

SPARK OF MADNESS

UNLOCKING CREATIVE CURIOSITY

TODAY'S PRESENTERS



GAIL HERNANDEZ

EDUCATOR, ARTIST & MODERN-DAY MARY POPPINS, WITH AN EYE FOR MAGIC IN ORDINARY MOMENTS



DR. BEN CORBIN

MAD SCIENTIST, EXPLORER, PILOT & RESIDENT BADASS WHO JUST ADVISES NASA AND POTUS...NBD.



RACHEL FLOYD

IMPOSSIBLE OPTIMIST, DAREDEVIL, FORMER EDUCATOR TURNED STRATEGIST WHO DREAMS ON A BUDGET



TOP DEFINITION



Creative

What teachers call you when they don't want to say you are a dumbass.

Your son, Jimmy, is a very, well, ...creative... boy.

by **Danny the girl** August 26, 2004



**CREATIVES DRAW ON COMPLEX
BODIES OF KNOWLEDGE TO
SOLVE SPECIFIC PROBLEMS.**

TOP DEFINITION



Creative

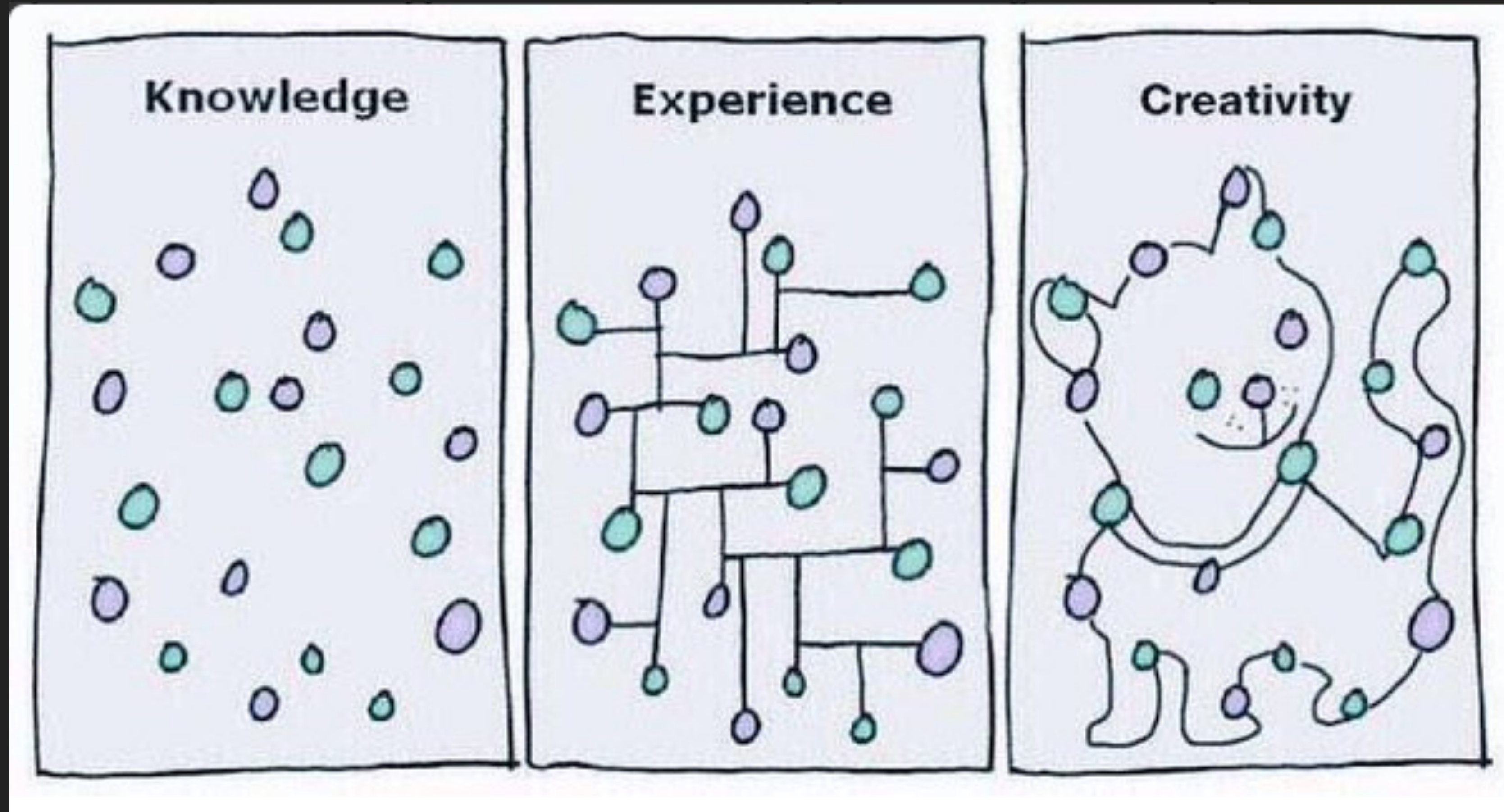
What teachers call you when they don't want to say you are a dumbass.

Your son, Jimmy, is a very, well, ...creative... boy.

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CREATIVITY IS ABOUT MAKING CONNECTIONS IN THE BRAIN.

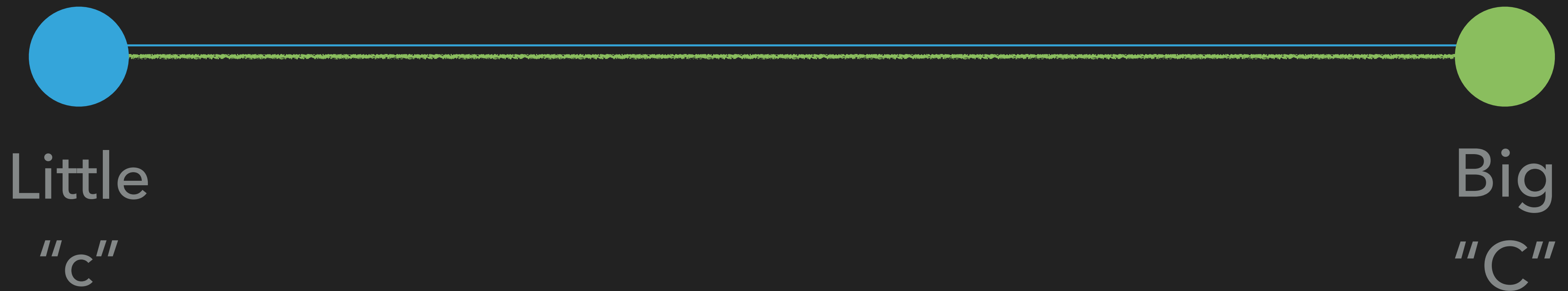




DOES CREATIVITY OCCUR BY

DEFAULT OR DESIGN?

CREATIVE IDEAS ARE ON A CONTINUUM.



If you look at what produces learning and memory and well-being, play is as fundamental as any other aspect of life.

DR. STUART BROWN

WHAT IS PLAY?



img courtesy of: weloveyouso.com



img courtesy of: mykidsadventures.com



img courtesy of: libraryblog.freeworldu.org

WHY DO CHILDREN PLAY?

...TO ENTERTAIN = THEY ARE HAVING FUN.



img courtesy of: theatlantic.com

WHY DO CHILDREN PLAY?

...TO ENGAGE = THEY ARE CONNECTING.



img courtesy of: nwf.org

WHY DO CHILDREN PLAY?

...TO EXPLORE = THEY ARE ASKING QUESTIONS.

