

# New Directions

**s y m p o s i u m**

WELCOME



New Directions  
symposium

# New Directions in Education and Facilities Planning

Prakash Nair, AIA



# Name Three Major Events that Have/Will Change the Way We...

- Communicate
- Socialize
- Shop
- Eat
- Get Entertained
- Bank
- Travel
- Meditate
- Sleep
- Learn & Grow



# The Smartphone Has the Changed the Way We...

---

- Communicate
- Socialize
- Shop
- Eat
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- Learn & Grow

January 9, 2007  
17 Years Young!





And for a short while...

# COVID Changed the Way We...

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- Communicate
- Socialize
- Shop
- Eat
- Get Entertained
- Bank
- Travel
- Meditate
- Sleep
- Learn & Grow

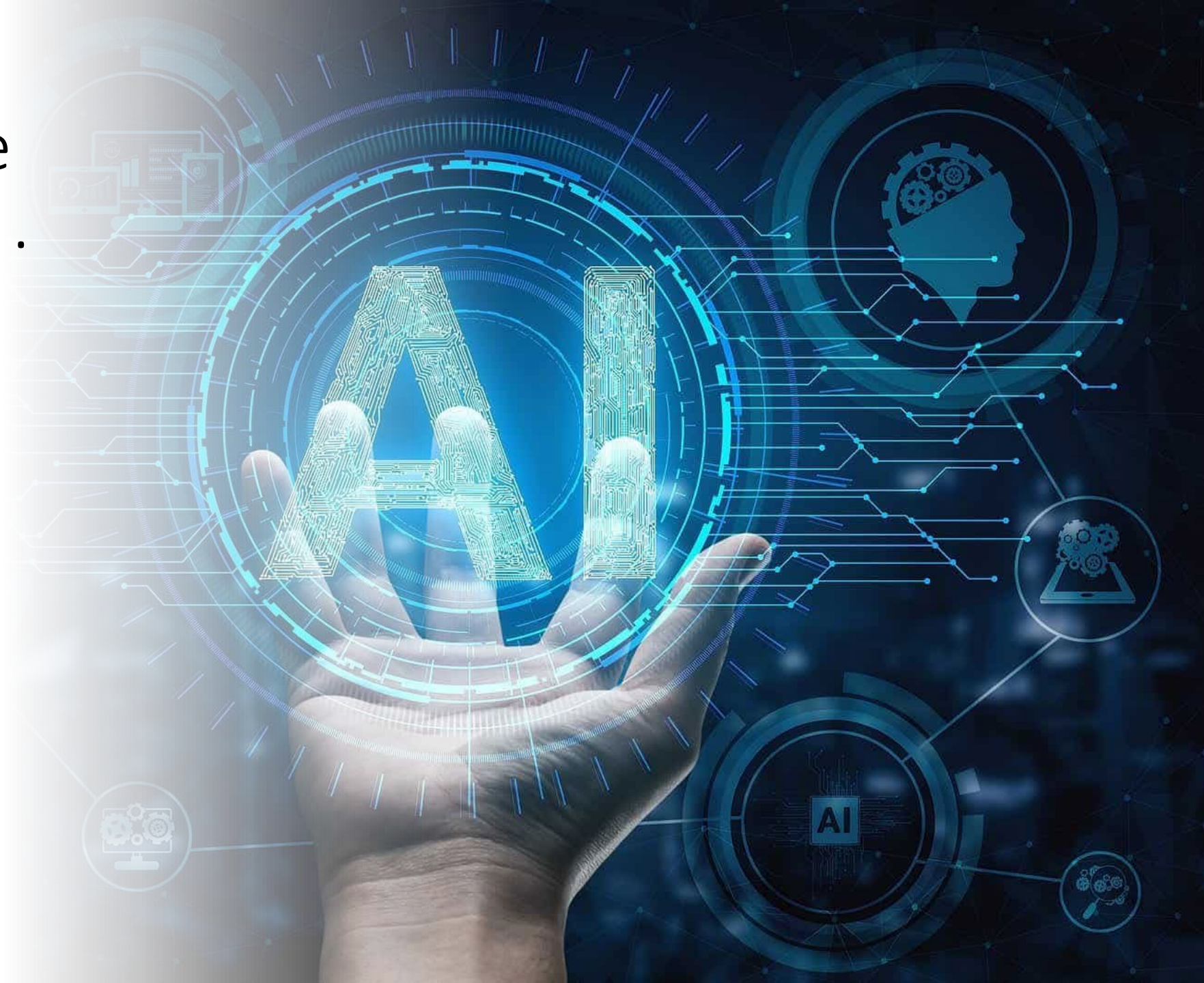




And Tomorrow. . .

