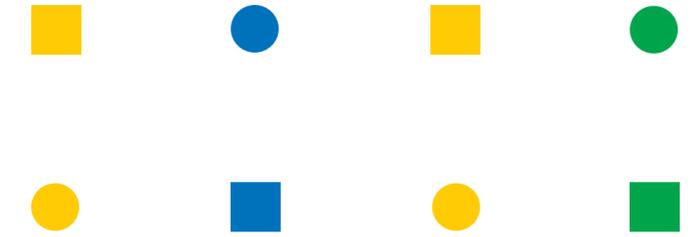
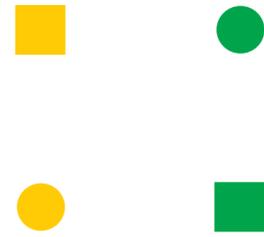


Rethinking Classroom Space for 21st Century Innovative Learning

How the Imaginarium transformed the learning spaces in six schools





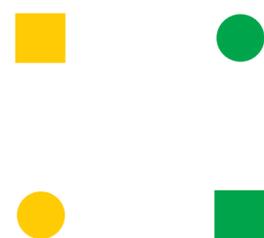
IMPACTS
THE LIVES OF
90,000
CHILDREN

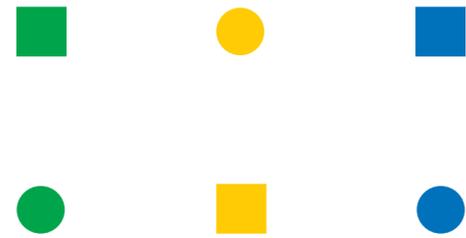


Every day, Denver Public Schools impacts the lives of 90,000 children.

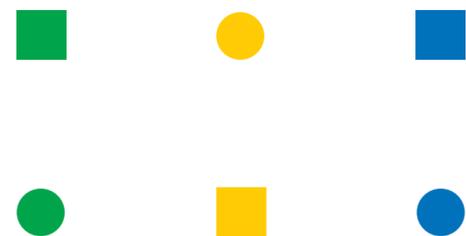
The classroom environment can affect a child's academic progress as much as 25%. An average student can lose as much as one year of typical growth if she or he is in the least effective classroom environment compared to the most effective.*

*University of Salford





Why Environment Matters



To answer this question, Denver school leaders, students, teachers, and the Imaginarium partnered with Kurani design firm to rethink learning spaces.



Six schools embarked on this journey to:

- Redesign their spaces in a way that directly supports their learning model and school values.
- Bring together the voices of students, teachers, and administrators.
- Push forward the idea that 21st century learning should take place in 21st century spaces.
- Improve student engagement and academic outcomes.

Let's take a look...



Imaginarium Philosophy

The Imaginarium's mission is to stimulate and support innovation across Denver to transform learning and education systems. To complement our innovative work in personalized learning, the Imaginarium is helping schools and teachers think about space and its impact on learners. Re-imagining physical spaces makes the intangible tangible—helping educators, students, and leaders represent, touch, and connect to their visions for learning.

Transformed learning spaces...

make student learning experiences more personalized, rigorous, and joyful

excite imagination

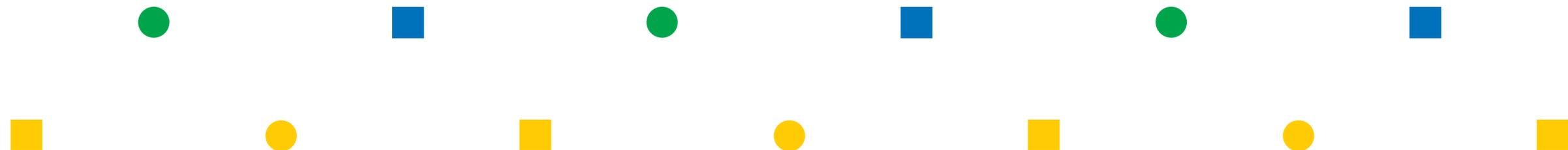
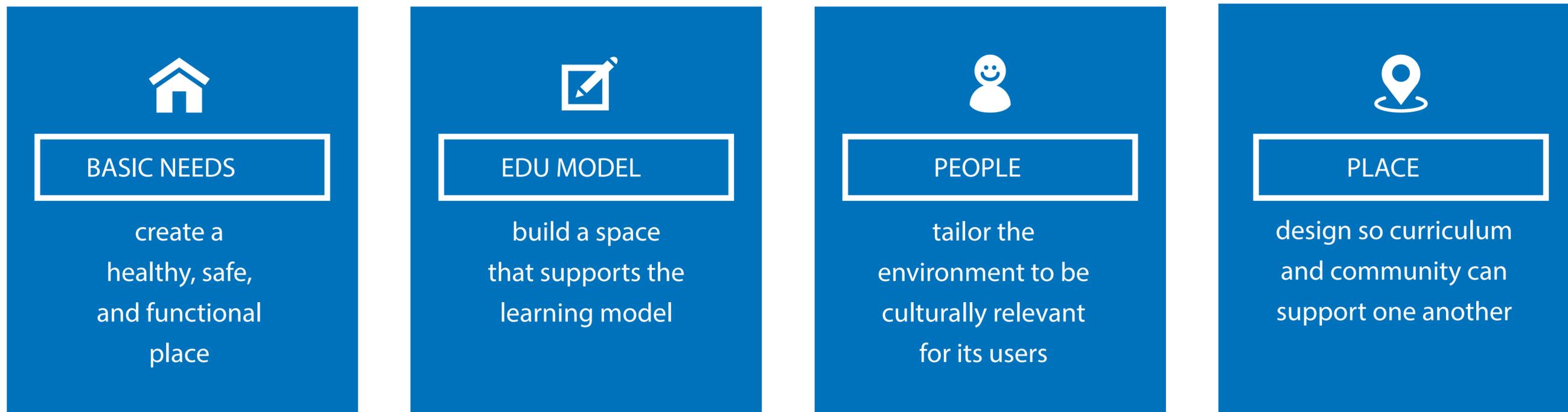
serve as "inspiration points" that embolden others to set and pursue new visions



Imaginarium's Space Design Philosophy

The Imaginarium believes that space contributes directly to each student's success, and it is critical that spaces are designed to promote creativity, collaboration, and a sense of community that can enable formal and informal learning.

