



A4LE SOUTHERN REGION CONFERENCE

Entrepreneurs,
Experimenters, and
Creatives: **Agile
Mindsets for Future
Success**

SEM-104

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Entrepreneurs, Experimenters, and Creatives: Agile Mindsets for Future Success

Introductions



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Entrepreneurs, Experimenters, and Creatives: Agile Mindsets for Future Success

Learning Objectives



1 - Explore Influences Shaping 21st Century Learning

Connect insights from research in social demography, education, and the behavioral and brain sciences to understand the complex influences shaping education in the 21st century.



2 - Developing Future-Ready Mindsets

Explore future-focused mindsets for education and how students' learning experiences and environment could help to facilitate the development of valued skills and core competencies.



3 – Facilitate Innovative Learning Experiences

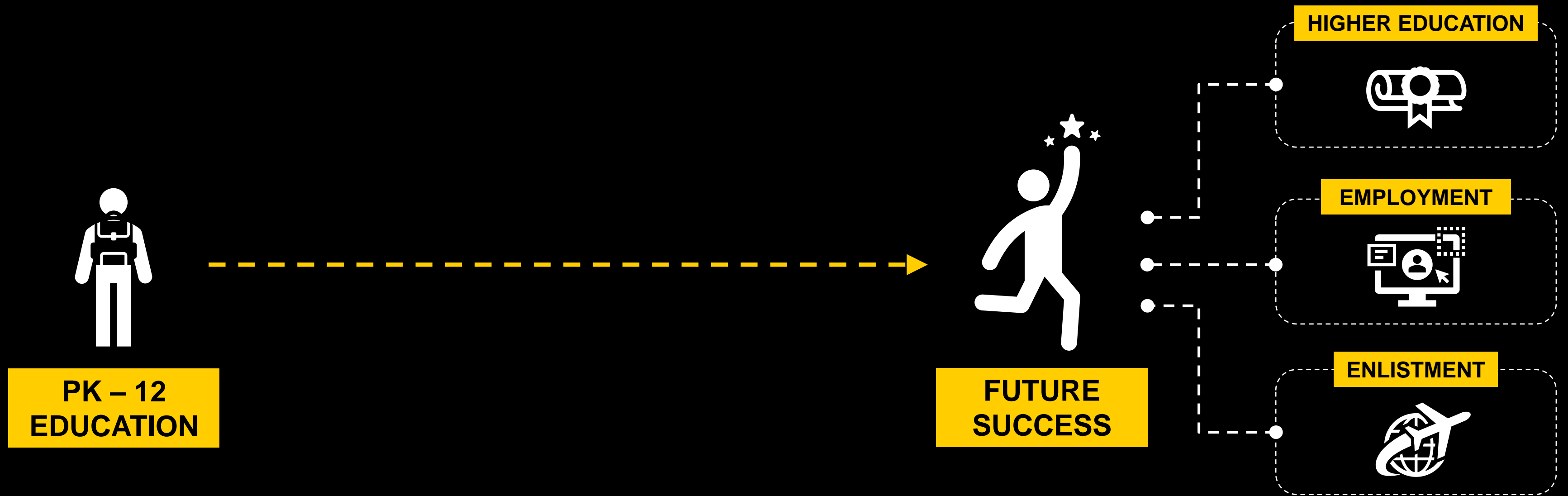
Integrate projections for the workforce of the future with relevant educational trends to develop relevant and innovative programs and learning experiences.



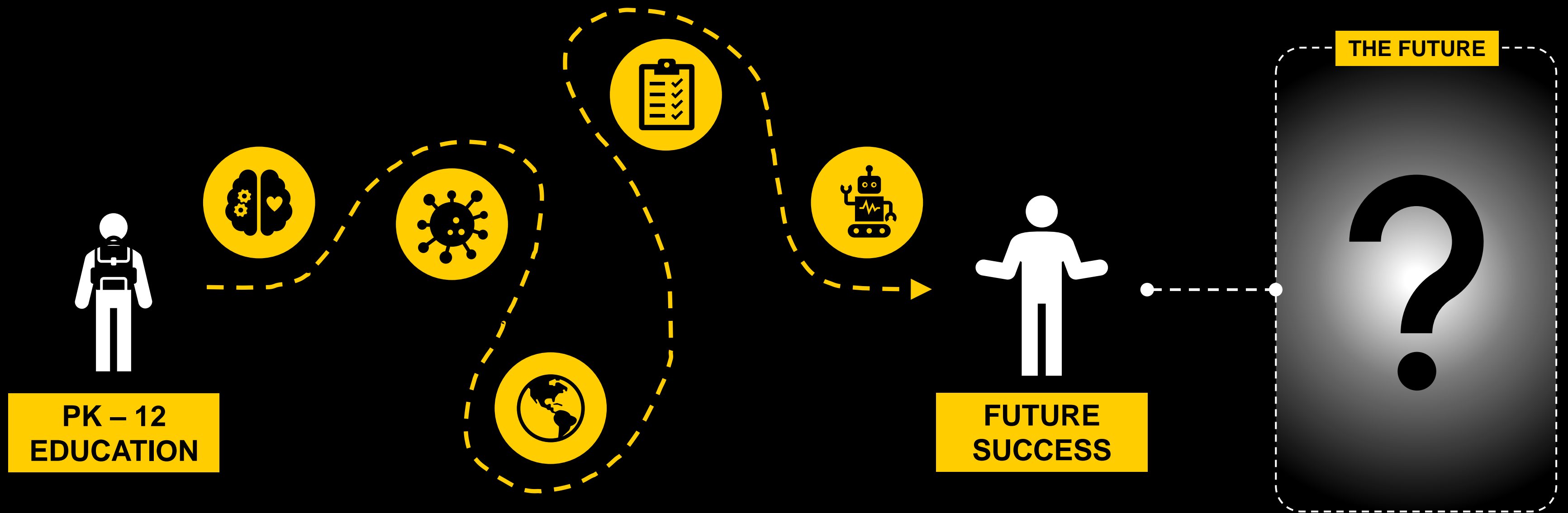
4 - Apply a Next-Gen Approach to Design

Apply a next-gen approach to facilitating impactful learning experiences to the design of innovative, exploratory, hands-on learning environments.

Navigating an Unpredictable World



Navigating an Unpredictable World



Jobs of Tomorrow?

1

VIRTUAL STORE SHERPA

Focus on customer satisfaction through virtually advising customers using the knowledge of the product line

2

PERSONAL DATA BROKER

Confirm consumers receive revenue from their data. The broker will establish prices and execute trades.

3

PERSONAL MEMORY CURATOR

Consult with patients and stakeholders to generate specifications for virtual reality experiences.

4

AR JOURNEY BUILDER

Collaborate with talented engineers and technical artists to develop vital elements for clients.

5

BODY PART MAKER

Will create living body parts for athletes and soldiers

6

NANO-MEDIC

Will transform healthcare

In-Demand Skills

America Succeeds Durable Skills

- Character
- Collaboration
- Communication
- Creativity
- Critical Thinking
- Fortitude
- Growth Mindset
- Leadership
- Metacognition
- Mindfulness

World Economic Forum Education 4.0 Framework

- Global citizenship skills
- Innovation and creativity skills
- Technology skills
- Interpersonal skills
- Personalized and self-paced learning
- Accessible and inclusive learning
- Problem-based and collaborative learning
- Lifelong and student-driven learning

Brookings Institute Skills for a Changing World

- Collaboration
- Communication
- Content
- Critical Thinking
- Creative Innovation
- Confidence

McKinsey Global Workforce Skills Model

- Higher Cognitive Skills
- Social and Emotional Skills
- Technological Skills

[Hirsh-Pasek et al, 2022; Roth et al, 2017; Golinkoff et al, 2016; Jezard, 2018; McKinsey Global Institute; Cole et al; 2021; Silva et al, 2022]