# AI Will Change the Way We...

- Communicate
- Socialize
- Shop
- Eat
- Get Entertained
- Bank
- Travel
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- Sleep
- Learn & Grow





In this Context. . .



What is the Purpose of Education?



# Purpose of Education -- Personal

- Self-Actualize
- Live a Happy Life
- Be Healthy



# Purpose of Education -- Societal

- Build a Fair & Just Society
- Live in a Peaceful World
- Take care of the planet
- Leave our children a better place than the one we inherited





# Is Schooling Designed for Students to . . .

- Self-Actualize?
- Live a Happy Life?
- Be Healthy?

# Is Schooling Designed for Students to . . .

- Build a Fair & Just Society?
- Live in a Peaceful World?
- Take Care of the Planet?
- Leave their Children a Better place than the One they Inherited?



# 21st-Century Skills

## Foundational Literacies

How students apply core skills to everyday tasks



1. Literacy



2. Numeracy



3. Scientific literacy



4. ICT literacy



5. Financial literacy



6. Cultural and civic literacy

## Competencies

How students approach complex challenges



7. Critical thinking/  
problem-solving



8. Creativity



9. Communication



10. Collaboration



EMPATHY

## Character Qualities

How students approach their changing environment



11. Curiosity



12. Initiative



13. Persistence/  
grit



14. Adaptability



15. Leadership



16. Social and cultural awareness

Lifelong Learning

# The Tools of Schooling

- What we Learn = Curriculum
- How we Learn = Pedagogy
- **Where we Learn = Classrooms**
- From Whom We Learn = Teachers
- When we Learn = School Day  
in 50-min Increments