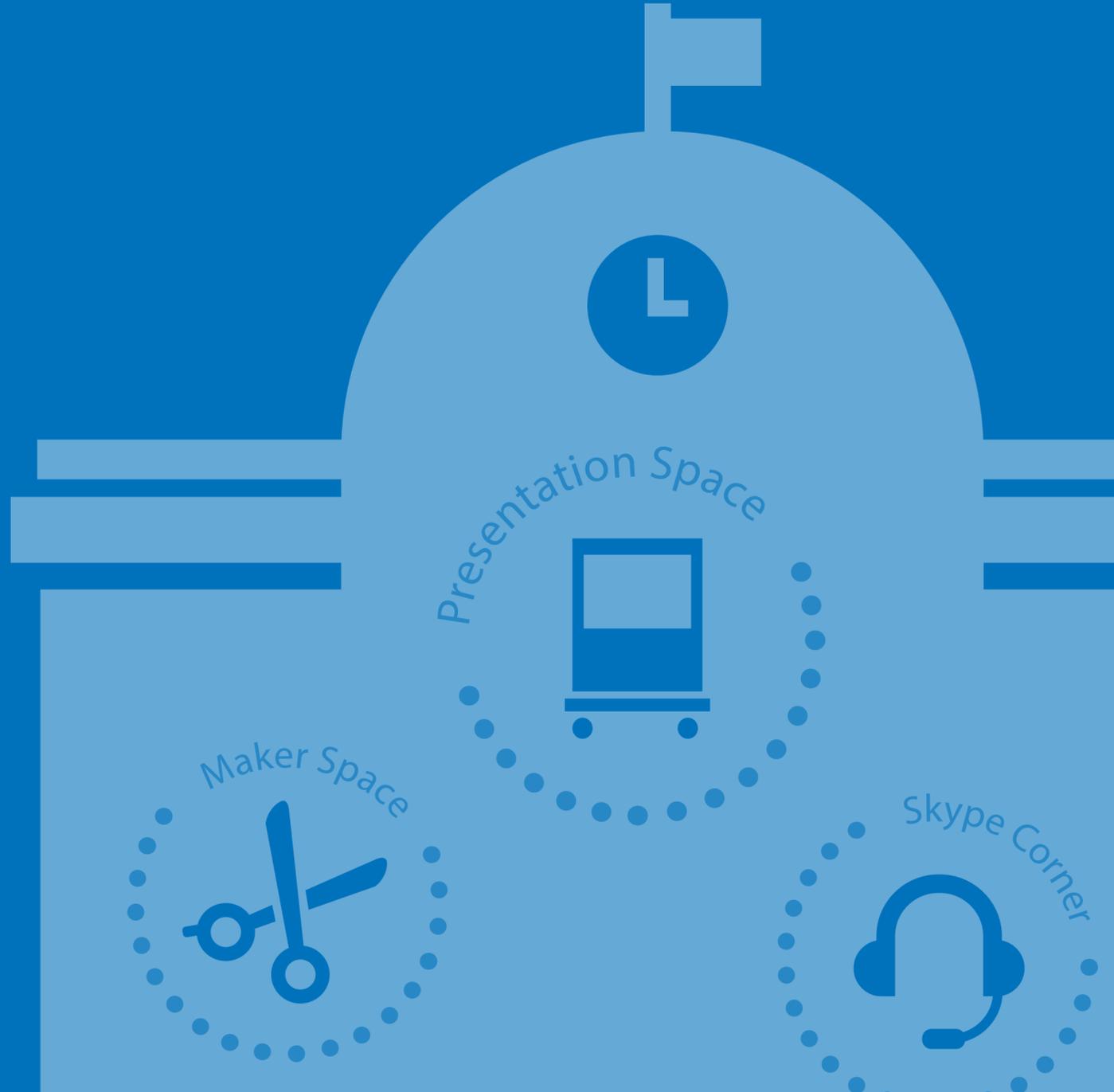
Specifically, when designing a Learning Space, we consider