A Lens Through Which to See the World-

***Learning Mindsets for an
Ever-Changing World:***

- 1- Entrepreneurs***
- 2- Experimenters***
- 3- Creatives***



Future-Focused Learner Portraits



Entrepreneurs

Interests

Business types and trades

Skills

Visioning, strategizing, and marketing

Leadership and problem-solving

Resilience and grit

Motivations

Independent, self-starter

Project and business-based curriculum



Experimenters

Interests

Technology and emerging innovations

Science and exploration

Skills

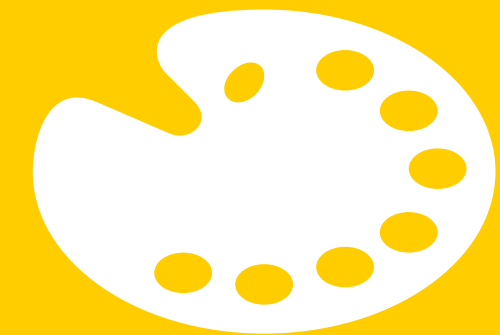
Research, planning, and analysis

Spirit of curiosity, ingenuity, and inquiry

Motivations

Problem-solving with a purpose

Ideating, creating, and developing



Creatives

Interests

Fine arts, writing, and design

Creative and personal expression

Skills

Honing a craft through technical skill

Expressing ideas and emotions

Motivations

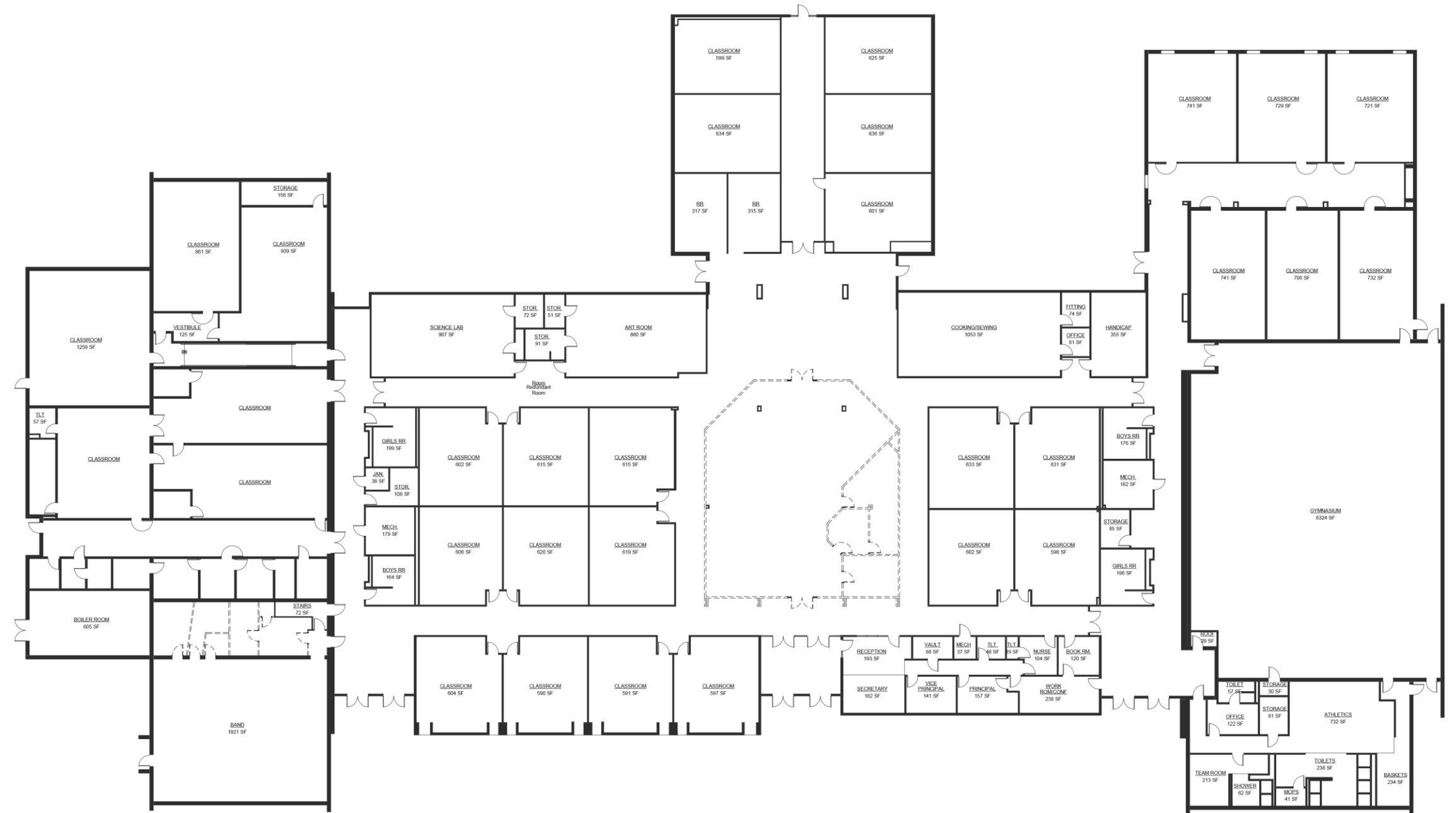
Authenticity and self-discovery

Expression as a means of connection

**Decatur ISD
STEM
Academy at
Enis Elementary
School**



Reimagining an Antiquated Building for Innovative Learning



Design Guidelines

IMMERSIVE

Create a choice academy providing an immersive STEM learning experience for K-5 students.

ADAPTATIVE

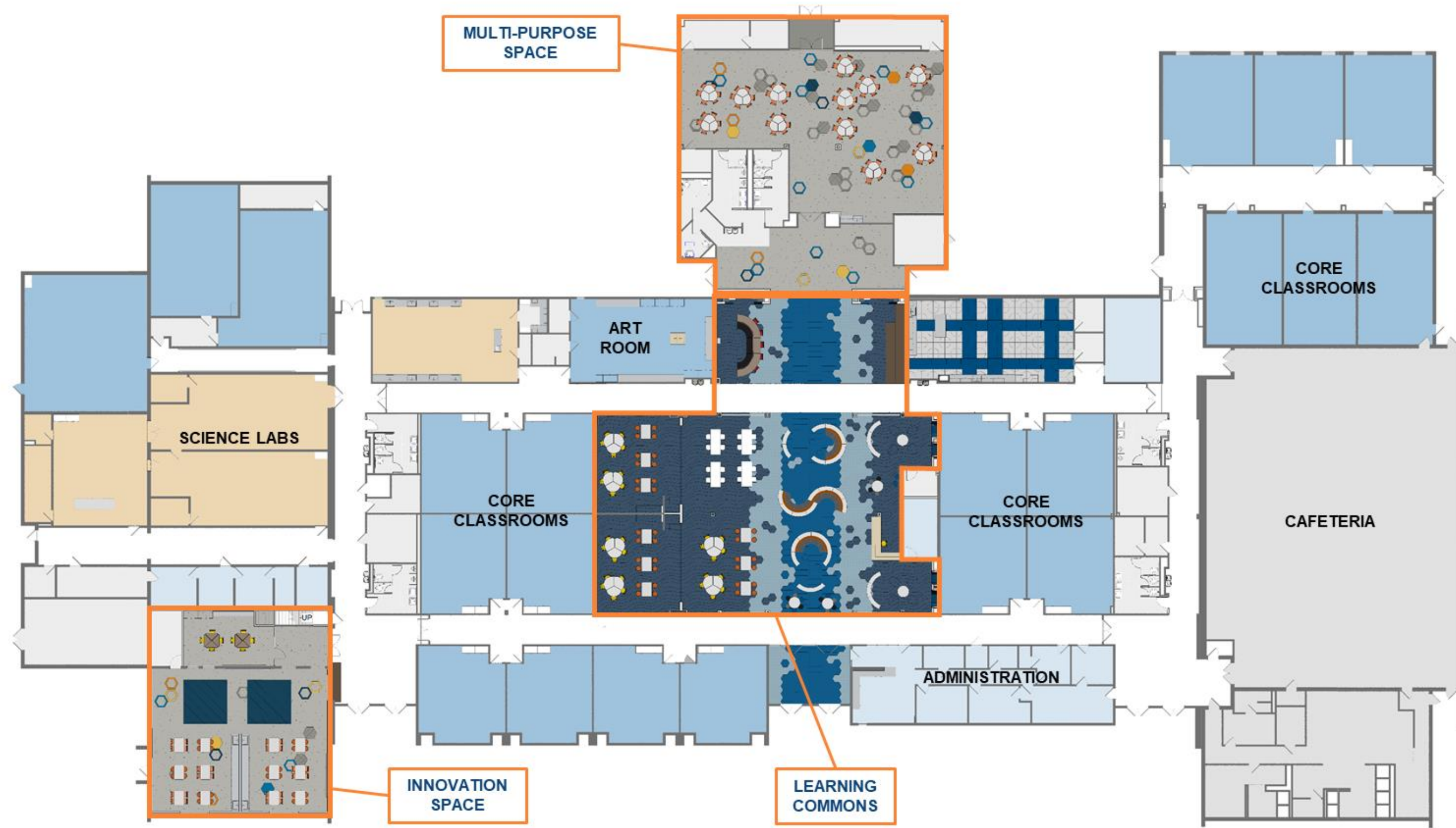
Create a 21st century, flexible learning environment that is adaptable to program needs.