# Teaching and Learning Practice Spectrums

Teacher Collaboration

Pedagogy

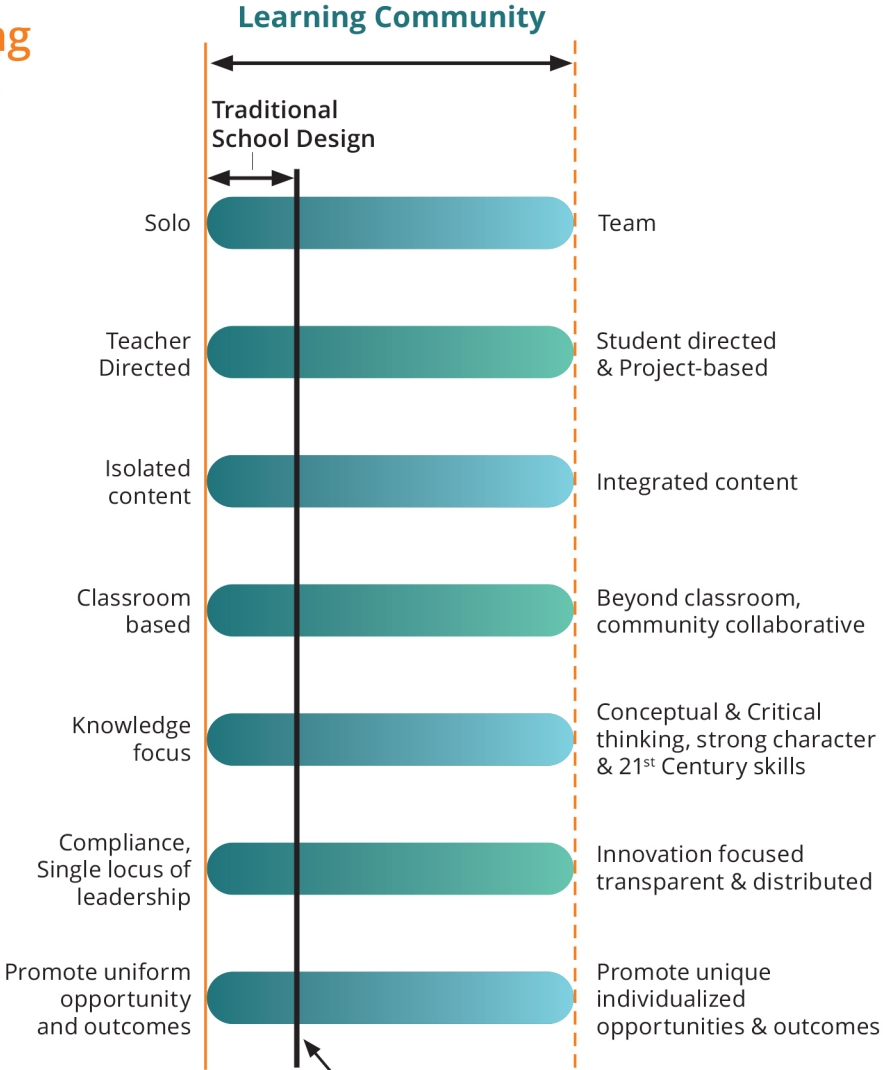
Curriculum

Community

Outcomes

Leadership

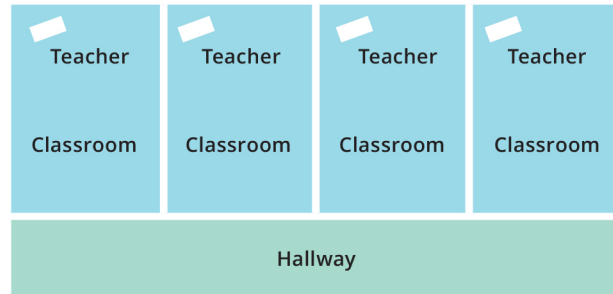
Support Systems



This line represents the physical barrier posed by a traditional school design to free movement across the spectrums.

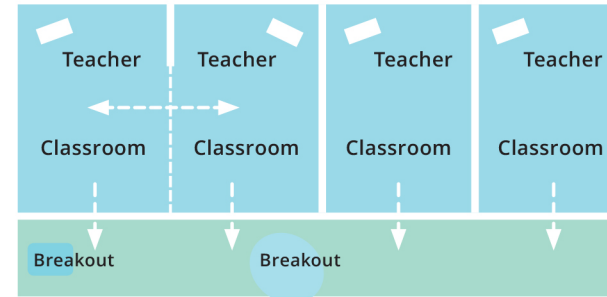
## Individually Owned Rooms

**Optimized for:** Individualized teaching practices, traditional structures and timetable, classroom - based community, single teacher classrooms, teacher - directed learning



## Shared in a Pair

**Optimized for:** Pairings within grade, department & or interdisciplinary, shared unit/lesson design, co - delivery, flexible/ dynamic groupings, more varied learning modalities, shared assessment, easier for project - based, more options for breakout