Enable Each Activity

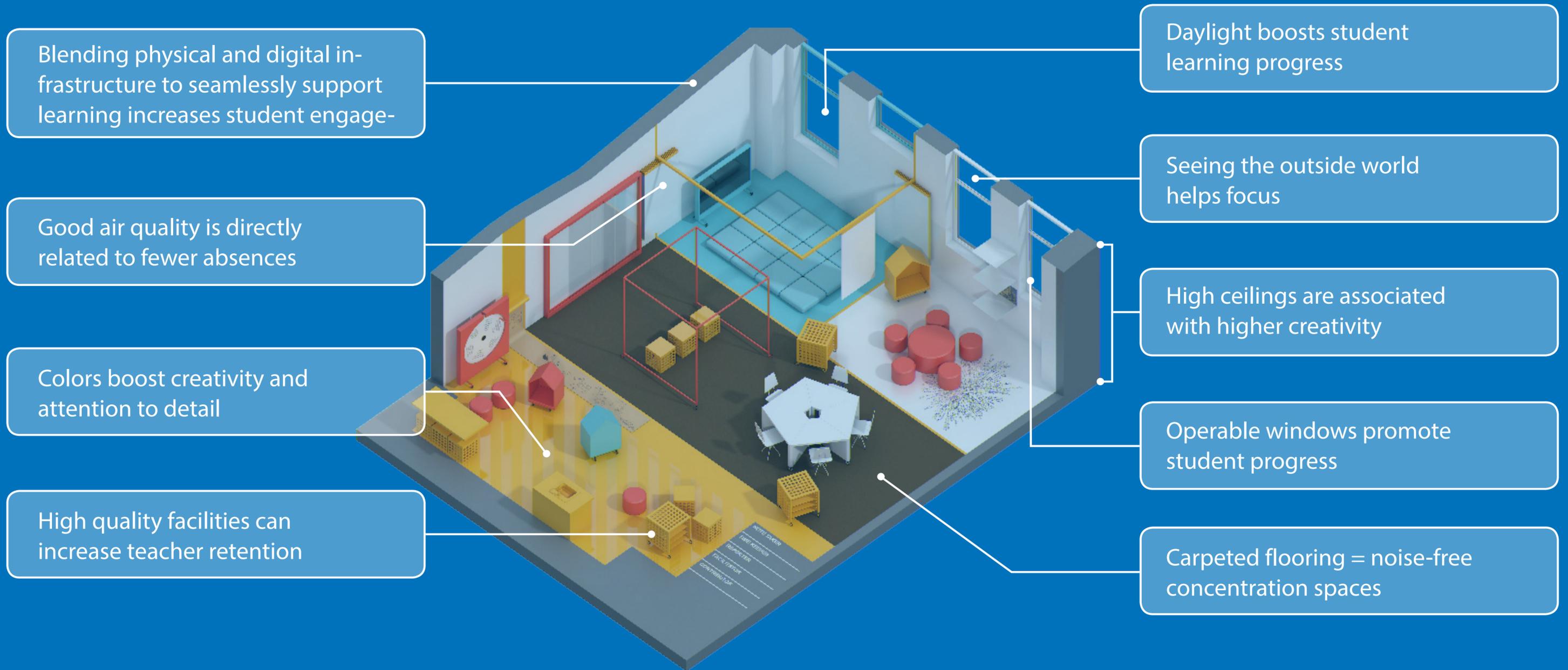


at Home



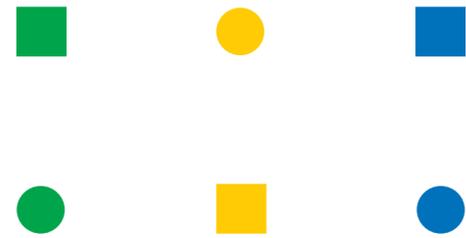
at School

9 Ways that the Environment Affects Learning

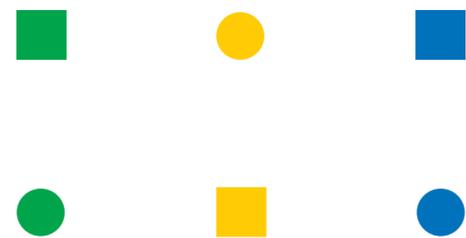


Student attitudes become more positive after a move to a new school building. Students feel significantly safer, more proud of their space, and excited about school.

American Speech-Language-Hearing Association, Heschong Mahone Group, Inc., California Energy Commission, National Clearinghouse for Educational Facilities, American Lung Association, University of British Columbia, National Foundation for Education Research, U.S. Department of Education, Journal of Consumer Research, National Clearinghouse for Educational Facilities

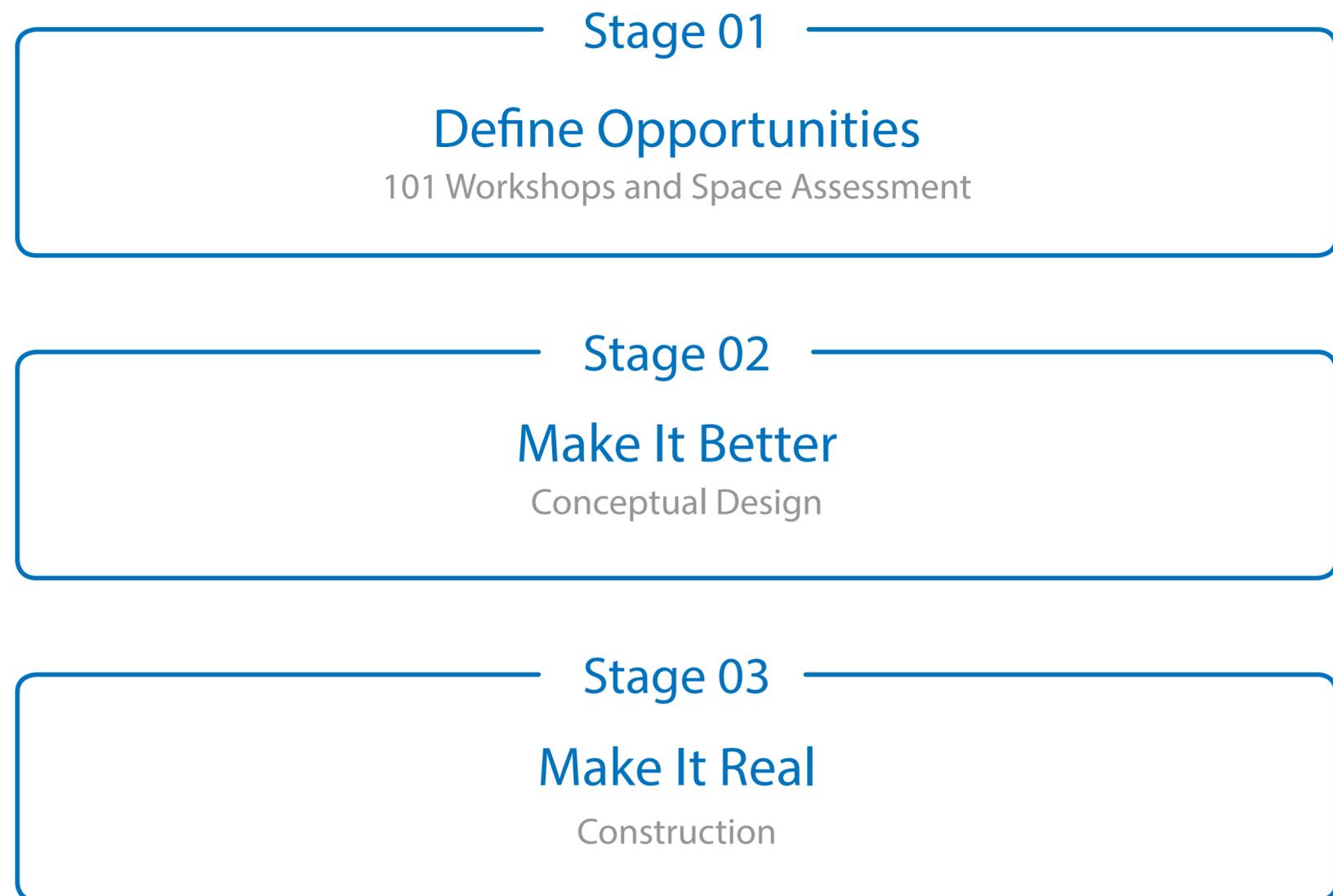


The Design Process



Each school is unique and has its own learning model, values, and community.