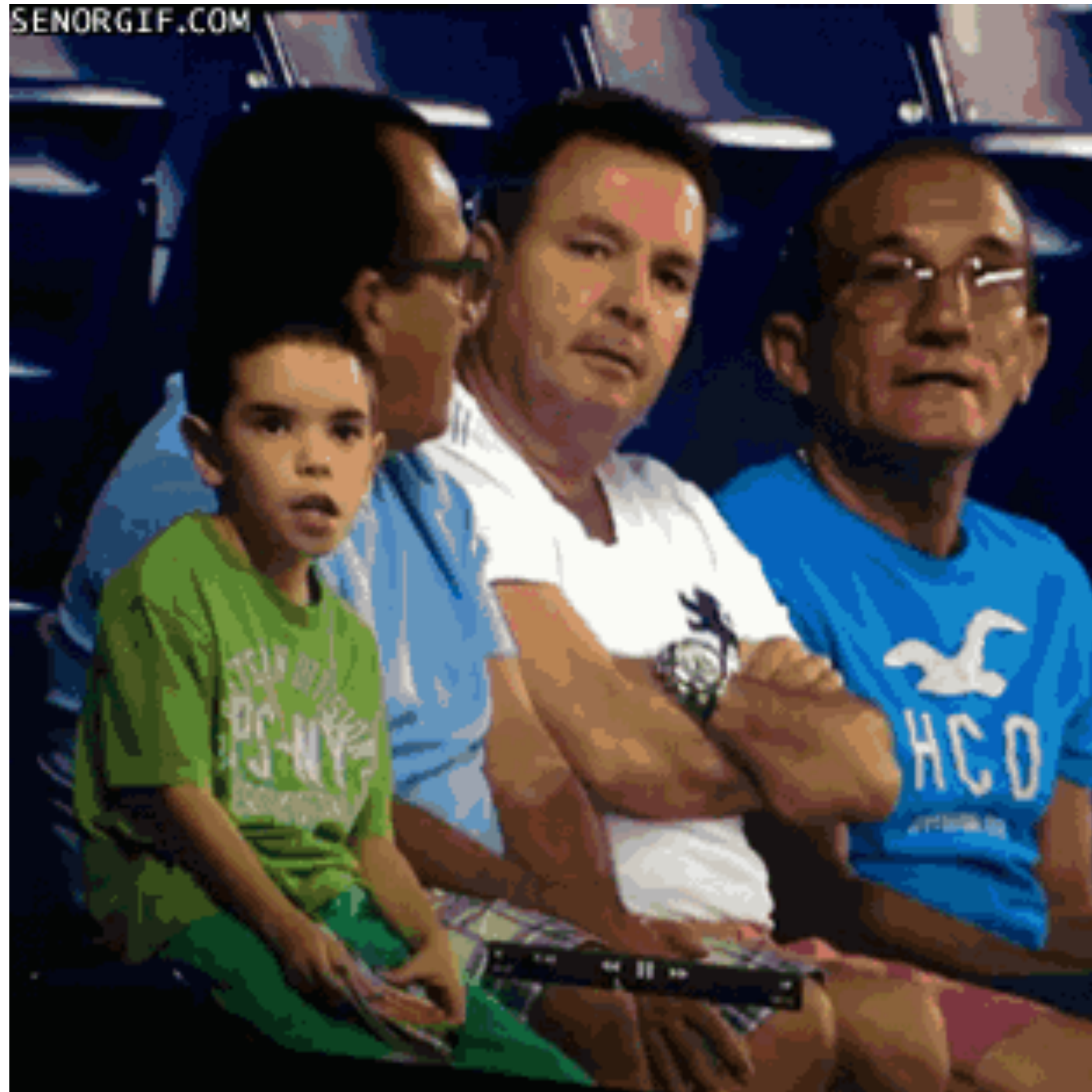


WHY DO CHILDREN PLAY?

...TO EDUCATE = THEY ARE LEARNING.



WHAT HAPPENS TO PLAY AS WE MATURE?



CUTTING OUT RECESS

FACT:



20% of school systems have decreased time for recess, averaging cuts of **50 minutes per week.**

Find out how this is affecting your child.



DEGRADATION OF THE ARTS



ALLOW FOR RECESS (BUILD IT INTO SCHEDULES AND SPACE).



ENCOURAGE INTEGRATION OF THE ARTS IN STANDARD CURRICULUM (AND SPACE).

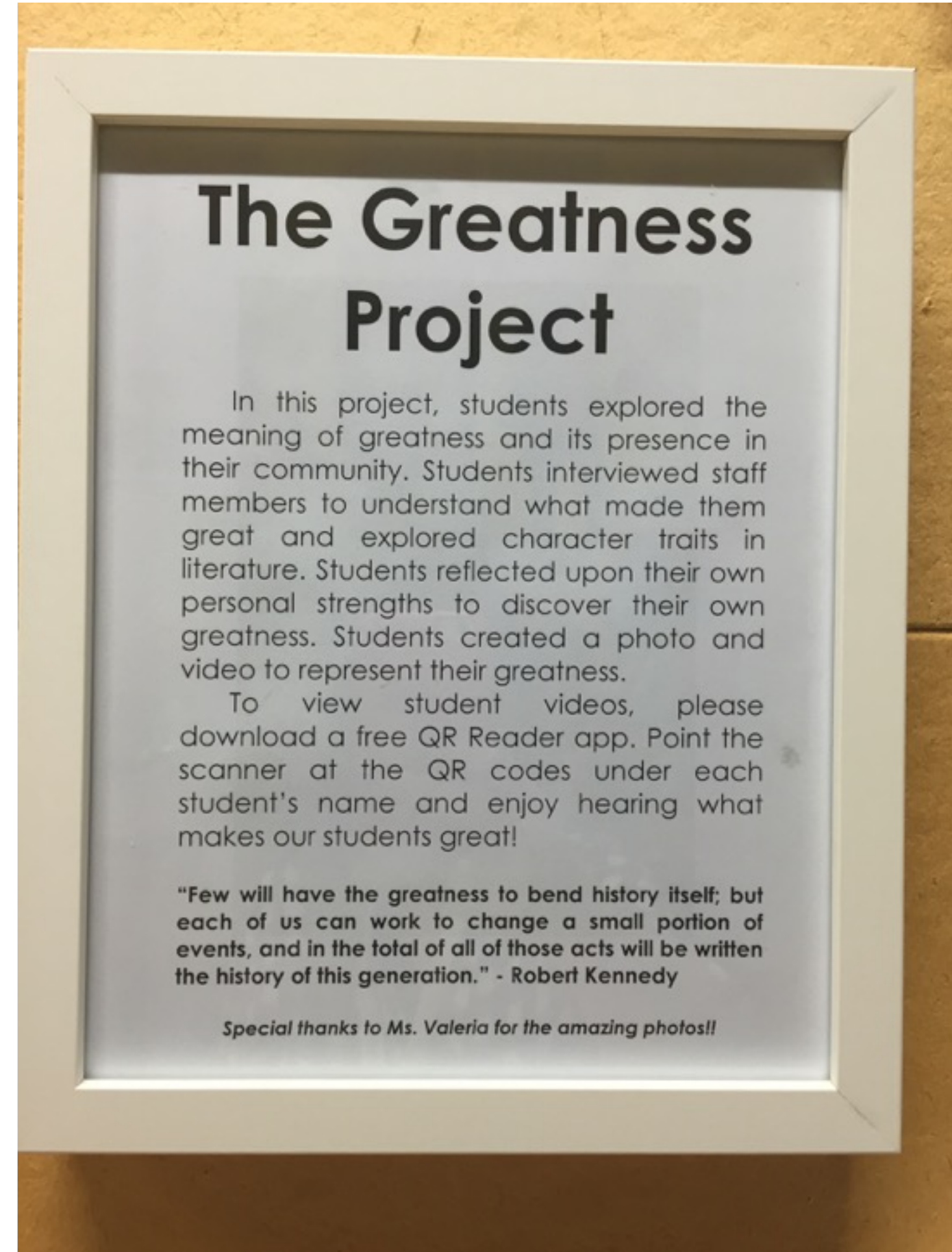
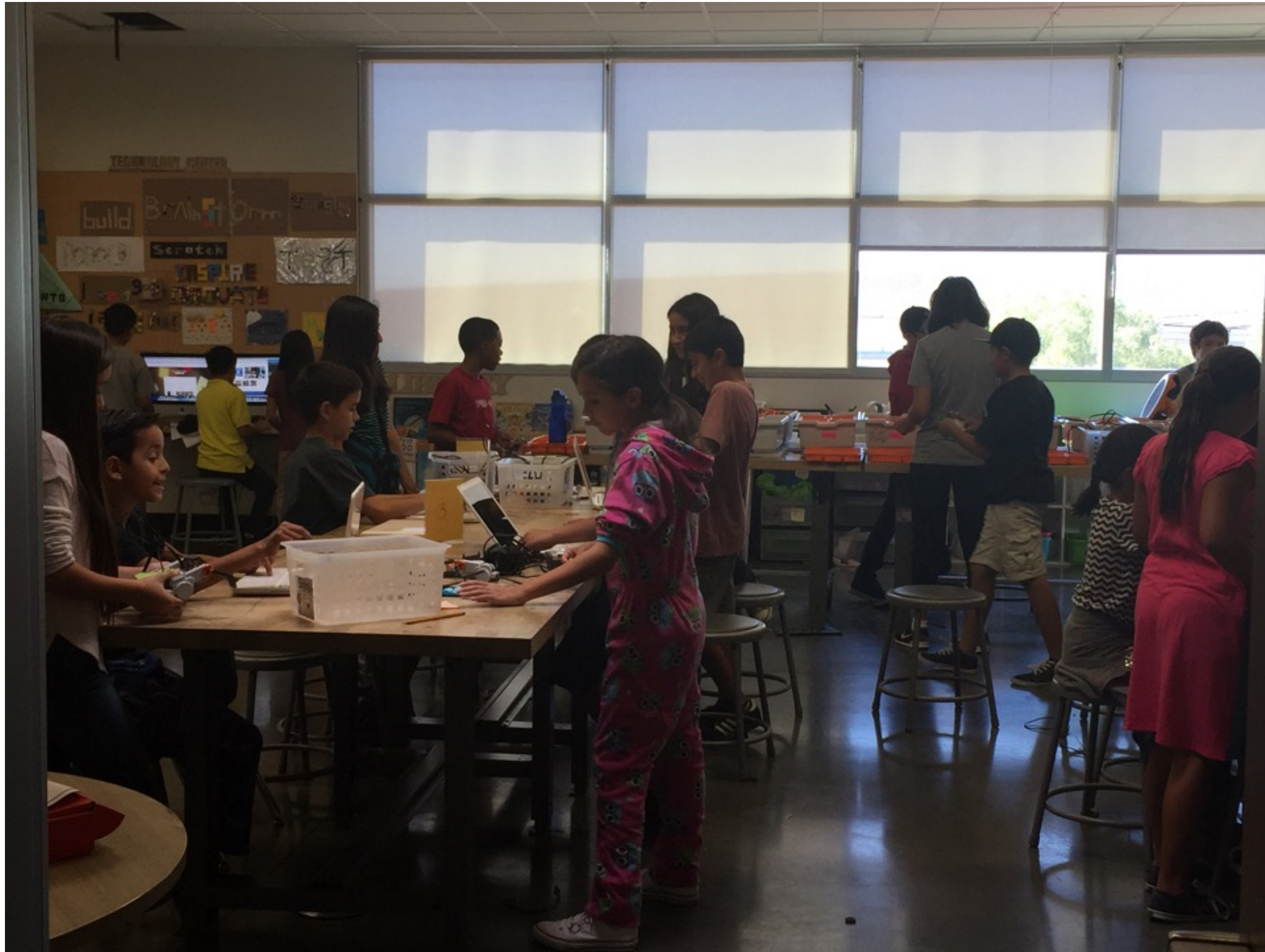


