

Wifi for Makerspace Summit

- Wi-Fi → NCCEATTEND
- Password → attend2016
- #ncce2016
- #nccemaker

WHO IS THIS BALD UGLY GUY?





WHO IS COFFEECHUG?

@coffeechugbooks

IMPROVEMENT IS NO
LONGER THE CHALLENGE

WE SHOULD BE ASKING
NOT HOW TO DO
SCHOOL **BETTER**,
BUT **DIFFERENT**.



WHAT DO WE MEAN BY
LEARNING?



“The scandal of education is that every time you teach something, you deprive a child of the pleasure and benefit of discovery.”

-Seymour Papert

CREATIVE CONFIDENCE

Creative Confidence
is a way of
"experiencing the
world that generates
new approaches and
solutions."

CREATIVE CONFIDENCE

UNLEASHING THE CREATIVE
POTENTIAL WITHIN US ALL

by TOM KELLEY

BESTSELLING AUTHOR OF THE ART
OF INNOVATION

& DAVID KELLEY

FOUNDER, IDEO & STANFORD D. SCHOOL

Your job isn't to **CATCH UP**
to the status quo;
the job is to **CREATE** and **BE**
the
status quo.

SETH GODIN

DO NOT WAIT FOR
INSTRUCTIONS

"Imagine that the world had no middlemen, no publishers, no bosses, no HR folks, no one telling you what you couldn't do. If you lived in that world, what would you do? **Go. Do That.**"

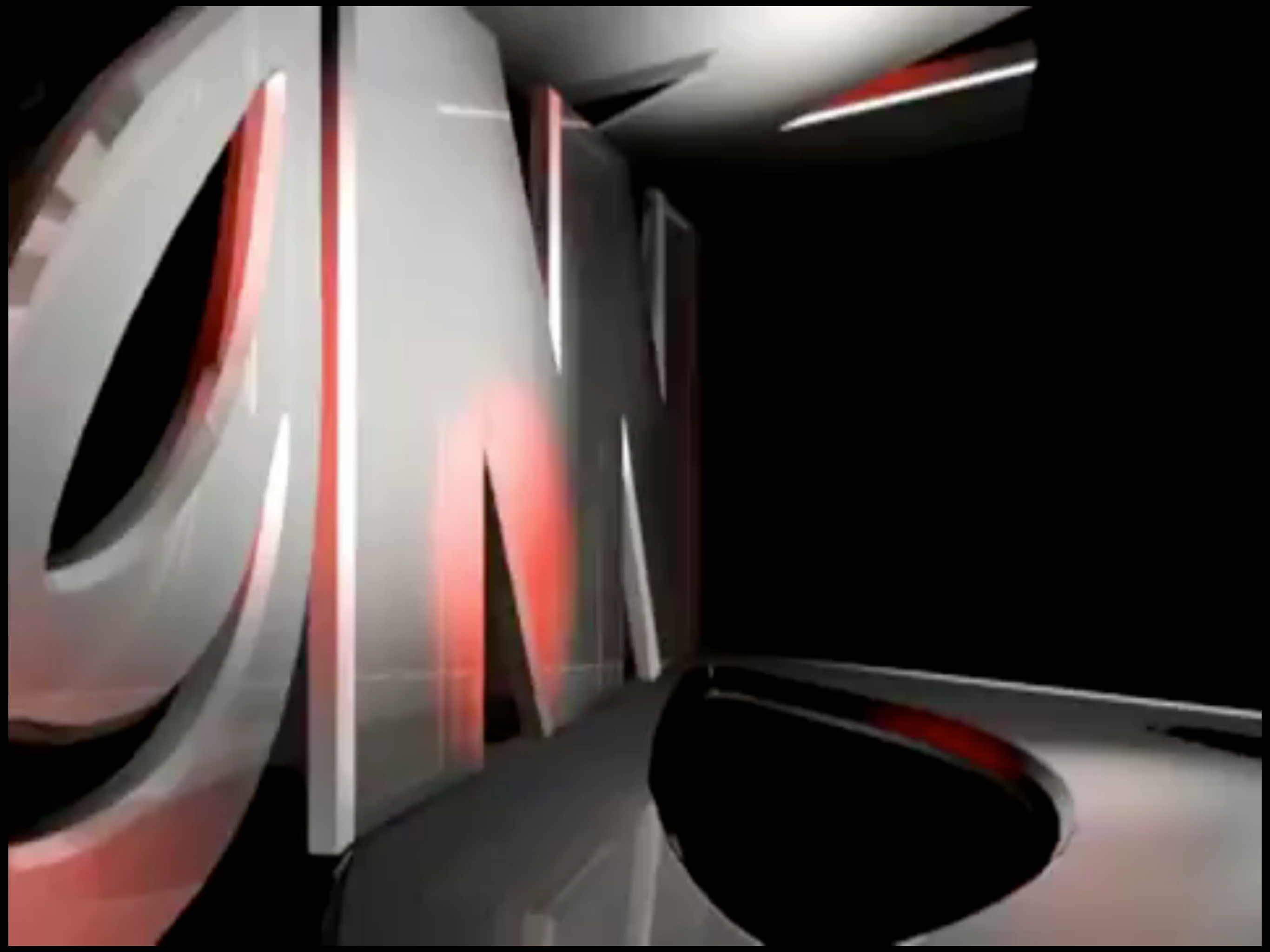
Live in the white space of now! Today!

NOW

BE HONEST!

HOW MANY OF YOU
REFUSED TO PUT
A CREDIT CARD
INTO A MACHINE
15 YEARS AGO?





YET.....

**HOW MANY OF YOU HAVE SENT AN
EMOJI?**



WHY IS THIS
IMPORTANT?

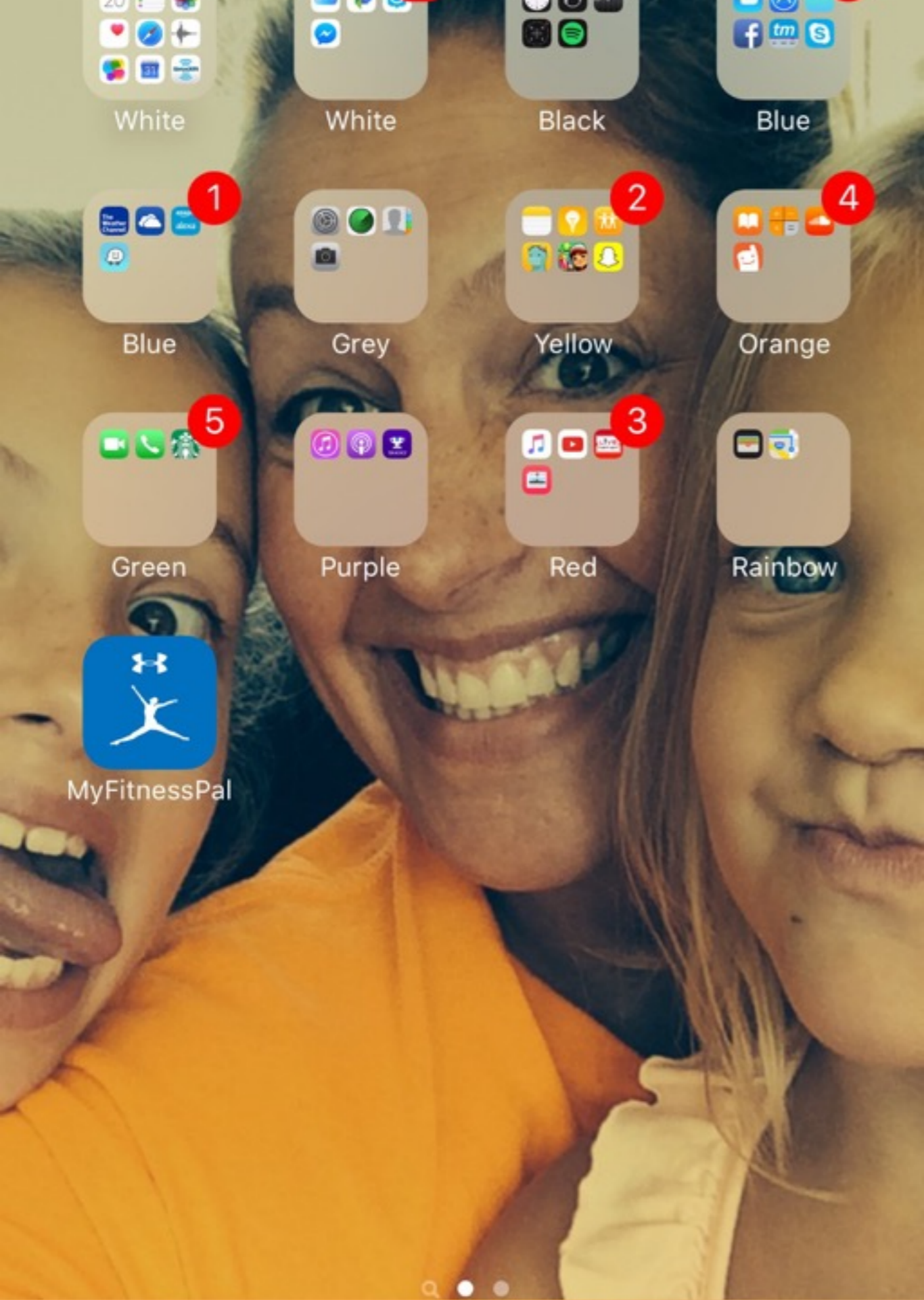


**BETTENDORF
ROBO DOGS**
"Who let the Dogs out?"

Multiple certificates and notices are pinned to the bulletin board.

Welcome to BMS

Practice in class



PROBLEM WITH SCHOOLS

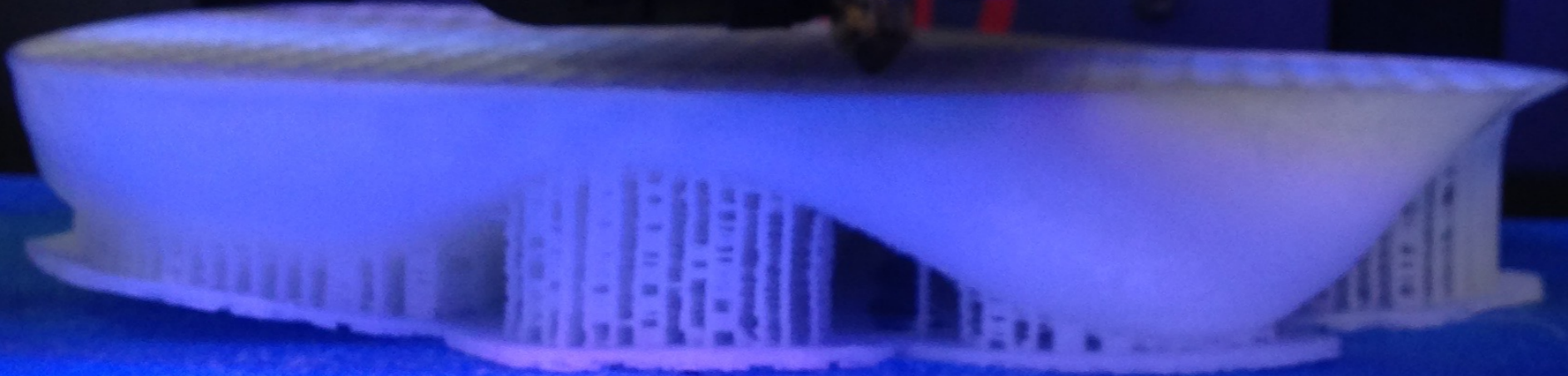
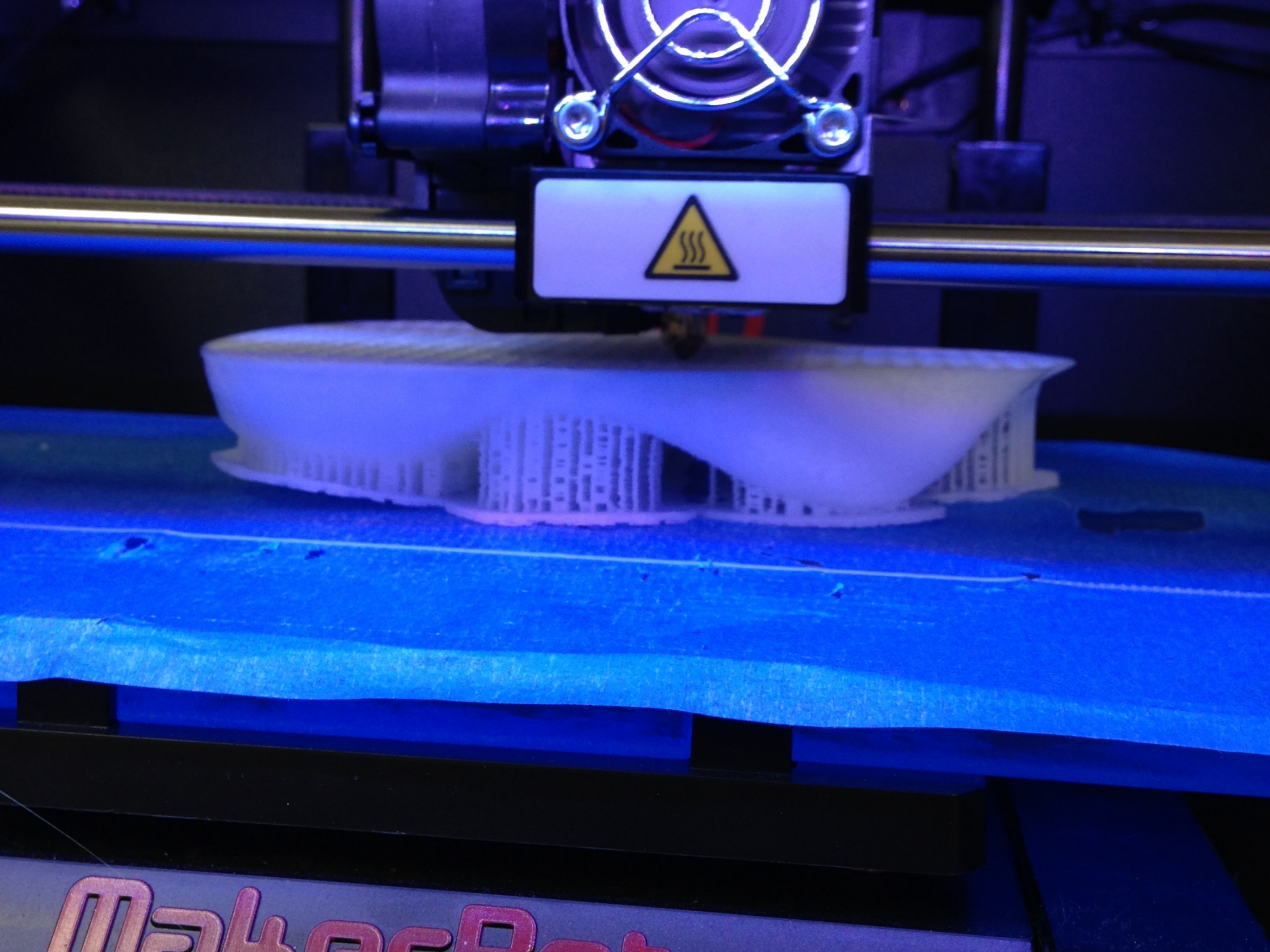
- Developing these mindsets are not in the “curriculum”
- How much time do we challenge students to initiate?
- Schools are programmed
 - jazz band song selections
 - athletic plays
 - school projects

