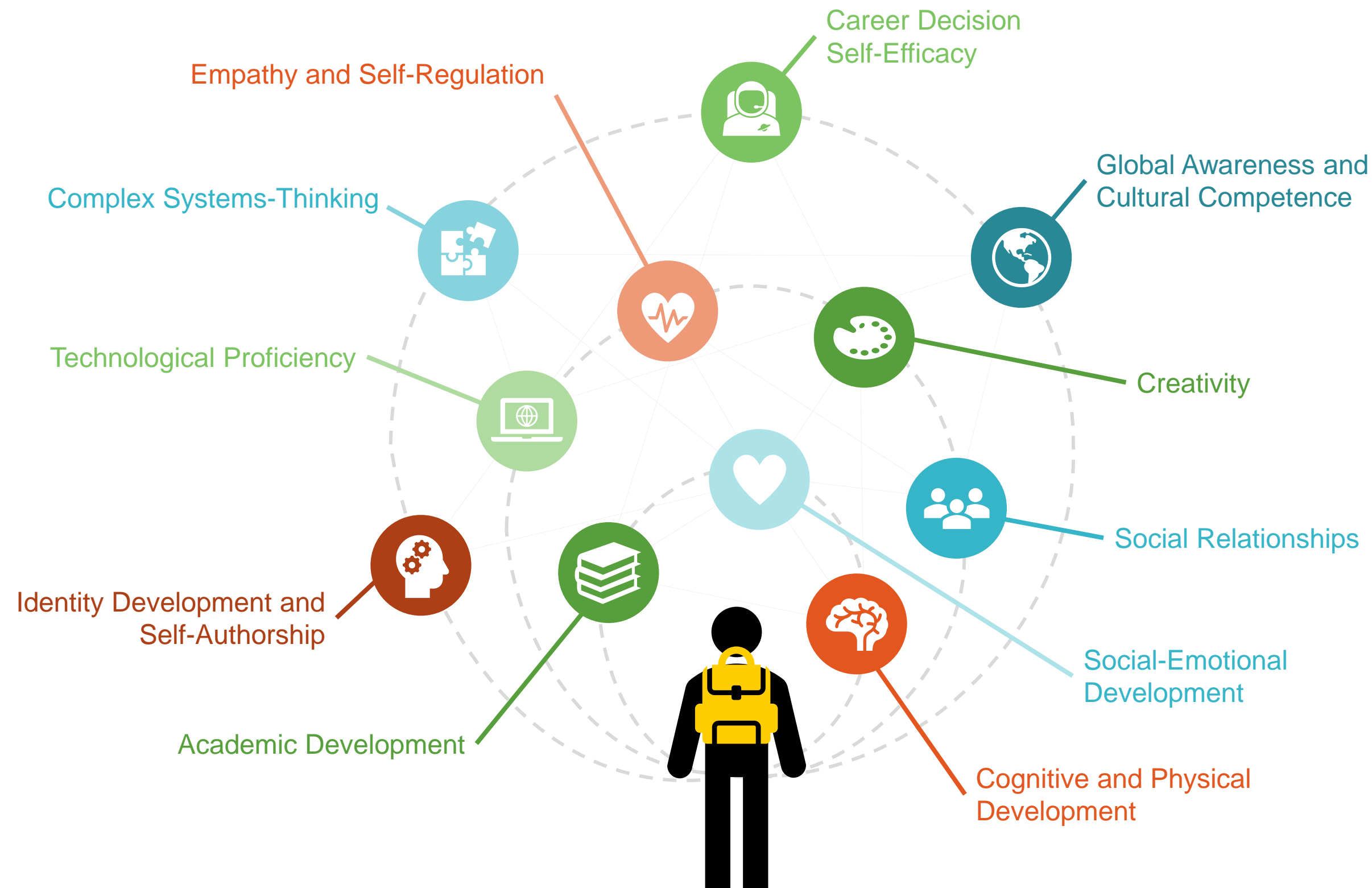
# Supporting Wellness



“ Among the emerging generations, there is an expectation that **all aspects of their life will provide the opportunity to thrive...**