img courtesy of: plpnnetwork.com



img courtesy of: hi tech high

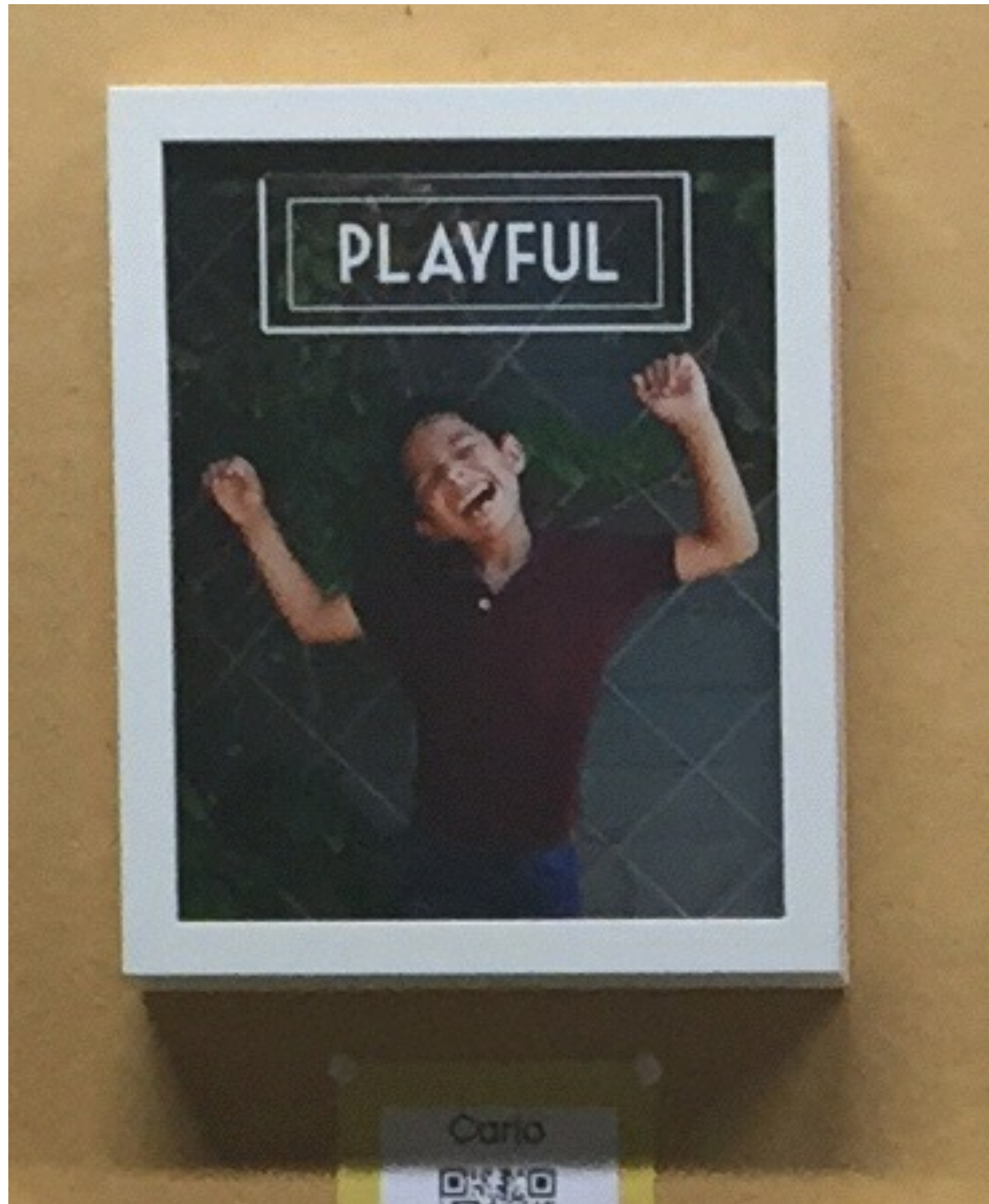
DESIGN AN ENVIRONMENT THAT ENCOURAGES PLAY, AND THEREFORE, CREATIVITY.



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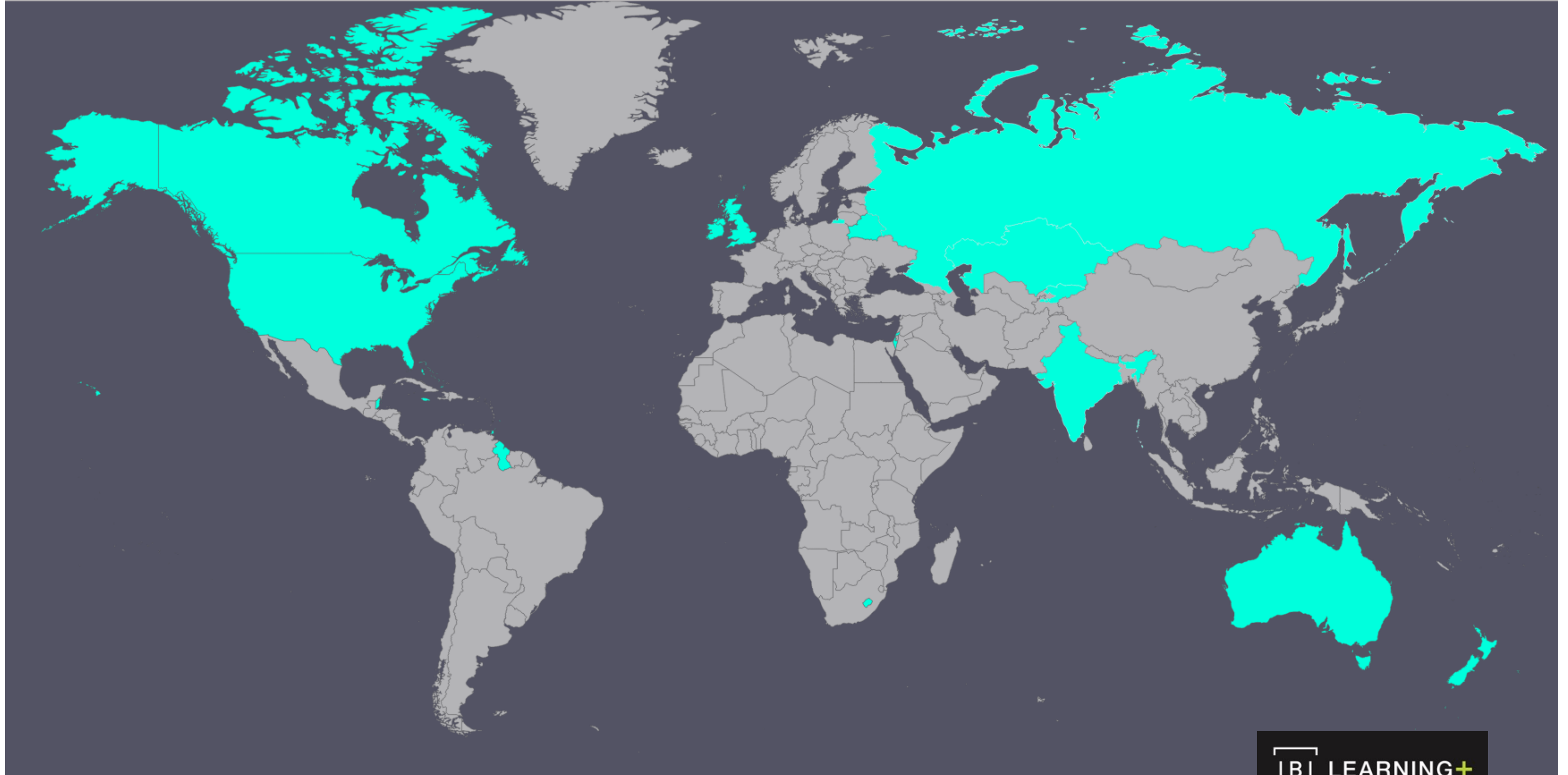
DESIGN AN ENVIRONMENT THAT ENCOURAGES PLAY, AND THEREFORE, CREATIVITY.