Our wicked problem in redesigning education:

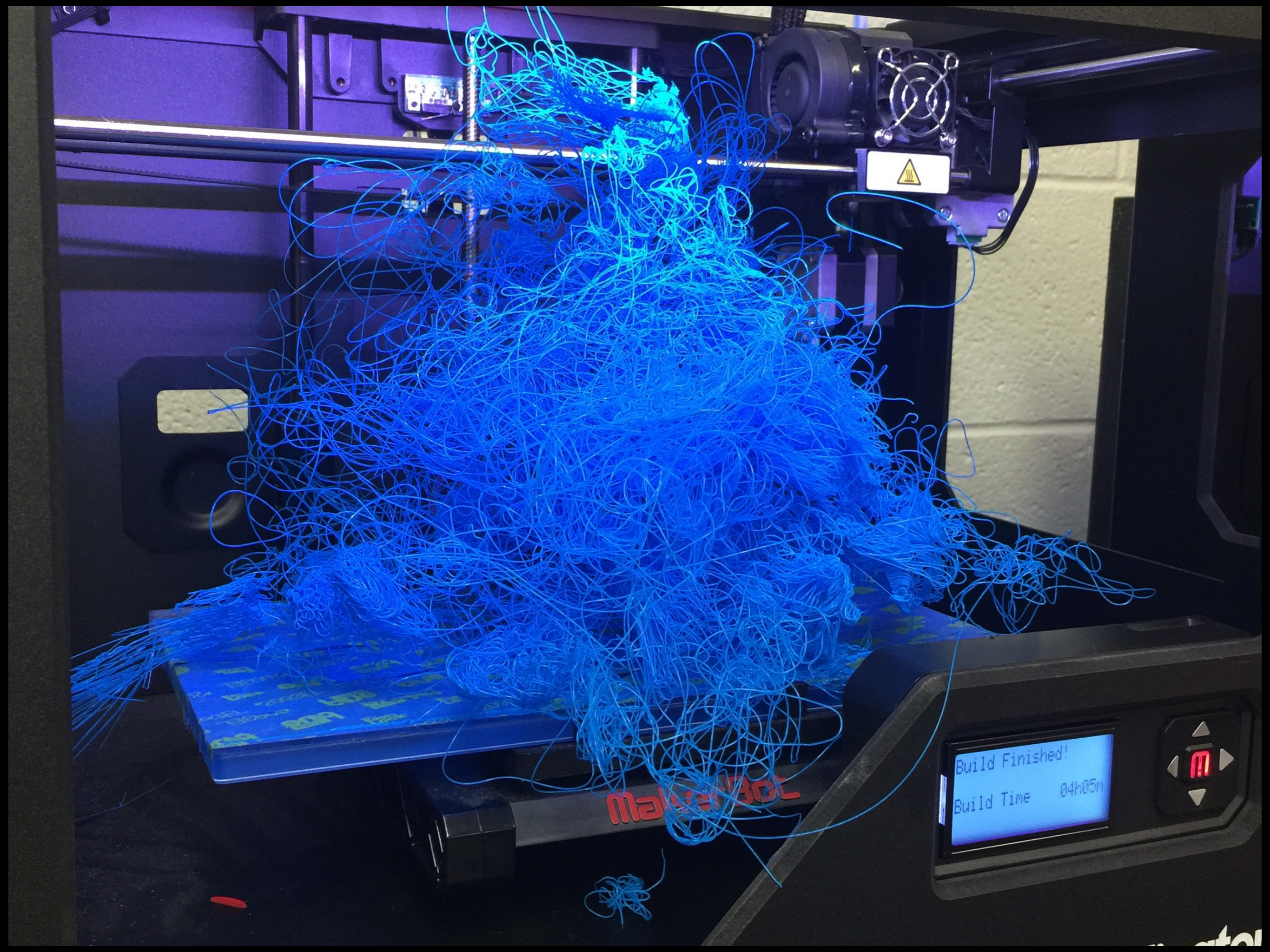
We haven't defined the problem
we are trying to solve.



Holly Harrington
H. Harrington's



MakerBot



Build Finished!
Build Time 04h05m

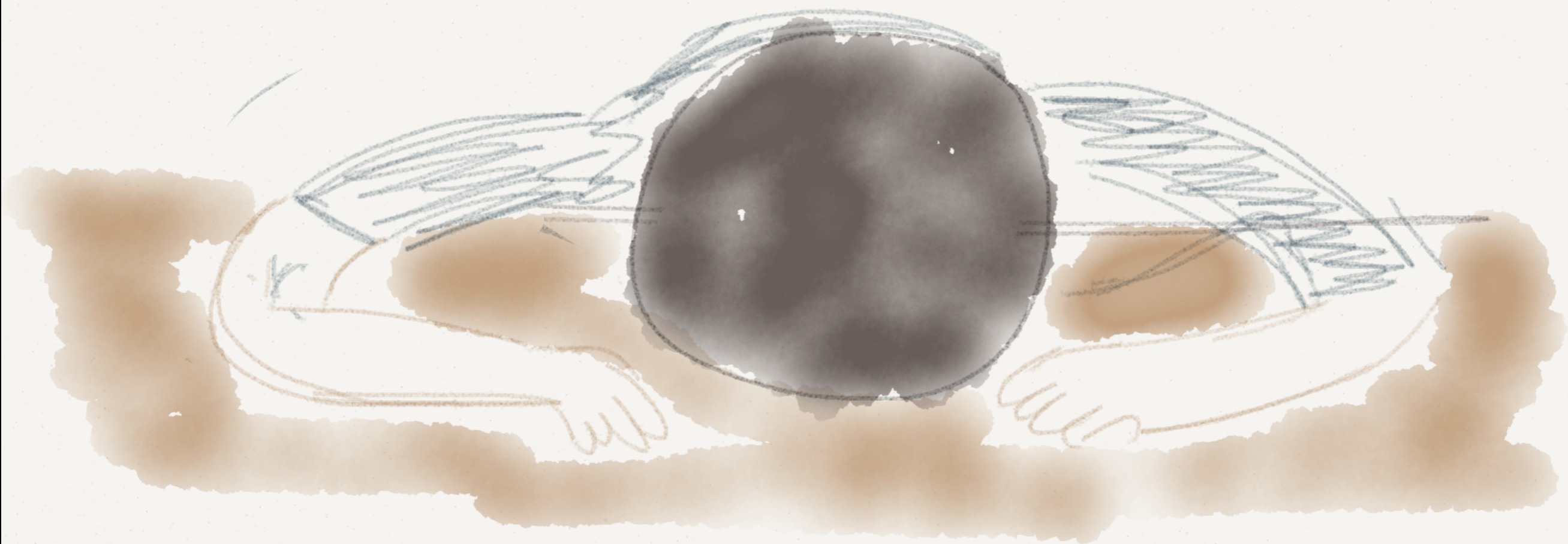
MakerBot



packet
NO!

MY STORY

parent perspective



AVONNE

I learned
what jitters
mean.

A

Miller



y believe your heart is the

None

I learned
what the
difference of
math problems is

A. Manner

u should eat fruits and
etables with every meal.

none

I learned
about the
4 different
sentences

Parent Comment:

A. Manner

Teacher Comment:



Keep your
promises.

Learned

?





Consumption → **C**reation

Voice → **A**gency

Robot → **H**uman

20th Century → **N**ow

I AM A MAKER

COFFEECHUG CAFE



IT IS MORE THAN JUST
STEM AND
ENGINEERING



If **MAKERSPACES**

are so powerful,
then why are they
only in **isolation**?

and then found and left my
lesson about work.

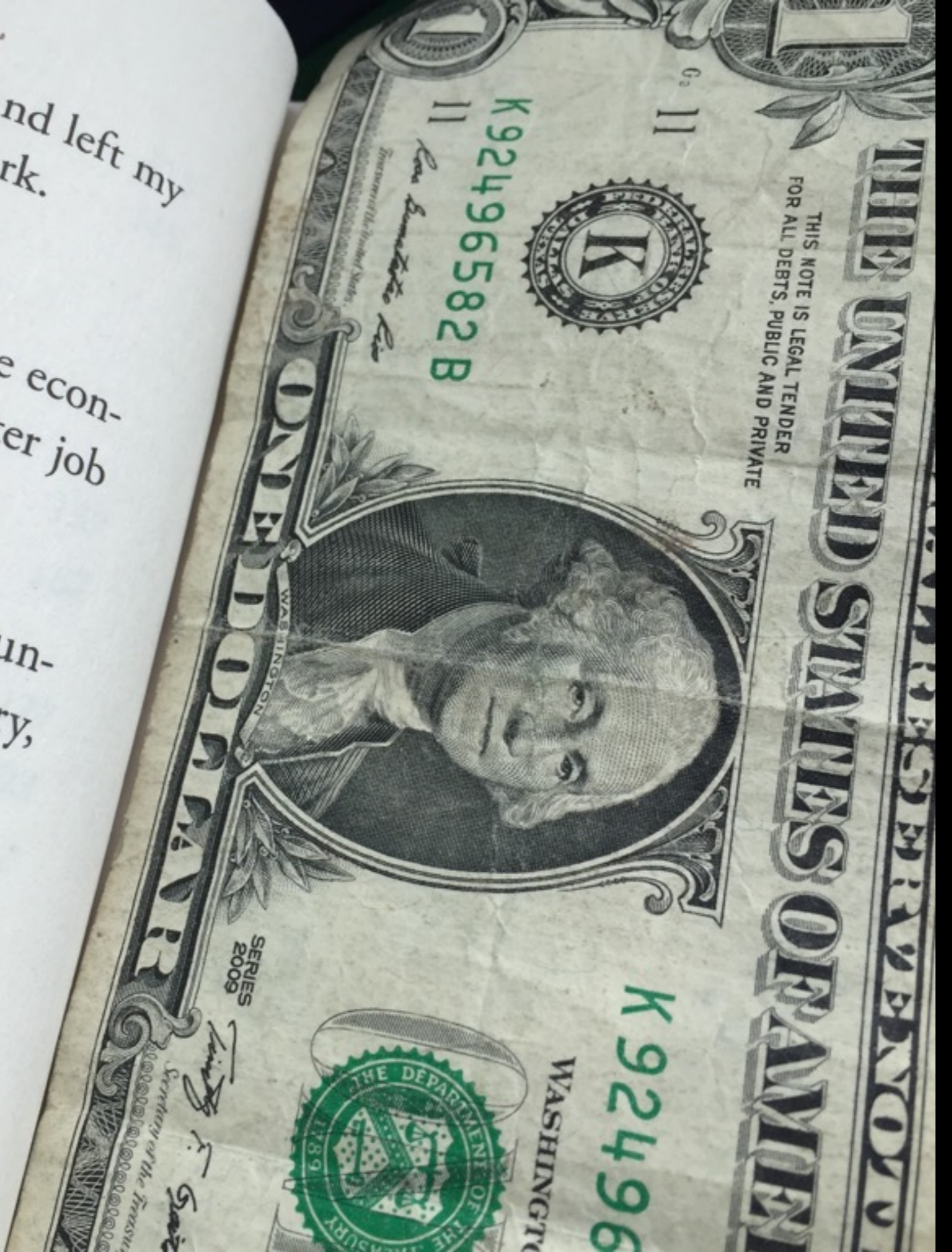
this is true.
me others or the econ-
y is that a better job

prison we volun-
On the contrary,

e refuse to get

e that one,

rote that



Technological change is not additive; it is ecological, which means, it changes everything.

Neil Postman



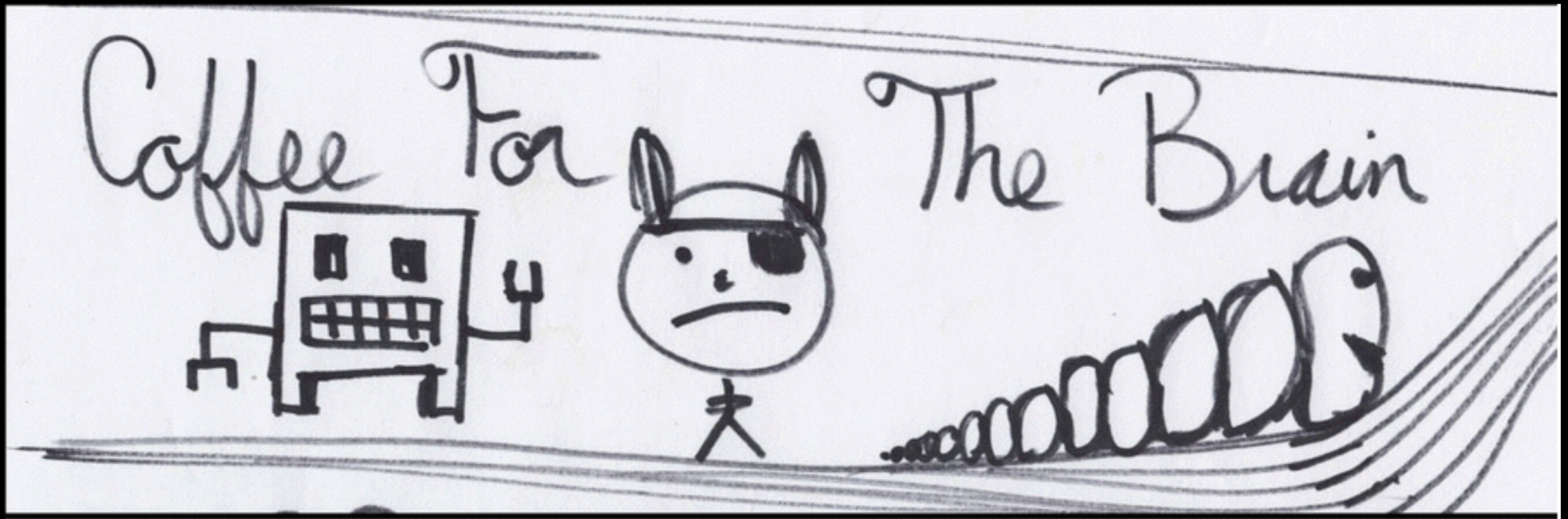


If I were President, the first thing

I would do is WAKE

UP

What is your **WOW**?