— *McCrimdle*

# Wellness: Educating the Whole Person



Focusing only on supporting academic outcomes does not reflect the **full spectrum** of learning and development that occurs in school

Education and Design must address and support **academic, social, emotional, physical, self, cognitive, and career development**

## Supporting Wellness



# Considerations for Health and Wellness

## Sensory

High-quality environment with ample natural light, balanced stimulation, and spaces to decompress



## Social

Meaningful interaction, collaboration and mentorship with peers and staff

## Self

Opportunities for exploration, reflection, and growth

# The Benefits of Engaging with Nature

## *Health, Wellbeing, and Cognitive Performance*

### Cognitive Restoration

Natural environments **restore limited cognitive resources, mitigating symptoms of attention fatigue and ADHD**

[Berman et al, 2008; Kaplan and Berman, 2010; Kuo et al, 2004]

### Stress Reduction

Natural environments have a **stress reducing and physiologically restorative influence**

[Ulrich et al, 1991]

### Physical Health

**Exposure to wilderness and treescapes promotes overall health** (fitness, heart and respiratory health, immune function, and more)

[Neuroscience News, 2020; Texas A&M Forest Service]

### Wellbeing

Engaging with nature instills a **sense of wellbeing and calm contentment** due to the health benefits provided

[Neuroscience News, 2020; Landon et al, 2020]