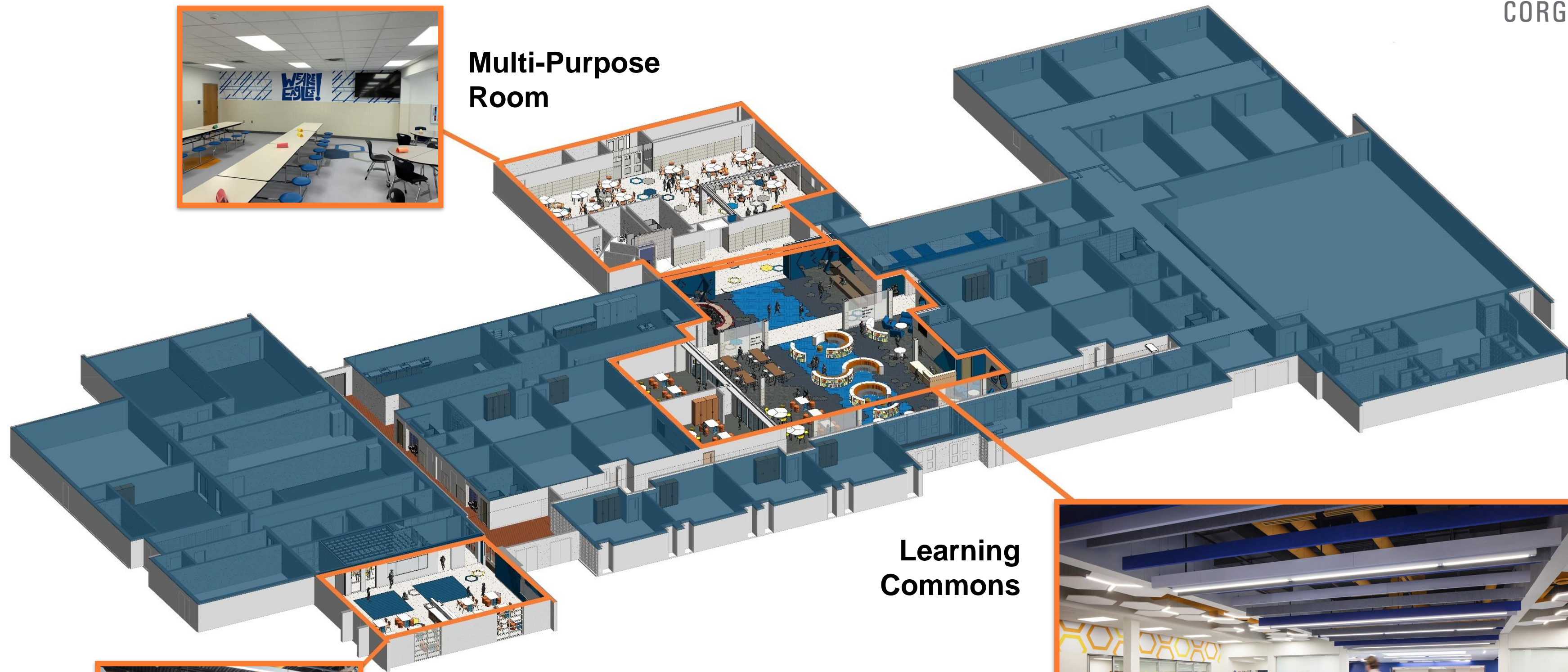
EFFICIENT

Identify and replace building components to reduce operational costs



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Multi-Purpose Room

Learning Commons



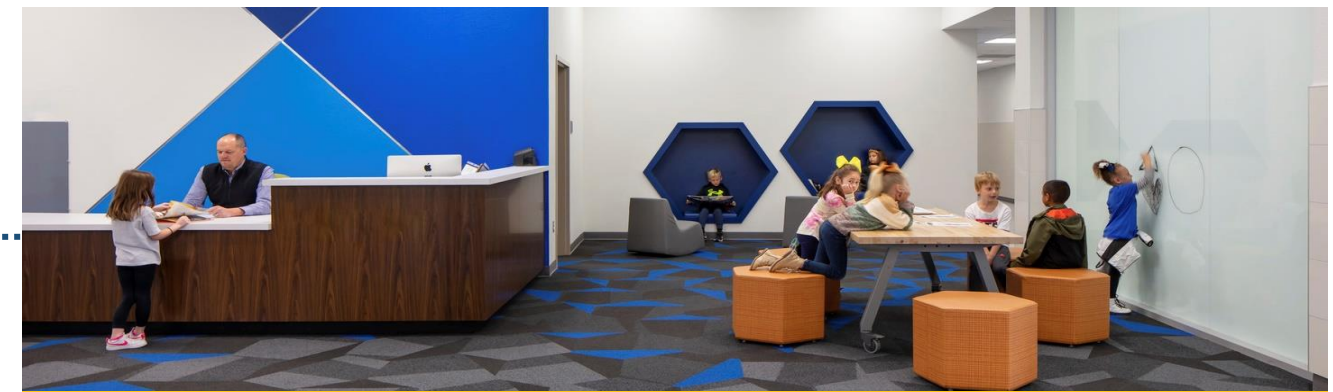
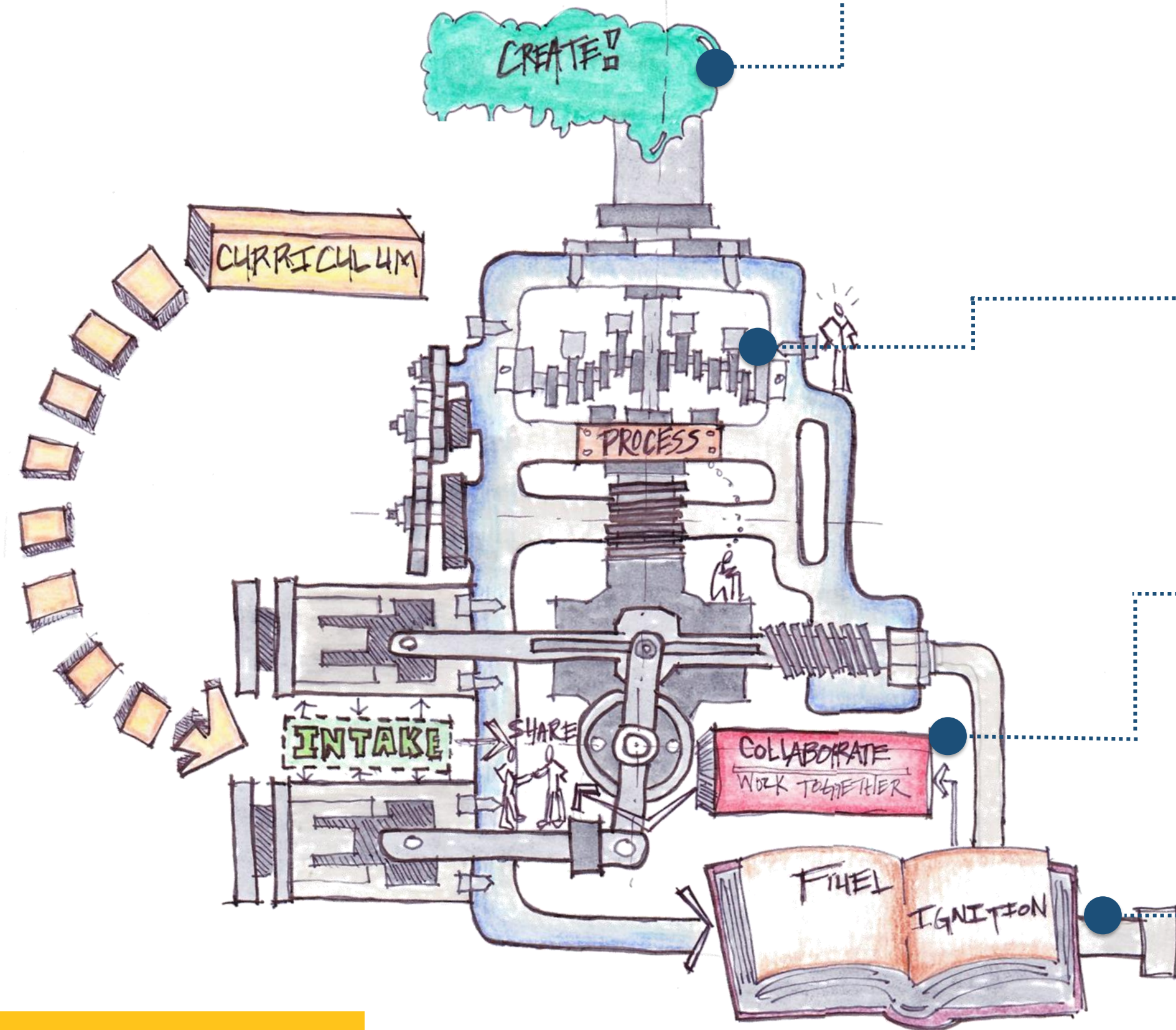
Innovation Lab

Creating a Transformative Learning Environment

- Key to the design was introducing **light and visibility** into original building.
- Corridors were **converted into collaboration spaces**, creating moments for group or independent study.
- The space highlights **flexible areas to allow students to choose their preferred learning environment**.
- The design not only enhances **student-centered learning**, but also encourages teachers to **customize** the space to meet their curriculum needs.



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4. CREATE Produce tangible outcome



3. PROCESS Evaluate information from all sources



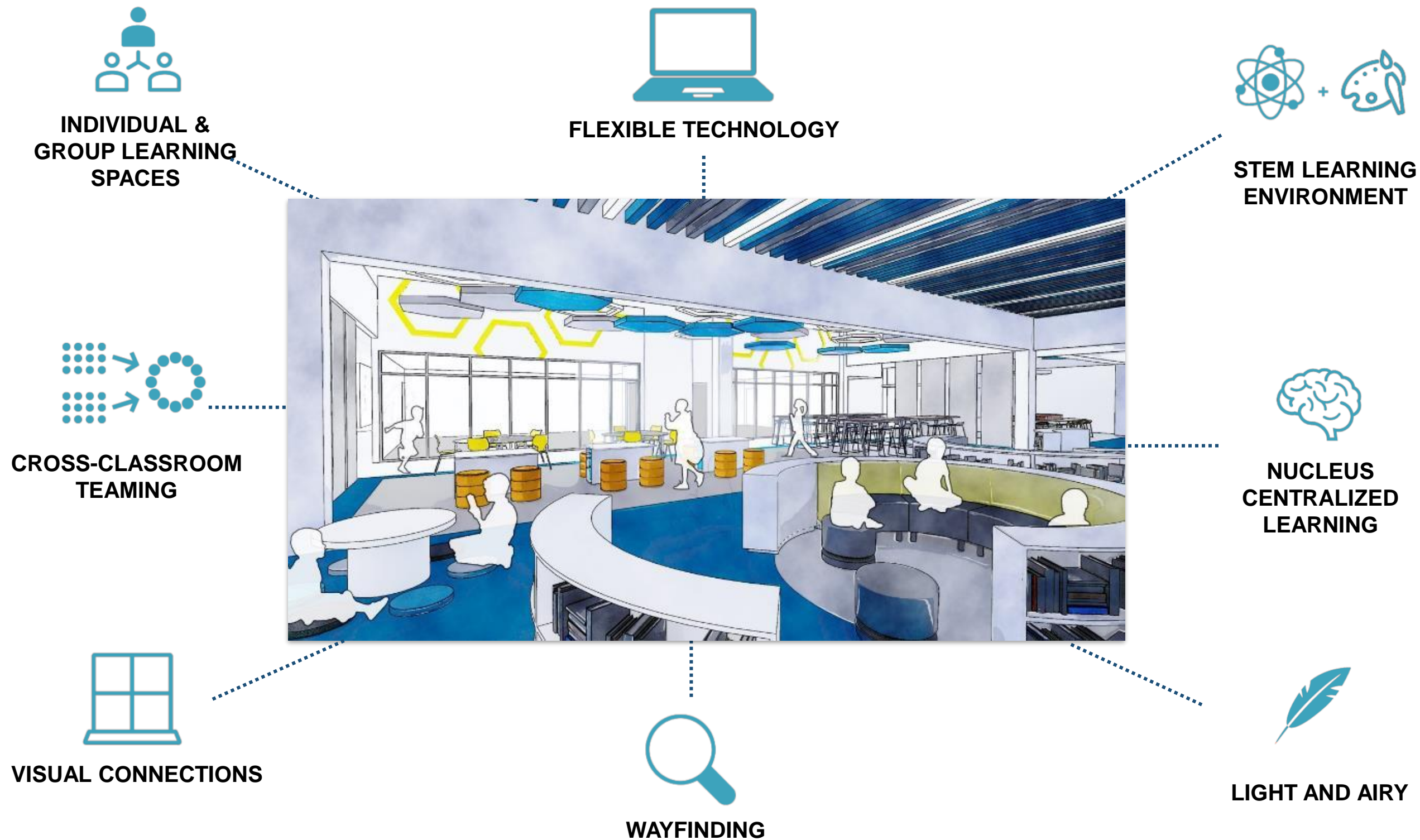
2. COLLABORATE Share information



1. FUEL/IGNITE Absorb guided instruction

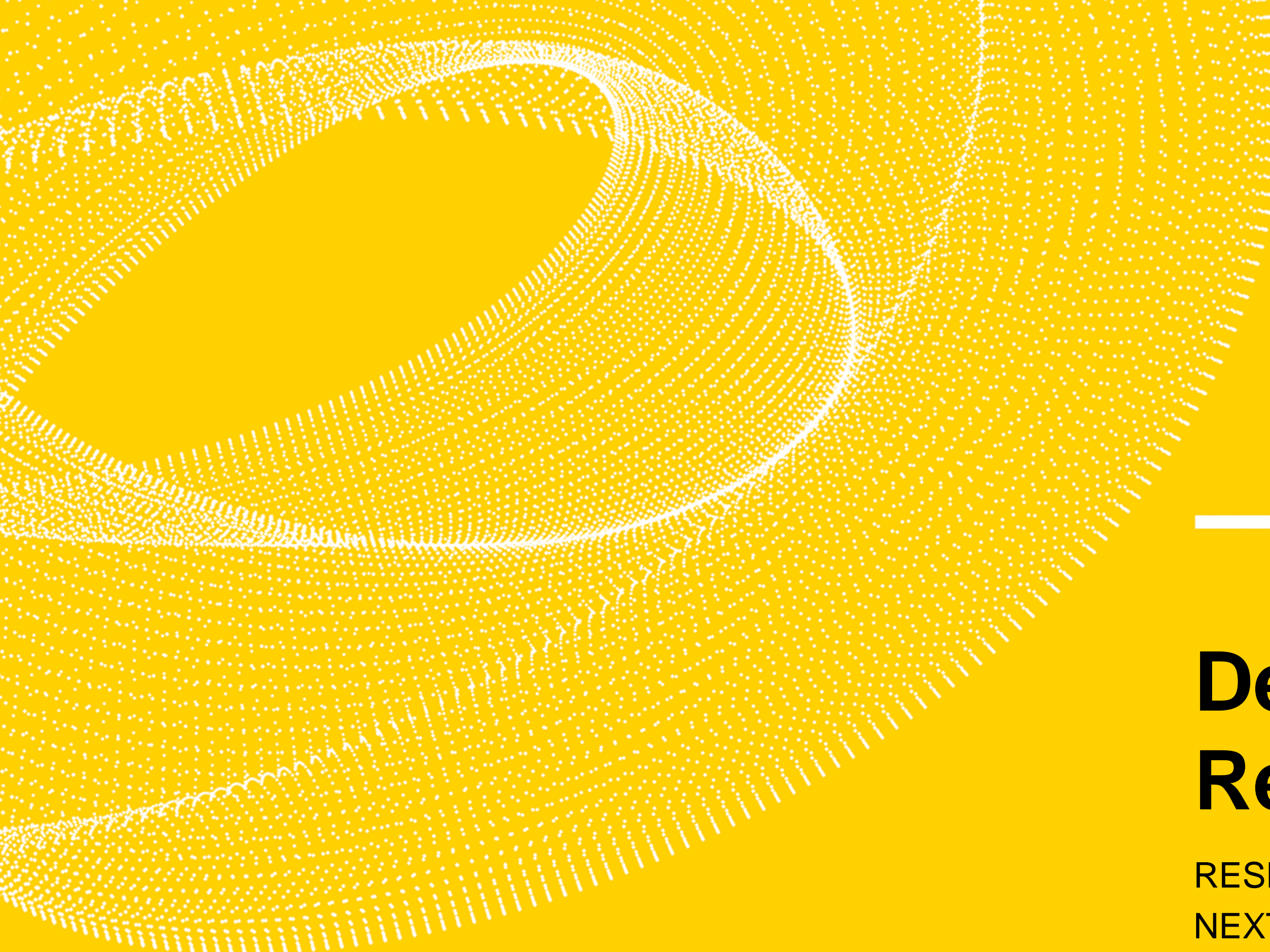
Igniting Innovation

Research-Based Design



Initial planning efforts revealed key research-based space typologies

- Active learning
- Whole person learning
- Learning through observation and learning by doing
- Empowerment and belonging
- Unlimited opportunities