### Teacher Collaboration

Individual Team



### Pedagogy

Teacher Directed Student Directed



### Curriculum

Isolated Content Integrated Content



### Community

Classroom Beyond the Classroom



### Teacher Collaboration

Individual Team



### Pedagogy

Teacher Directed Student Directed



### Curriculum

Isolated Content Integrated Content



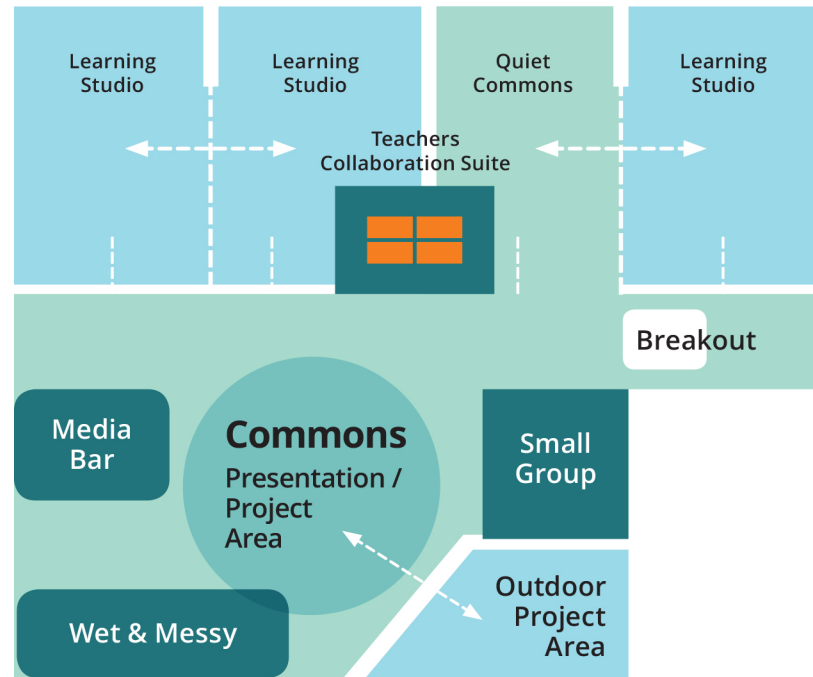
### Community

Classroom Beyond the Classroom



# Learning Community

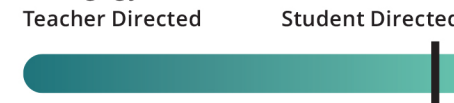
**optimized for:** Curriculum organized around interdisciplinary themes, distributed democratic leadership, shared student responsibility, co-facilitated, cohort scheduling, highest levels of “community” and self directed learning.



## Teacher Collaboration



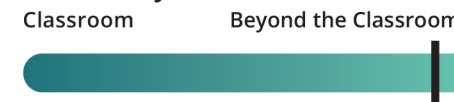
## Pedagogy



## Curriculum



## Community



# KEY DESIGN DRIVER - THE 20 LEARNING MODALITIES #1-10



**One on One with Teacher**



**Lecture**



**Project Based Learning**



**Internet Based Research**



**Independent Study**



**Mobile Technology Learning**



**Distance Learning**



**Student Presentation**



**Peer Tutoring**



**Team Collaboration**

# KEY DESIGN DRIVER - THE 20 LEARNING MODALITIES #11-20



**Performance Based Learning**



**Seminar Style Instruction**



**Design Based Learning**



**Interdisciplinary Learning**



**Storytelling Learning**



**Naturalist Learning**



**Social Emotional Learning**



**Team Learning / Teaching**



**Art Based Learning**



**Play & Movement Learning**

## Learning Modalities Chart -- Efficacy of Different Spatial Arrangement for Teaching and Learning

Learning Modalities that Can be Done Well in Space		Single Classroom	Group of Classrooms along Hallway	Single Learning Studio-- Older Students	Single Learning Studio-- Younger Children	Learning Suite (Combination of Learning Studios)	Small Learning Community
1	Independent Study						X
2	Peer Tutoring					X	X
3	One-on-one Learning with Teacher					X	X
4	Teacher Lecture	X	X	X	X	X	X
5	Team Collaboration			X	X	X	X
6	Project Based Learning						X
7	Distance Learning						X
8	Learning with Mobile Technology			X	X	X	X
9	Student Presentations	X	X	X	X	X	X
10	Internet-Based Research			X	X	X	X
11	Roundtable Discussions						X
12	Performance-Based Learning						X
13	Interdisciplinary Learning				X	X	X
14	Naturalist Learning						X
15	Art Based Learning						X
16	Social-Emotional Learning					X	X
17	Design Based Learning						X
18	Storytelling				X		X
19	Team Teaching and Learning					X	X
20	Play and Movement Based Learning						
<b>Total Number of Modalities that Space will Accommodate Well</b>		<b>2</b>	<b>2</b>	<b>5</b>	<b>7</b>	<b>10</b>	<b>19</b>