### Learning Opportunities

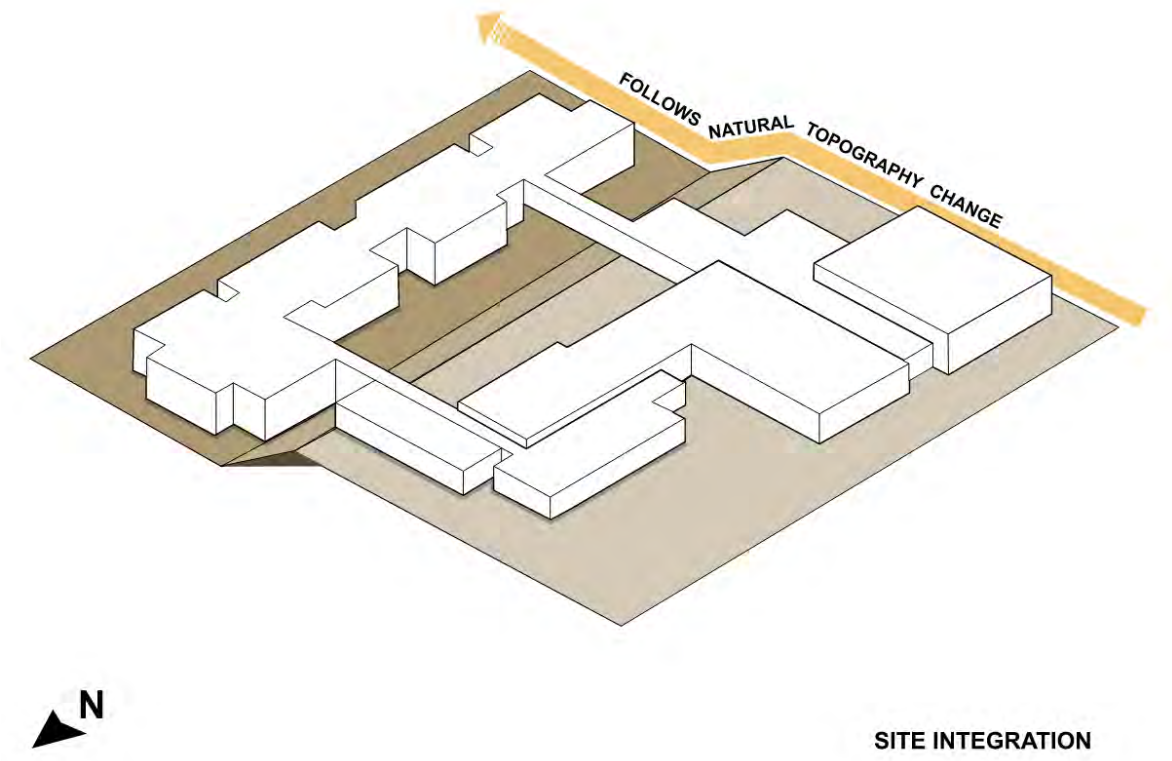
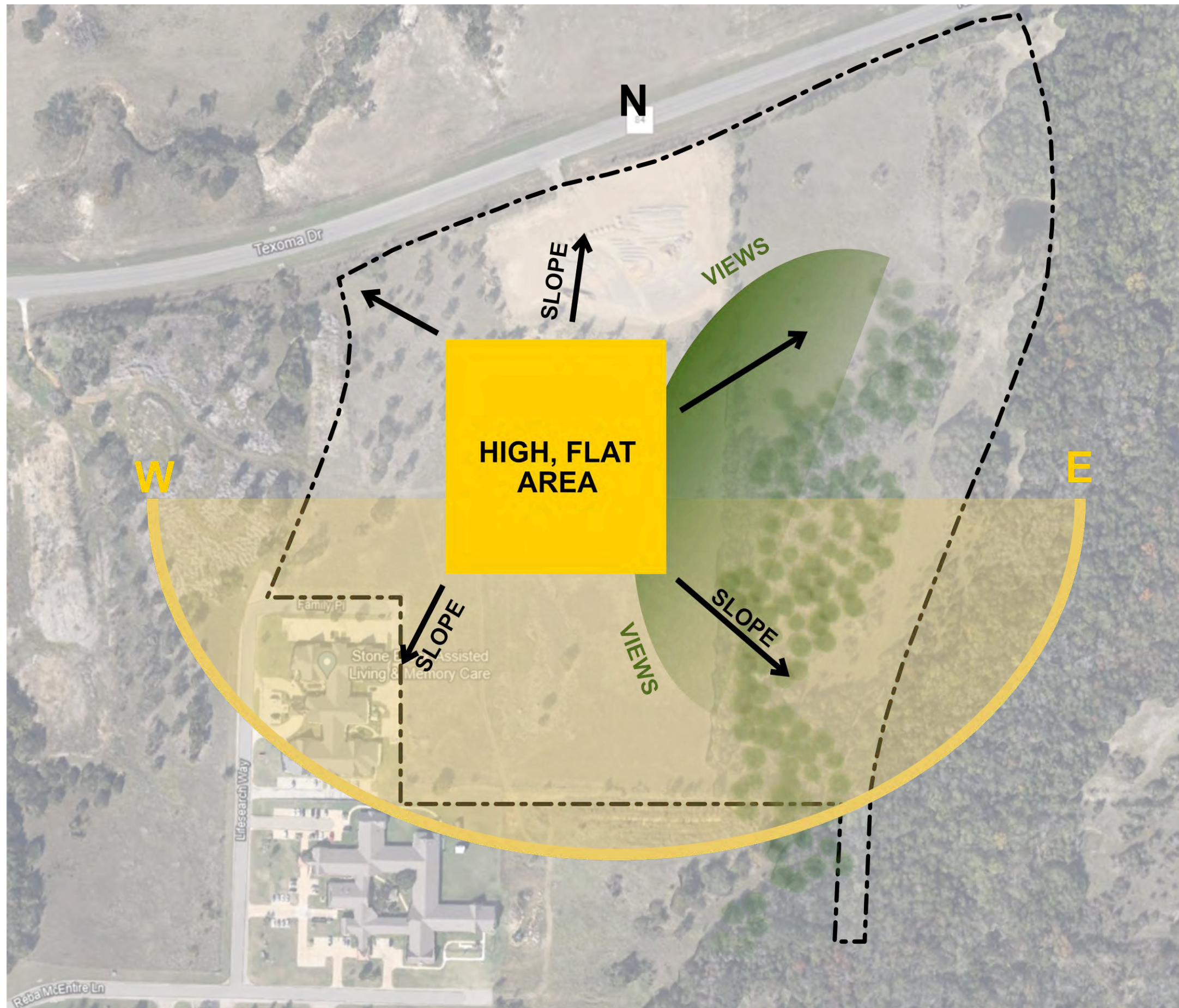
Outdoor learning can support **active, embodied learning experiences** that excite students and **connect them to the real world**