Three iterative design steps ensure that student, teacher and administrator needs are included in the final design:



Stage 01



101 Workshops and Space Assessment

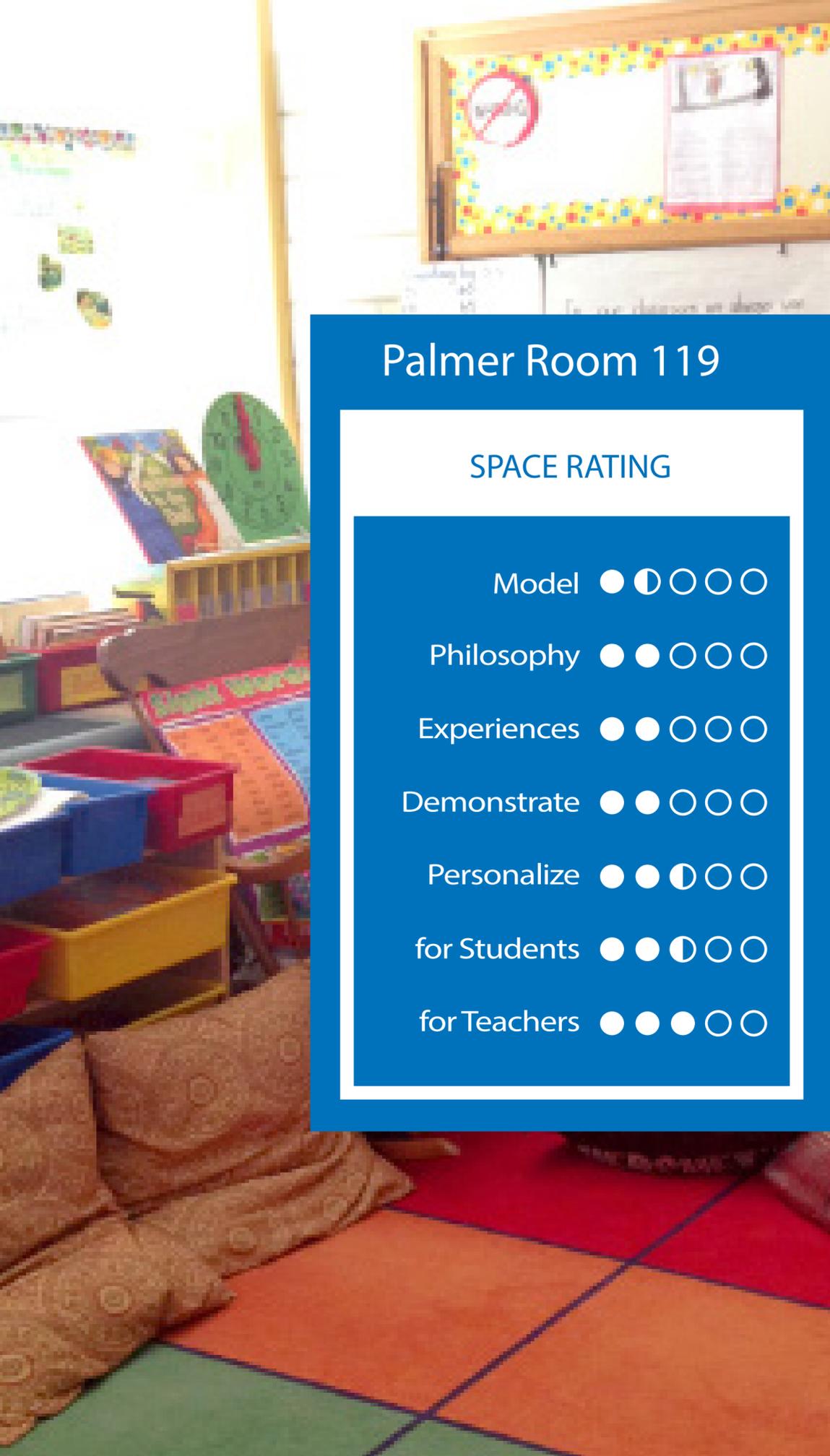
In 101 Workshops, teachers, principals, and students discuss their vision for how their school model could be supported by the physical learning environment.

Space Assessments compare this school vision against the physical reality. We discover strengths, challenges, and opportunities. Opportunities are sweet spots for creative solutions.

“Our building is over 90 years old. We were looking at how to stay within the realm of our building and still make shifts... to support students in personalized learning and find spaces that they would be able to have that voice and choice.”

Pam Kirk, Principal of Asbury Elementary

Here are two schools we worked with in this stage...



Palmer Room 119

SPACE RATING

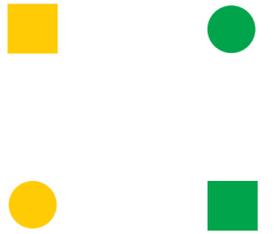
- Model ● ● ○ ○ ○ ○
- Philosophy ● ● ○ ○ ○ ○
- Experiences ● ● ○ ○ ○ ○
- Demonstrate ● ● ○ ○ ○ ○
- Personalize ● ● ● ○ ○ ○
- for Students ● ● ● ○ ○ ○
- for Teachers ● ● ● ○ ○ ○

Stage 01

Palmer Elementary Room 119

Palmer Elementary’s learning model is project-based with a strong focus on personalized learning. The Imaginarium and the school design team found opportunities to:

- Support collaboration and creation with more flexible furniture
- Inspire creative thinking with inspirational prompts
- Boost motivation with visible progress trackers
- Take advantage of underused space for presentation and creation