**Normes d'aula**

- Ho fem **curiositat**
- Ho fem **espai**
- Ho fem **bondat**
- Ho fem **veritat**
- **Prejuiciem puc?**
- Ho fem **net: polit**
- **Parlem**
- **Parlem contents**
- Ho fem **és ok**
- **Estem tranquils**
- **fem abraçades**

**Nomes Parla T par Lem?**

**LES PAREYS DE LA CLASSE ENO PARLEN**



**LA MÈDICA ENS PARLA**



1 2 3 4 5 6

AFTER





BEFORE



AFTER



BEFORE



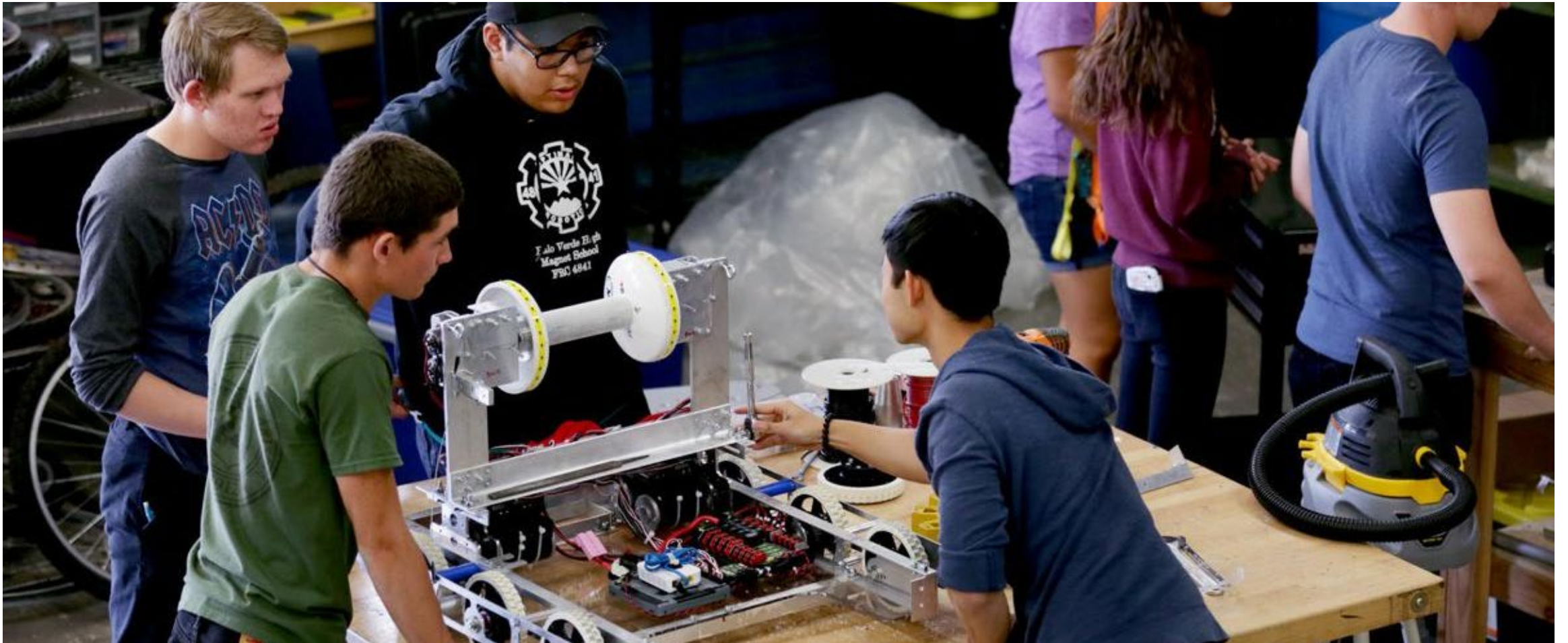
AFTER



AFTER



# Curriculum – The Elephant in the Room



# THE IMPACT A PORTRAIT OF A LEARNER



A Balanced Person



A Respectful Relationship Builder



A Rational Problem Solver



A Contributing Citizen



An Innovative Creator



A Compelling Communicator

## THE SYSTEM THREE Cs THE DNA OF LEARNING:



### **CONCEPTUAL**

"WHEN WE CONNECT, CONSTRUCT, CONTRIBUTE, WE UNDERSTAND THAT..."