[Gill et al, 2018; Allal, 2001]

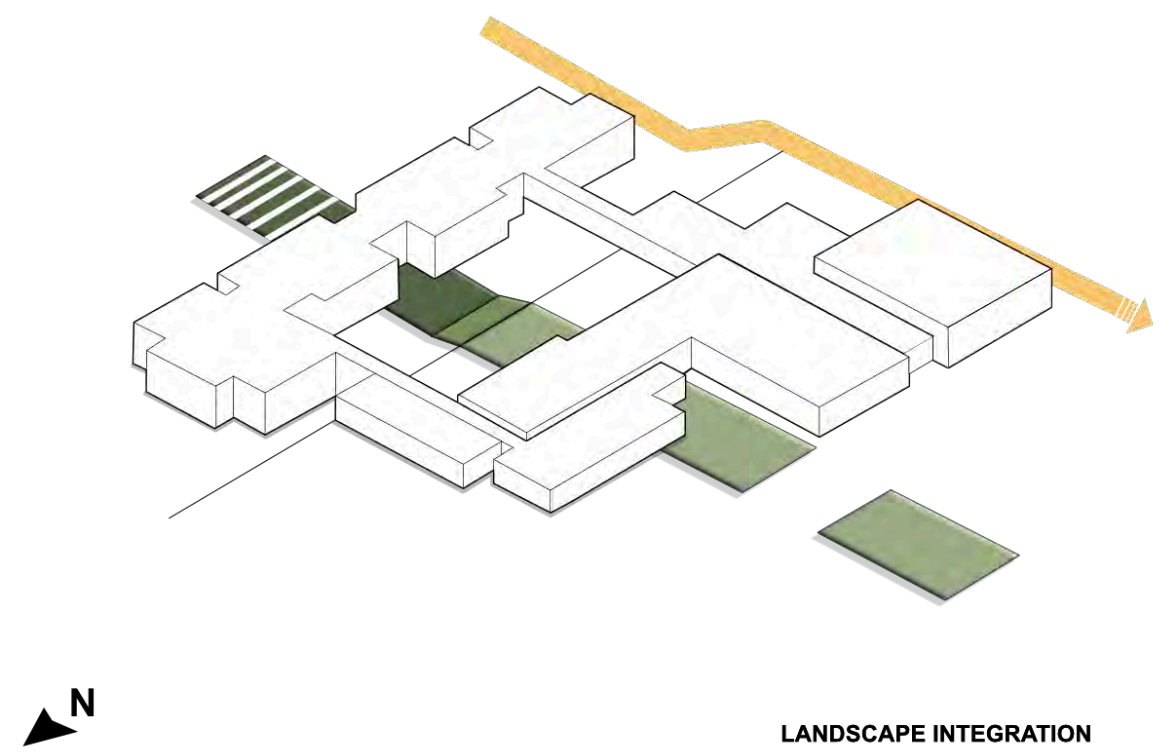
### Nature Play & Creativity

Nature play is less prescriptive and provides **benefits that cross over into the classroom:** improved imagination, originality, attention levels, and behavior

[Merrill, 2020; Dankiw et al, 2020]



SITE INTEGRATION



LANDSCAPE INTEGRATION

Supporting Wellness

## Design Strategies for Outdoor Learning

### Integrate Nature

The courtyard brings daylight, planting, and outdoor learning into the center of the school day.

### Inspire Fascination

Curved forms, layered spaces, and changing views invite curiosity and sustained engagement.

### Embrace Ambiguity

Flexible zones allow students and teachers to define how spaces are used.