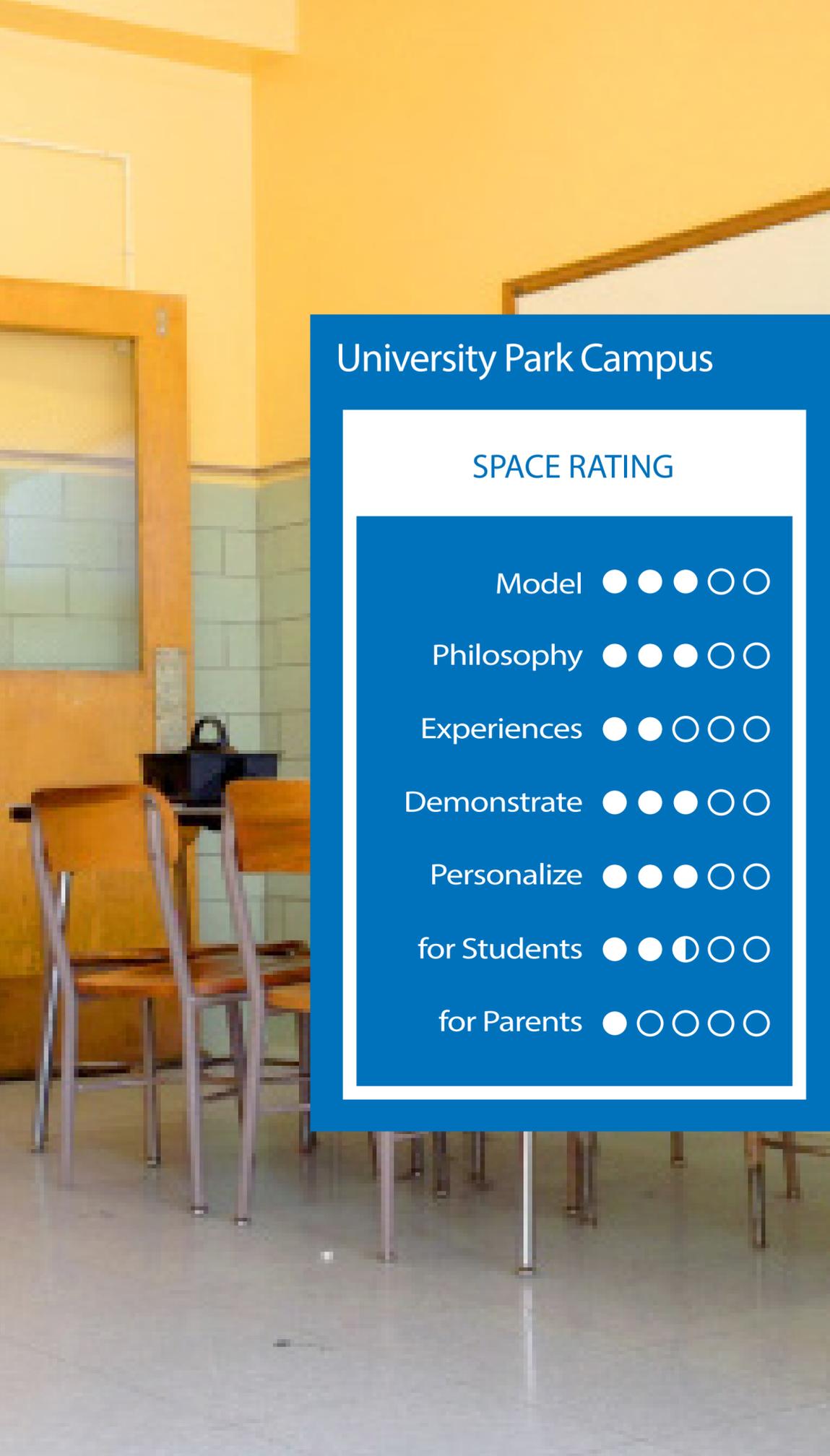
1280
square feet

47
seats

11
foot ceiling

3
entrances





University Park Campus

SPACE RATING

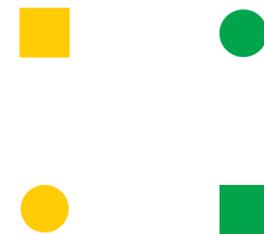
- Model ●●●○○
- Philosophy ●●●○○
- Experiences ●●○○○
- Demonstrate ●●●○○
- Personalize ●●●○○
- for Students ●●●○○
- for Parents ●○○○○

Stage 01

University Park Elementary

University Park Elementary is committed to whole-child development with a strong focus on personalized and blended learning. Their vision for Self Organized Learning Environments (SOLE) complements the Kurani philosophy. Plans for University Park:

- Utilize hallway nooks as breakout spaces for students
- Create a teachers' lounge to support staff wellness and encourage teamwork
- Promote school-wide dialogue with public displays where students voice their learning interests to teachers
- Help each classroom customize their space with independent learning zones, gathering places, and a variety of seating options

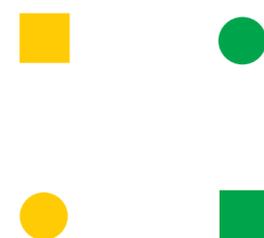


70K
square feet

122
year old building

25
classrooms

2
building additions



Stage 02



Conceptual Design

In the design phase, teachers, principals, and students collaborate with each other and the Imaginarium to determine what they want to do in the space.

Ideas range from large...

“I want a Star Wars table where images float up from the table.”

to small...

“I’d love to paint the walls as a green screen.”

“You can start to see your space differently... I have Sam who needs his confined seat, where I have others that [don’t]. We’ve realized that we don’t all have to sit at our desks like Sam does. We could spread out on the floor like Gregoria wants to, and that’s OK too.”

Pam Kirk, Principal of Asbury Elementary

Here are two schools we worked with in this stage...

Stage 02

Rocky Mountain Prep Elementary

Rocky Mt. Prep envisioned their students presenting, collaborating, and focusing.

Conceptual Design solutions:

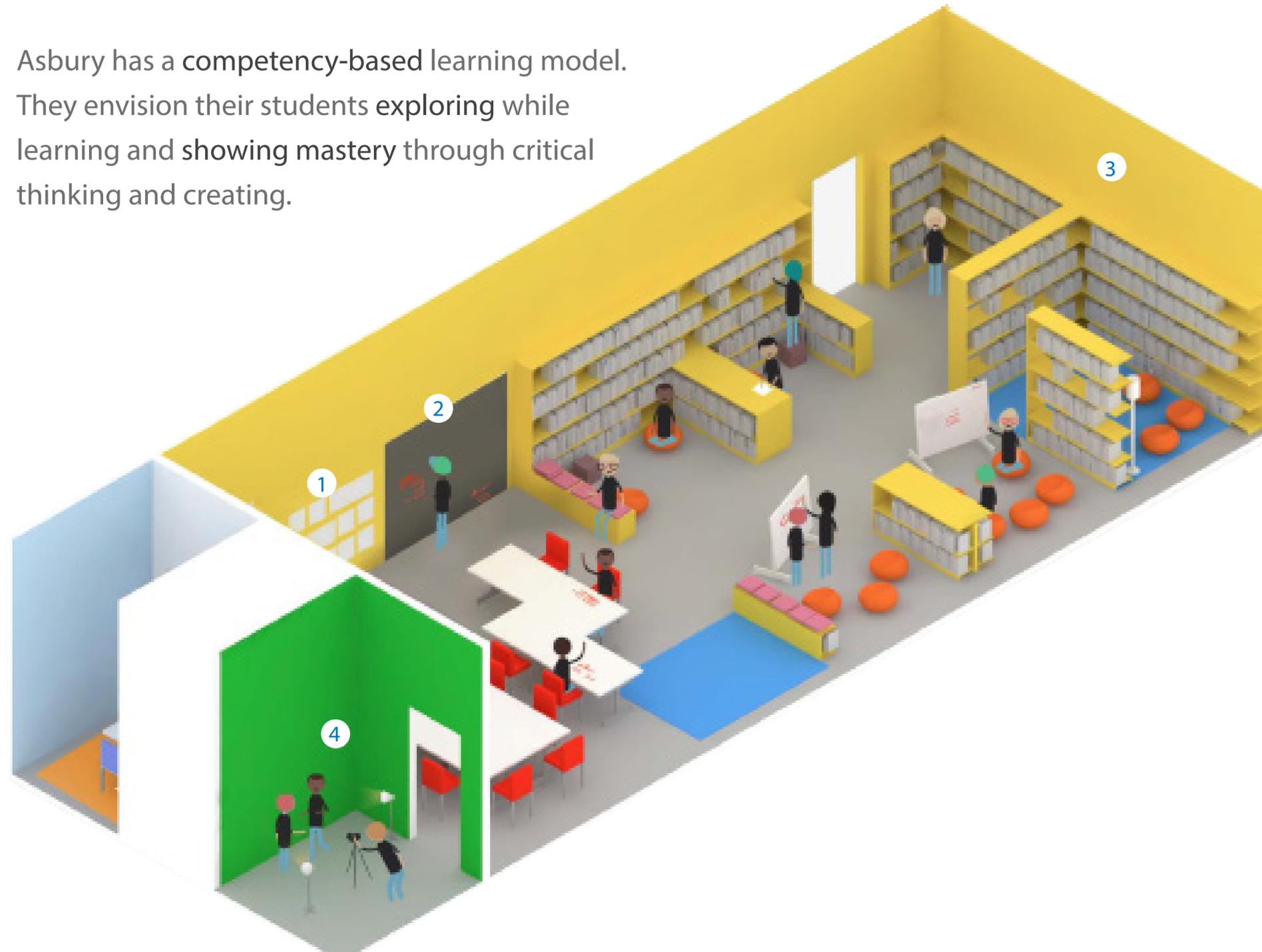
- Microenvironments for supporting different learning activities, technology, and moods
- Hall of Fame for visible inspirational messages and recognizing student achievements
- Dedicated presentation stage and auditorium for sharing student work
- Mental break zones and adult learning spaces for teachers