What is your **WOW**?

YOU'VE HEARD THE STORIES...

ARE YOU READY FOR THE EXPERIENCE?

COFFEECHUG CAFE

Where the coffee is fresh and
so are the ideas

Open Daily

#coffeechugPLN

Come join the movement

www.postermywall.com

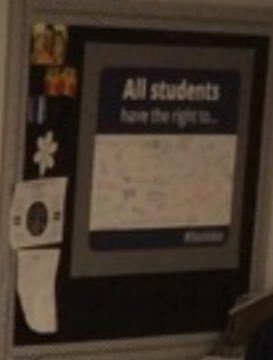
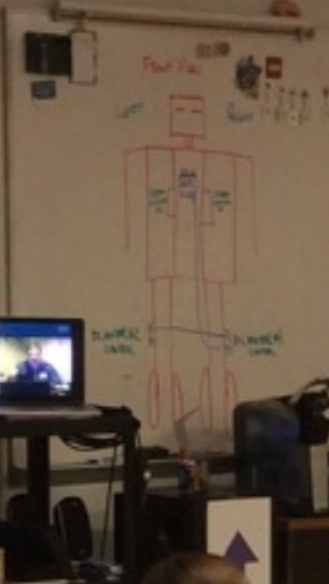
Background by: GwebStock

Sponsored by

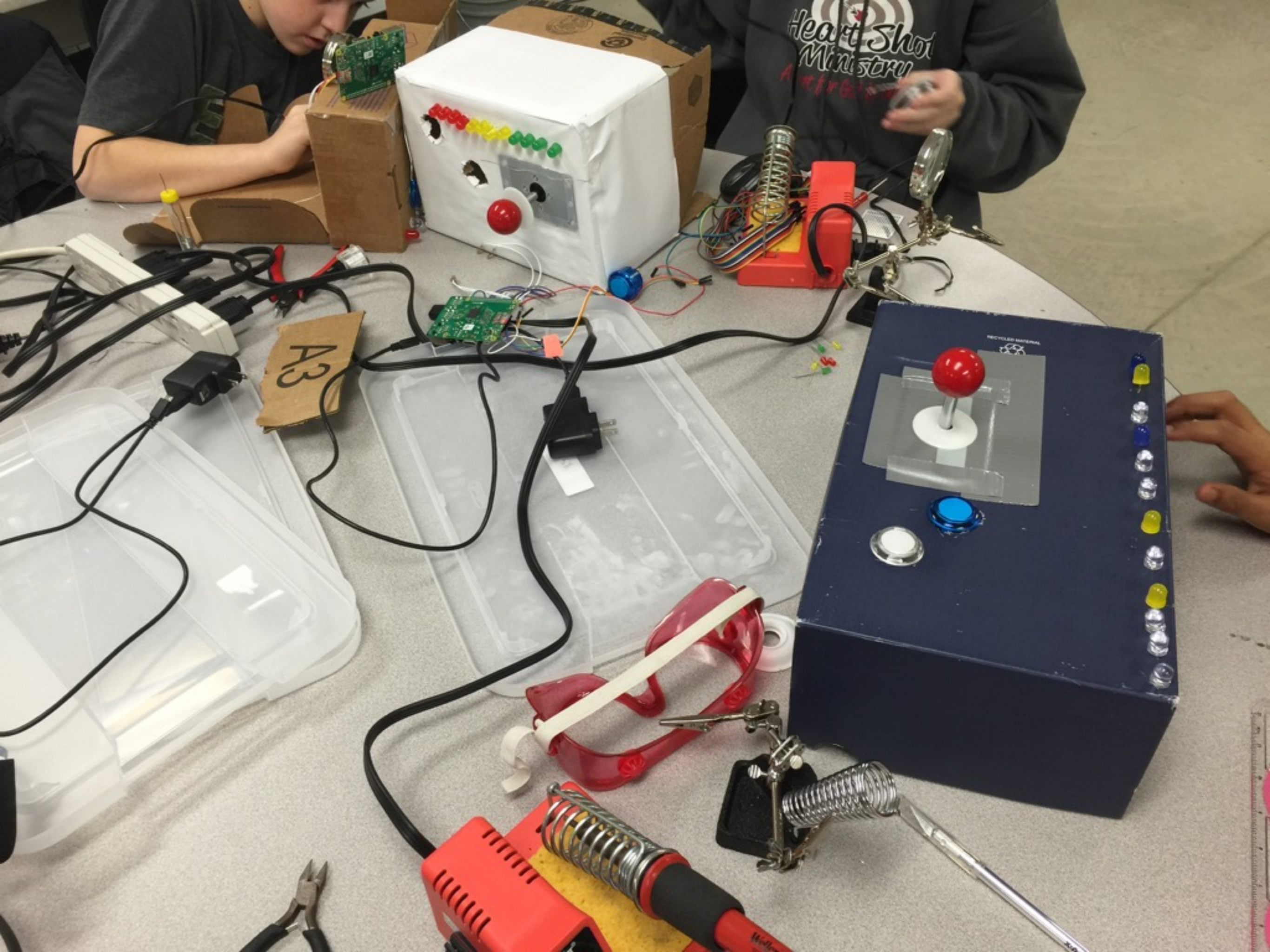


Paint Your Masterpiece





A Better You, LLC
Jeanie Fountain
Jasper Attorneys at Law
Mark Orthodontics
David Ford



You need to have the **GUTS** and
HEART and the **PASSION** to MAKE!



INGREDIENTS

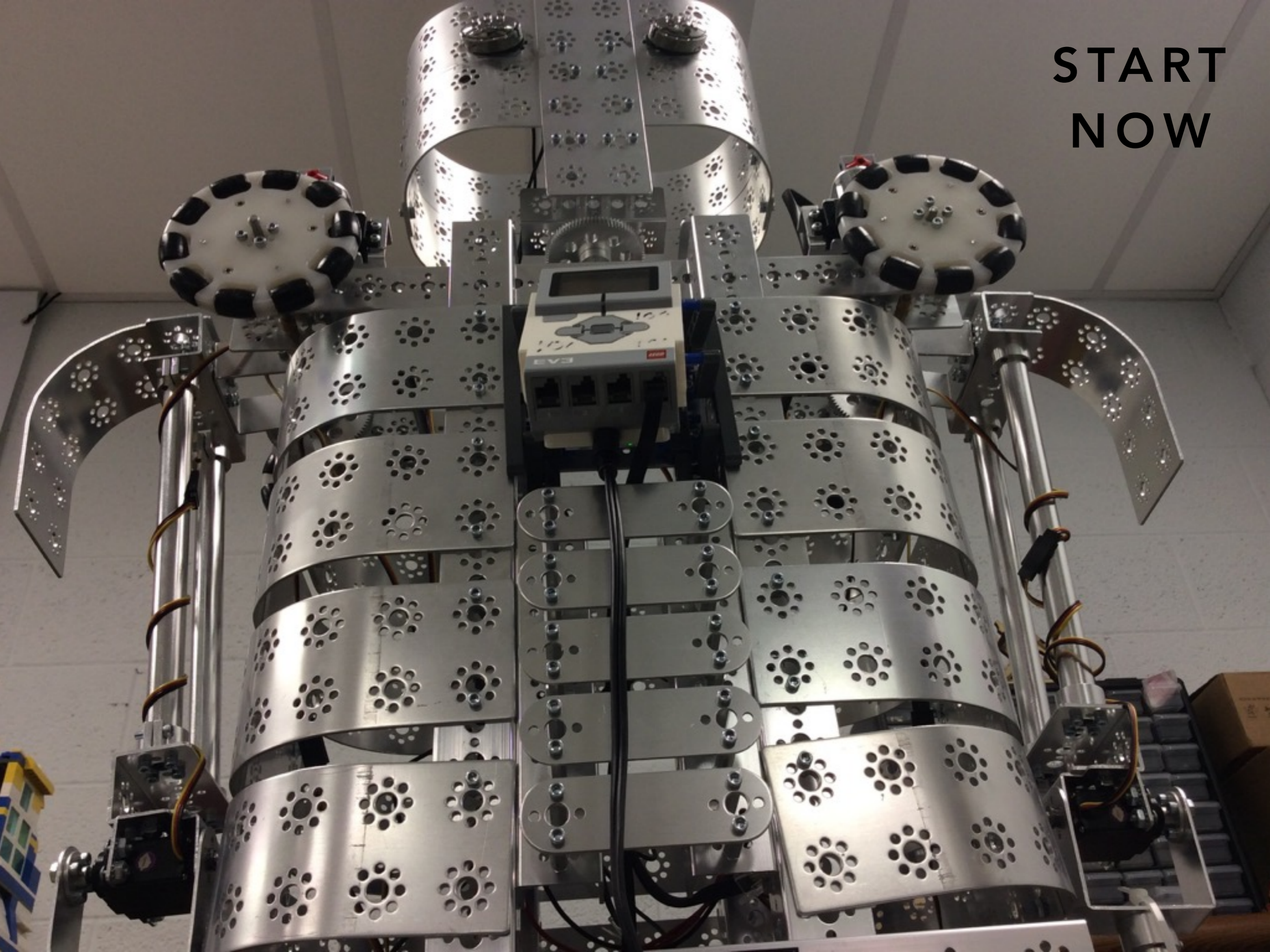
- an idea
- people to work with you
- a place to work
- materials
- money



What would our world look like if more people started projects, made a ruckus, and took risks?