It is the tension between creativity and skepticism
that has produced the stunning and unexpected
findings in science.

CARL SAGAN

PLACES I CAN VISIT BECAUSE I SPEAK TWO LANGUAGES...



CAREERS I CAN GET BECAUSE I “SPEAK” MATH

SCIENCE: Acoustics, Aeronautics, Agronomy, Anatomy, Anthropology, Archaeology, Astronautics, Astronomy, Astrophysics, Bacteriology, Biochemistry, Biology, Botany, Cardiology, Cartography, Chemistry, Cosmology, Crystallography, Ecology, Embryology, Endocrinology, Entomology, Enzymology, Forestry, Genetics, Geodesy, Geophysics, Hematology, Histology, Horology, Hydrology, Ichthyology, Immunology, Linguistics, Mechanics, Medicine, Meteorology, Metrology, Microbiology, Mineralogy, Mycology, Neurology, Nucleonics, Nutrition, Oceanography, Oncology, Optics, Paleontology, Pathology, Petrology, Pharmacology, Physics, Physiology, Psychology, Radiology, Robotics, Seismology, Spectroscopy, Systematics, Thermodynamics, Toxicology, Virology, Volcanology, Zoology

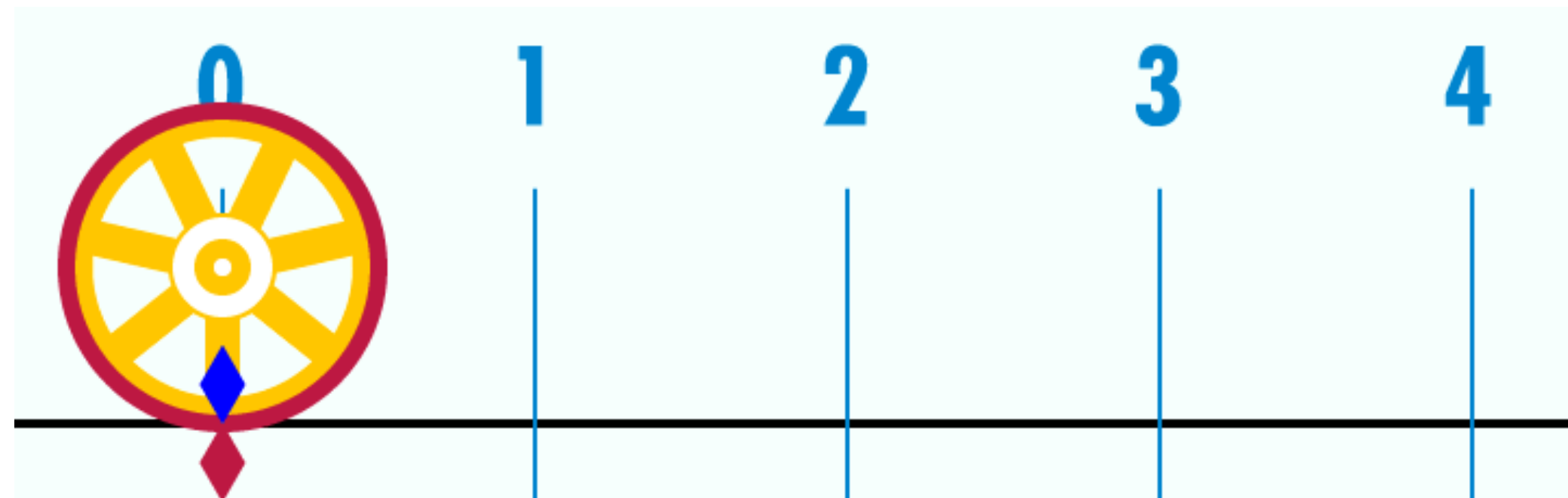
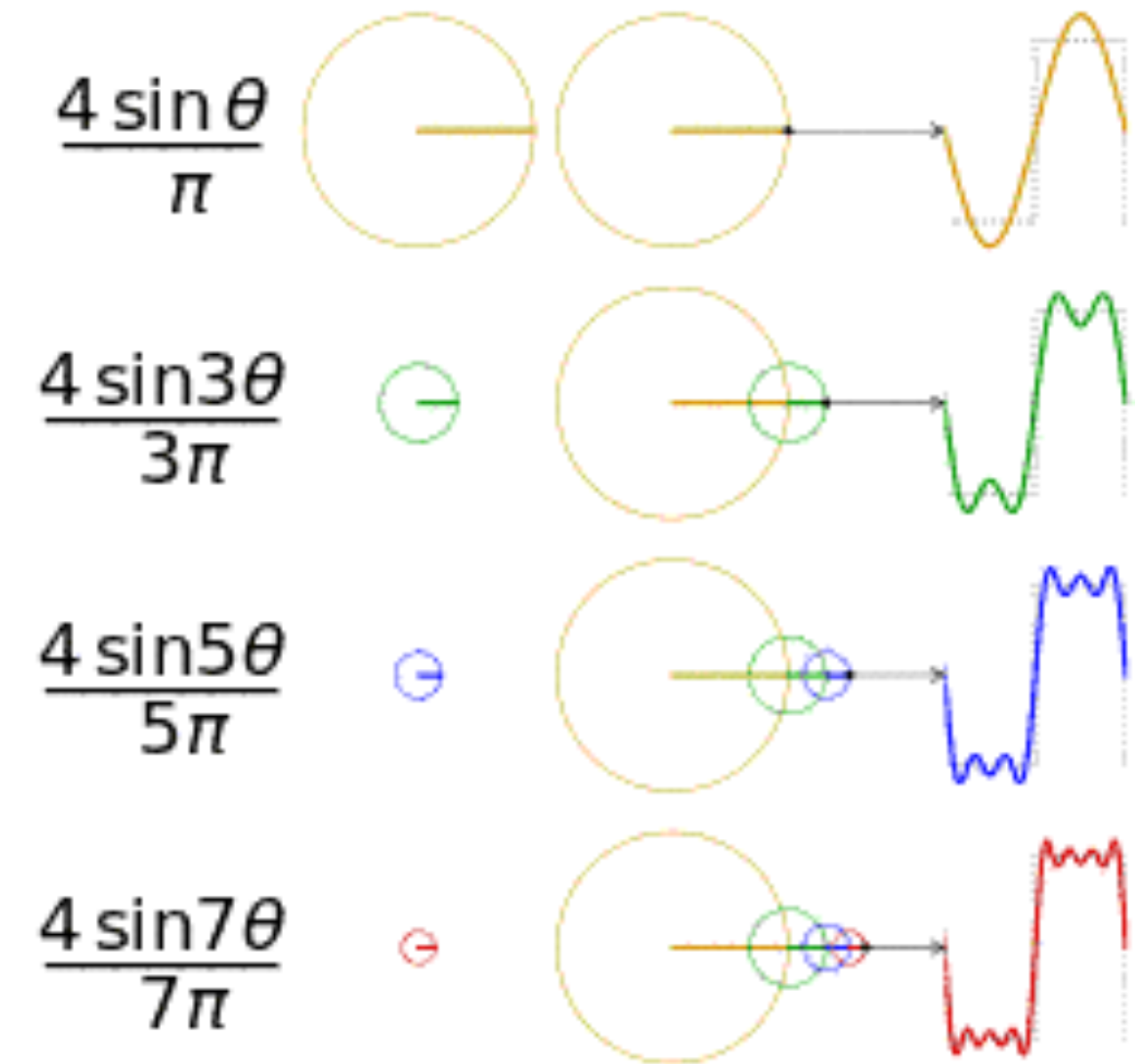
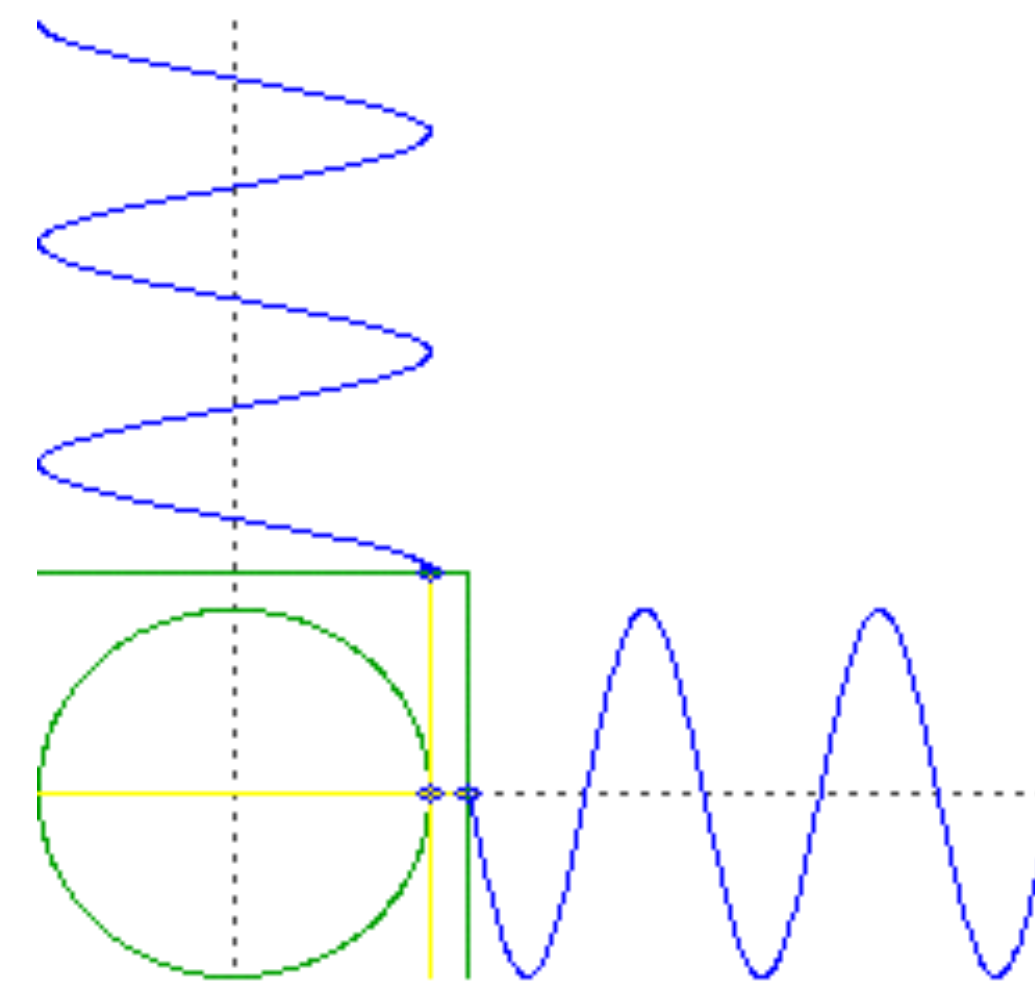
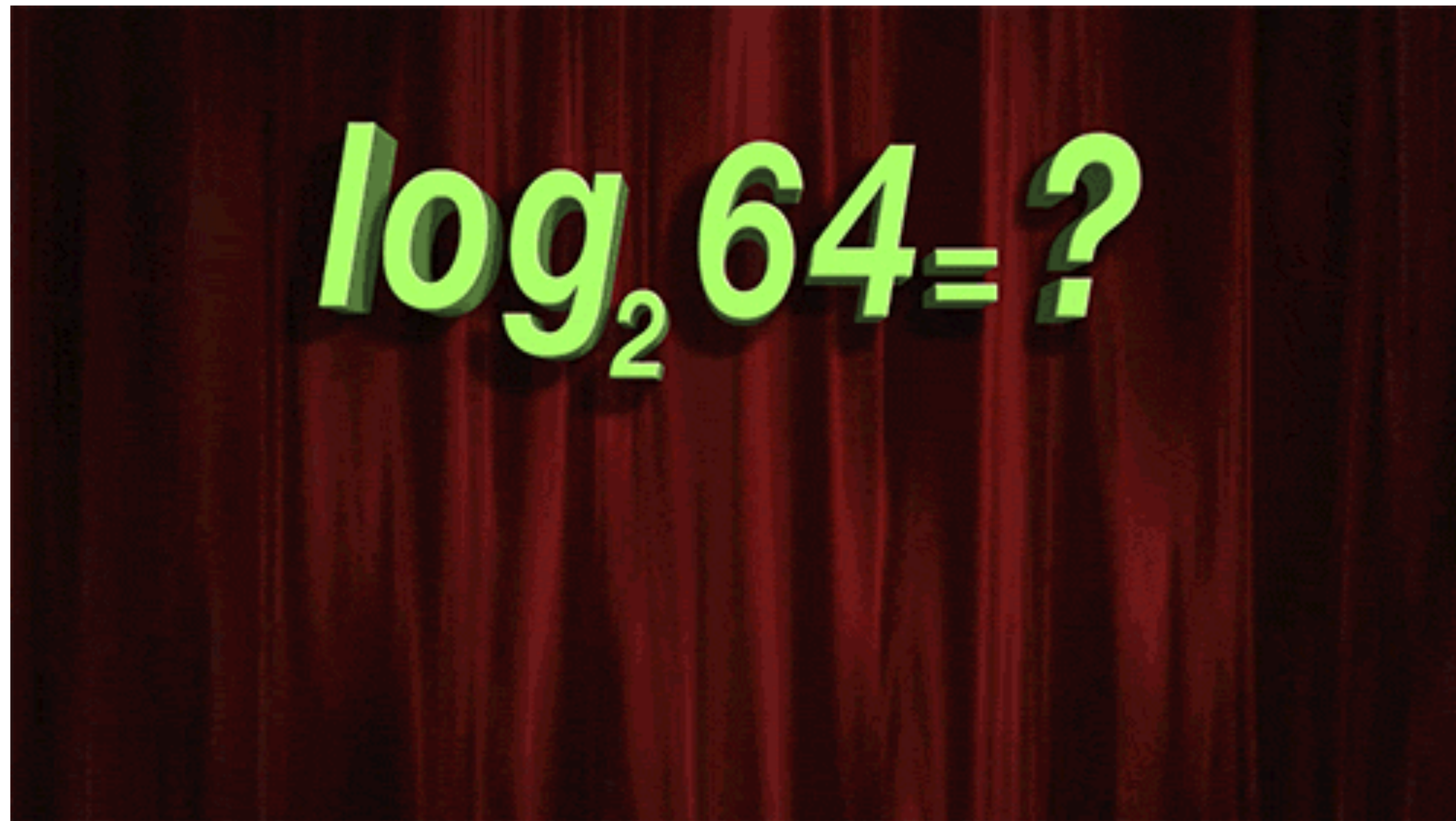
TECHNOLOGY: Audio Technician, Cloud Application Architect, Computer Systems Analyst, Database Administrator, Electrician, EMT, Information Security, Information Technology, Lab Technician, Machining, Manufacturing, Network Administration, Pharmacy Technician, Programmer, Software Developer, Software Engineering Analyst, Surgical Technologist, Veterinary Technician, Web Development, Welding, Wiring,