Stage 02

Asbury Elementary

Asbury has a competency-based learning model. They envision their students exploring while learning and showing mastery through critical thinking and creating.



New Library Concept

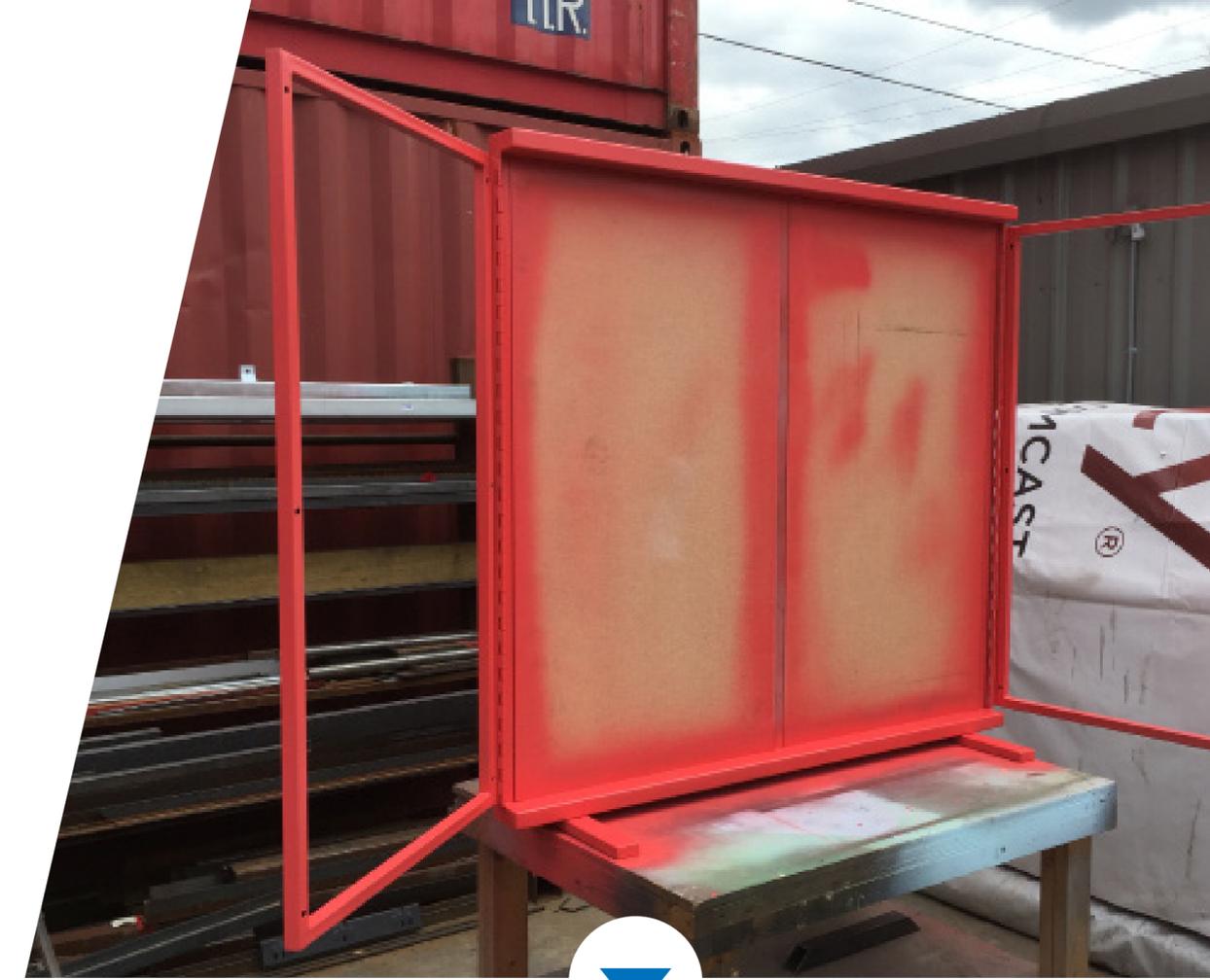
- 1 Pin-up Wall**
Wall space cleared to display student progress and projects
- 2 Breakaway Wall Space**
Reorganize shelves to open wall space where students can write on dry erase boards or tack ideas on pegs
- 3 Fresh Color Scheme**
Walls and shelves painted with warmer colors to create a more welcoming, cleaner, and fun atmosphere
- 4 Green Screen Studio**
Closet converted by painting walls green and allowing students to film and record

Stage 03

Construction

How do we connect all the dots?

