Monarch School
Launch Pointe

Hands-on education for homeless teens

LPA

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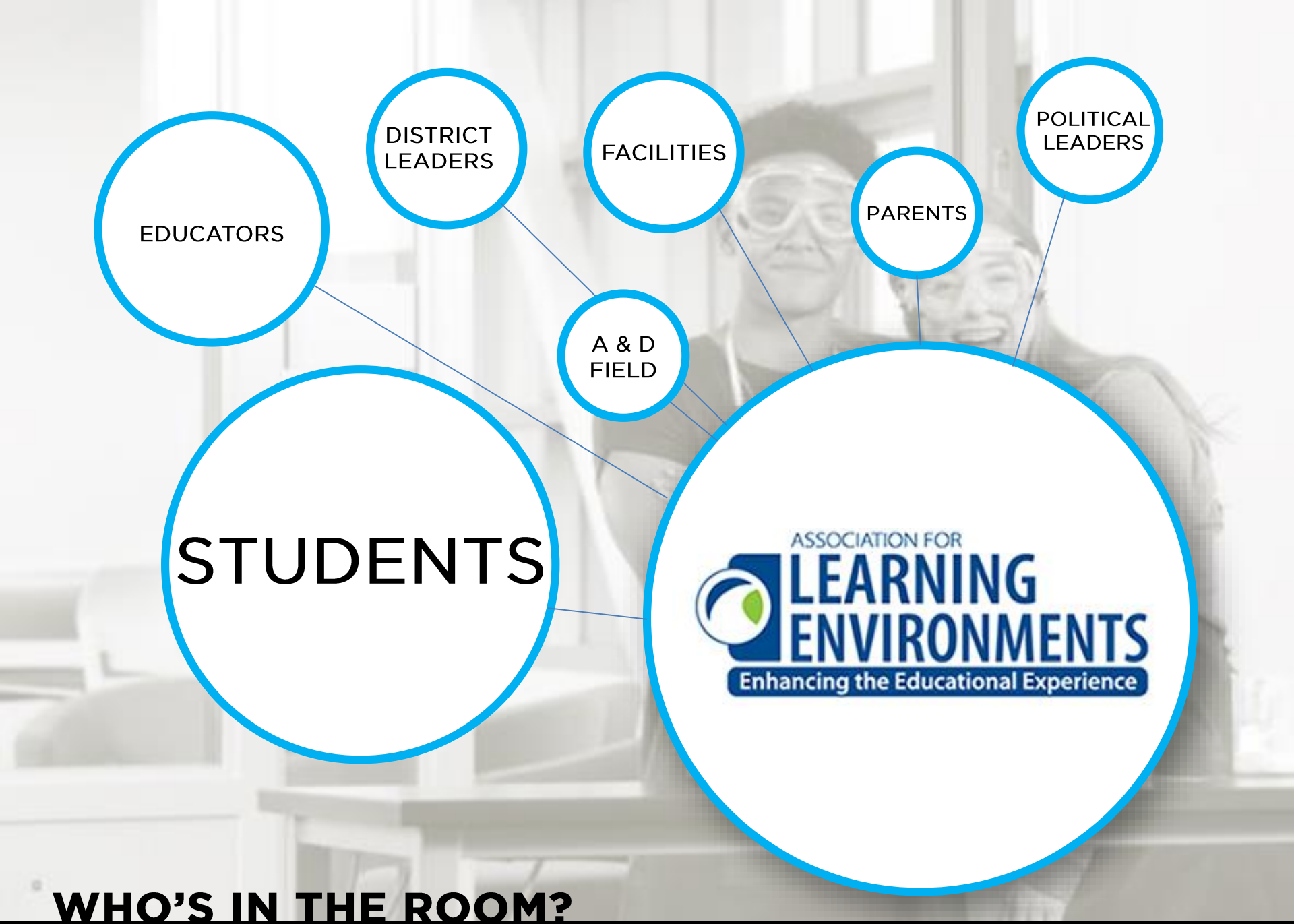

WHO'S IN THE ROOM?

01 The Maker Movement

Become familiar with the maker movement, how hands-on problem-solving is helping to build skills within our communities, including soft skills

02 Design Features

Recognize design features that support flexibility and make a space future-ready

03 Building Challenges

Identify creative solutions to existing building challenge to create user-friendly features including lighting, power, views, mechanical

04 Space Supports Growth

Discover how space can support not only academic growth but social growth, emotional support, and life skills

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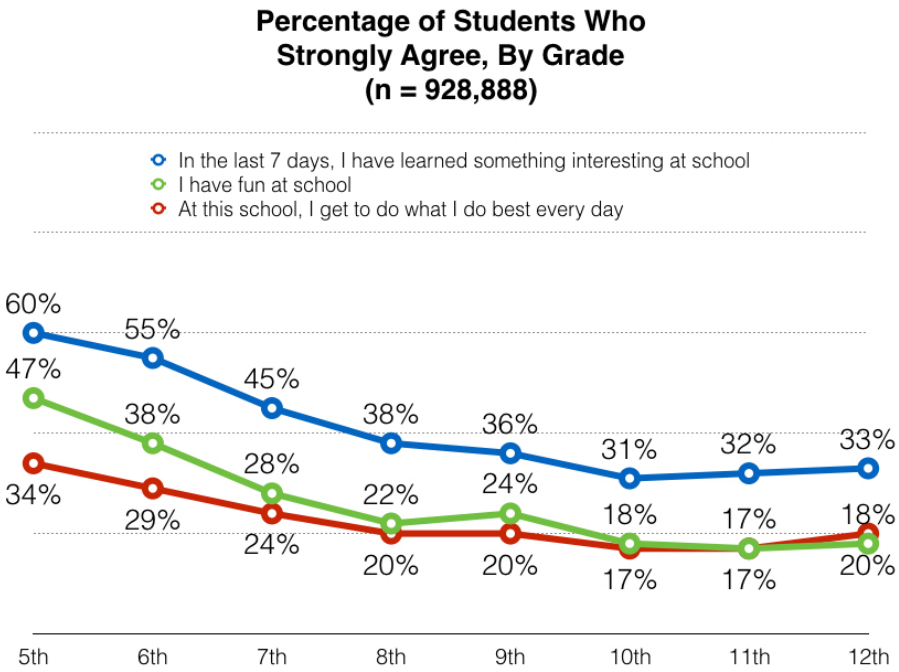
Monarch Launch Pointe