### **COMPETENCY**

"WHEN WE DECONSTRUCT, IDENTIFY, PRACTICE, WE ARE ABLE TO..."

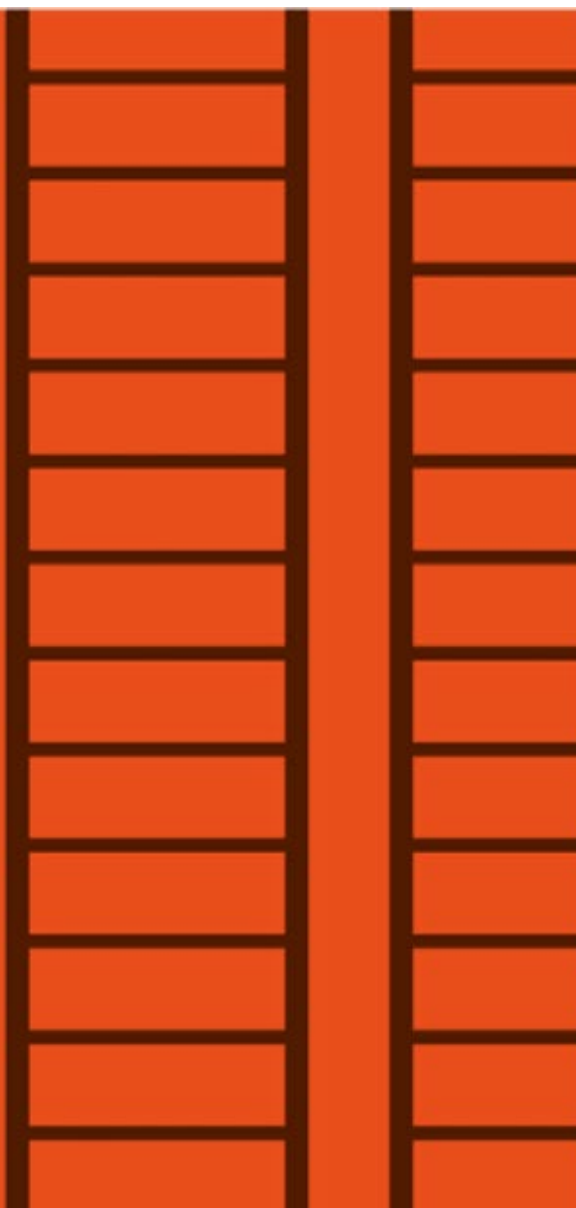
### **CHARACTER**

"WHEN WE CONSIDER, ACT, REFLECT, WE BECOME MORE..."



**THE QUESTION**  
**HOW DOES *EVERYONE***  
**ACCESS LEARNING?**

*DIVERSIFYING LEARNING TO  
CREATE INCLUSIVE, EQUITABLE,  
LEARNING COMMUNITIES.*



# THE QUESTION

## HOW DO WE PROVIDE *EVIDENCE OF OUR LEARNING?*

*WE FOCUS ON QUALITATIVE,  
EVIDENCE-BASED, LEARNER-CENTRED ASSESSMENT.  
OUR PRIMARY PURPOSE IS TO PROVIDE **FEEDBACK**  
TO LEARNERS TO **IMPROVE** THEIR LEARNING AND TO  
TEACHERS TO **INFORM** OUR PRACTICE.\**