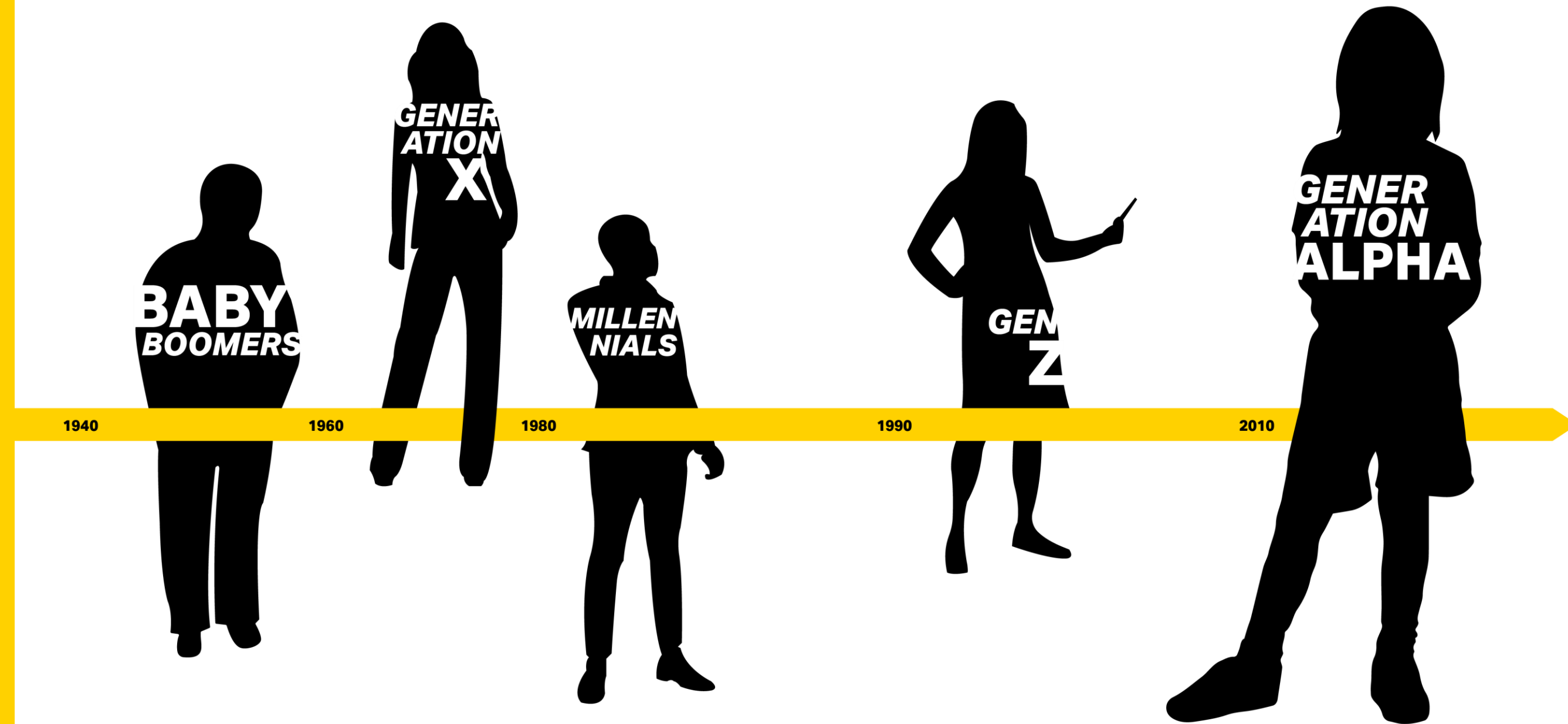
Developing a Future-Ready Mindset

RESEARCH-BASED CONSIDERATIONS FOR
NEXT-GEN LEARNING

“

We have to be ready for generation alpha immediately. We can't continue to analyze and plan for action; we just need to act...

[Zmuda et al, 2017]



Understanding Generation Alpha



Born 2010 to 2025

- First generation born entirely in the **21st century** and first to live decidedly into the **22nd century**
- Technologically literate, **digital natives**
- Skilled creators of **products and services of value**
- Meaningful and relevant **skills-based experiences**
- Focus on **wellness**

[Zmuda et al, 2017; Hughes, 2020; McCrindle, 2020]



Developmental Considerations

- Impact of **COVID**
- “**Up-ageing**” and prolonged adolescence
- Awareness of global challenges
- **Impact of technology**
 - Shortened Attention Span
 - Deficits in Social Skill Development
 - Physical and Mental Health
 - Global Connectivity
 - Advanced Social Maturity
 - Gamification of Education
 - Digital Literacy
 - “Screen Experiment”



Coming of age in unprecedented times of change and rapid technological advancement, **Generation Alpha is part of an unintentional global experiment where screens are placed in front of them from the youngest age** as pacifiers, entertainers, and educational aids.

Mark McCrindle and Ashley Fell, 2020

Next-Gen Approach to Learning

- **For Generation Alpha, learning is about innovating, building skills, and engaging with the real world**
- Shift from content mastery to **meaningful and relevant skill-building experiences with real-world connections**
- Balance integration of digital tools with grounded experiences
- Align with Alpha's natural drive for **innovation, entrepreneurship, and knowledge-sharing**
 - Opportunities to **create products and services of value**
 - High-Fidelity Learning Environments
 - Industry Partnerships
- Support **social and emotional skills** and competencies
- **Foundation for lifelong learning** and career mobility





[Generation Alpha] will be **lifelong learners, holding multiple jobs across multiple careers.** They will also need to be **adaptive, constantly upskilling and retraining to remain relevant** to the changes anticipated as they move through their working life.

— *Mark McCrindle and Ashley Fell*

How and What Children Learn

Insights from the Brookings Institute



”

As the world of work changes, it is the **character qualities** as well as **competencies** that will **futureproof Generation Alpha.**

- *McCrindle*

“HOW”

PLAYFUL LEARNING PRINCIPLES

- *Active*
- *Engaging*
- *Meaningful*
- *Socially Interactive*
- *Iterative*
- *Joyful*
- Must have a well-articulated ***learning goal***

“WHAT”

SKILLS FOR A CHANGING WORLD: 6Cs

- *Collaboration*
- *Communication*
- *Content*
- *Critical Thinking*
- *Creative Innovation*
- *Confidence*

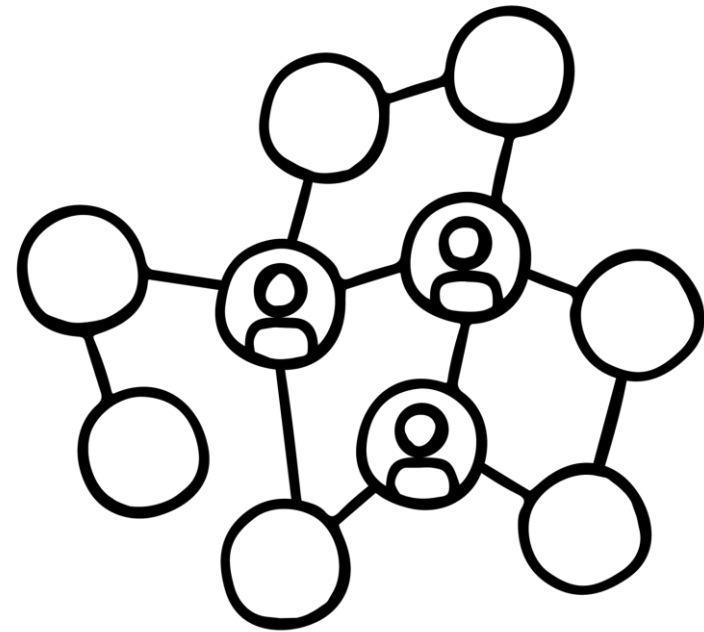
[Hirsh-Pasek et al, 2022; Roth et al, 2017; Golinkoff et al, 2016]

Designing for a *Future- Ready Mindset*

Integrating core competencies, future-focused mindsets, and innovative design strategies to support future-ready learning