Hands-on Education

Research Highlights a Critical Challenge…



Gallup. (2016). *Gallup student poll. Engaged today - Ready for tomorrow. Fall 2015 survey results.* Washington, DC: Author.

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Students need places that

activate sustained engagement

"Spark + Stick"

Readiness for robust STEAM spaces

Culture of School >>>> shift in mindset >>>> Culture of Innovation

Culture of School versus
Culture of Innovation

- Individual Achievement versus Collaboration
- Specialization versus Multi-disciplinary Learning
- Risk Avoidance versus Trial and Error
- Consuming versus Creating
- Extrinsic versus Intrinsic Motivation
- Play, Passion, Purpose

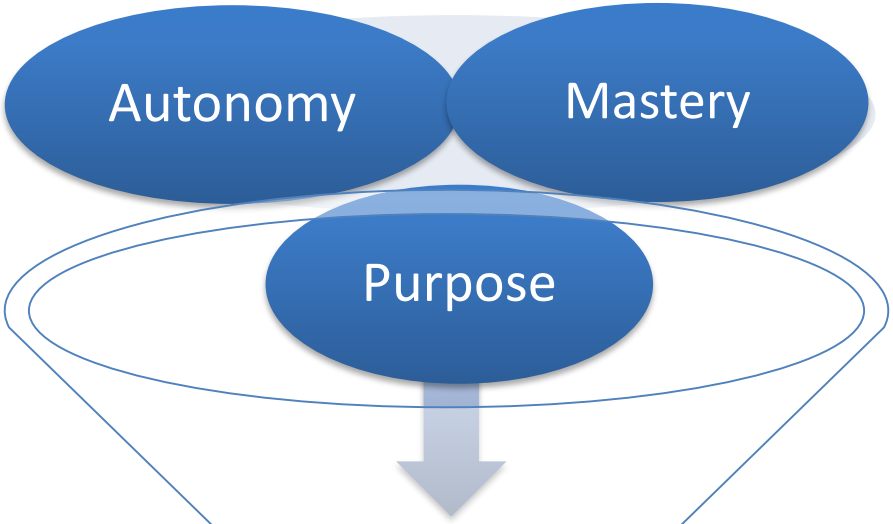
Wagner, T., & Compton, R. A. (2015). *Creating innovators: The making of young people who will change the world*. Simon and Schuster.

Now innovation is hard.

It requires taking chances. It requires challenging those things we thought we knew with certainty. Taking the risk and breaking the rules.

~ Carl Bass, CEO, Autodesk, Inc.
TEDxBerkeley

A shift in mindset requires leadership



Passionately working towards things that matter to you builds…

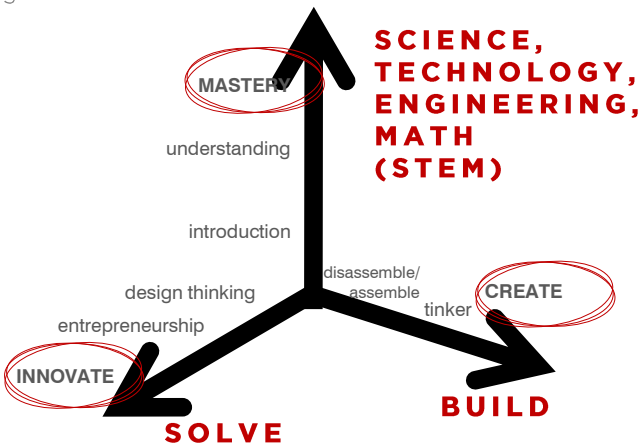
Significant learning experiences

Flexibility of mind
Creativity
Satisfaction
Productivity

THE MAKER MOVEMENT

Three potential vectors of a maker space – depending on how you use it:

1) attaining mastery in STEM subjects, (students see difficult concepts in real-life, 3D)
2) Build creativity and allow students time to tinker and think through things in 3D
3) solve real-world problems and develop innovation skills – use the design thinking process and business skills