ENGINEERING: Acoustical, Aerospace, Agricultural, Architectural, Avionics, Biochemical, Biological, Biomedical, Biomolecular, Civil, Combat, Component, Computer, Computer-aided, Construction, Corrosion, Cryptographic, Electrical, Electronic, Energy, Environmental, Fluids, Geotechnical, Industrial, Information, Instrumentation, Management, Manufacturing, Materials, Mechatronics, Military, Mining, Modeling, Molecular, Nano, Nuclear, Optical, Optomechatronics, Petroleum, Power, Power Plant, Process, Production, Railway, Safety, Simulations, Sports, Structural, Systems, Teletraffic, Textile, Thermal, Transport, Vehicle, Web, Water Resources

OTHERS: Accounting, Actuary Science, Animation, Business, Commodities Exchange, Economics, Finance, Insurance, Inventory Strategy, Investment Banking, Logistics, Music, Quantitative Finance, Patent Law, Public Health, Public Policy, Real Estate, Risk Assurance, Risk Analysis, Statistics, Stock Brokerage, Tax Examination, Technical Writing,

COLD HARD TRUTH: MATH IS THE LANGUAGE AT THE CORE OF EVERY SCIENCE, TECHNOLOGY, AND ENGINEERING CAREER.

TEACHING COMPLEX MATH IS EASIER THAN EVER.



HOW TO
CREATE AN
ELLIPSE



GIVE STUDENTS A REASON TO LEARN SOMETHING.

- ▶ Project-Based Learning
- ▶ Built in Rewards for Completion
 - ▶ Gives students a way to FAIL – AND THAT’S GOOD!
 - ▶ Gives students a way to fail EARLY
 - ▶ Gives students a way to fail OFTEN
 - ▶ Gives students a way to fail WITHOUT CONSEQUENCES
- ▶ Positive Reinforcement // Leveling Up for a System of Rewards



A screenshot of a game character's stats screen for Level 3. The screen is divided into two main sections: character attributes on the left and equipment/defense stats on the right. The character's name is 'LEVEL 3'. The left section lists various attributes with their current values: Covenant (None), Level (3), Souls (35408), Vitality (10), Attunement (11), Endurance (10), Strength (10), Dexterity (14), Resistance (12), Intelligence (11), Faith (8), and Humanity (1). The right section lists equipment and defense stats: HP (350/573), Stamina (91), Equip Load (12.2/50.0), R Weapon 1 (151), R Weapon 2 (54), L Weapon 1 (82), L Weapon 2 (20), Physical Def. (78(24)), VS strike (85), VS slash (81), VS thrust (77), Magic DEF (65(17)), Flame DEF (86(25)), and Lightning DEF (71(21)).