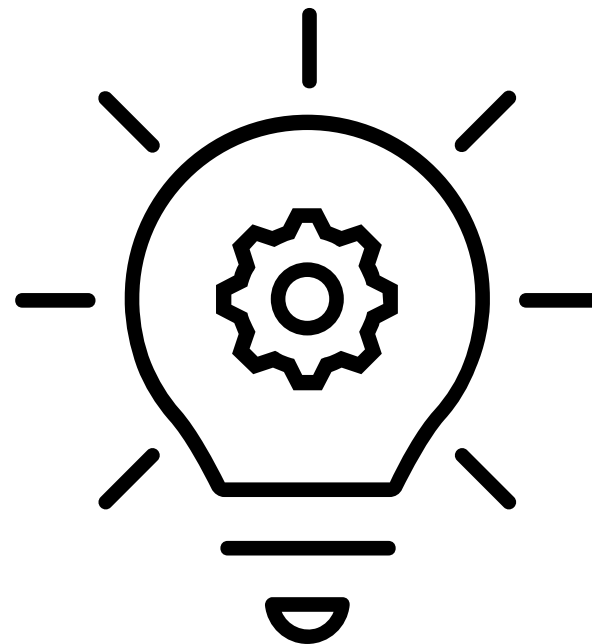


Core Competencies for Learning and Design



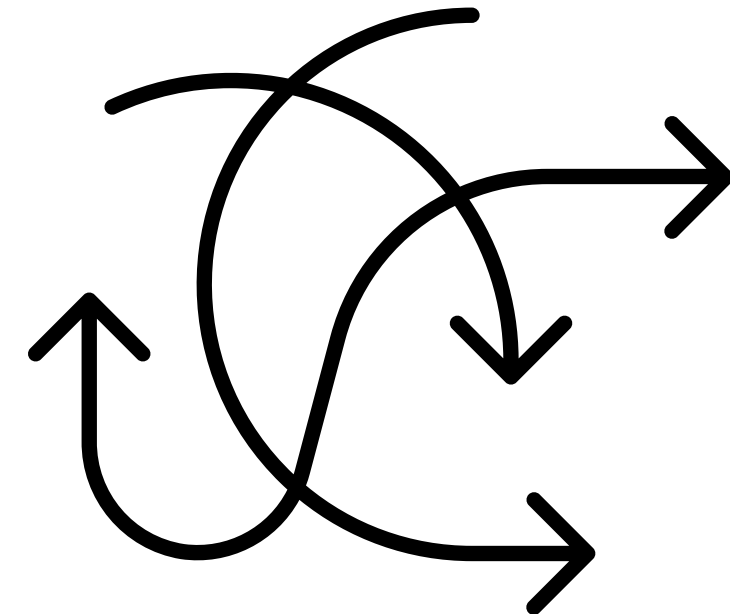
Interconnected

Space: *Learning Commons*
Mindset: *Entrepreneurs*



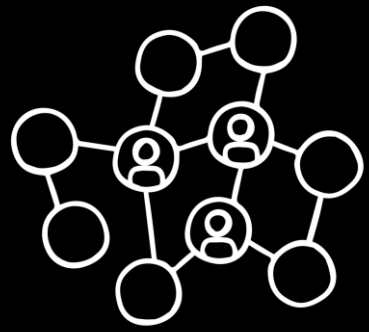
Innovative

Space: *Innovation Lab*
Mindset: *Experimenters*



Agile

Space: *Collaboration Areas*
Mindset: *Creatives*



Interconnected

Learning Commons + Entrepreneurs

Activating a STEM mindset to connect knowledge across content areas fosters a **holistic, interconnected approach to learning**. This synergistic perspective can encourage students to generate novel solutions to complex problems with an **entrepreneurial lens**.

At Decatur ISD STEM Academy, students can take their ideas from concept to reality—working together to strategize, prototype, and refine their creative ventures.



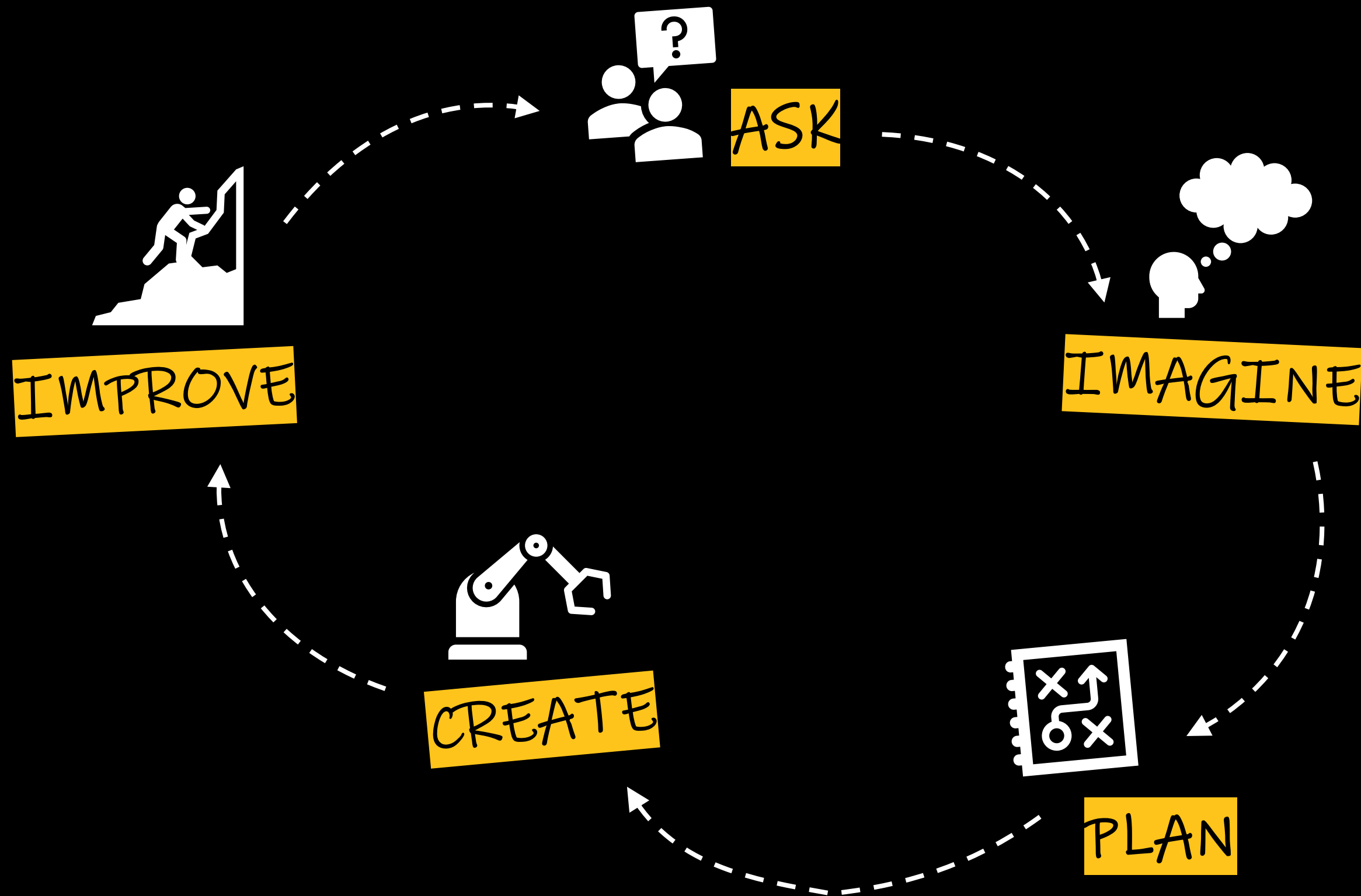
STEM as an Integrated Lens for Learning

Elementary STEM Approach



The overall aim is to spur curiosity, inquiry, and creativity, ultimately building a love of learning

[Peters-Burton et al, 2019]



Learning Through a STEM Mindset

5-Step Engineering Design Cycle

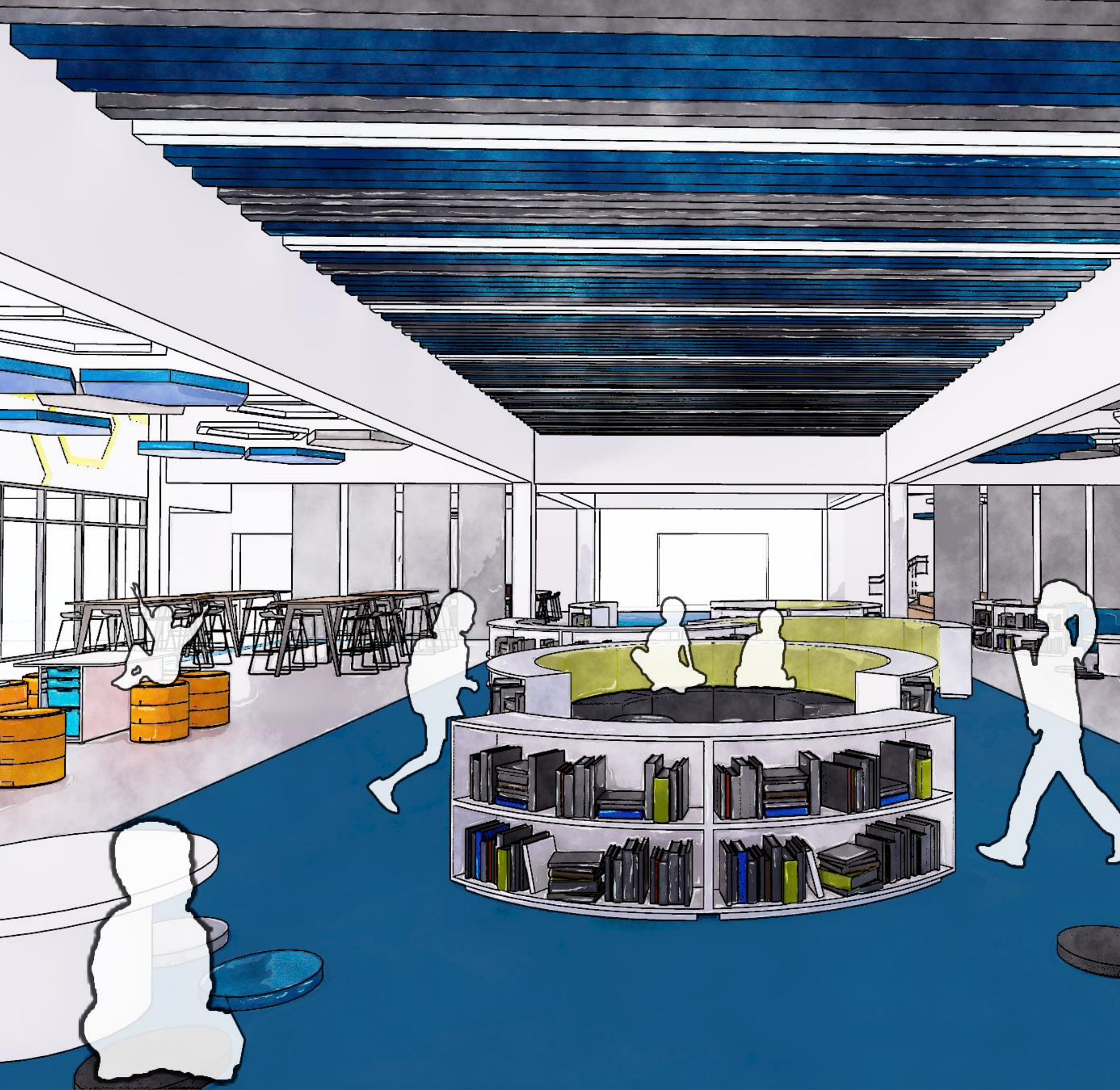
- **STEM as an approach to learning** and a way of thinking **rather than a content domain**
- Explore interests
- Develop skills and core competencies
- Supports active, student-led, inquiry-based learning

[Peters-Burton et al, 2019; Allal, 2001]

Horizontal and Vertical Curriculum Integration

- **STEM can be a part of learning throughout the day, not just taught as a discrete course**
- Facilitate a **comprehensive** educational experience that **builds connections rather than silos of learning**
- Connect knowledge and learning experiences:
 - **Horizontally** across content areas
 - **Vertically** between grade levels





STEM at the Center

The Learning Commons

The renovation transformed a traditional 38-year-old building into a **facility for modern learning** that includes flex spaces, project labs, and collaboration areas. Planning revealed the importance of **spatial flexibility** to accommodate current and evolving programs. **At the center of the school, the learning commons serves as a place for students to absorb, gather, and connect knowledge across learning experiences.**