01 Stanford d.School banner
03 Detroit Public Library, Hype Teen Zone/ Maker Space
04 Qualcomm's Think-A-Bit Lab

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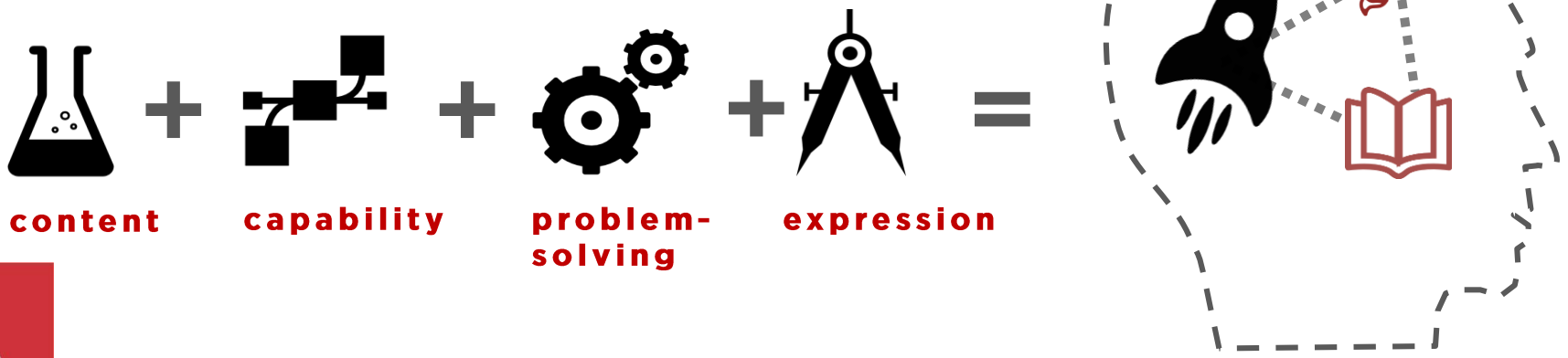
"It's not really about science or math," notes Heini Korhonen, 16, one of the students involved.

http://our.risd.edu/post/134366639174/steam-powered-kids

"It's about the interconnectedness of all things."



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challenge convention / rethink the lab

3 big ideas for STEM spaces:

connectivity

transparency, interdisciplinary interaction/ design-thinking process on display

flexibility

adaptable, keeps up w/ technology

less is more, many utilities

inspirational

engages students and teachers

instills pride & confidence

real-world examples

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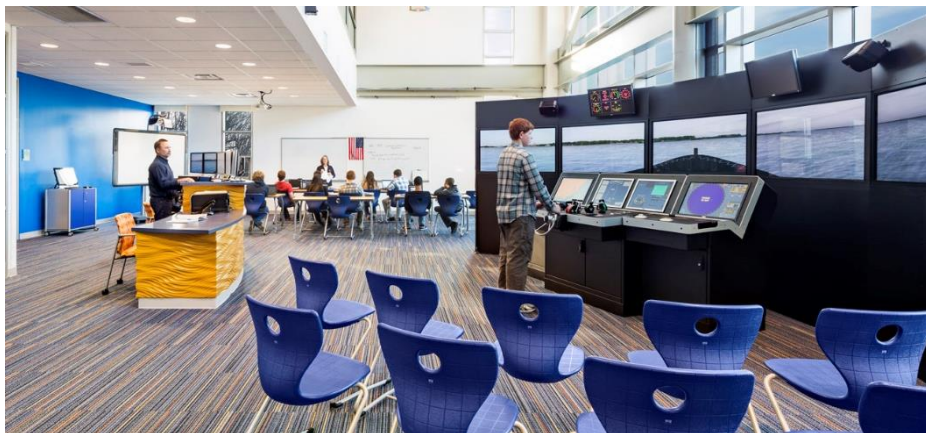


connectivity

dissolving of boundaries

Interconnection through digital space

transparency & interconnection:

interdisciplinary collaboration

space for informal learning

process = progress

flexibility

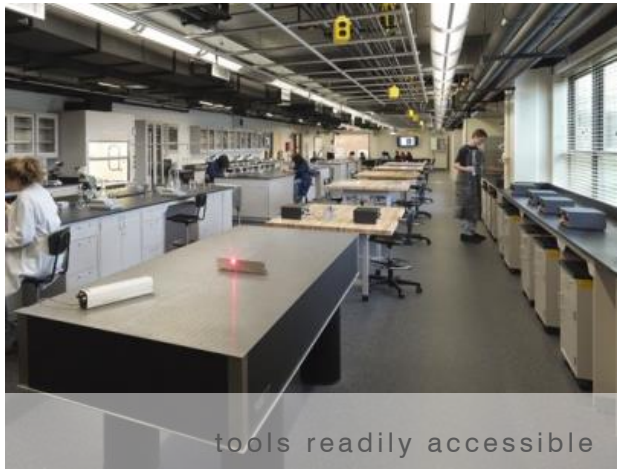
space to:

make, create, prototype

space for uninterrupted work

capacity to adapt & reconfigure

less is more, mobilize



tools readily accessible

adaptable, keeps up w/ technology

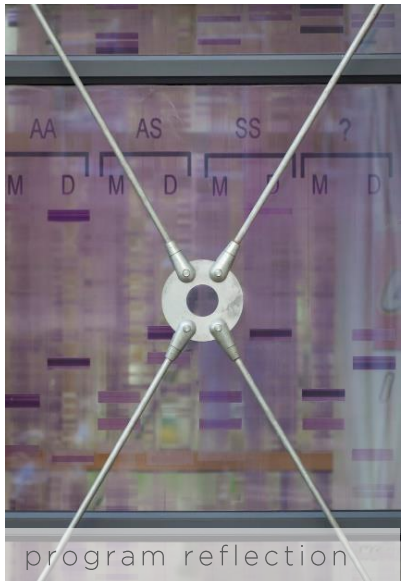
inspirational

real-world scenarios

resource-rich, discovery based

= career aspirations

scientific artifacts and art throughout



program reflection

pride & confidence

inspirational

4

types of space that support creativity and innovation:

stimulate

/ space for inspiration

reflect

/ space to think

collaborate

/ space to share

play

/ space to explore

2010: According to an IBM survey of more than 1,500 CEO's from 60 countries and 33 industries worldwide, CEO's believe successfully navigating an increasingly complex world will require, more than any other skill,

creativity.