-SETH GODIN

START
NOW

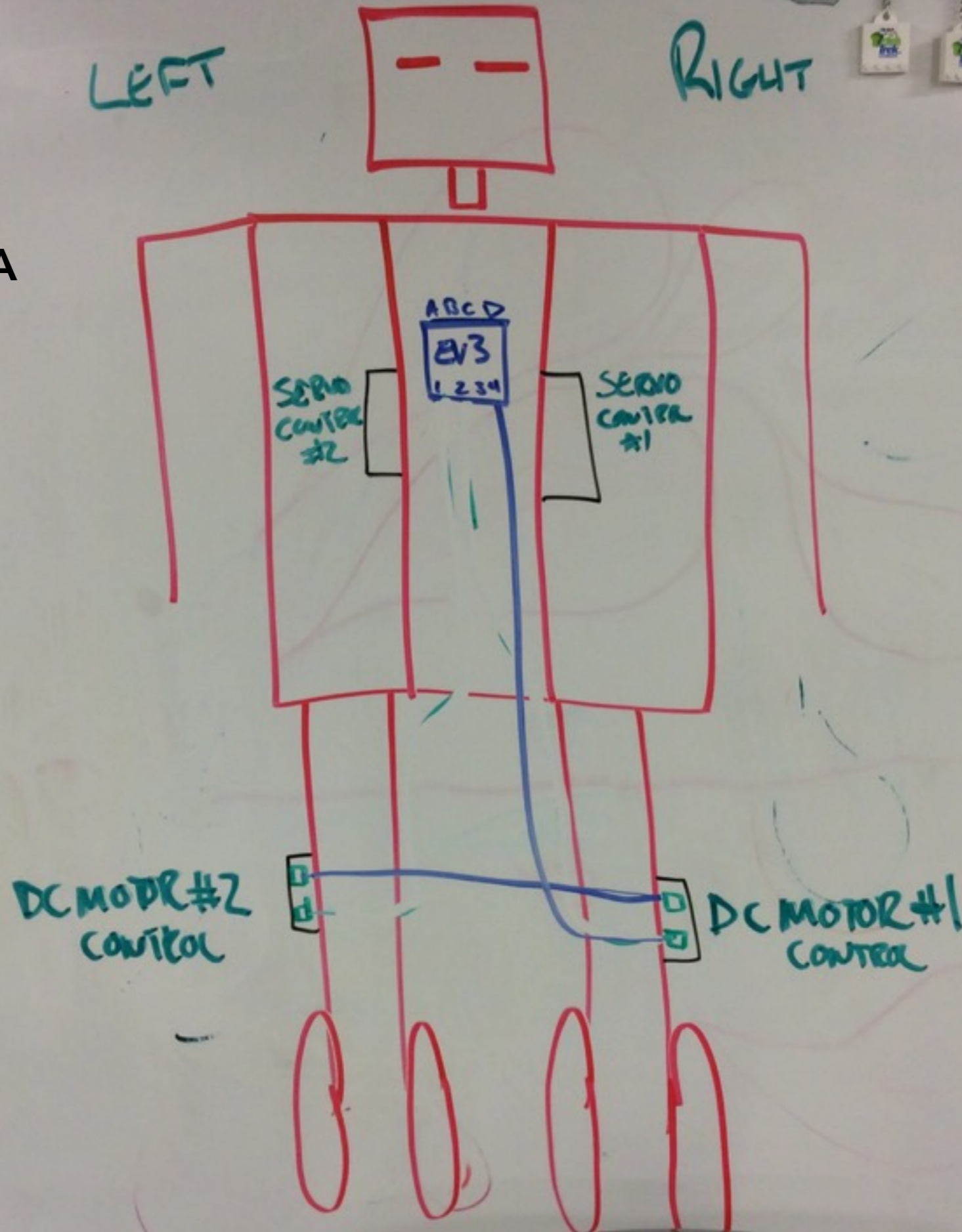


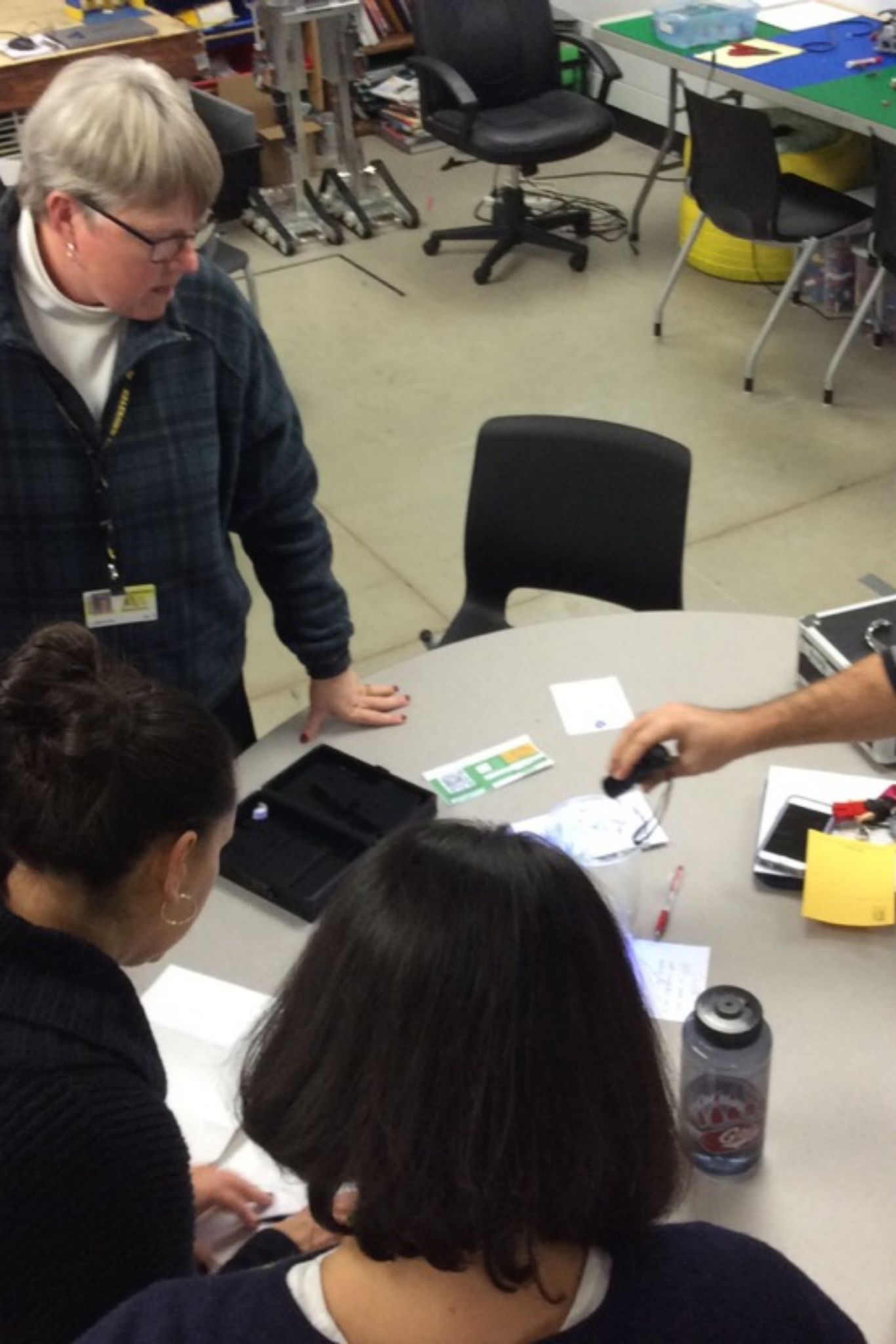
Aaron Maurer
Member Number

LEFT

RIGHT

LET'S LIGHT A
FIRE... SHALL
WE?





WHERE DO
GOOD IDEAS
COME FROM?



3 EASY STEPS

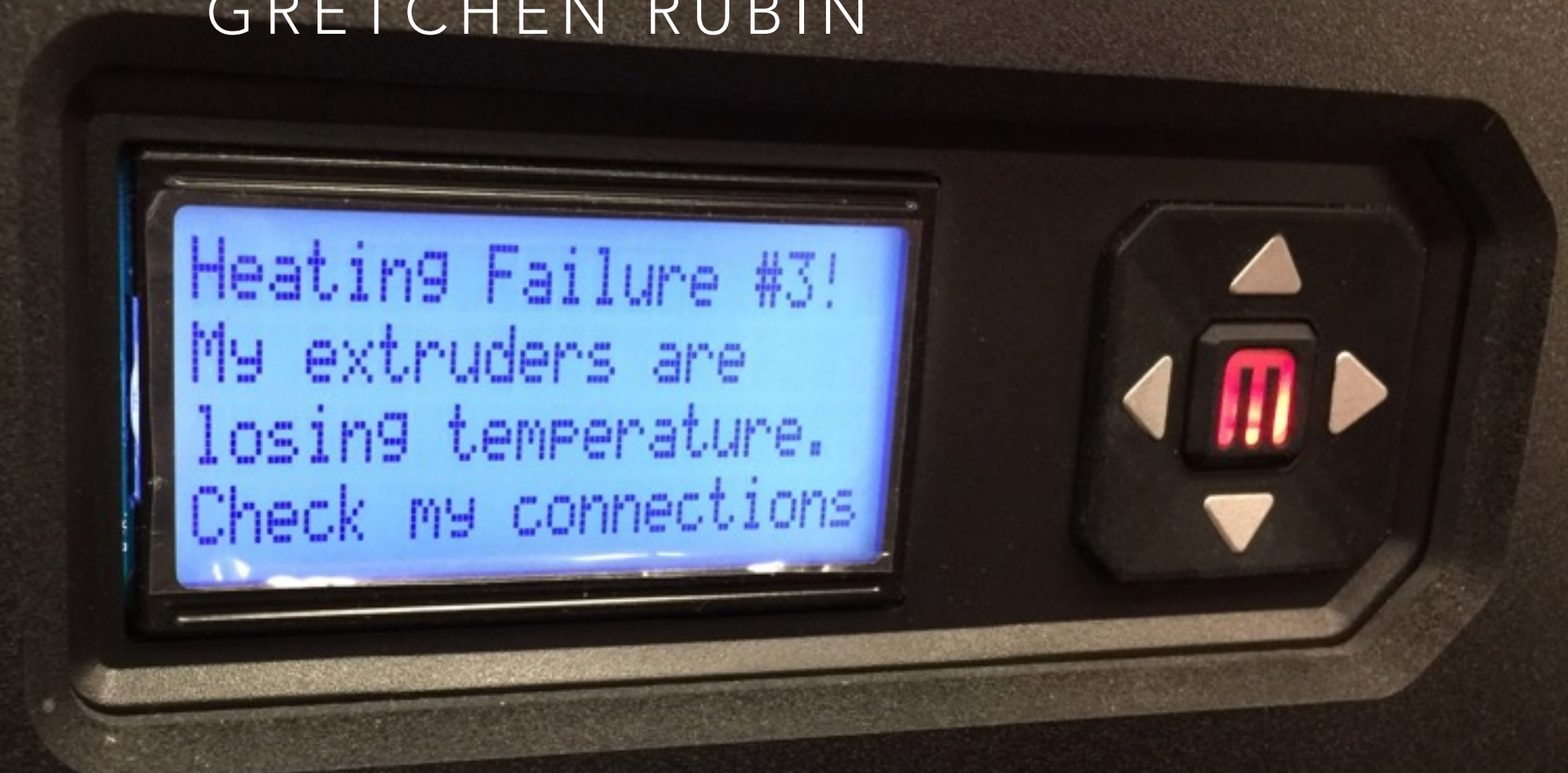
Here's how:

1. Don't think about it.
2. Just start.
3. Keep starting.

Don't bother just to
be better than your
contemporaries or
predecessors. Try to be
better than yourself.

WILLIAM FAULKNER

THE BIGGEST OBSTACLE TO OVERCOME WAS MYSELF.
GRETCHEN RUBIN



Heating Failure #3!
My extruders are
losing temperature.
Check my connections

MakerBot® Replicator™ 2
DESKTOP 3D PRINTER

Hackers

one who combines excellence, playfulness,
cleverness and exploration in performed activities

Change your **PERCEPTION?**



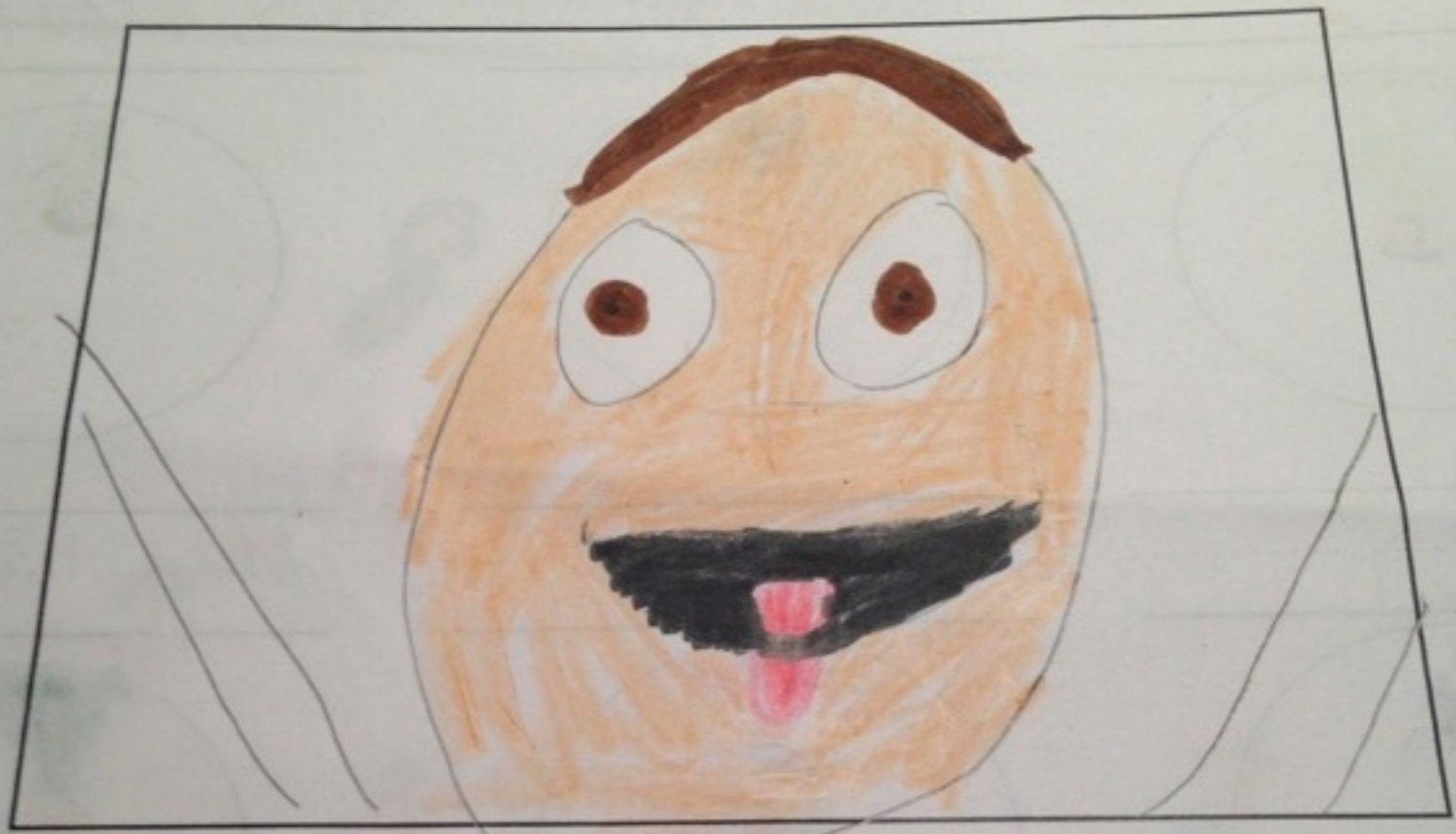


Why will I be successful in this class even if I've never been successful before?



If students had a choice to go to your classroom, would you have an empty room?





This is a picture of me!

Make it **HAPPEN NOW!**

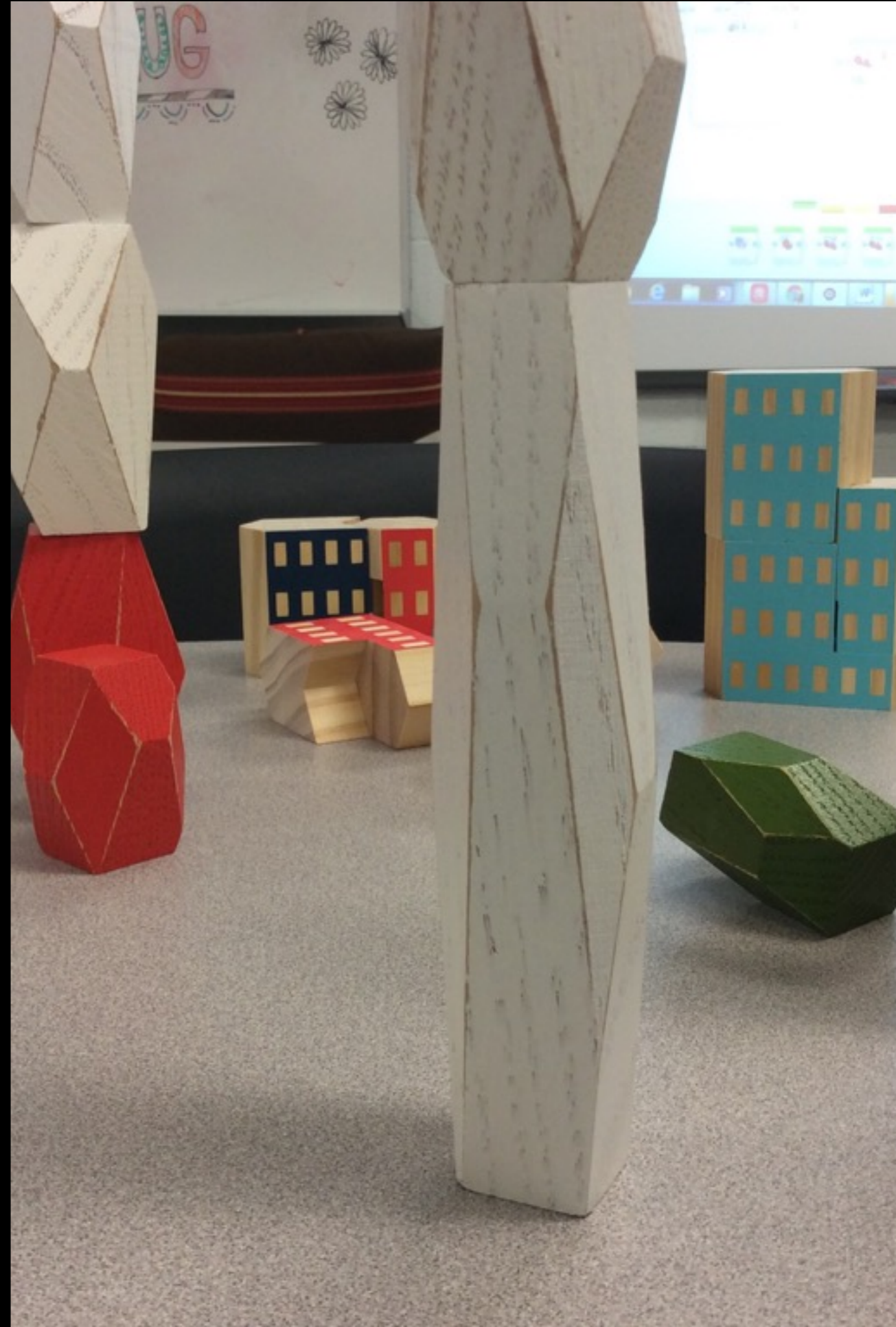


“Education is what someone tells you to do.
Learning is what you do for yourself.”