### Promote Connectivity

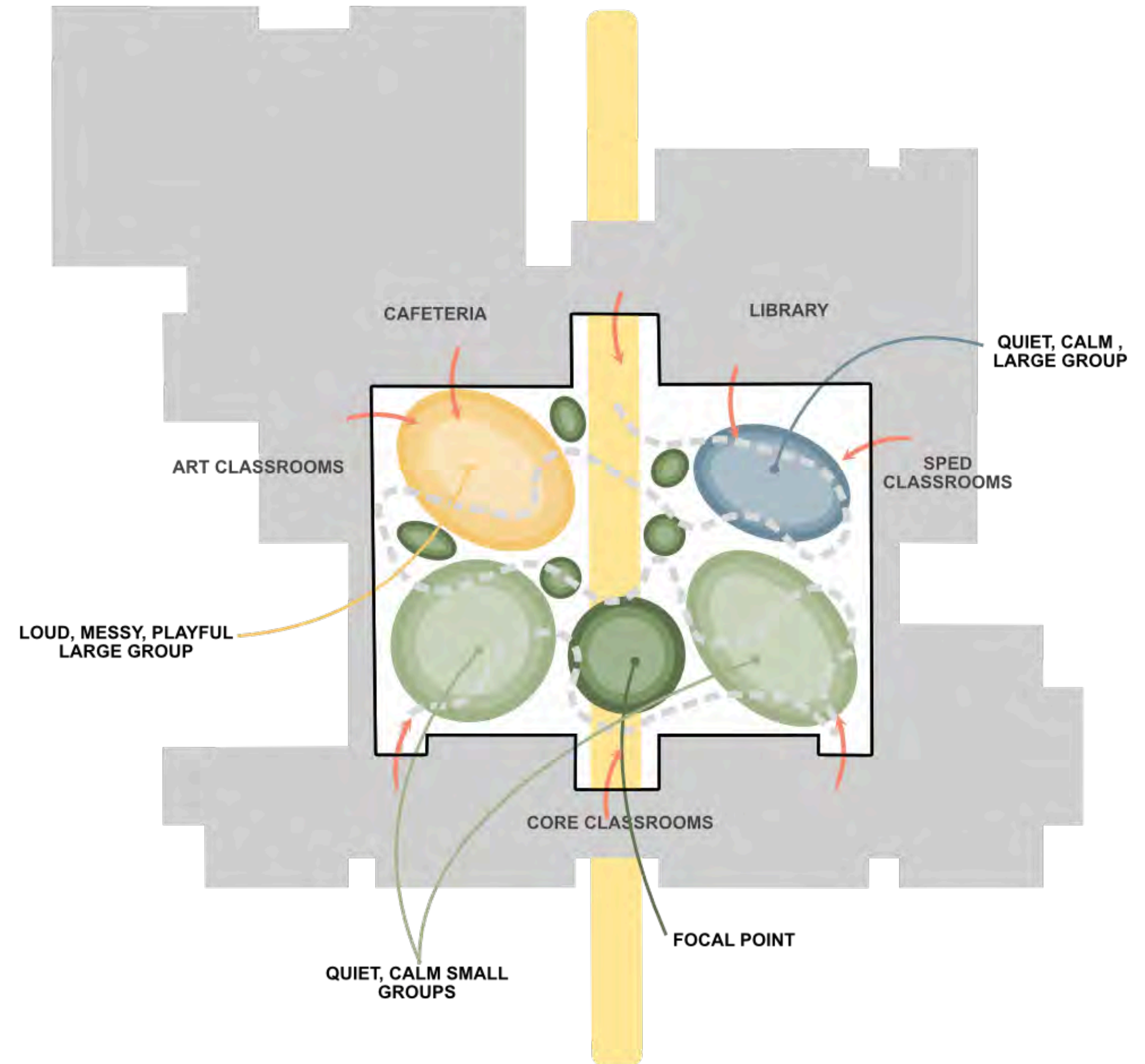
The courtyard links classrooms, shared spaces, and disciplines through visual and physical connection.