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85% of U.S. say creativity is key to driving economic growth

Adobe

"We frequently discuss the importance of STEM education, but we can't ignore the importance of engaging and educating both halves of the brain. **Creative, critical thinking leads to innovation**. The integration of the arts into STEM curriculum will excite creativity in the minds of our future leaders."

– Congressional STEAM caucus 2013

DESIGN THINKING

By asking, "What do we need next?" and using the stages on this chart, design thinkers craft a unique process for each particular project. As students become more mindful of the process they have used on previous projects, they build confidence in their ability to successfully navigate open-ended challenges.

OBSERVE

Through observation, much can be learned. Often, people will say one thing, but when a keen observer looks, they will find that actually the behavior is different.

ASK & LISTEN

Active listening and curiosity are practiced and enhanced as a critical skill of Design Thinking. Through direct lessons and extensive practice, students become proficient interviewers who recognize the power of beginning questions with the word, "Why."

RESEARCH

Identifying experts, locating extreme users, and performing online research are all key aspects of the Design Thinking process. Students use this stage to understand and learn new information as well as to answer questions or locate resources throughout the process.

DEVELOP EMPATHY & "LOOK BENEATH THE SURFACE

After collecting information, students then strive to infer the underlying thoughts and feelings of a user. By immersing themselves in the experiences of users and developing "deep empathy," they are able to develop a deeper understanding that can lead to key insights.

SYNTHESIZE & DEFINE

Many design challenges are complex and multi-faceted. Grappling with them can be daunting and cause some people to give up hope to solving hem .By focusing on particular user types and their needs, along with the insights gathered during the "Deep Dive," students define an area that it is larger enough to allow for innovation, yet bounded enough to allow for success. Solving even a small part of a large issue is worthy of effort. We foster an attitude of optimism that is supported by the tools of the Design Thinking process.

BRAINSTORM

Brainstorming is a set of skills as well as a mindset. By adhering to a few Brainstorming Rules, teams and individuals learn to "turn off their judging brains" in order to increase the fluency of their ideas. At Nueva, we encourage students to use "Sketch Brainstorming" to allow them to rapidly capture their ideas.

ANALYZE & CHOOSE

Students benefit from exposure to different methods of analyzing and making decisions. Beginning with simple pros and cons and moving to weighted ratings of various criteria, students will build a repertoire of techniques to use in the future.

CREATE PROTOTYPES

The Designing Thinking process embodies a "bias towards action." By making representations of ideas, problems can be identified and resolved early in the design cycle. Tangible objects or simulated experiences allow students to obtain more informed feedback from users before committing the time and resources to a final version.

The Prototype and Feedback stages are linked together in an interactive cycle that is done many times to converge on a better solution.

SEEK FEEDBACK

Soliciting feedback from users is a key aspect of the Design Thinking process. There are many factors that go into a person's response to an item or an experience. Designers bring an open mind and a beginner's mindset of "not knowing" in order to gather both positive and negative feedback to improve their solutions. Experimentation as well as failures are valued for their information and because they contribute to future successes.

INCORPORATE FEEDBACK

Students evaluate all the feedback they have obtained about their prototypes. Combining this information with additional research and brainstorming, they decide how best to proceed. Should we change our prototype? Have we answered the key questions? Do we need more information? Do we need more ideas? Should we scrap this and start over?

PROJECT MANAGEMENT

Using classic techniques of project planning and time management, students practice how to monitor their progress and meet deadlines.

MOTIVATE & INSPIRE

Monitoring the motivation of a team and learning how to inspire a team are important qualities of an effective design thinker. If the various stages of the Design Thinking process are visited without an inherent enthusiasm of heightened motivation, the results are likely to be less than innovative. We help build the leadership skills and initiative of our students through out emphasis on this step.

MONITOR TEAM DYNAMICS (SEL)

Building upon Nueva's long history in teaching Social Emotional Learning (SEL), we have made team check-ins an explicit aspects of our Design Thinking process. Students have the opportunity to verbalize their concerns and brainstorm solutions collectively.