-SKILLSHARE MANIFESTO

DO NOT ASK

“WHAT WILL
I INNOVATE
TODAY?”



ASK
WHAT
PROBLEM IN
THE WORLD
NEEDS A
SOLUTION?



ALL IDEAS ARE WASTED IF

NO ONE SAYS "GO"





When you do **THIS**, what happens?

When you do **THAT**, what happens?

“The encouraging part is that everyone can create. The challenging part is that there is no magic moment of creation. Creators spend almost all their time creating, persevering despite doubt, failure, ridicule, and rejection until they succeed in making something new and useful. There are no tricks, shortcuts, or get creative quick schemes. The process is ordinary, even if the outcome is not.

Creating is not magic but work.

KEVIN ASHTON

Most of our world is made of innovations inherited from people long forgotten—not people who were rare but people who were common.

WHAT WILL YOU MAKE TODAY?



MAKE It a Great Day

MAKE something **DIFFERENT**

MAKE something **INNOVATIVE**

MAKE something **AWESOMESAUCE**



SOLO WRITE - 4 MINUTES

“When you fail, and you will...”

Pick a moment when you've led, when the project didn't work, when there was failure. Tell us what happened and why it's personal... and why it's not.

And/Or

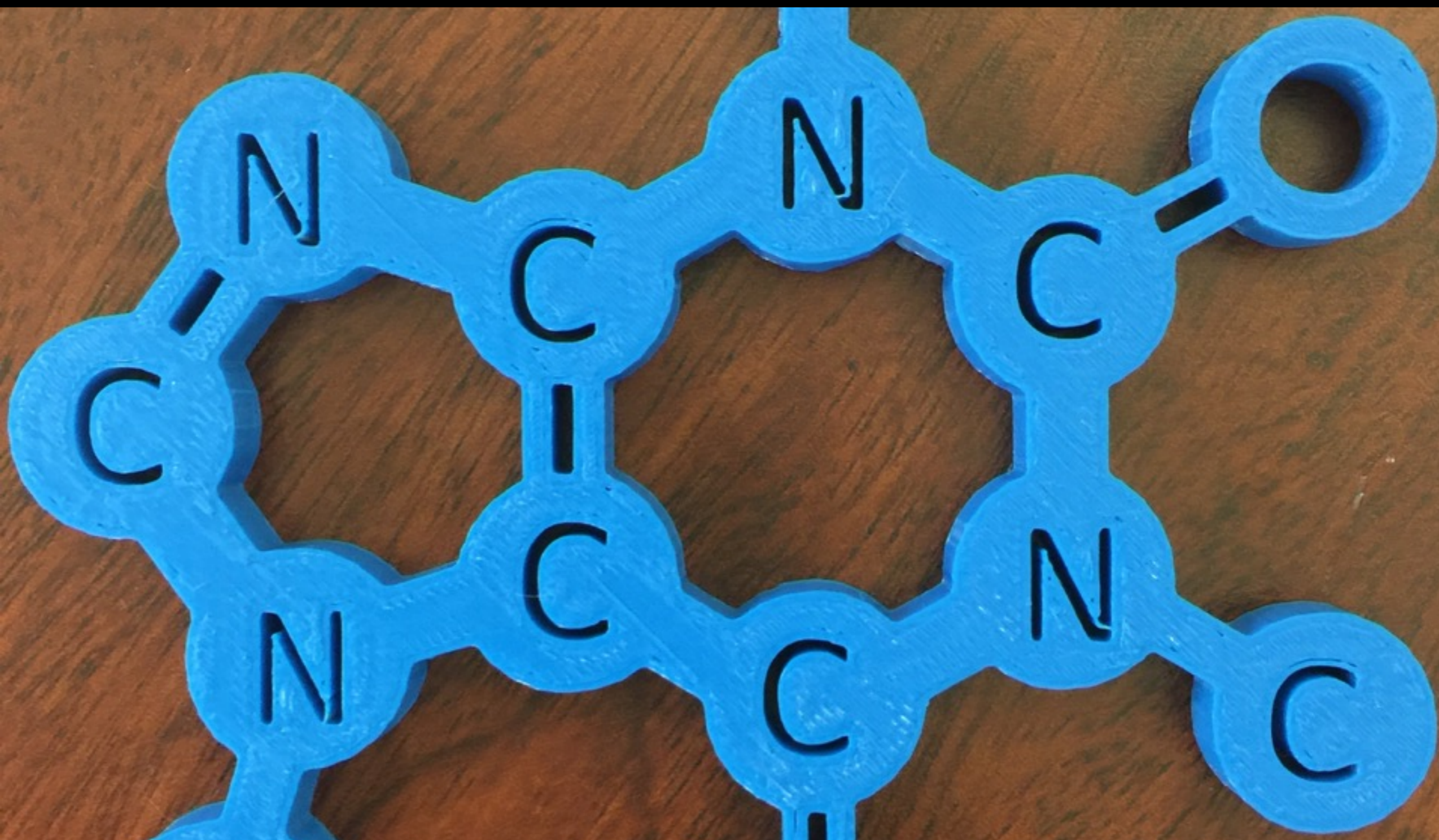
Pick a moment when you've led, when the project did work, when there was success. Tell us what happened and why it's personal... and why it's not.

QUICK DUMPING!

- 8 minutes
 - Choice 1
 - share experiences at your table
 - Add ideas and questions to Padlet
 - <http://padlet.com/coffeechug/ncce>
 - Choice 2
 - Work on your Masterpiece
 - share on padlet
 - email aarmau@gmail.com
 - #nccemaker



WHAT'S NEXT?



- When you do **THIS**, what happens?
- When you do **THAT**, what happens?
- What will you do **TODAY**? **TOMORROW**?



8 Step Progression

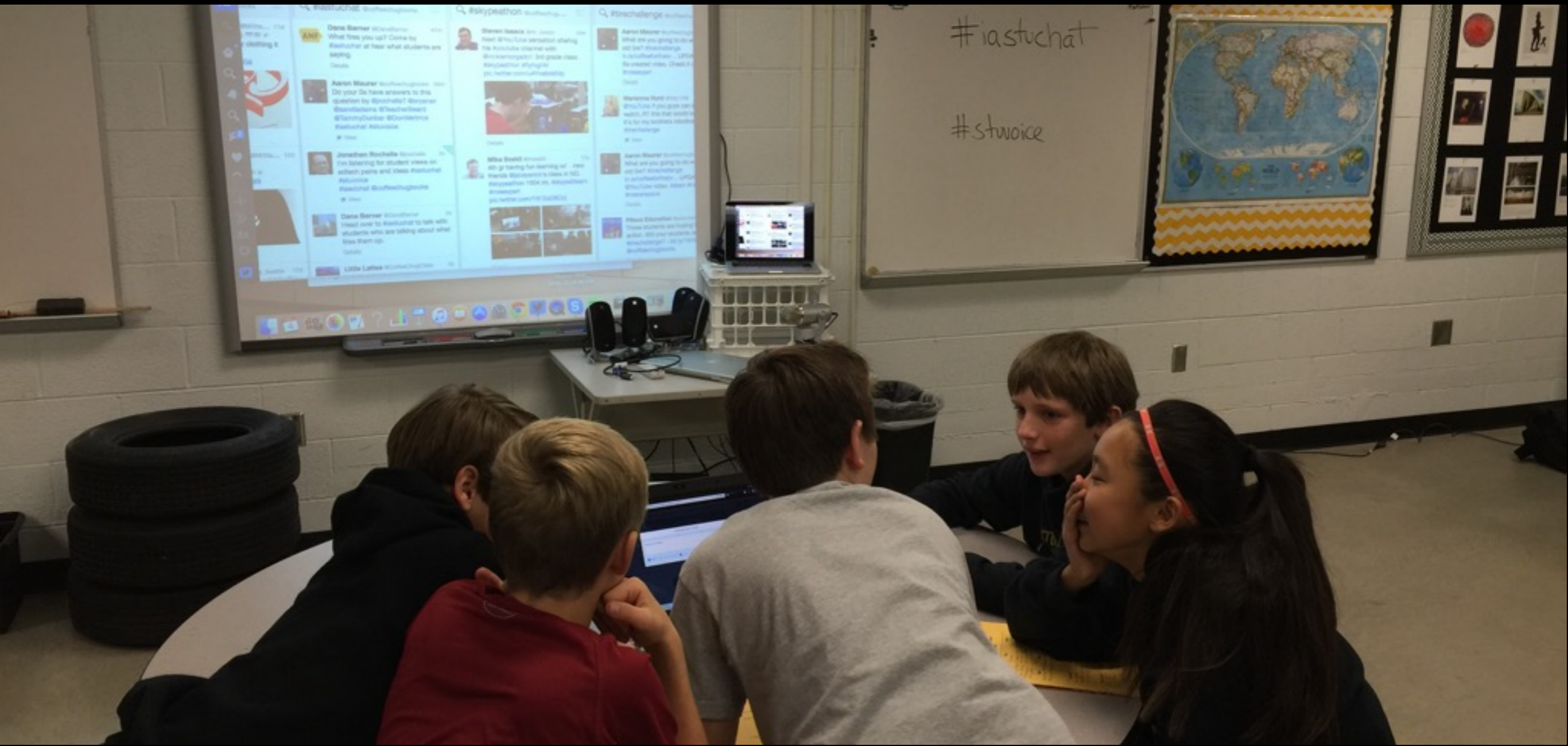
Wonder - I wonder what happens if I.....



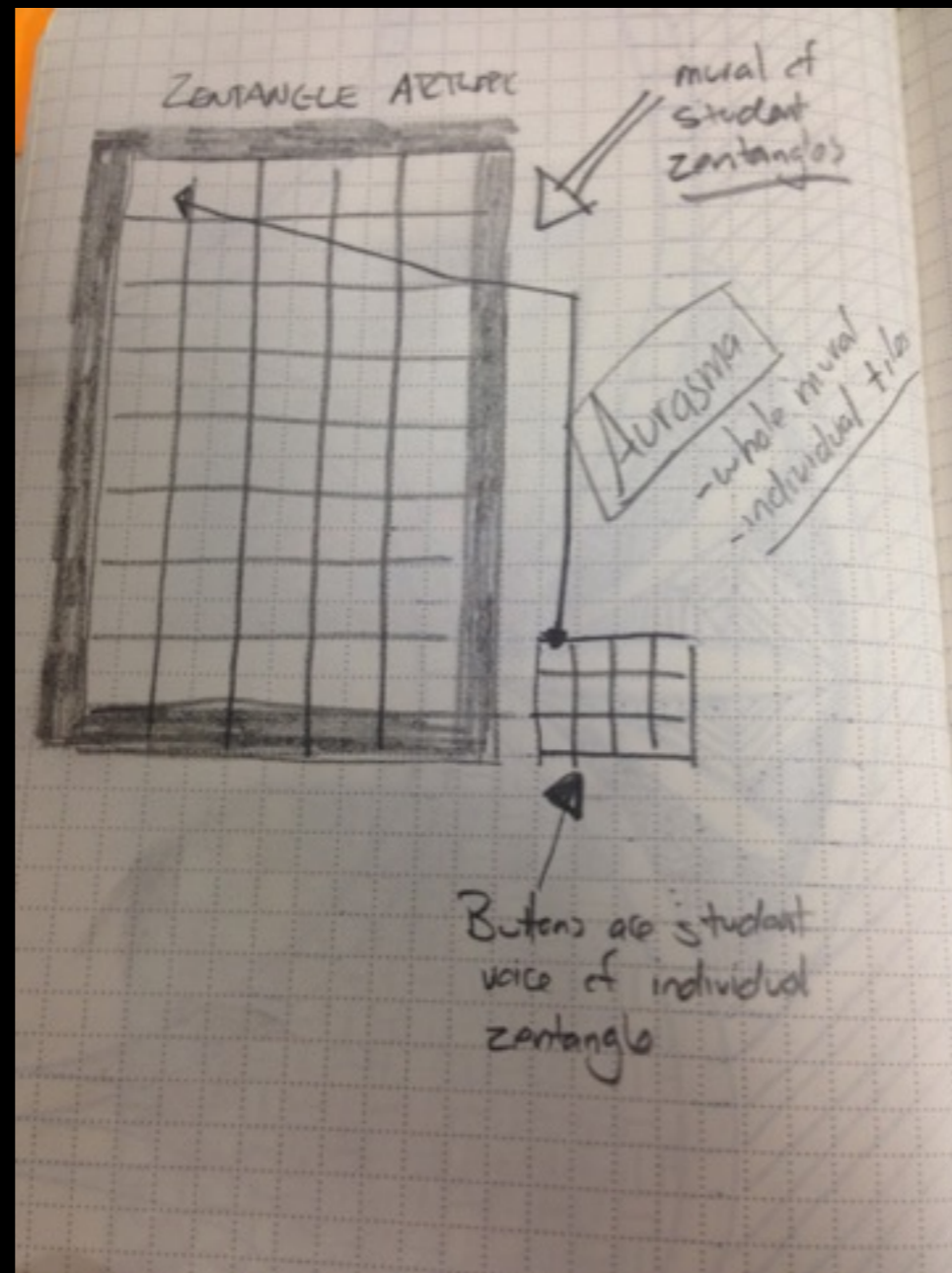
Notice - where is the talent? what works in other places?