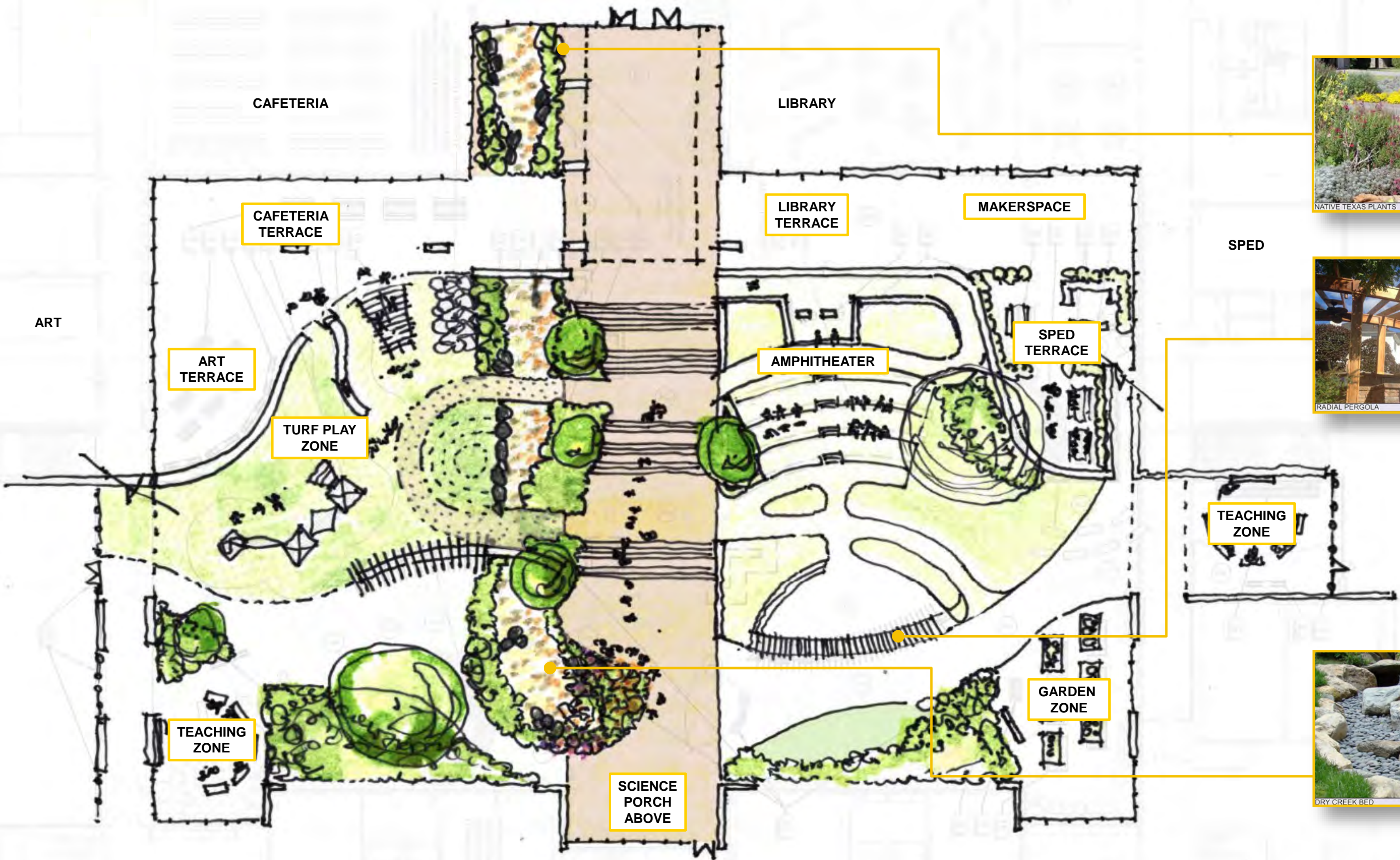
### Nurture Wellbeing

Calm retreats and active areas support emotional regulation, movement, and restoration throughout the day.

### Foster Discovery

Students explore, observe, and experiment as learning extends beyond the classroom walls.