LEVEL 3	
Covenant	None
Level	3
Souls	35408
Vitality	10
Attunement	11
Endurance	10
Strength	10
Dexterity	14
Resistance	12
Intelligence	11
Faith	8
Humanity	1

HP	350/573
Stamina	91
Equip Load	12.2/50.0
R Weapon 1	151
R Weapon 2	54
L Weapon 1	82
L Weapon 2	20
Physical Def.	78(24)
VS strike	85
VS slash	81
VS thrust	77
Magic DEF	65(17)
Flame DEF	86(25)
Lightning DEF	71(21)

WHY PROJECT BASED LEARNING MATTERS...

- ▶ Knowledge without application is Fascination.
- ▶ Knowledge with application is Purpose.



BASIC NEEDS ARE IMPORTANT TO CREATIVITY. HEALTHY SELF ESTEEM IS CRITICAL.



LOW

HIGH

Discouraged, failed too often, no motivation to do better

No connection to reality,
No reason to improve

Encouraged, driven to continue, realistic expectations and progress

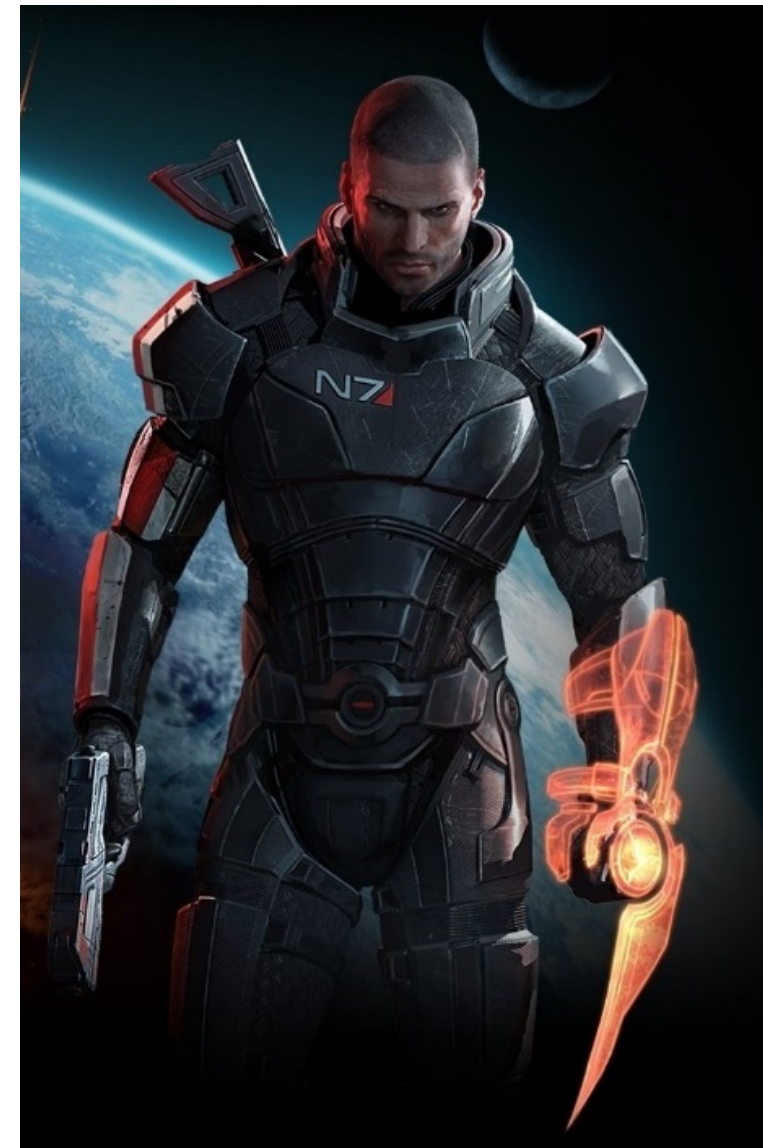
Sweet spot, where there is a tempered balance, where a student feels confident but not reckless and cocky

Egomaniacal, Unrealistic Expectations of Invincibility

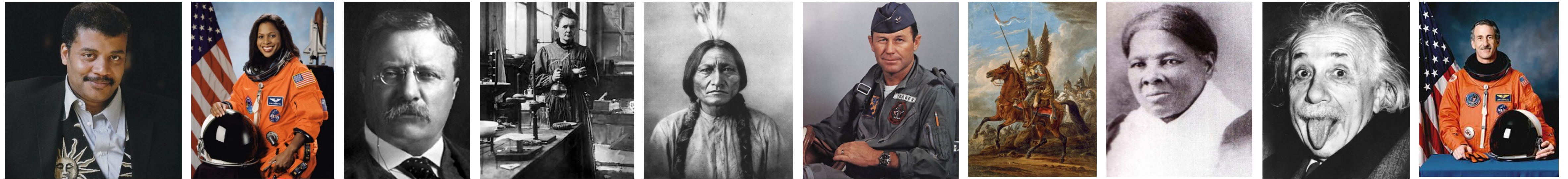
3 CHARACTERS THAT DEFINE YOU



3 CHARACTERS THAT DEFINE YOU



CREATIVITY AND EMPATHY CAN BE DRAWN FROM DIVERSE SOURCES OF INSPIRATION.



**STUDENTS NEED TO KNOW THAT THIS ISN'T ABOUT CREATING IDOLS.
IT'S IMPORTANT TO LEARN CHARACTERISTICS OF MANY ROLE MODELS.**

FOR SECONDARY AND POST SECONDARY LEARNERS... IT'S IMPORTANT TO REALIZE...

INSPIRATION SPARKS THE FLAME.

REINFORCEMENT FUELS THE FLAME.

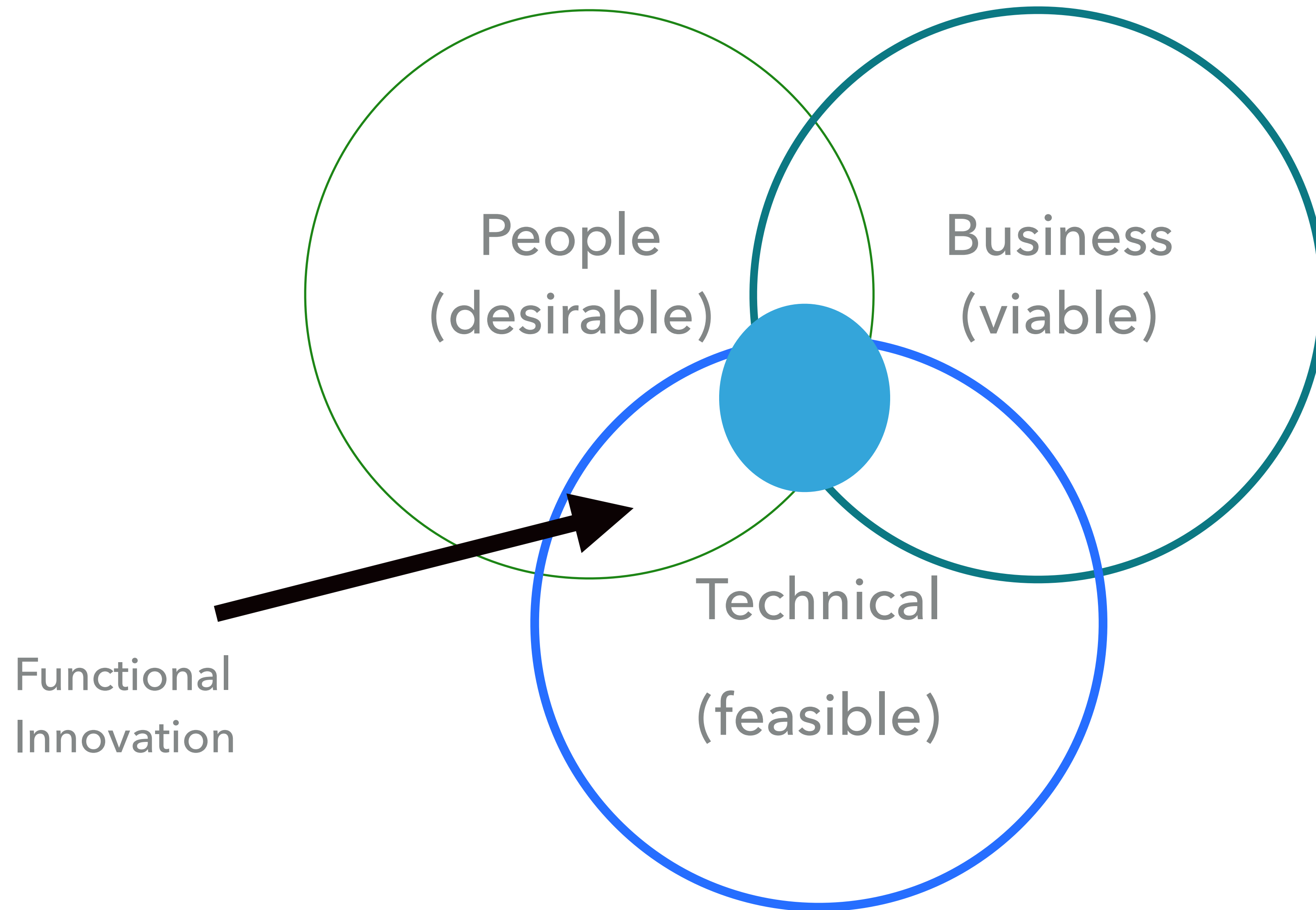
CHALLENGE FANS THE FLAME.