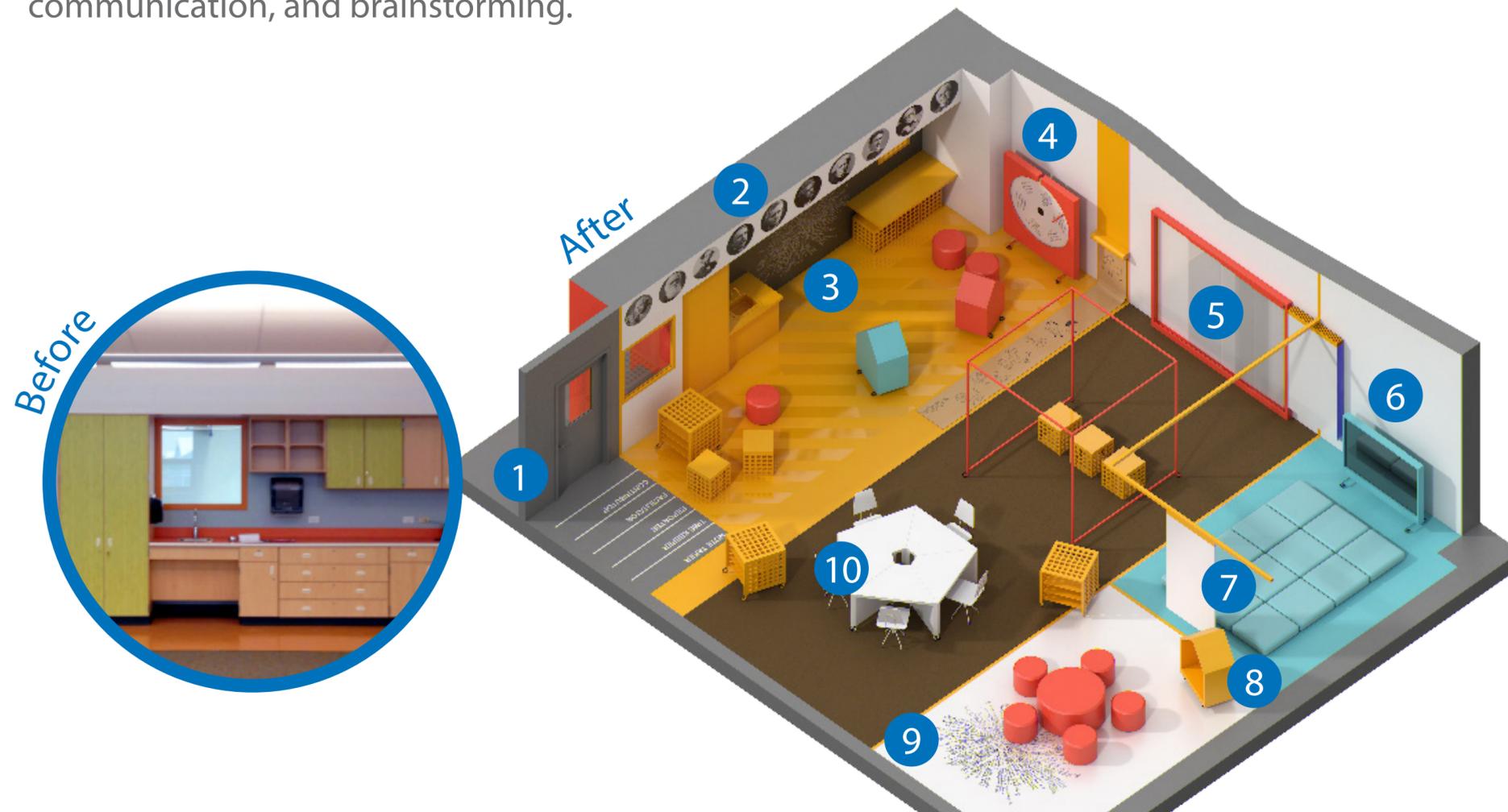
- Design entire learning space-floors, ceiling, walls, furniture, learning tools, acoustics, tech and more
- Oversee construction
- Train teachers to use their new spaces and tools
- Join learning model and everyday practice



Stage 03

High Tech Elementary

Students, teachers, and administrators imagined Room 232 as a dynamic and egalitarian space for collaboration, debate, communication, and brainstorming.



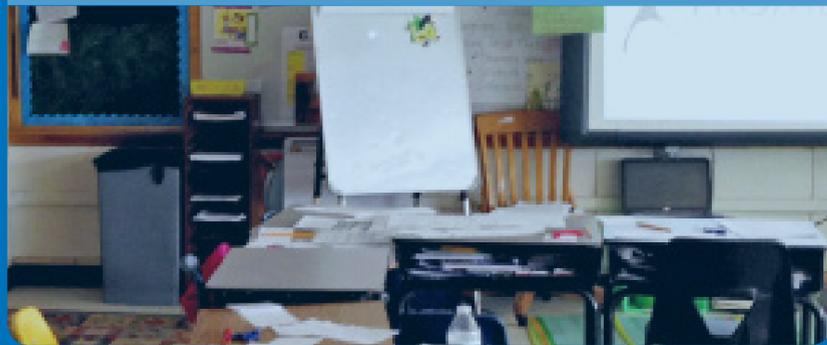
Concept for High Tech Elementary's adaptable space for project-based learning. This "Collaboratory" room encourages group work and idea-sharing while supporting many different learning styles.

- 1 **Visible Team Roles:** Am I facilitator, note-taker, or contributor today?
- 2 **Inspiration Wall:** look up to Neil deGrasse Tyson, Jane Goodall, and others
- 3 **Messy Zone:** chalkboard, tile, and roll-out butcher paper
- 4 **Wheel of Reflection:** gamified tool for metacognitive learning
- 5 **Drafting Cake:** multi-layered clear whiteboard. Learn about systems in a tactile way
- 6 **Skype Corner:** soft seating to flop on while Skyping or watching videos
- 7 **Dry Erase Curtain:** movable dry erase boards = useful room dividers
- 8 **Huts:** small nooks for down time or quiet reading
- 9 **Drawing Corner:** write on everything! Even the floor is dry erase
- 10 **Mobile Collaboration:** triangular desks can be arranged any which way

Columbine Elementary

created the Dialogue District to support personalized and project-based learning.

101 Workshops & Space Assessment



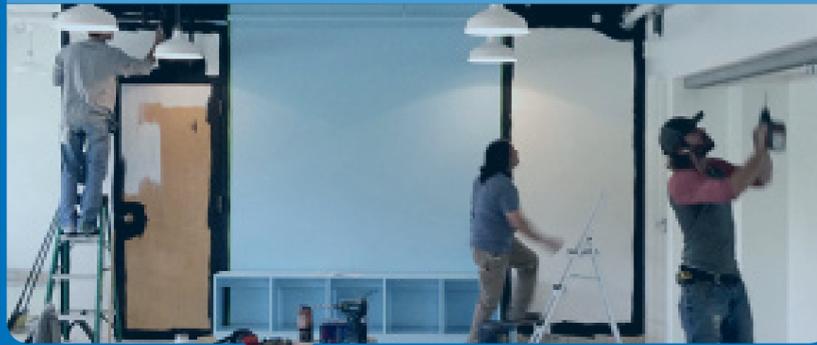
Stage 01

Stage 02

Stage 03

Result

Construction



Conceptual Design



Use and Impact

“We wanted to create a school culture that was more organic. We wanted to give students more voice and ownership over their school and their process of learning.”