MONARCH
LAUNCH POINTE

MONARCH LAUNCH POINTE

1 School main entry and lobby

2 Atrium

3 Upper School classrooms

4 Gymnasium

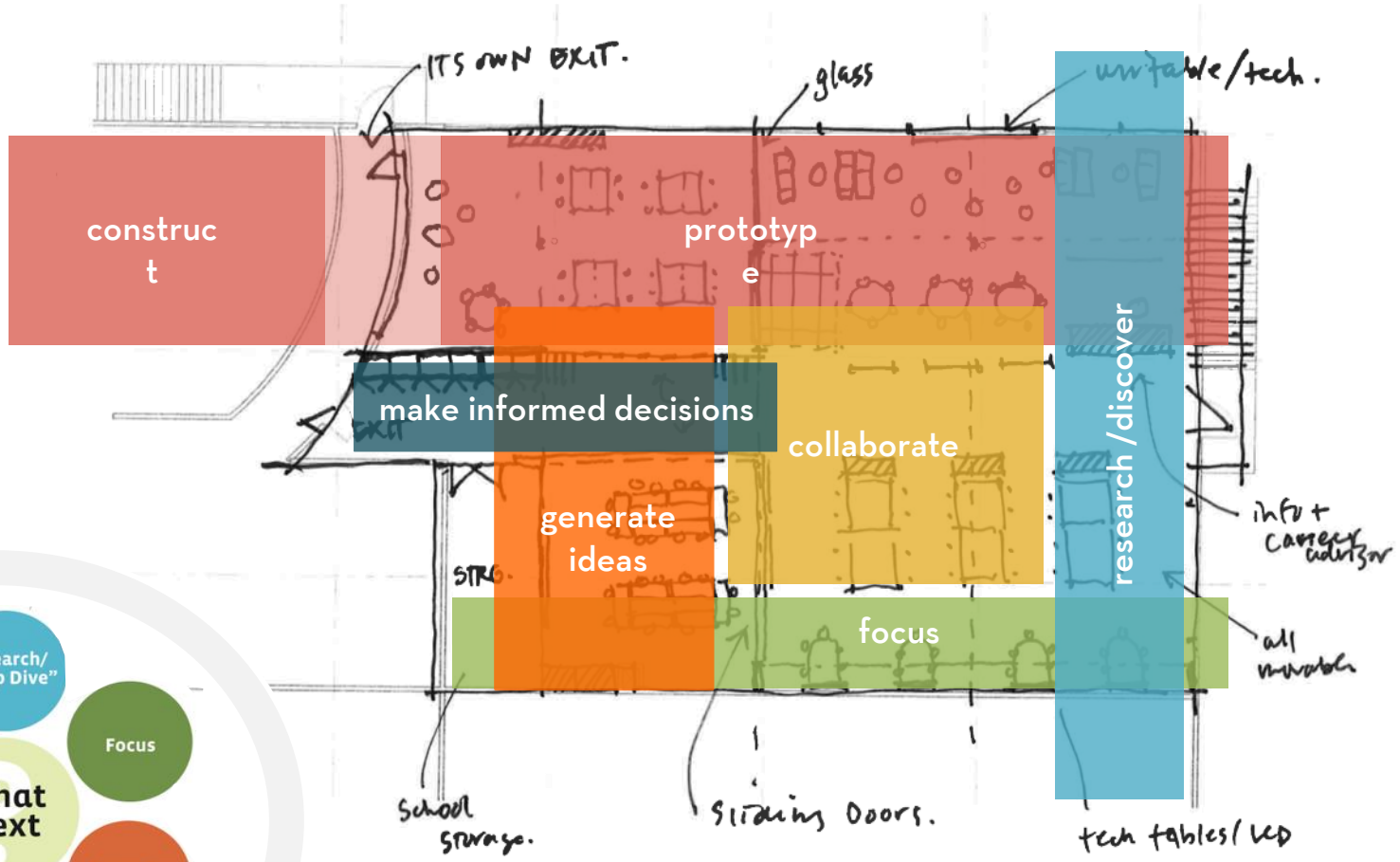
5 Leased tenant space

6 **Launch Pointe:** left over shell space + (2) unused classrooms

COMMUNITY ENGAGEMENT

The **value of support** is evident in this project, as well as everyday at Monarch School. Gifts from major donors made the renovation possible, and a ribbon cutting ceremony well attended by the city and local community showed the support and love for Monarch's mission. With an active internship program already in place at the school, the new space gives the program a home where representatives from different career or college opportunities can come in to talk and work with students. The space is easily divisible with a range of acoustic options that allow multiple groups to meet at the same time.

design thinking / monarch academy launch pointe



design thinking / monarch academy launch pointe

“The Lab”
woodshop/ hands on learning

“Sky Hooks”
prototyping
zone

“Mission Control”
college and career counseling
office space

“Pods”
group collaboration zone

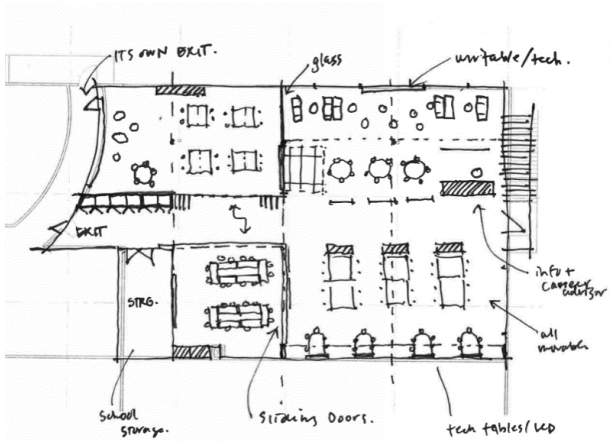
“Control Panels”
digital collaboration zone

“Platform”
practice and present

The Launch Pointe, designed as a “stage for learning”, is zoned to support design thinking in any number of hands-on, tinkering or digital pathways. Students move between zones as they work through the creative process. From digital and tactile exploration, to decompressing/regrouping, to building physical models and giving presentations; the creative process is supported in the educational environment. Students gain confidence as they have the opportunity to learn and explore their individual learning preferences.

NO MONEY, AN EMPTY SPACE, AND AN IDEA

The Launch Pointe project began with a vision, but with no money. As an empty space with an idea of how the room could help transform their students' lives through an active and engaging learning environment, the Launch Point was a planning process which included meeting with the design team and the school's career director, quickly advancing to an immediate discovery of the greatest need this space could fill: A safe place for the school's high school age students to gather, own, and explore their futures in; a place these students could call home in times of personal struggle or eagerness to explore who they will be beyond the doors of Monarch School.



career counseling

Design Features:
Mission Control is an area with computers, resource materials, and faculty. It has developed into the College and Career Exploration center that supports students in finding internship, employment, and higher education opportunities. The space is visible, but sectioned off for more intimate conversations. It also serves as a meeting area for industry partner interviews.

Building Challenges:
- acoustics
- insulation

"MISSION CONTROL"

collaboration

The Control Panels
Four Control Panels line the walls and allow students to connect devices to screens and share project ideas with the group. The research can continue in this space as they focus on project goals. The entire wall is a writeable surface to explore ideas.