Connect - everyone is lonely and has time and energy to spend on things that matter



Understand - why things succeed, why people do what they do, understand the mechanics where you want change to happen



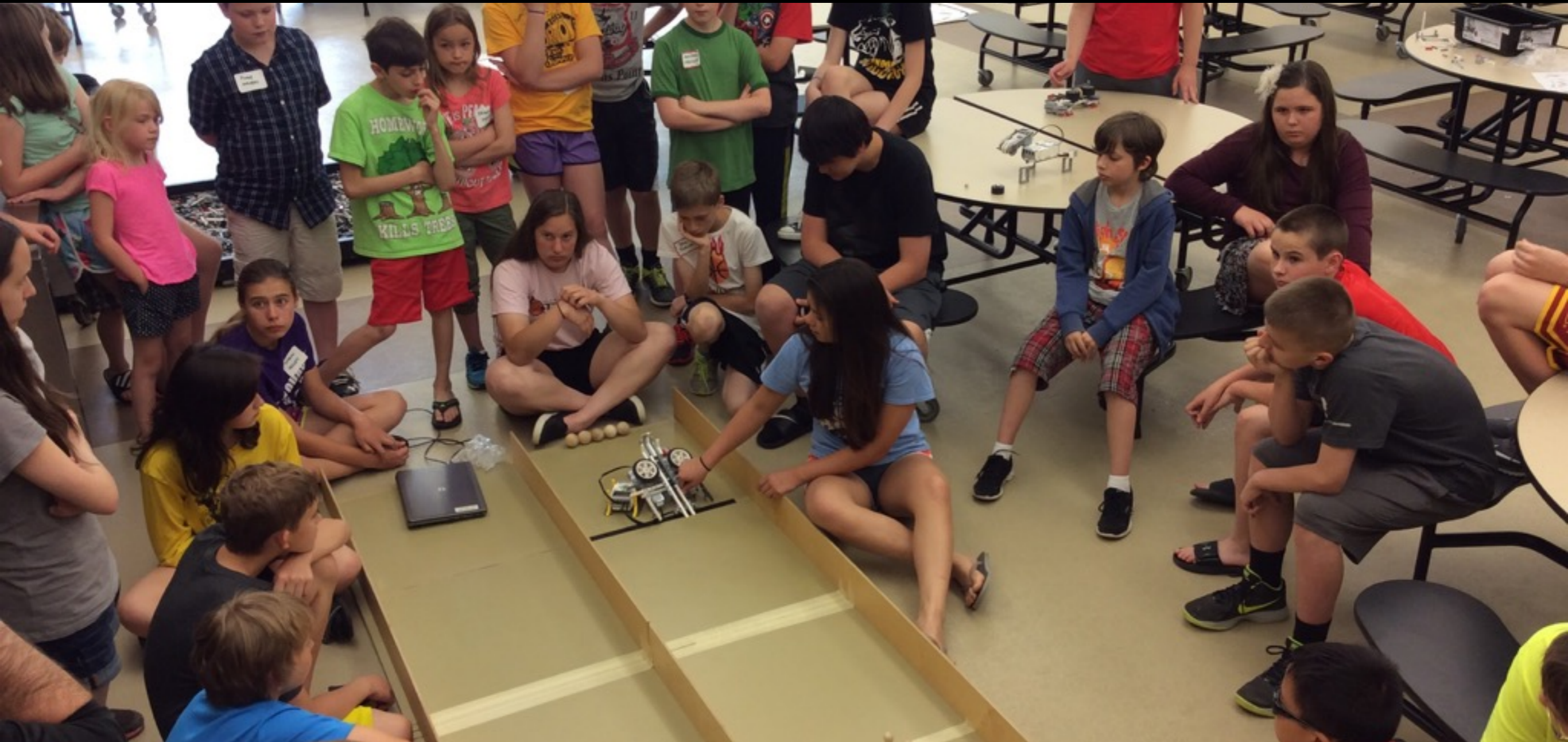
Leap - there is no bridge or step by step approach. You have to jump to make it possible



Challenge - the status quo, the people you work with, what is possible



Transform - the world around you, make the change happen



Contribute - once you start leading you will find leaders all around you. Contribute and add value to them and vice versa.



WHEN YOU DO,

YOU..

- gain ownership of learning
- gain power of self
- gain power to make things happen

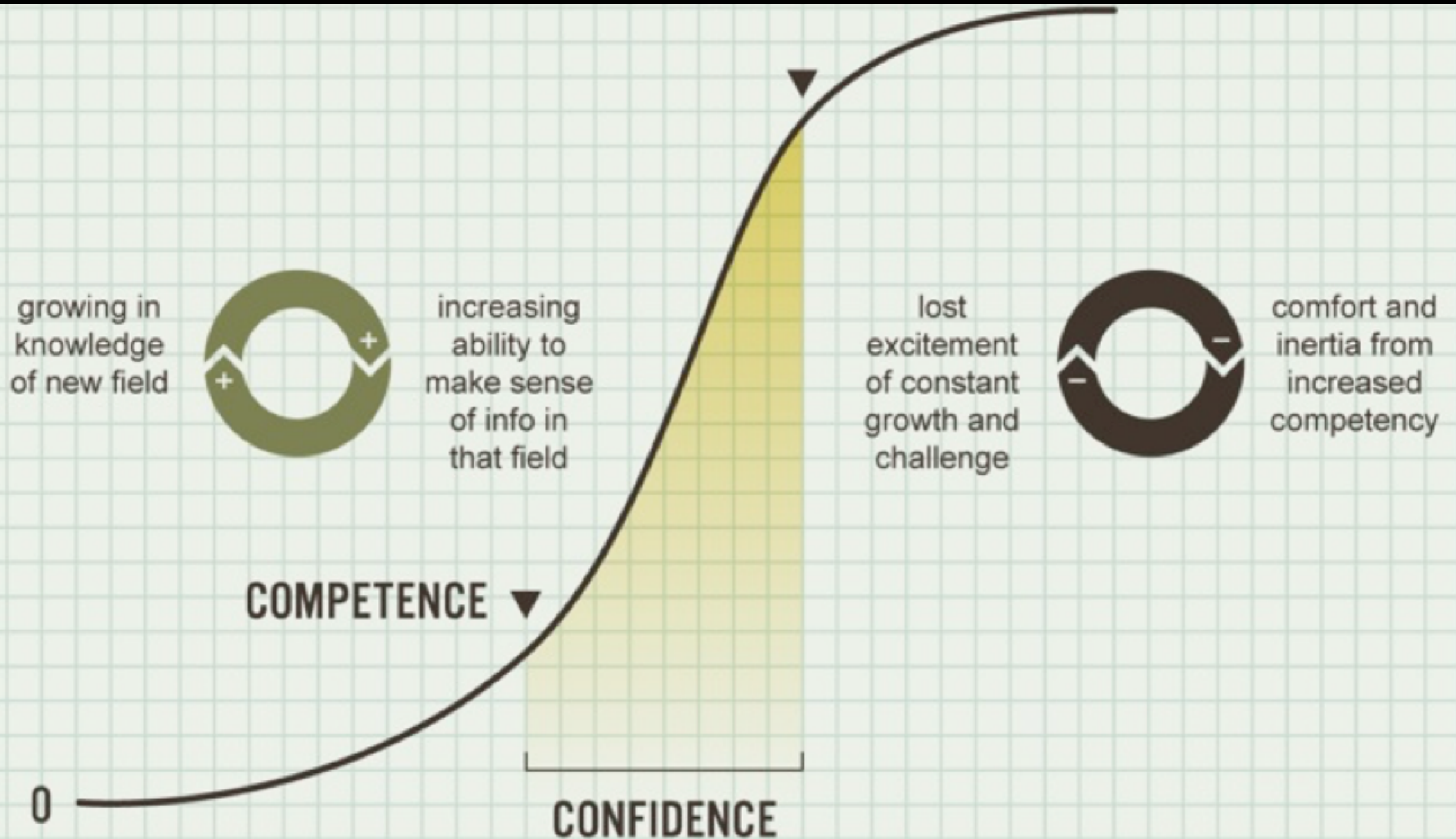


WHEN WE MAKE

- there is risk of failure
- most things break
- most things fail
- most ideas don't work



S CURVE



Are you better than average?



WHEN CAN YOU START?

SOON IS NOT AS GOOD AS **NOW**



YOU MUST

DO THE WORK



PAINT YOUR MASTERPIECE

BEFORE YOU START

Handwritten notes on a piece of paper:

- 2/16 C+2 6-7:15 (Sun) 5:30
- 22 C+3 "
- 25 C+3
- 25 205-223
- 13:10
- lost 55 plus
- Make Keynes
- let ~~to~~ from him
- App 6 Ad 84 → Campaign

You cannot grow by staying predictable and ordinary

... FULL LIFE



If I lost my thumb
I'd be lost (I thought)
The catalyst for our

Technology driven
Master-mind
But

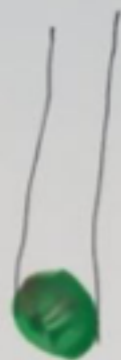
Then I saw
I could turn
To you



To MAKE.
AND CREATE
AND LIVE A...
And We where/ were



Found/
Complete and



Boundaries are only in your head



...their most powerful learning... consistency...
...group to group was astonishing. The... you—we...
...a lot about learning. Papert (1993a)... one of us ha...
...up a stock of intuitive, empathic, commonsense knowledge...
...learning" (p. 27). Including you.

*Where does this
fit in?
School day, you*

- Safe learning environment
- Personal investment
- Real-world application
- Fun
- Relevance to their lives
- Social
- Interesting questions
- Positive learning environment
- Real audience
- Passion
- Teachers and mentors
- Feedback
- Autonomy and agency
- Challenging
- Cross-disciplines
- Not time constrained
- Flow



Figure 2.1: A list of teacher-reported conditions powerful learning.

If you had a chance to do a TED talk, then what would it be about?

TED

IDEAS WORTH SPREADING

- What have you discovered?
- What do you know?
- What can you teach?
- Even if you can't do a TED Talk you should be prepared to give one!

DIFFERENT DOES NOT MEAN "RIGHT"

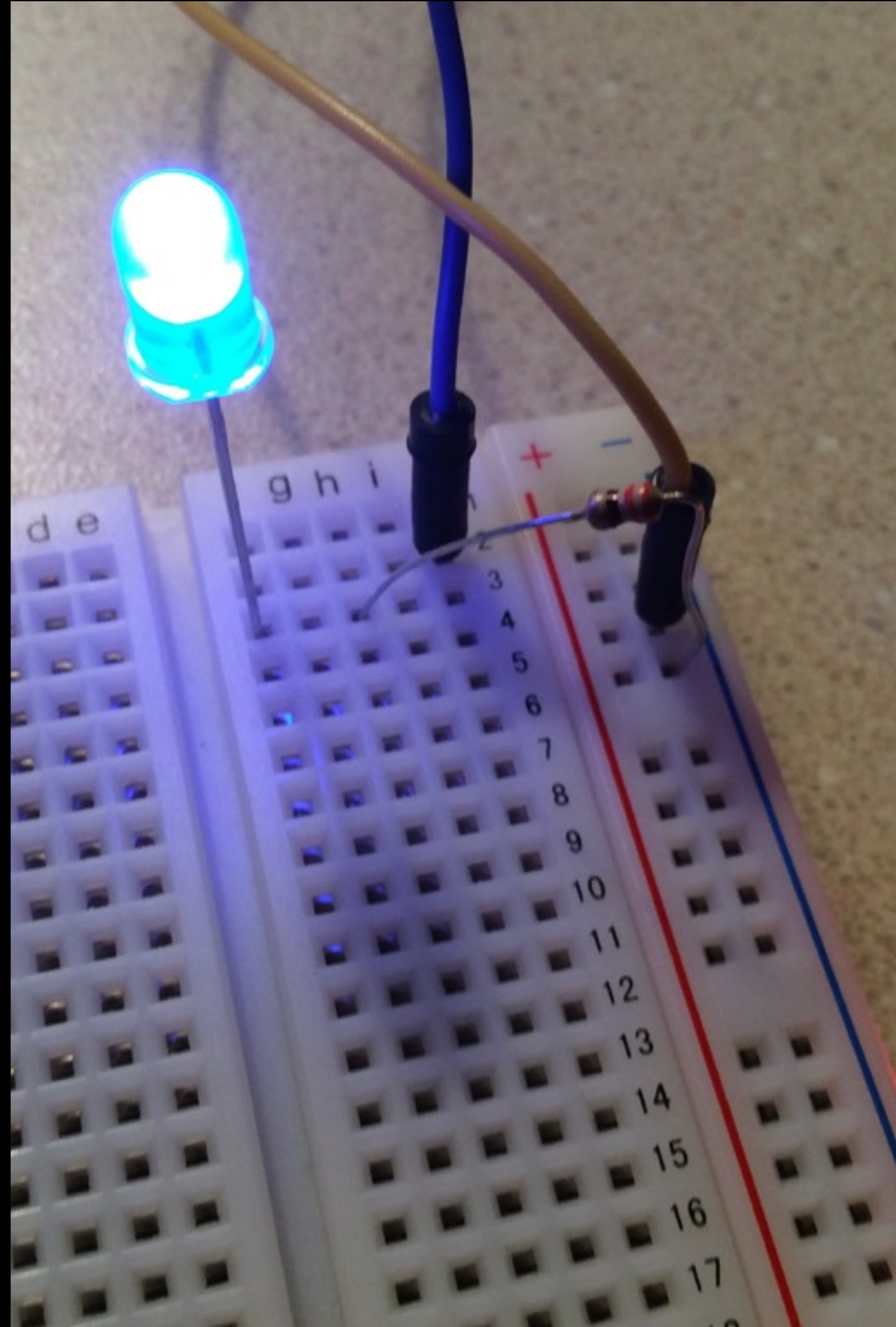
IT MEANS ACTION!