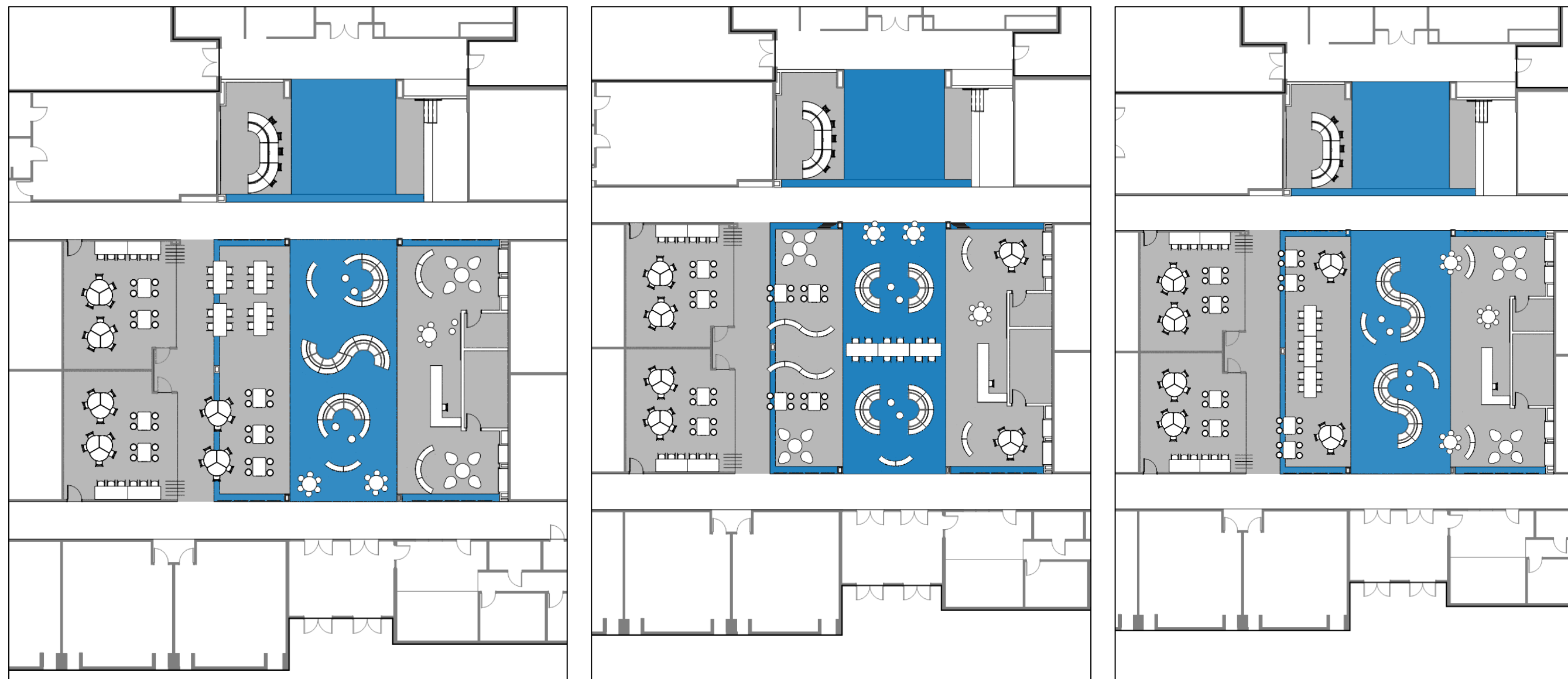
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Students can **“cross pollinate”** by circulating through an open environment with visual connections to a variety of opportunities for learning.

The Learning Commons serves as the central heartbeat of the building



Reimagined Spaces for Learning



The campus was transformed into a new model of education for the district.

FLEXIBLE LAYOUT OPTIONS

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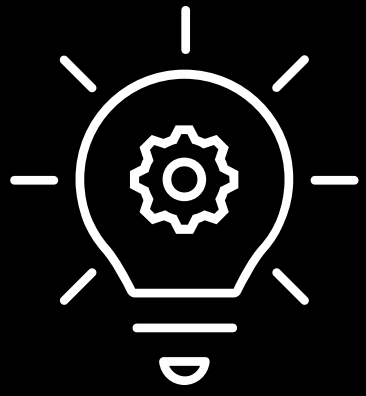
REIMAGINED LEARNING COMMONS



EXISTING LIBRARY

Learning happens through observation and application





Innovation

Innovation Lab + Experimenters

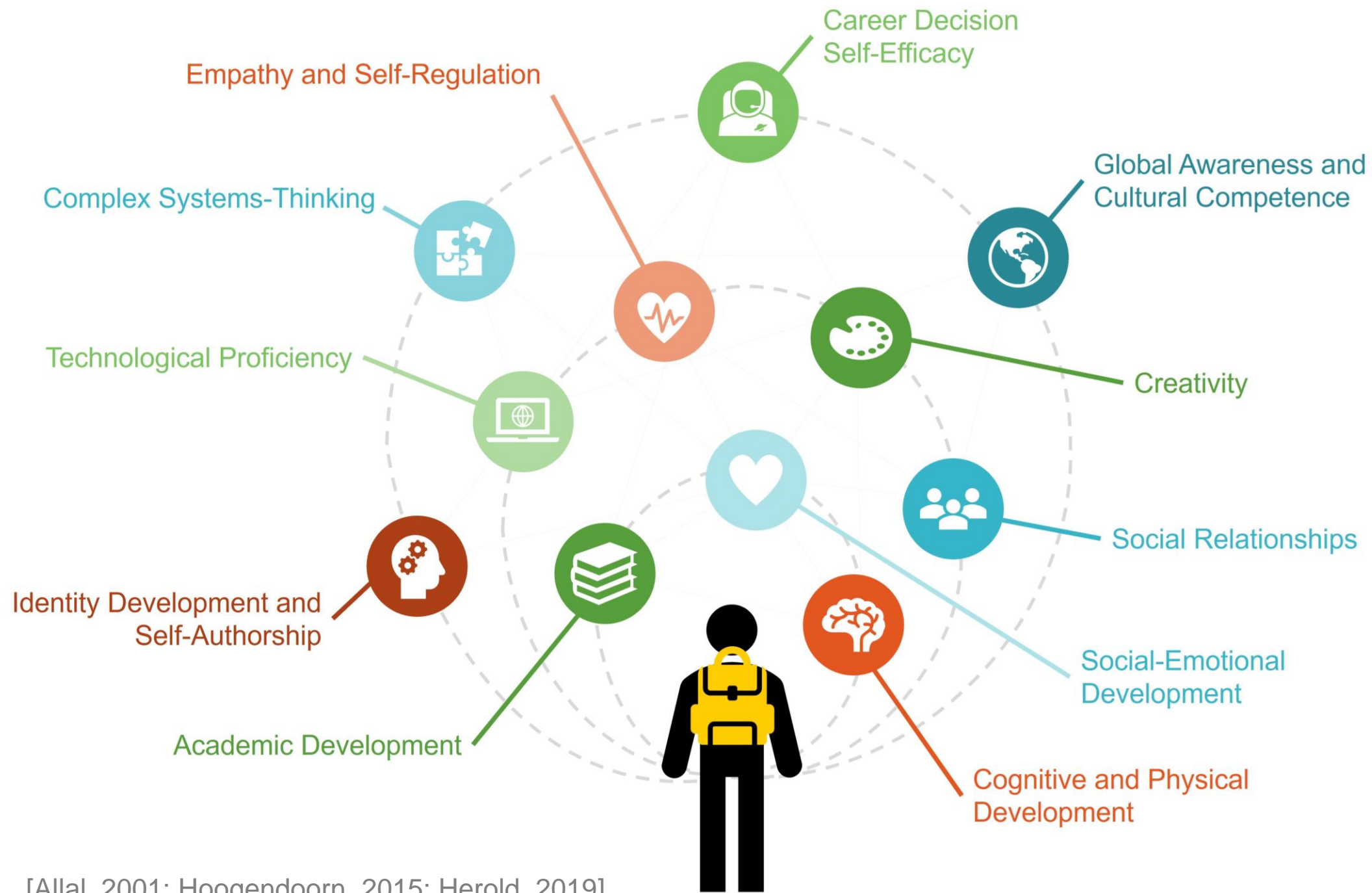
Learning is a hands-on process of **exploration and discovery**. Enhancing and channeling students' natural **curiosity** through a STEM approach to learning creates stimulating opportunities for **experimenters to test ideas and see their learning come to life**.

In the **Innovation Lab**, students are actively engaged and fully immersed in an environment that celebrates the messy and organic practice of learning.



Engaging in Whole Person Learning

Facilitating Embodied, Connected, and Aspirational Learning Experiences



[Allal, 2001; Hoogendoorn, 2015; Herold, 2019]

Situated Cognition

- **Mind:** learning is student-led & inquiry based
- **Body:** movement is encouraged through hands-on activities
- **Environment:** engaging the social, cultural, technological, natural, and material environment

Utility Value: learning experiences that are connected to the real-world help learners understand the intrinsic value of their learning

Identity Development: opportunities to explore interests, build skills, and develop self-efficacy

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.**



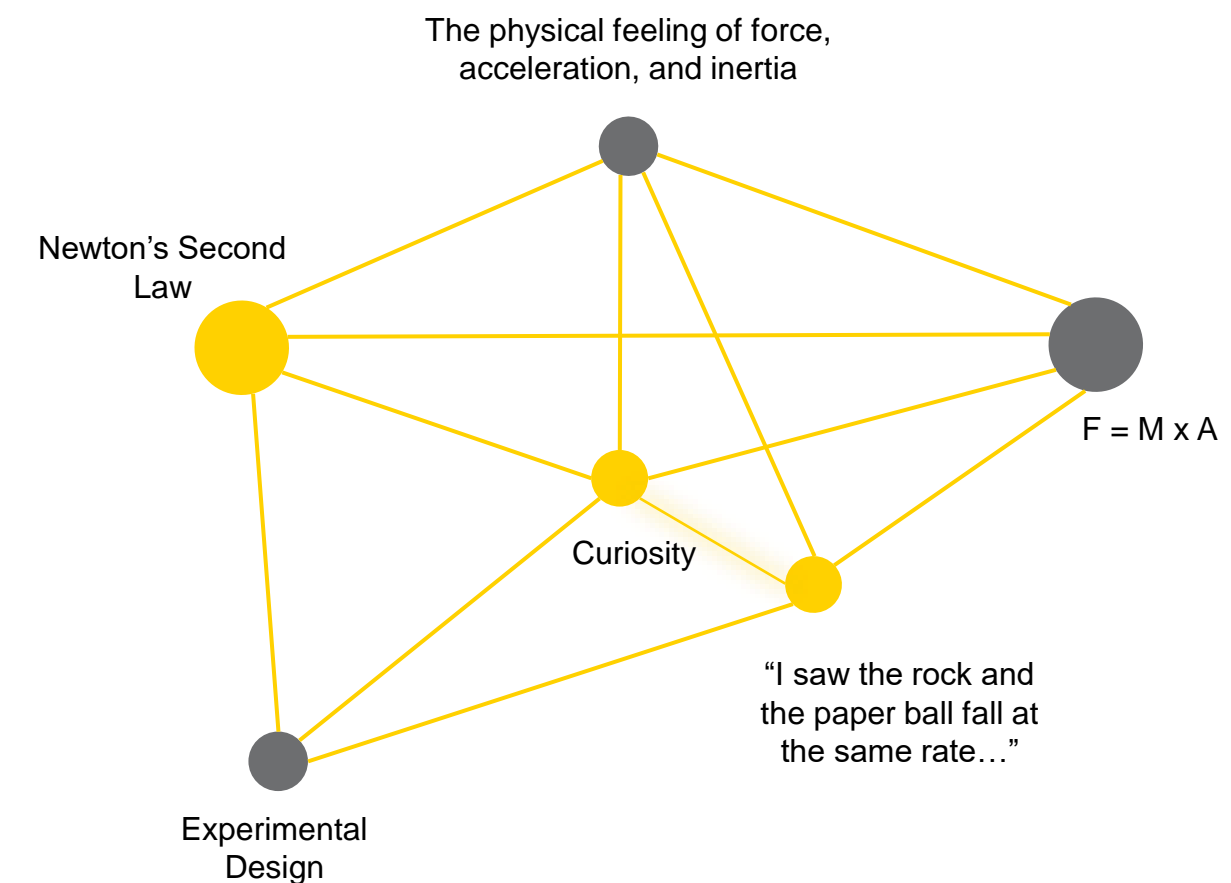
[Hoogendoorn, 2015; Herold, 2019]