The minute that you understand that you can poke
life and something will pop out on the other side,
that you can change it, you can mold it... that's
maybe the most important thing.

Once you learn that, you'll never be the same
again.

STEVE JOBS

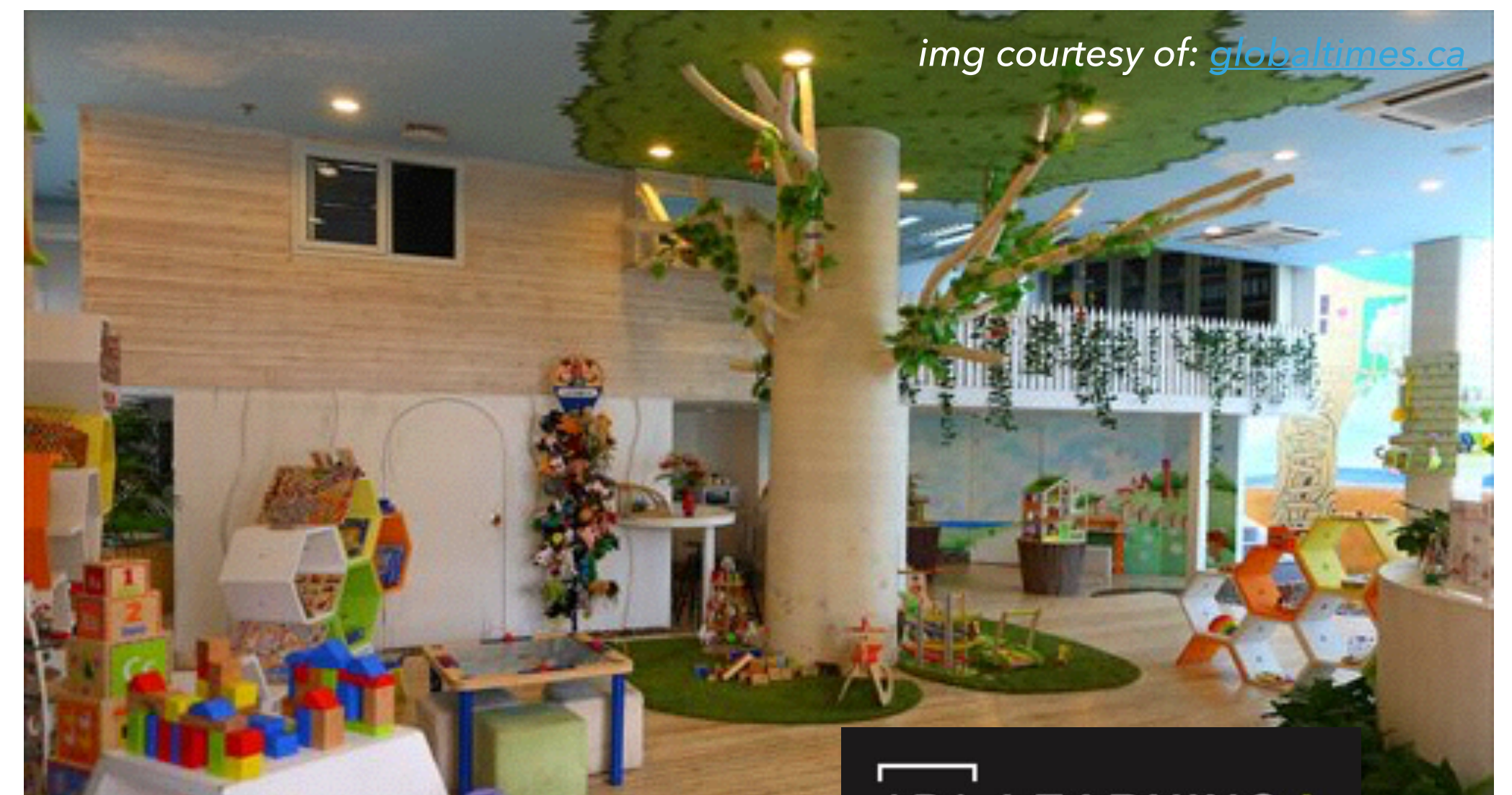
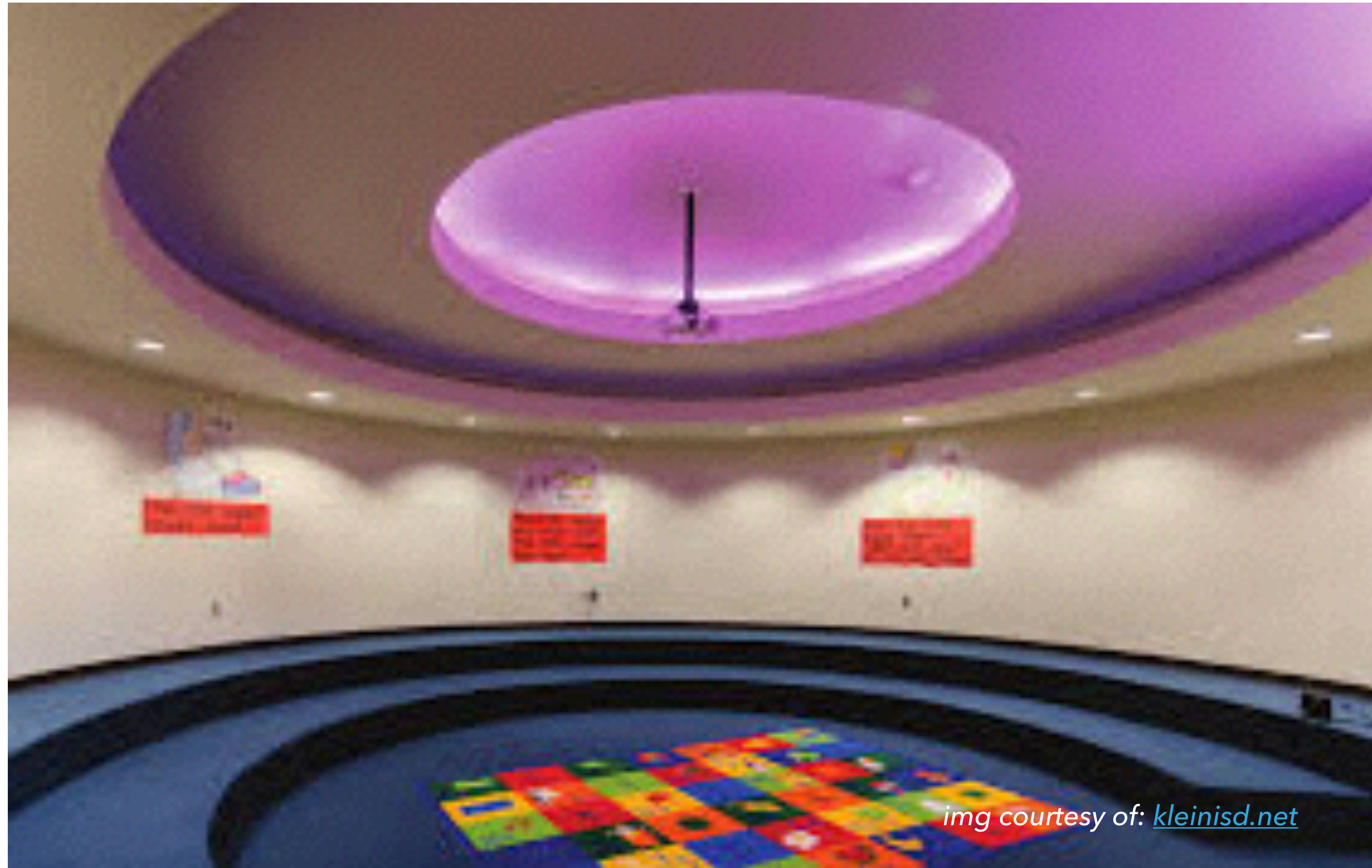
THE HEART OF INNOVATION + CREATIVITY FOR PROFESSIONALS (CONCEPT: DAVID KELLY AT IDEO)



WHAT DOES PLAY LOOK LIKE IN A SCHOOL?



WHAT DOES PLAY LOOK LIKE IN A SCHOOL?



WHAT DOES PLAY LOOK LIKE IN A SCHOOL?



img courtesy of: schoolarchitecture.com

WHAT DOES PLAY LOOK LIKE IN A SCHOOL?