TO START

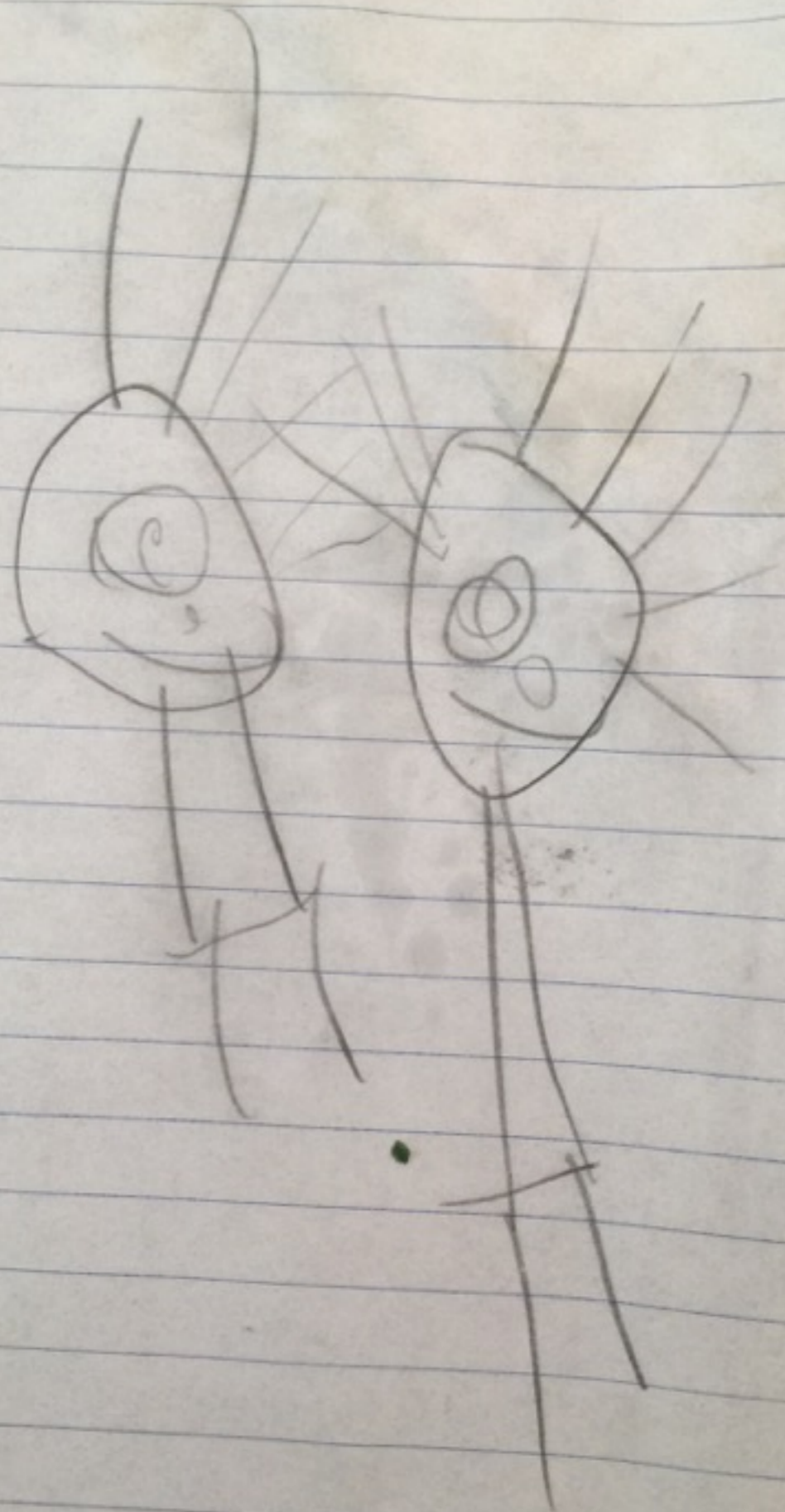
MEANS YOU
WILL FINISH



IF YOU DON'T FINISH
THEN YOU DID
NOT START



IF YOU DON'T START
THEN YOU ARE
NOT BEING
DIFFERENT



FAILURE = VICTORY

- if you only fail once, then you don't fail the most
- if you never fail, you simply are not living
- if you succeed enough you are given the privilege of failing
- KEY IDEA: Learn from each failure

In today's society, not starting is far worse than
being wrong



CURIOSITY



HOW DOES THAT
HAPPEN?



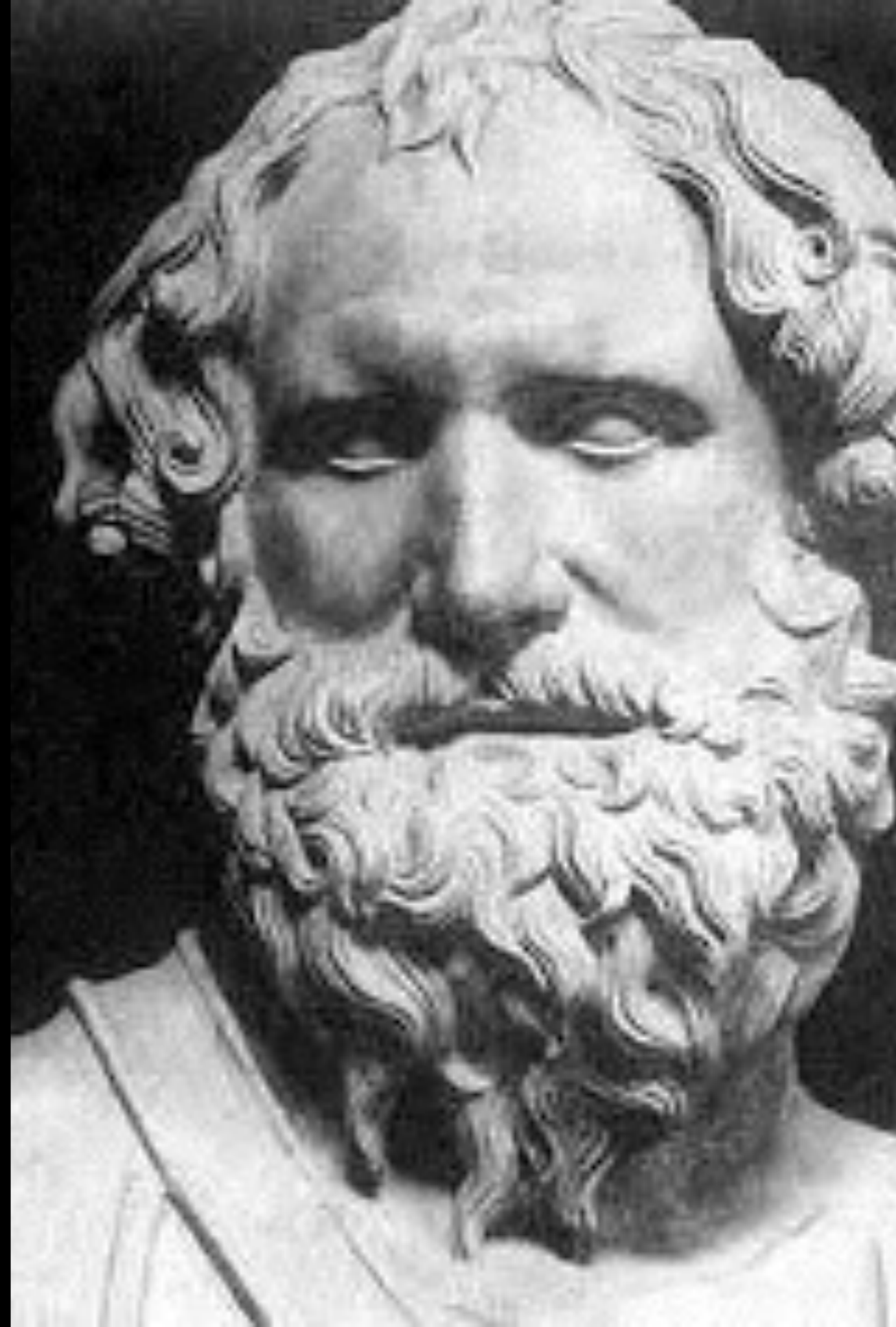
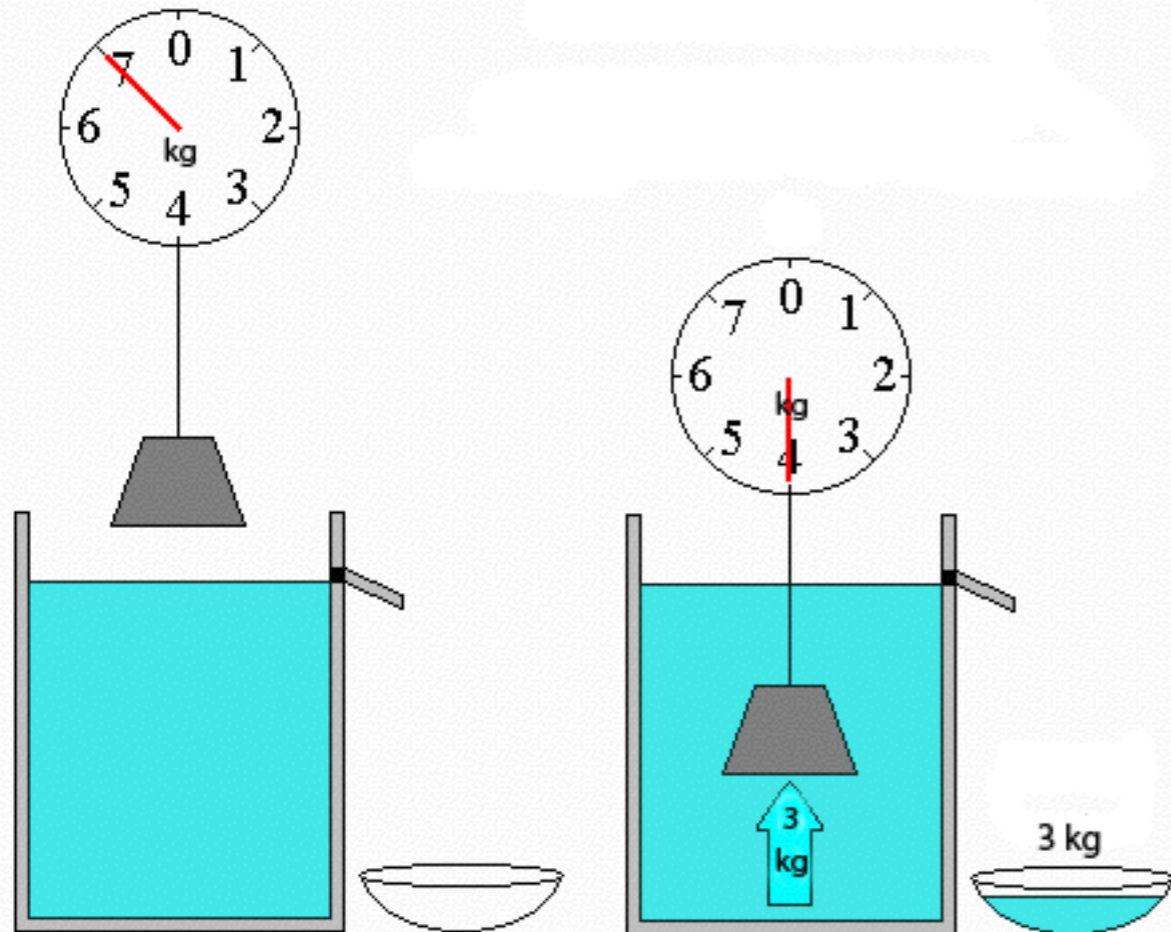
INNOVATION IN 6 FACES

ARCHIMEDES

- 287 BC – c. 212 BC
- Archimedes principle

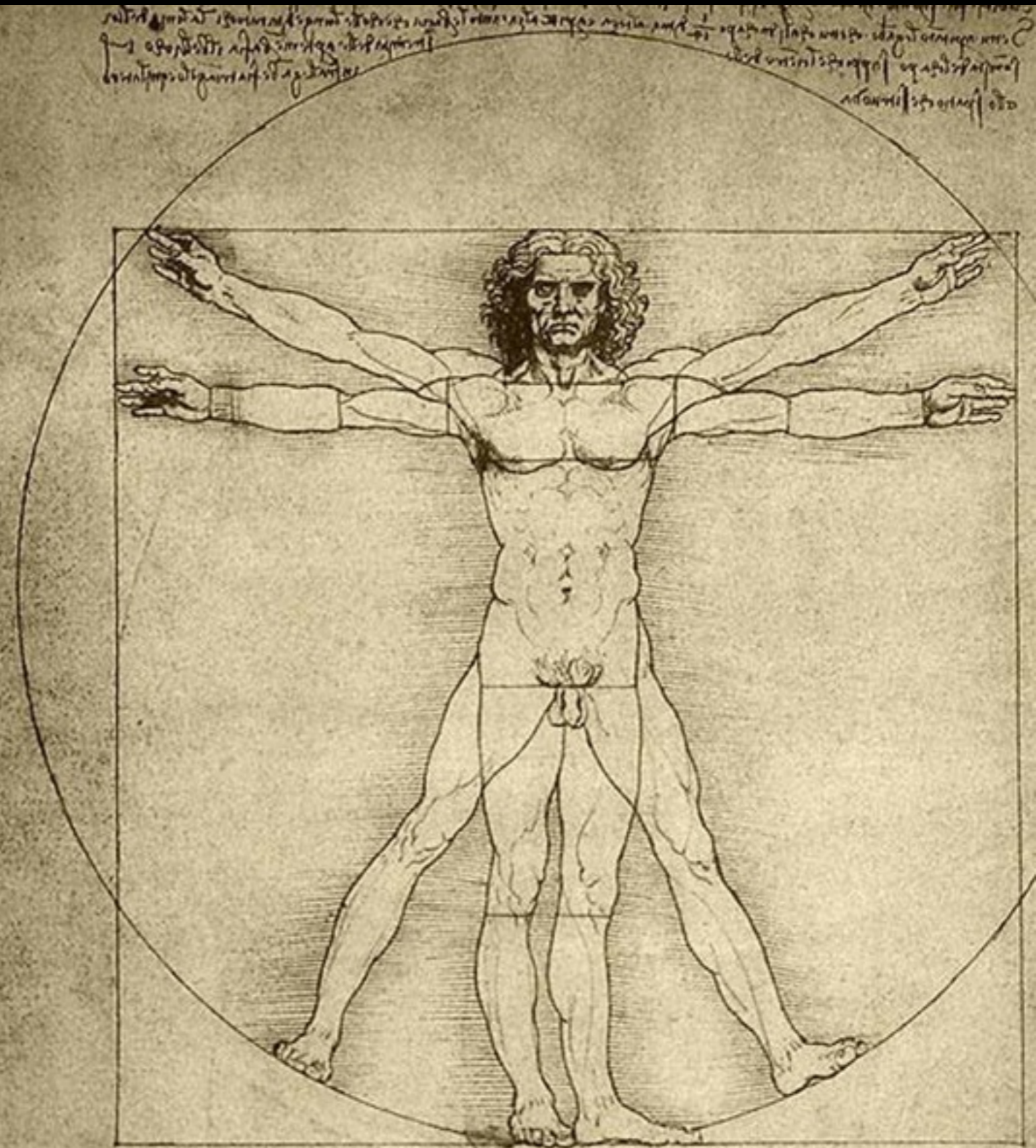
Archimedes Principle

The buoyant force equals the weight of the displaced fluid.