The Pods
Flexible furniture forms the Pods. This area is a free-for-all that allows for quick touch-down collaboration throughout the design process.

Program Support
Furniture in Control Panel and Pod areas is flexible. It can easily be rearranged to house the entire high school for gathering, celebrations, and announcements.

Building Challenges:
- mechanical ducts

"PODS & CONTROL PANELS"

practice & present

Design Features:
The Platform allows students to brainstorm, hash out ideas on a variety of writing surfaces, and pin-up work on the tack wall. A platform, projection wall, and stage lighting all encourage students to practice presenting ideas in a more formal atmosphere. Additional storage includes multiple bookcases, panel storage, and even shelves tucked under the built-in seating. Suspended ceiling tiles help to isolate this area acoustically. To encourage student ownership and pride, display features that showcase developing and completed projects are student curated.

Building Challenges:
- acoustics
- ceiling height
- lighting

"THE PLATFORM"

prototyping zone

Design Features:
The Sky Hooks feature custom, built-in work tables that allow students space to develop their designs. Slat wall will allow for future tool storage, while mobile carts bring tinkering tools close to where the students are working. Classic "A-frame" table legs support the industrial design of the space and allow for further storage below the table. Students are given the choice of standing/stool height tables or mobile seated-height tables depending on their activity and comfort needs.

Building Challenges:
- exterior windows
- structure

"SKY HOOKS"

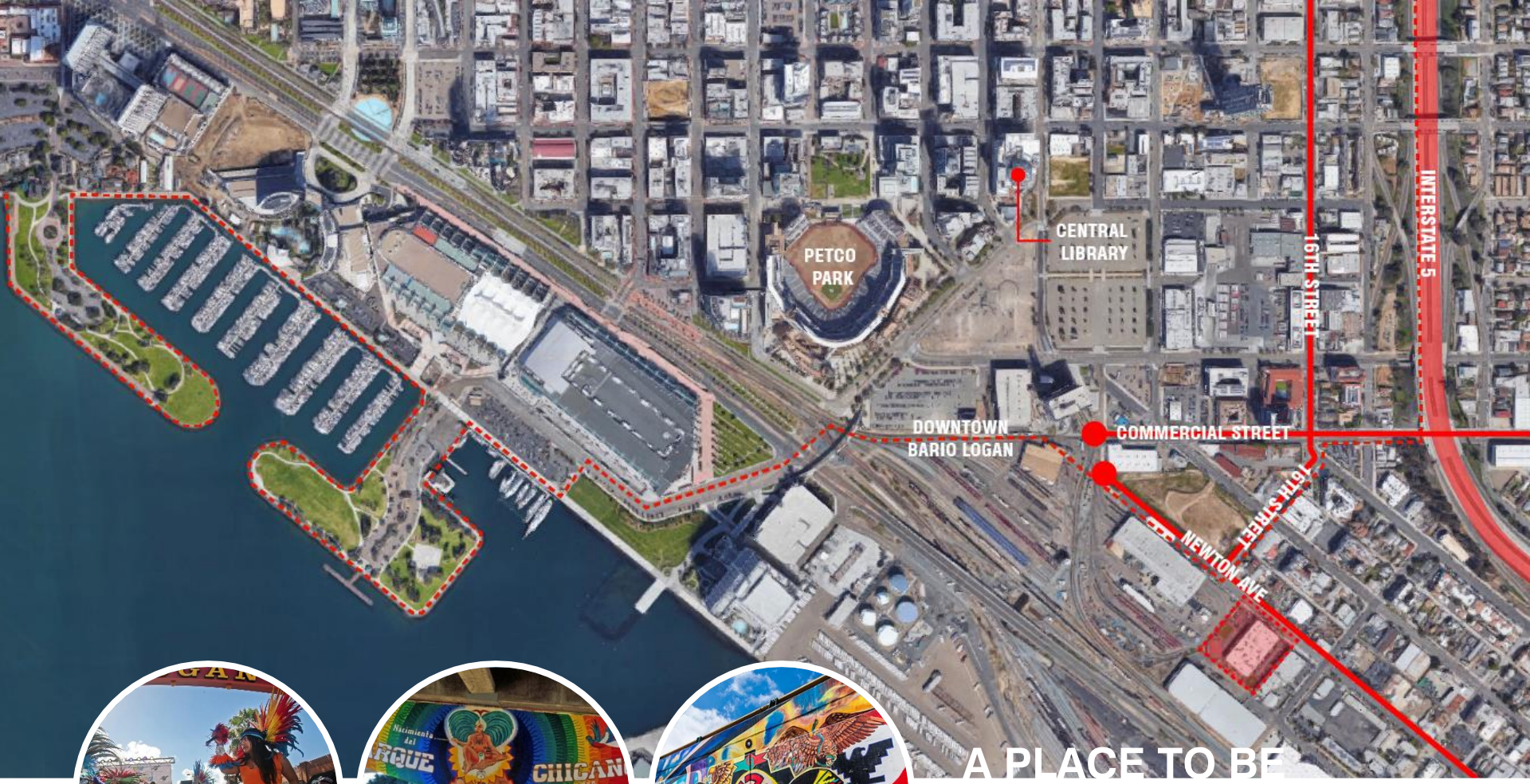
Design Features:
The overall build out included zoning space based on activities and student centered engagement. The full Shop completes the interactive learning environment by providing a space for students to explore project development to a deeper level of learning by engaging in hands on activities and prototyping ideas.