**THE IMPACT EVERY LEARNER AND EVERY LEARNING PRACTITIONER  
BENEFITS FROM REGULAR FEEDBACK THAT IS:**

**TIMELY**

**SPECIFIC**

**ACTIONABLE**

**RESPECTFUL**

# Revolutionizing Learning Spaces with AI





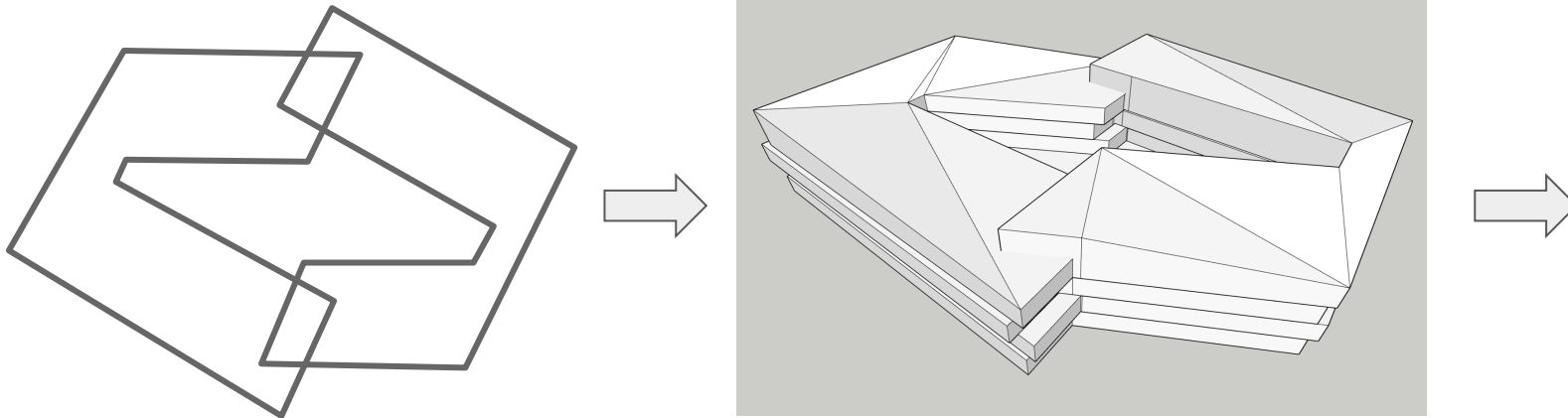
“The future of education lies in empowering young learners to embrace and develop their uniquely human qualities – those unlikely to ever be replaced by technology.”

World Economic Forum, Defining Education 4.0: A Taxonomy for the Future of Learning Report.

## Design Parti Concept

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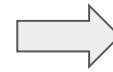
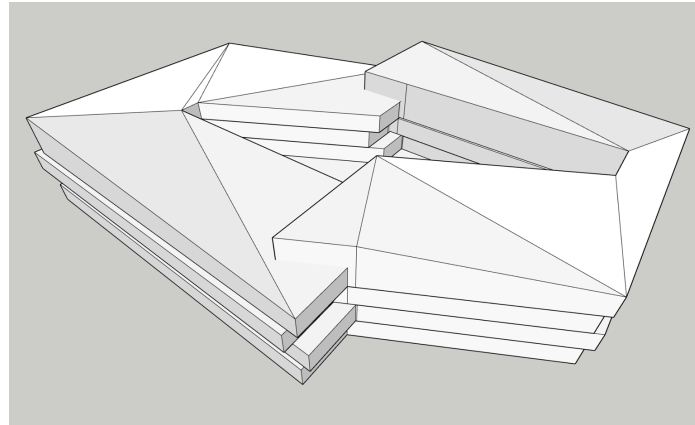
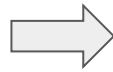
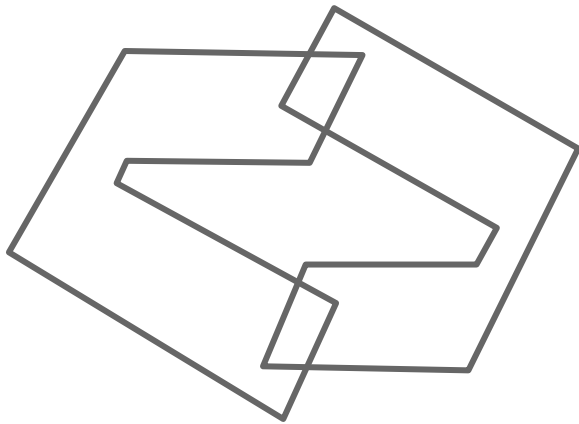
Inspired by the elegance and harmony of mathematical principles, our STEAM school's exterior facade design embraces the concept of a mathematical spiral as its guiding inspiration.