Jason Krause, Principal

A Closer Look: Building the Dialogue District at Columbine Elementary



After



“It’s every teacher’s dream to come up with her ideal classroom.”

Caitlin Caligiuri, Personalized and Blended Learning Coordinator



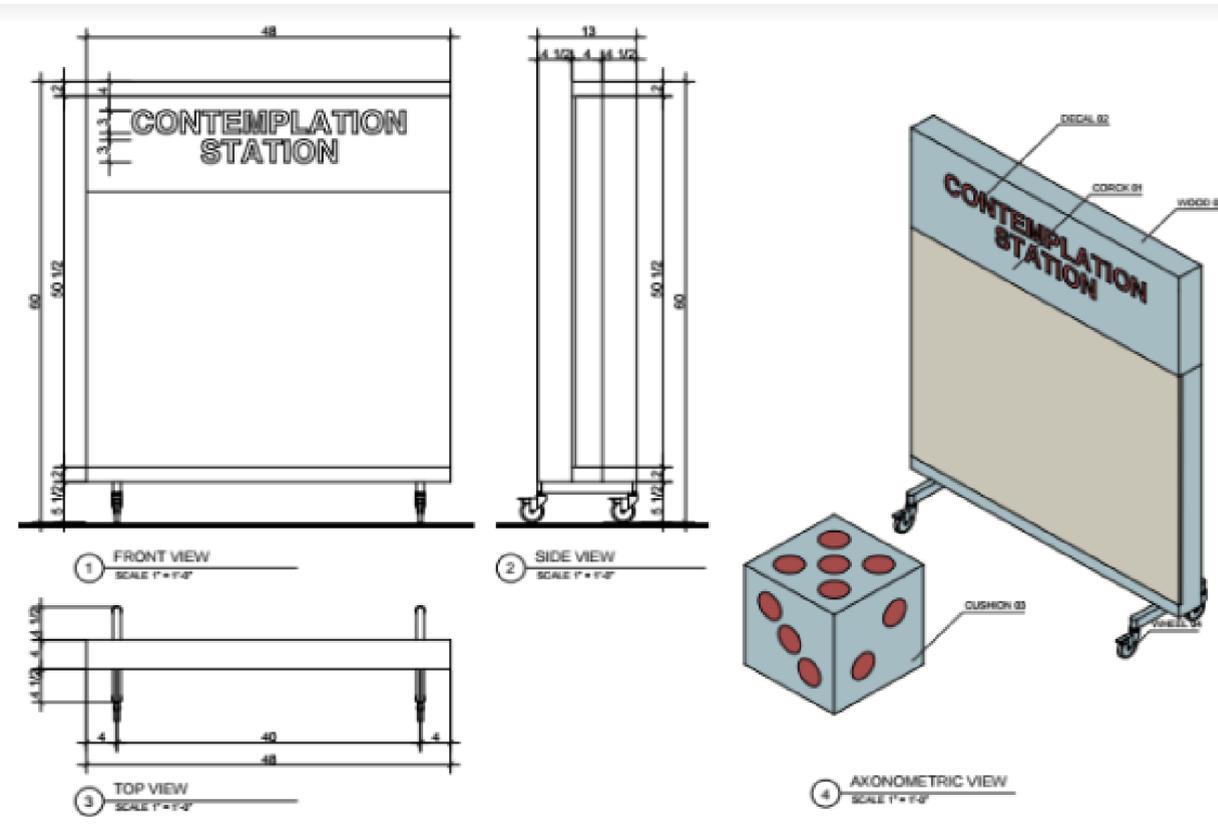
Highlight:
Working with perimeters

“I feel differently because there’s a lot of space. And it’s also really cozy.”

Carolina Castillo-Rocha, Student

Supporting reading and visual literacy are priorities for the teaching team at Columbine. So the Dialogue District’s perimeter and wall spaces have been transformed into quiet reading nooks and exploratory activity corners.





Highlight: Custom learning tools and games

“I told Danish that I wanted a Star Wars table where images float up from the table. And he said, ‘Oh I see, I’ll try to do that.’ That was the moment when I realized you can think big.”

Jason Krause, Principal



Columbine’s whole child learning specialists and teachers also think big, creating projects that support collaboration, discussion, and presentation.

It might not be a Star Wars table yet, but educators now have a room full of custom learning tools and games. The Contemplation Station supports constructive peer feedback, with a gamified twist.

■ ●

Highlight: Technology touchpoints

“I wanted a cook cam, so kids could present their work. Like when you’re watching someone making food on the TV... We did a modified version of that.”

Jason Krause, Principal

“I want to do a TV presentation for my natural disasters project.”

Bailey Hammond, Student

Interactive technology is a key part of Columbine’s learning model. On Skype mountain, there’s a rolling TV panel with a mirroring device. The unexpected terrain invites kids to come watch TED talks and share from their personal devices onto the big screen.



Impact



“Kids have a lot of voice here—we really are committed to listening to our kids. To me, that is what that room symbolizes in our culture.”

Jason Krause, Principal



“It feels better now. Because there’s more things to do and it’s funner than it used to be.”

Larissa Mendoza-Banuelos, Student

“We created mini grants to get more teachers involved. One of my teachers used project-based learning with her kids to come up with ways to shift the classroom. We’re now providing some of the furniture that they wanted.”

Pam Kirk, Principal



“Now it feels like another school because teachers and little kids come in here and use it to talk about their work and test new materials.”

Carolina Castillo-Rocha, Student



“Now, the students can be in charge of their learning and their space. Physical comfort really helps their emotional comfort.”

Caitlin Caligiuri, Personalized and Blended Learning Coordinator



“This space allows for controlled chaos. It’s terrifying, but also exciting, because you’re letting an 8, 9, or 10-year-old be completely in charge. And what they want to do with that knowledge and that independence—it’s amazing stuff.”

-Caitlin Caligiuri

Where are your spaces for controlled chaos?

Where are your focus and concentration nooks?

Where can students present and display their work?



Want more information on what better spaces could mean for your educational program?

Join Us!

Connect with the Imaginarium about innovation in classroom instruction, space design, and to provide academic, social, and emotional growth for every child.

Start talking about physical learning environment with your colleagues, staff, and students. If you have questions we can help!

Visit us online: <http://imaginarium.dpsk12.org>