The shop supports collaboration, safety and a mission of making resources available to expose students to additional career & college opportunities.

Building Challenges:
- acoustical ceiling tile
- views between rooms
- dust collection

hands on learning

"THE LAB"



A PLACE TO BE

23,000 children effected by homelessness in the San Diego County, **Monarch School serves up to 350 of these students each day.**

"We know education is the key to success for homeless students. In order to meet our student's unique needs, Monarch has developed an innovative approach to learning where students gain the skills they need to improve their lives, develop awareness of their emotions and healthy coping skills, explore their passions and plan for a life of self-sufficient living. Monarch provides students with a safe, stable environment for learning with wraparound services to meet their basic needs."

the monarch story

"The mission of the Monarch School is to educate students impacted by homelessness and to help them develop hope for a future with the necessary skills and experiences for personal success." –monarch school

academic growth | emotional growth | social growth | life skills

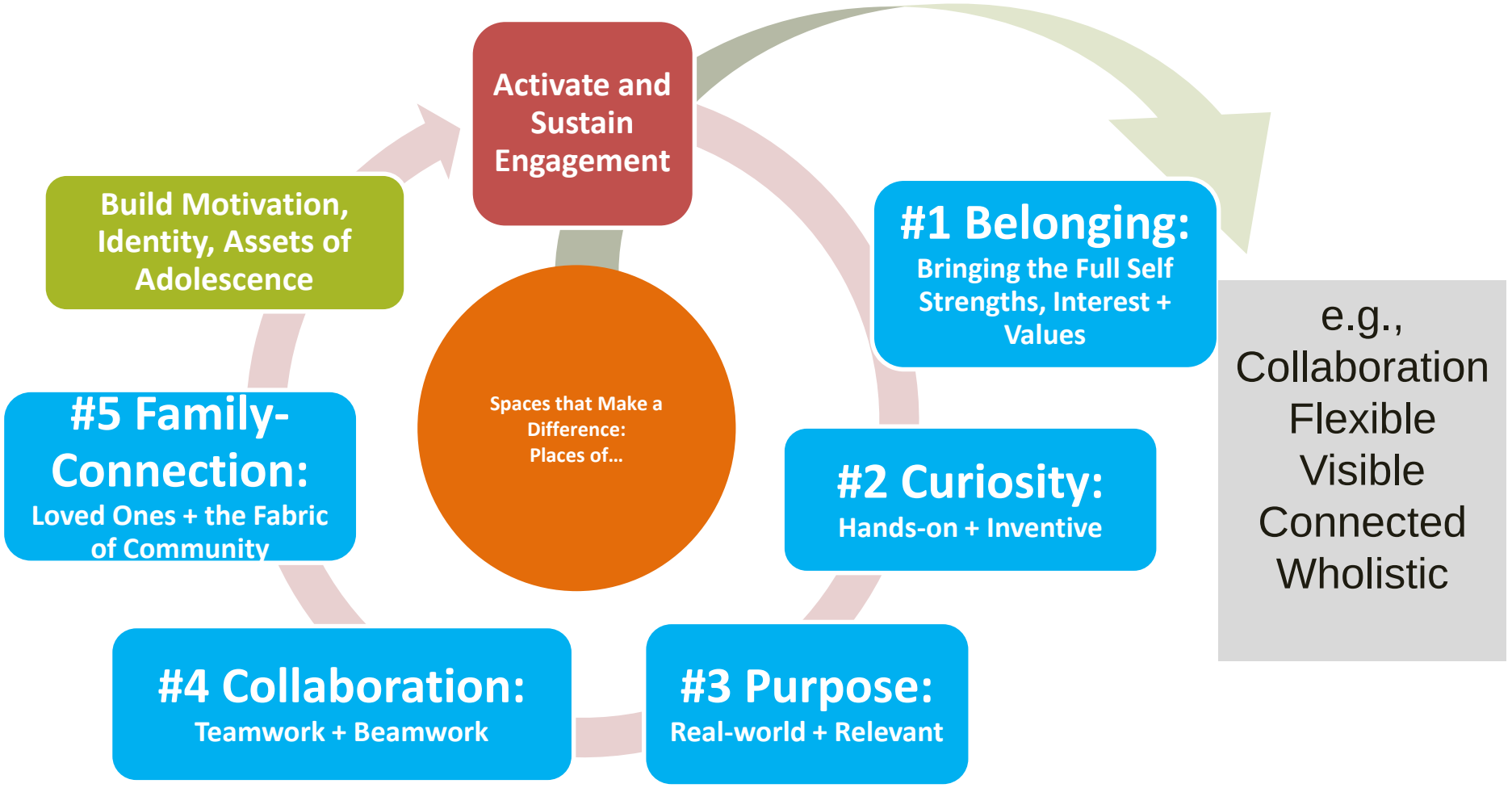
Design with the Student in Mind!