LEONARDO DA VINCI

- 15 April 1452 – 2 May 1519



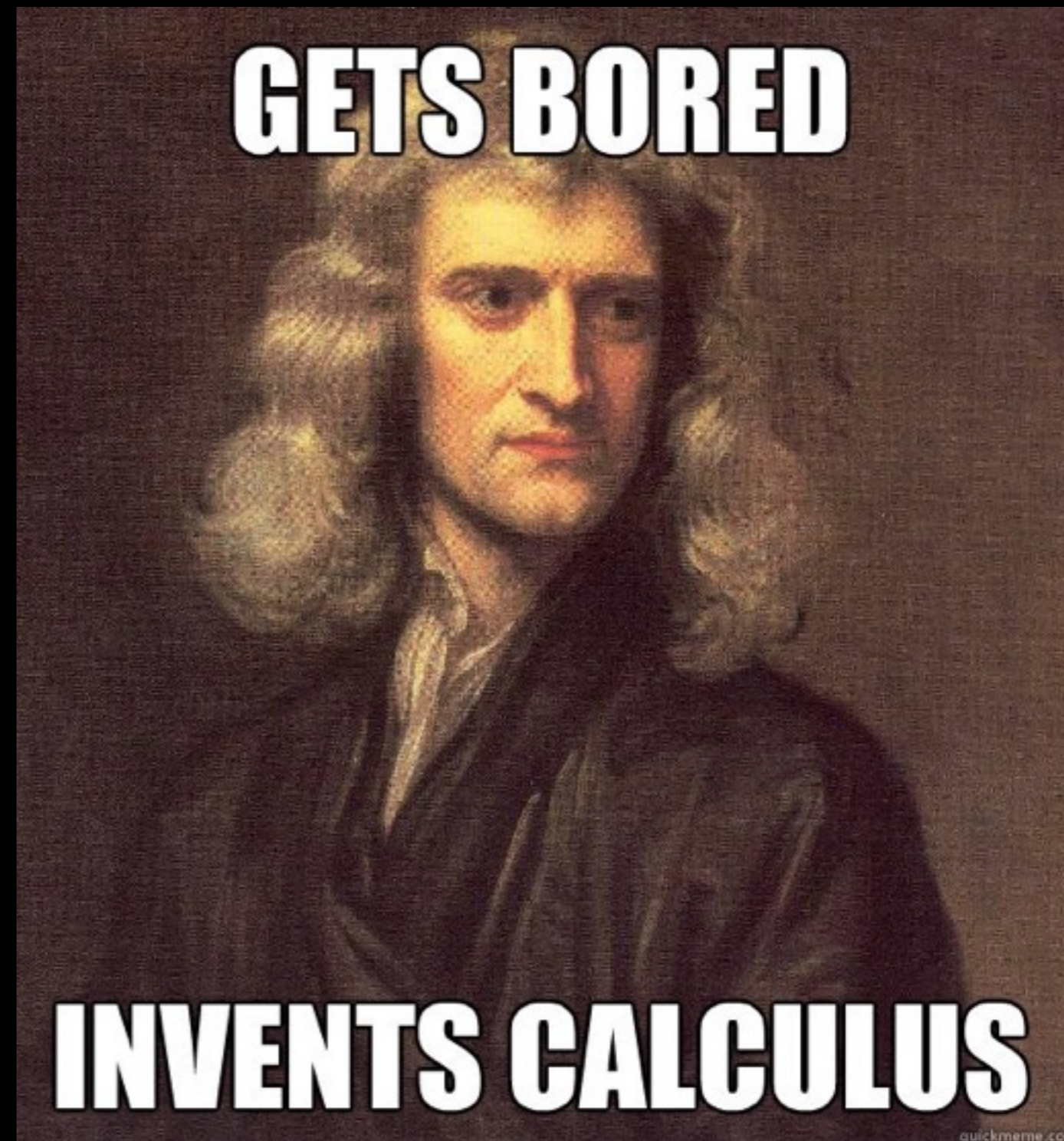
GALILEO

- 15 February 1564 – 8 January 1642
- Scientific Method



ISAAC NEWTON

- 25 December 1642 – 20 March 1726
- Newtonian Mechanics



JAMES CLARKE MAXWELL

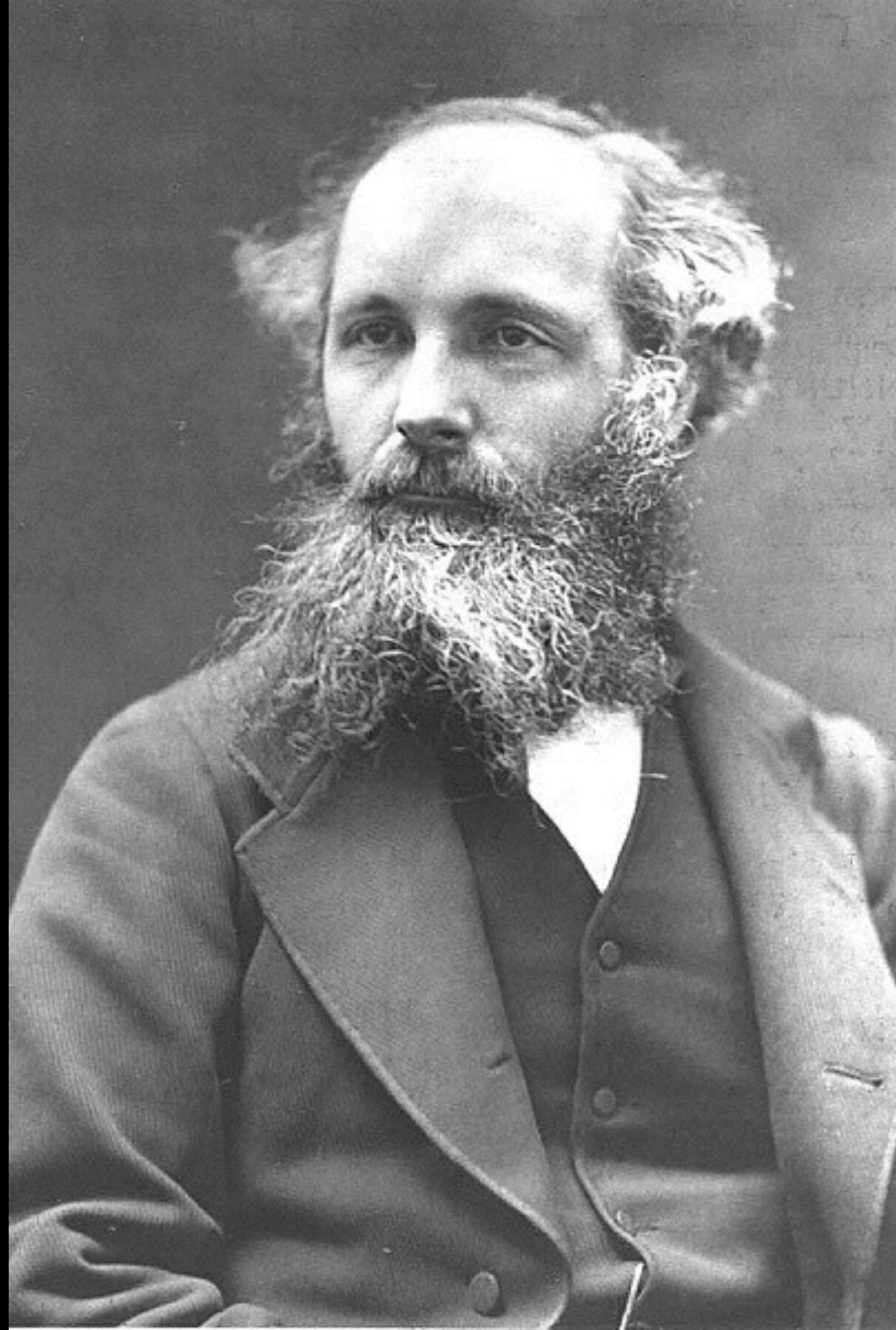
- 13 June 1831 – 5 November 1879
- Maxwell Equations (electromagnetism)

$$1. \quad \nabla \cdot \mathbf{D} = \rho_v$$

$$2. \quad \nabla \cdot \mathbf{B} = 0$$

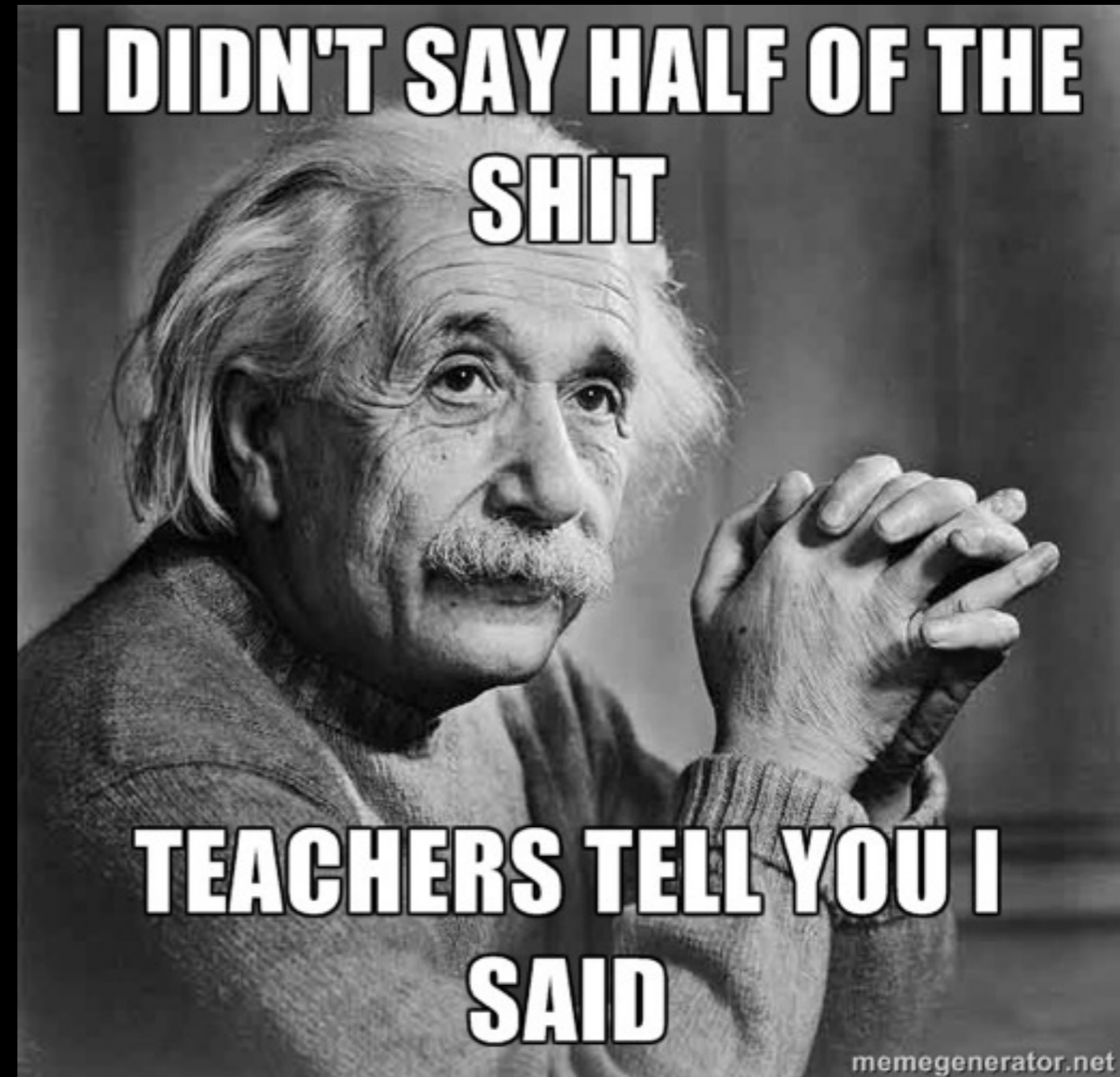
$$3. \quad \nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t}$$

$$4. \quad \nabla \times \mathbf{H} = \frac{\partial \mathbf{D}}{\partial t} + \mathbf{J}$$



BIG AL

- 14 March 1879 – 18 April 1955





INVENTORS & PATENTS

- 1st million took 130 years
- 2nd million took 35 years
- 3rd million took 22 years
- 4th million took 17 years
- 5th million took 10 years
- 6th million took 8 years



“What would be use of doing great things if i
could have a better time telling her what I was
going to do?”

JAY GATSBY



“There two mistakes one can make along the road to truth.

Not going all the way, and not starting.”

SIDDHARTHA GAUTAMA

Chapter 9

Up the Curve

An ounce of action is worth a ton of theory.

—Friedrich Engels

hundreds of interviews I've conducted with brilliant contribu
to words come up over and over when I ask them about ho

What are you going to bring to the world?

THE TIME IS NOW!

TO START

MY CHALLENGE TO YOU

THANK YOU



www.coffeeforthebrain.com

[@coffeechugbooks](https://www.instagram.com/coffeechugbooks)



How do you learn the art of "X" to get good?