Project: DOWA-IBI Group img courtesy of: dowa-ibigroup.com

WHAT DOES PROJECT BASED LEARNING LOOK LIKE IN A SCHOOL?



img courtesy of: [pinterest.com](https://www.pinterest.com)



img courtesy of: [middleteacher.com](https://www.middleteacher.com)

WHAT DOES PROJECT BASED LEARNING LOOK LIKE IN A SCHOOL?

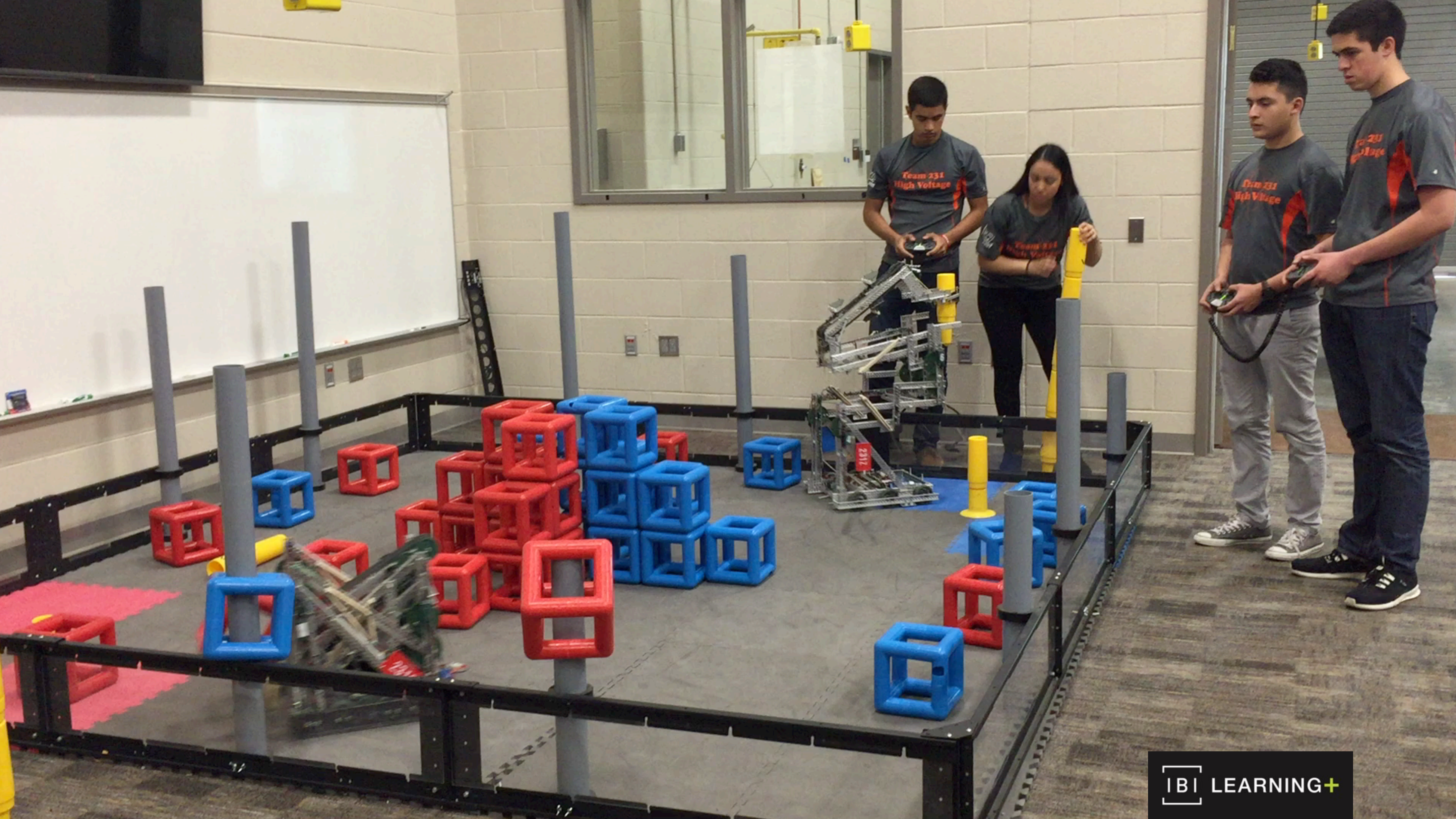


img courtesy of: texasschoolarchitecture.com

WHAT DOES PROJECT BASED LEARNING LOOK LIKE IN A SCHOOL?



img courtesy of: [texas-ibigroup.com](https://www.texas-ibigroup.com)



FIXED MINDSET

“I’m an architect. I’ve done educational architecture for years. I know what my clients want. I’m going to just stick to that. I know what I’m capable of innovating and what I’m not.”

“I know my district. I can’t let kids have a voice. Let me just make all the decisions and move forward. I know the budget and the community anyways.”

GROWTH MINDSET

I’m an architect. I’ve done educational architecture for years. I know what my clients want. But, maybe it’s time I do some digging to figure out how I can better present a new solution that my clients will love

I know my district. I also know that giving students a voice in their own learning environment produces better outcomes. Maybe I can help the community understand this won’t impact our budget too much, and I can include students in the planning.

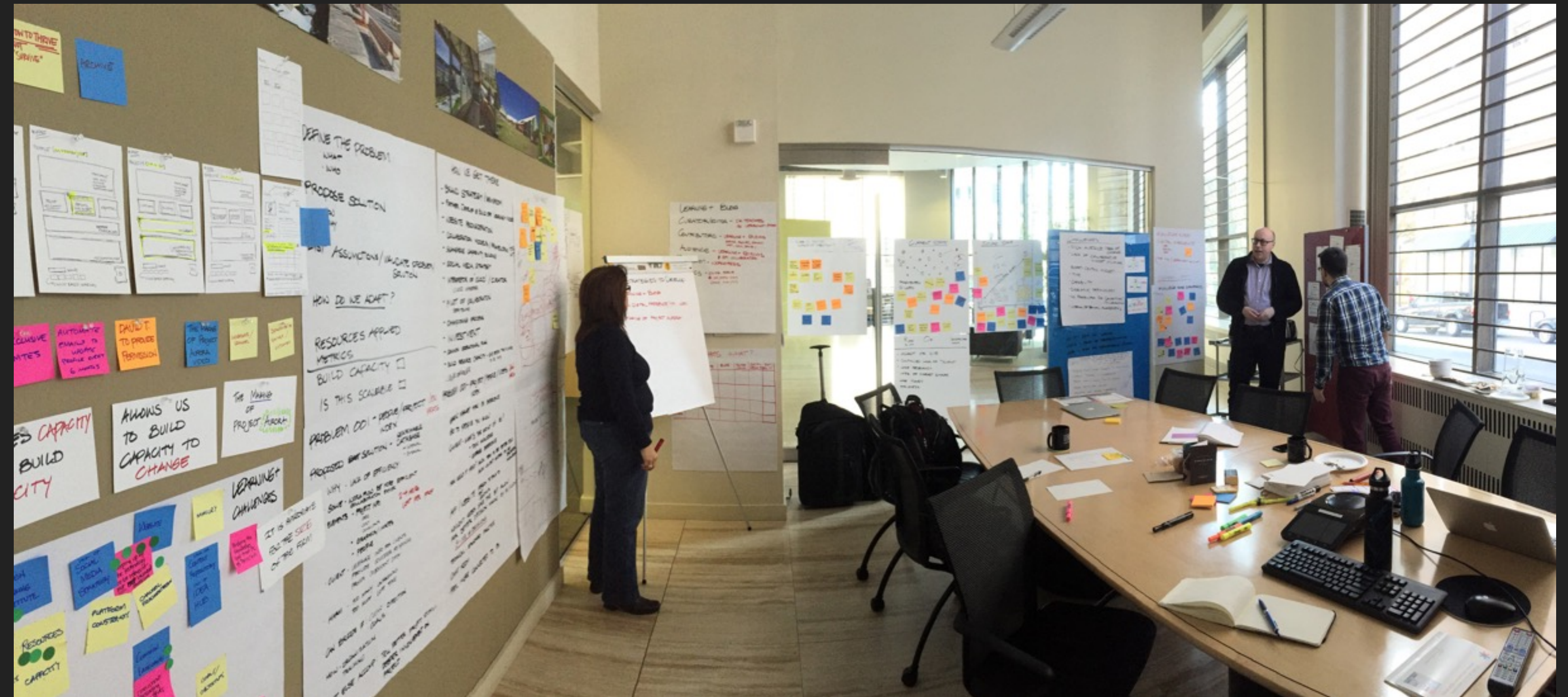
WAYS TO BUILD CREATIVE CURIOSITY AMONGST YOUR SELF AND YOUR STAFF

TAKE THE TIME TO PLAY.



WAYS TO BUILD CREATIVE CURIOSITY AMONGST YOUR SELF AND YOUR STAFF

CHALLENGE THE STATUS QUO. ASK MORE QUESTIONS.



WAYS TO BUILD CREATIVE CURIOSITY AMONGST YOUR SELF AND YOUR STAFF

CREATE A PLUSSING CULTURE.



pixar.com



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