The journey of learning space design begins in the *context of community.*

It is led by deeper inquiry into the question, *Who Are Our Learners?*

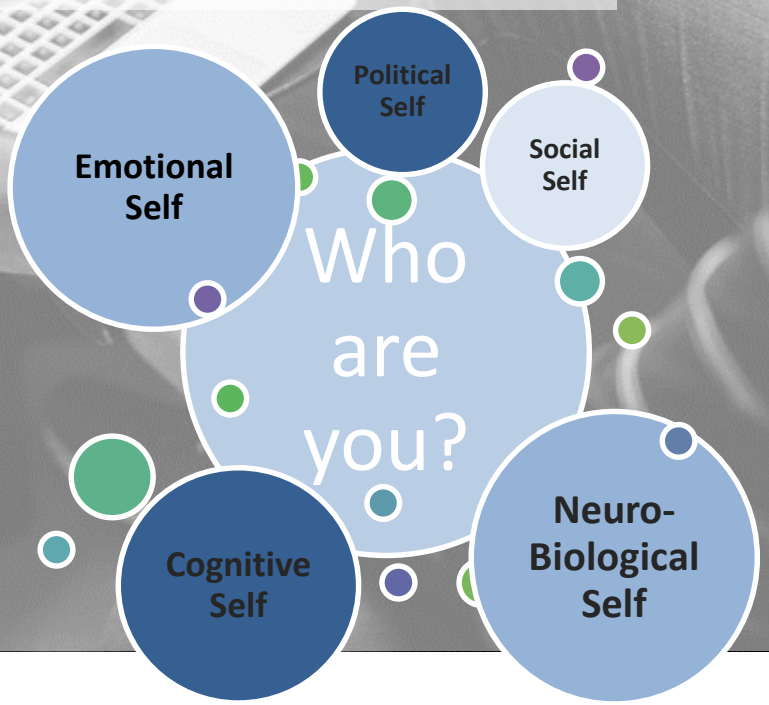
How do we create spaces that SPARK + STICK

Let research inform space design elements



Spaces of Belonging

- Bring my human self-in- development
- Explore my strengths, interests and values
- Build my identity as a successful STEAM learner
- Experience multiple paths to and expressions for participation



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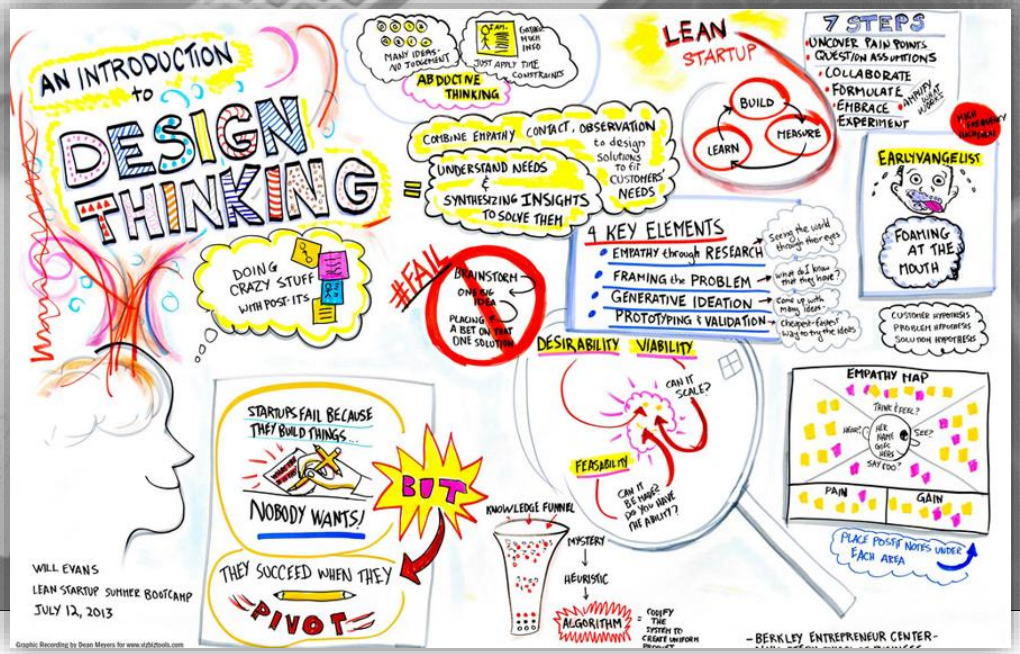
Spaces of Curiosity

- Construct my own novel adventures
- Discover risk and reward through experimentation
- Experience the process of mastery
- Change the physical world through hands-on activities



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Spaces of Purpose

- Relevant to my real world
- Use my voice and engage and authentic audience
- Provide opportunities to contribute to beautiful and worthy projects
- Help to find my place of impact in the world of work

See how one district connects to the World of Work…

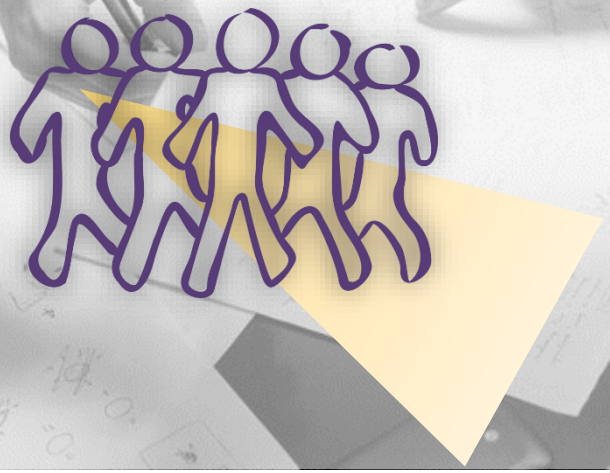
Twitter #cvWOW #meetaPro
YouTube http://bit.ly/cvWOWvid
Learn more: http://bit.ly/cvWOWhidalgo

Image: Cajon Valley World of Work

Spaces of Collaboration

- Work with others towards a common goal
- Work across fields of study
- Use focused time to prepare for collaboration
- Witness models of collaboration among adults

Teamwork + "Beamwork"



Spaces of Family Connection

- Explore, affirm, and engage my cultural heritage and the heritage of others
- Attends to challenges that come with me from my home environment
- Welcomes my family and supports their guidance of me

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Q&A
Thank You!