Active Learning

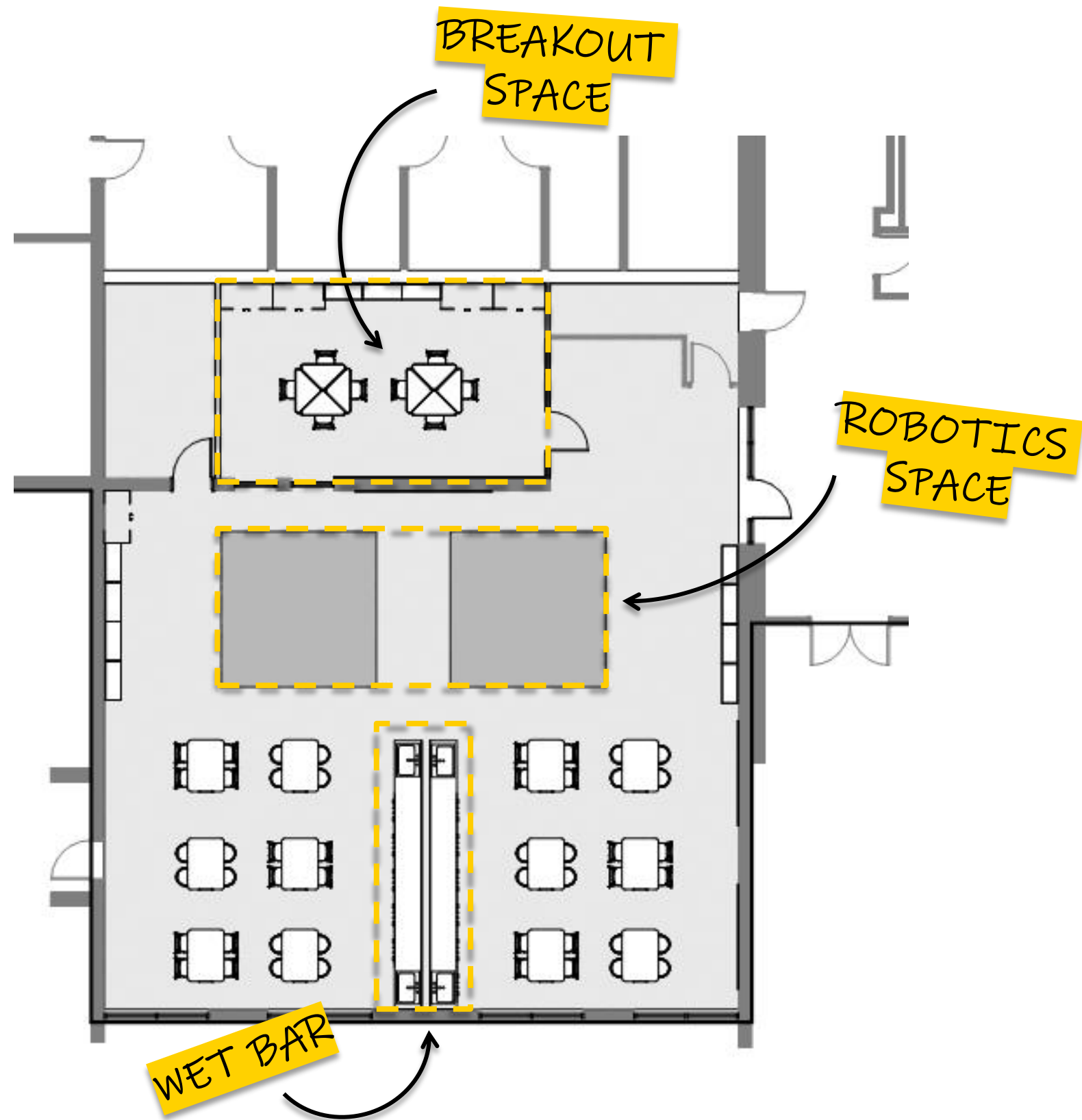
Encourages students to engage their mind, their body, and their environment as they learn.

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

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



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Innovation Lab

- Hands-on, minds-on learning experiences
- The **innovation lab** allows students to use project space and experiment on multiple levels
- Supports a variety of activities and learning opportunities

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Classrooms were designed with **flexibility** in mind, allowing teachers to customize their environment to meet their **specific needs**.



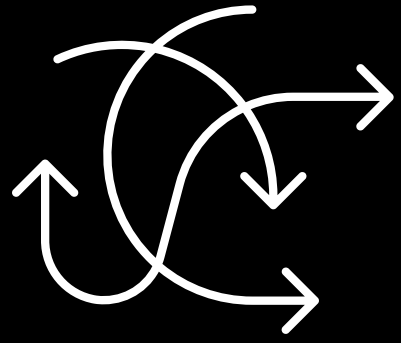
BEFORE



AFTER

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Agile

Collaboration Areas + Creatives

In an ever-evolving world, one of a few stable truths is that **things will change**. Today's learners will be navigating an unpredictable world and they need to develop a capacity for **resilience and agility in their thinking and approach to learning**.

Decatur ISD STEM Academy is designed to be flexible, adaptable, and agile to support impactful learning experiences for many generations of students.



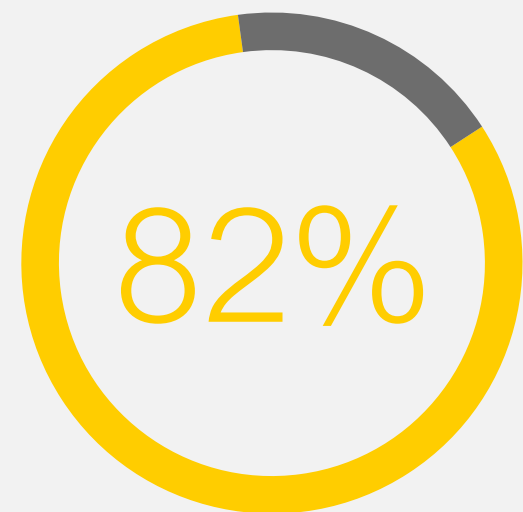
Insight from: “*Design Lessons from Teachers 2.0*”

Flexibility: Not a Blank Check

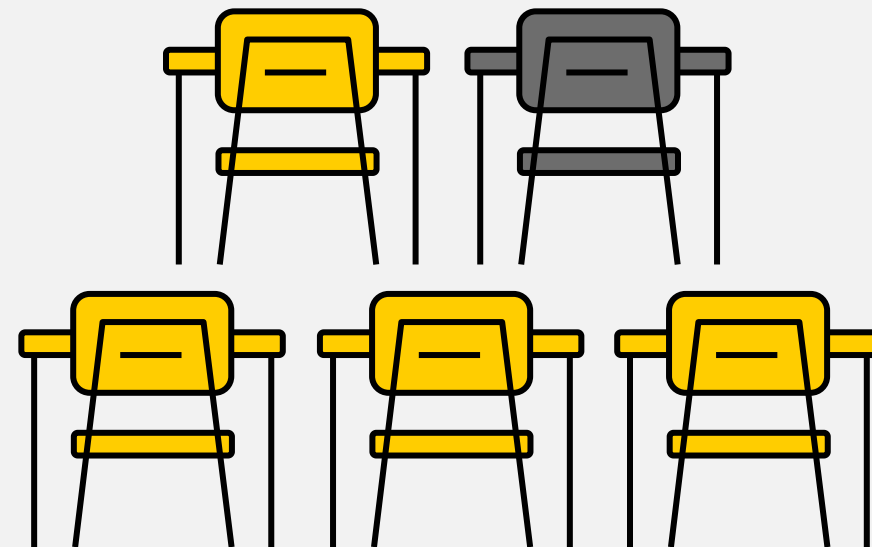
Expectations and standards for learning are evolving, and the classroom needs to reflect the current world, which is flexible, fluid, and dynamic. Instead of versatility, teachers are looking for **modifiable spaces that have the appropriate affordances** (technology integration, power outlets, etc.) to **support layouts, group sizes, and activities to align with their teaching style.**

” Flexibility means being able to choose how I set up my classroom and how I work with students.

HIGH SCHOOL TEACHER



of teachers report they want more flexibility in their teaching environment



4/5

Teachers want more space for desk-free activities

LIMITATIONS IN LEARNING ENVIRONMENTS

- Furniture **cannot be reconfigured** to support different activities or group sizes (29%)
- Furniture that is **not movable** or easily movable (25%)
- Furniture that **does not meet needs or teaching style, activities, or grouping** (24%)

[Corgan, 2022]