# Design Concept

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Inspired by the elegance and harmony of mathematical principles, our STEAM school's exterior facade design embraces the concept of a mathematical spiral as its guiding inspiration.

























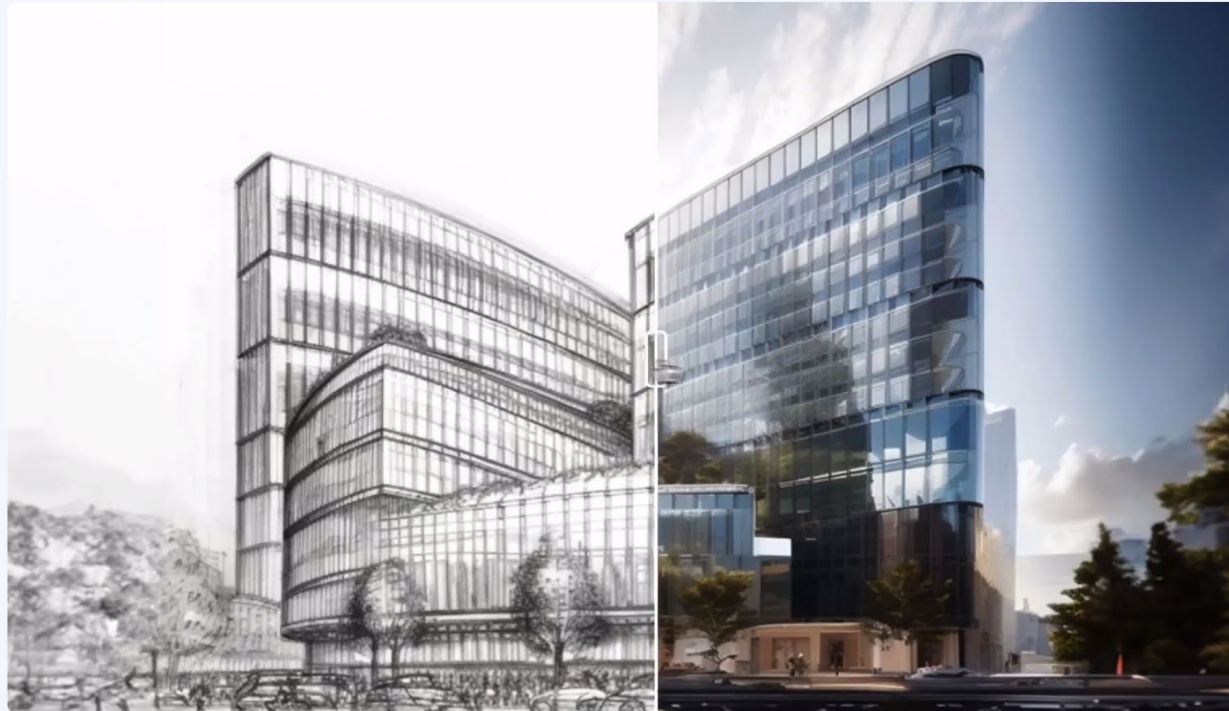


# Architecture AI Design Assistant

AI Render tools for architecture and interior design.  
1-click Sketch to Render in seconds.

[Start Rendering Free →](#)

Join **20,000+** happy designers



# WHAT ARE THE CONDITIONS FOR MEANINGFUL, LASTING CHANGE?

# CONDITIONS FOR MEANINGFUL, LASTING CHANGE

**Reorganize Students** – No More  
Classrooms

**Reorganize Teachers** – No More One  
Teacher to 25 Students

**Reorganize Schedule** – No More 50-  
Minute Periods

**Reorganize Learning Spaces** – No More  
Cells & Bells

# AND THE ESSENTIAL PRE- CONDITIONS FOR SUCCESS?

# AND THE ESSENTIAL PRE- CONDITIONS FOR SUCCESS?

1. Committed Leadership
2. Student-Centered Curriculum
3. Adequate & Appropriate Professional Development
4. Sufficient Funding

**QUESTIONS?**