# Walkthrough Video

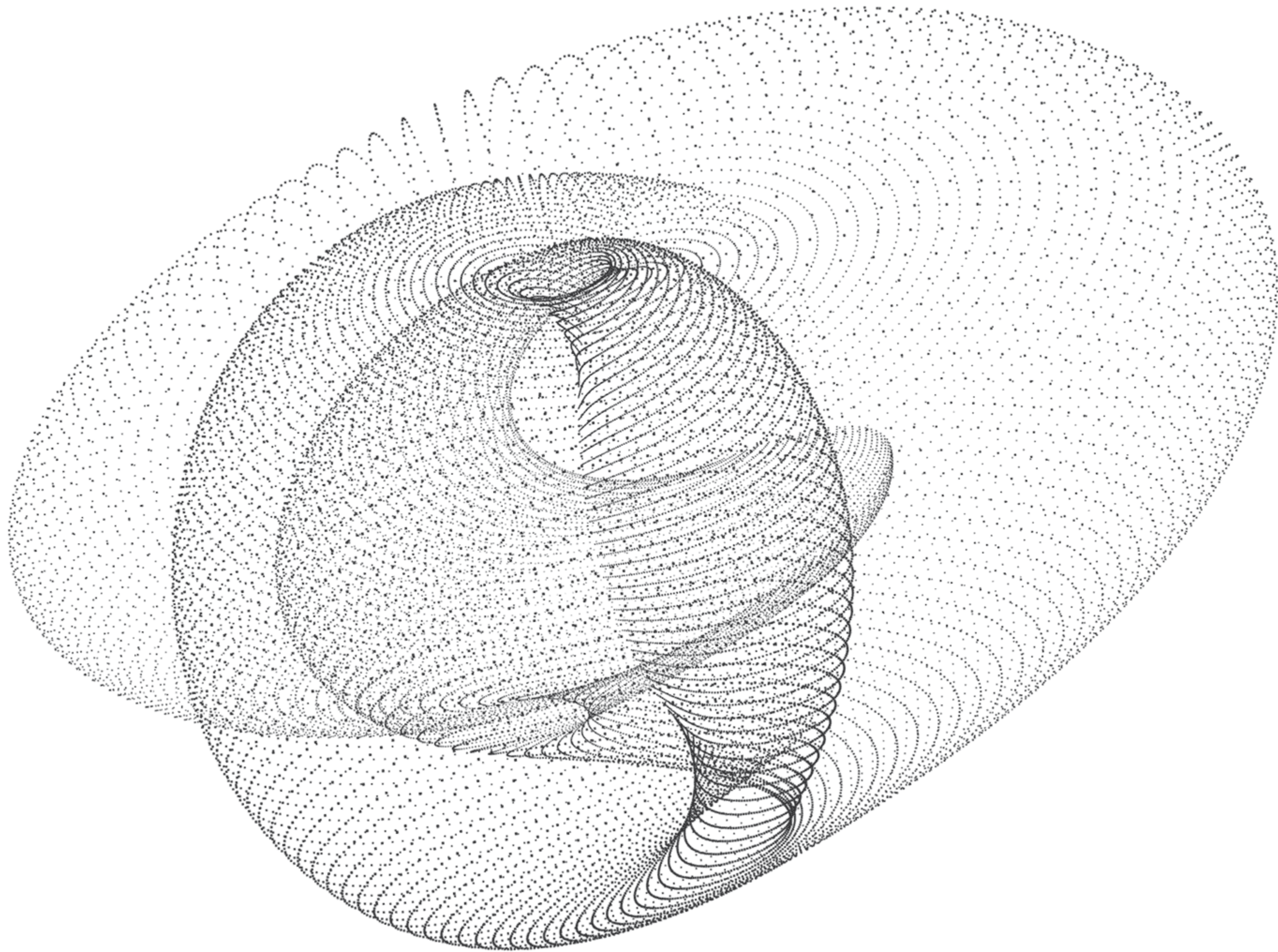


**WATCH HERE**

“The *more high-tech* education becomes, the *more nature* our children need”

- Richard Louv





Thank  
you!

## Denison ISD Future Planning

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update

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