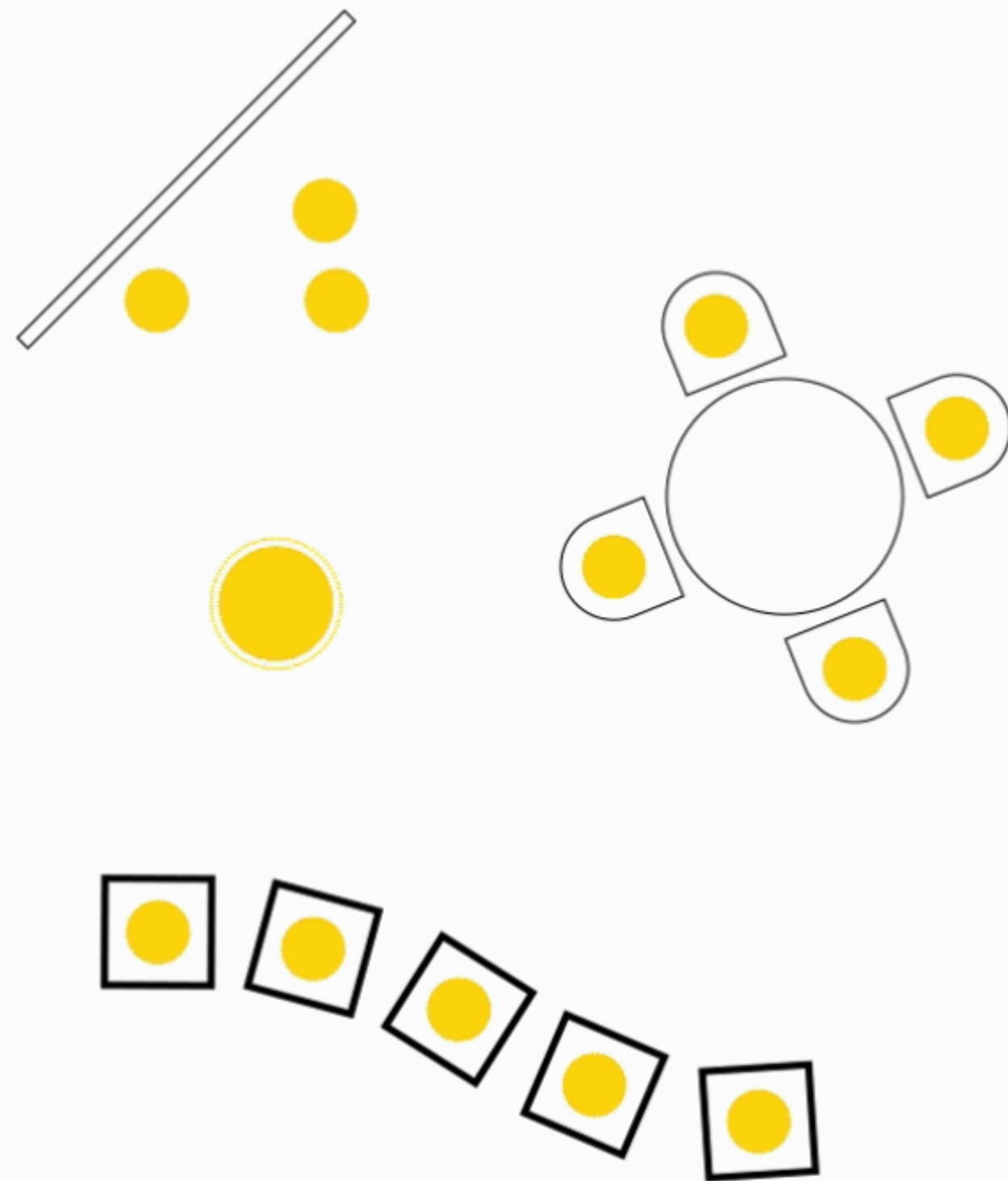
Flexibility: Design Response

Upended teaching paradigms have redefined what that flexibility means — favoring **strategic affordances matched for specific use cases**. It is a marked shift away from endless versatility toward **smart, modifiable spaces that make possible personalization and choice and welcome different teaching and learning styles**.

Strategic Affordances

- Kit of parts
- Modular furniture
- Storage
- Zoning and redistributed spaces
- Tech fluid

[Corgan, 2022]



Adaptability in Learning and Design



*Teaching methods and practices will **evolve** and change more frequently than in a traditional school environment.*

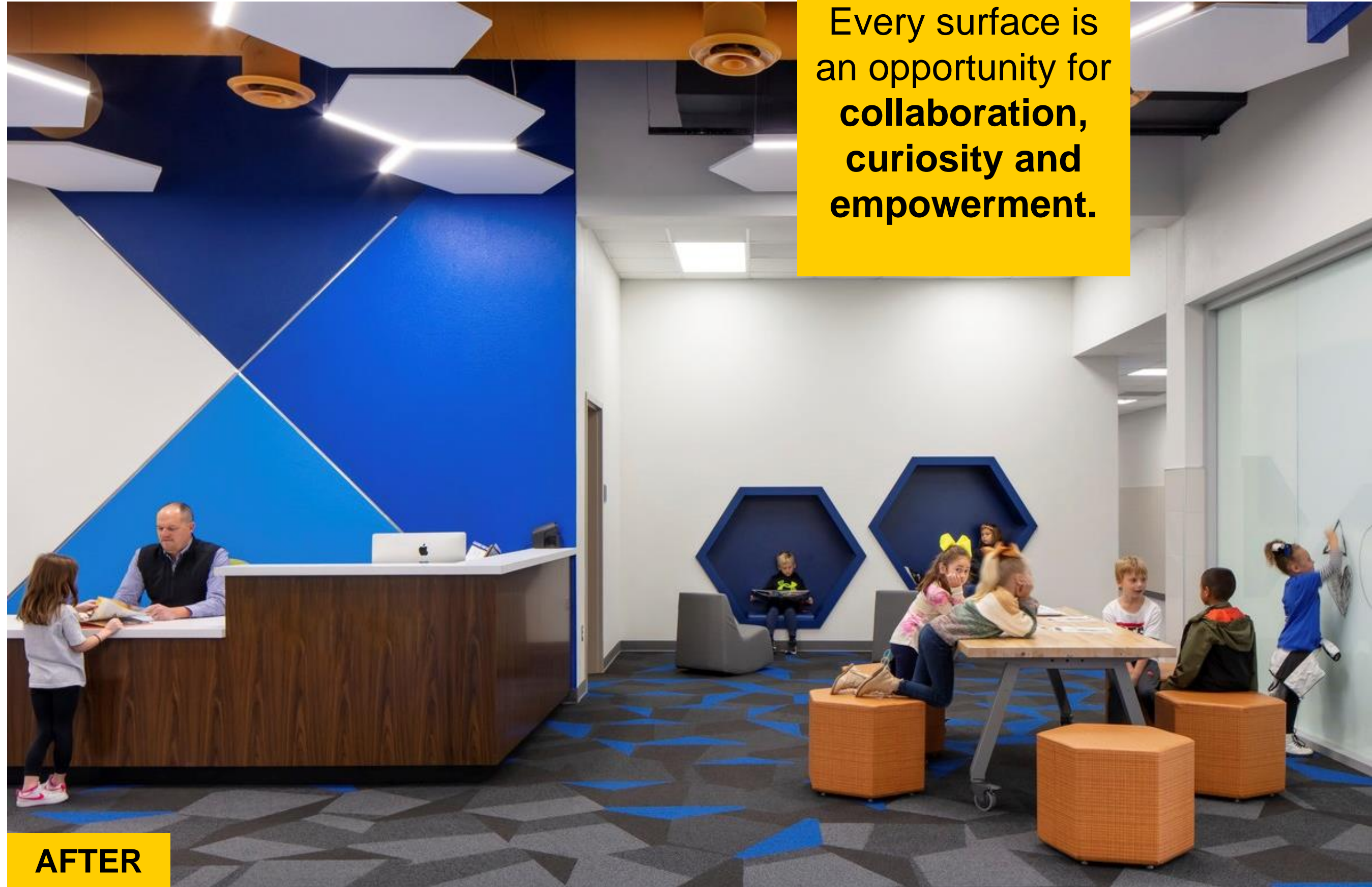
- Flexible, modifiable, adaptable spaces to support a variety of learning activities
- Facilitate easy transition and transformation
- **Accommodate changing needs as programs evolve**
- Encourage interdisciplinary learning

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Every surface is an opportunity for **collaboration, curiosity and empowerment.**



BEFORE



AFTER

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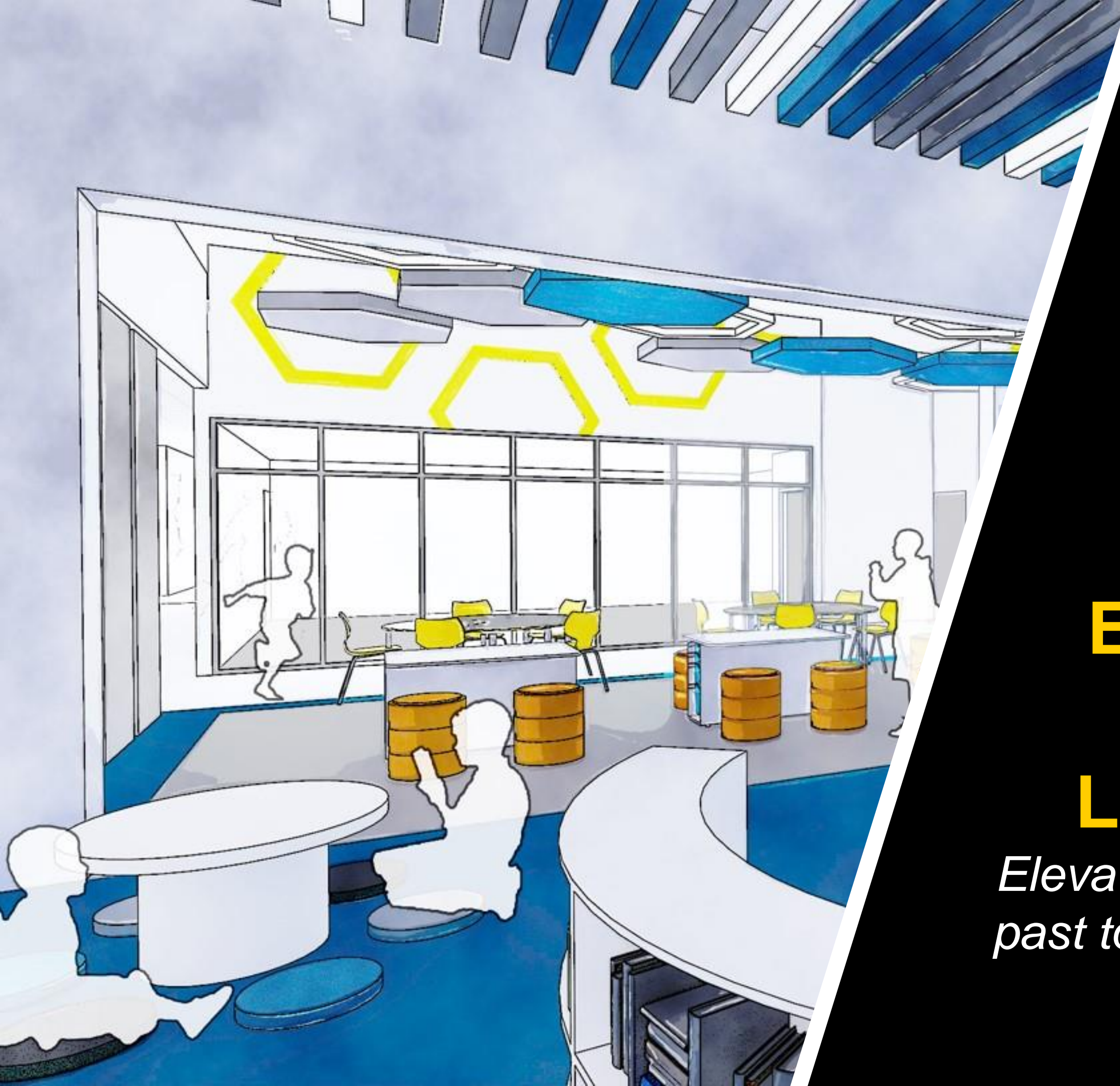
AFTER



BEFORE

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Embracing a Spirit of Transformation in Learning and Design:

Elevating learning environments of the past to serve the students of the future

Entrepreneurs, Experimenters, and Creatives: Agile Mindsets for Future Success

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Questions?

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