



entry event

63% more people chose the stairs over the escalator.

THE FUN THEORY.



TAKE THE AUTHENTICITY UP A NOTCH: MAKE THE AUDIENCE GO BEYOND THE SCHOOL.

PBL 101

BUCK INSTITUTE FOR EDUCATION



THINK  SHARE

the IDEAL GRADUATE

- | | |
|---------------------|--------------------|
| OPTIMISTIC | RESOURCEFUL |
| COMPASSIONATE | REFLECTIVE THINKER |
| CONFIDENT | RESILIENT |
| SENSE OF HUMOR | RESOURCEFUL |
| ADAPTABLE | COLLABORATIVE |
| PASSION | PROBLEM SOLVER |
| POSSIBILITY THINKER | HEALTHY |
| CARING | GLOBAL |
| LEADER | NETWORKER |
| EMPATHY | OPEN-MINDED |

WE HAVE TO SET UP OUR CLASSROOMS TO TEACH & ASSESS THESE.



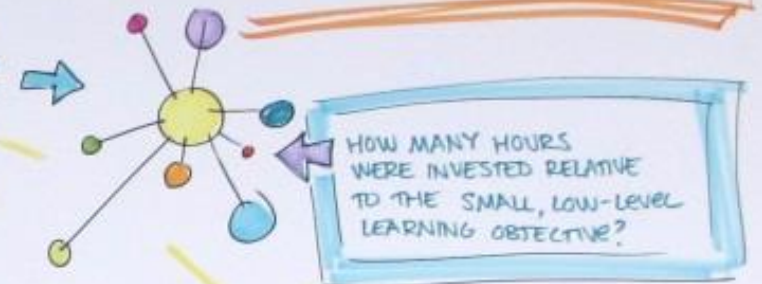
DESSERT PROJECT

MAKE IT A MAIN COURSE



8 ESSENTIALS OF PROJECT BASED LEARNING

GOAL: EACH PARTICIPANT WILL CREATE THEIR OWN PBL PROJECT OVER THE NEXT 3 DAYS

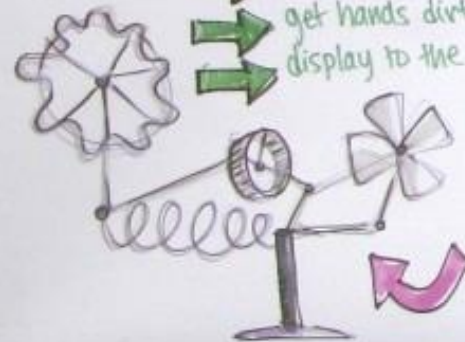


- ★ SIGNIFICANT CONTENT
LOOK AT THE STANDARDS-- THEN GO DEEP.
- ★ NEED TO KNOW
USE AN ENTRY EVENT TO SPARK INTEREST/ENGAGEMENT
- ★ DRIVING QUESTIONS
LIKE ESSENTIAL QUESTIONS ON STERIODS, MAKE THEM STUDENT CENTERED.
- ★ STUDENT VOICE & CHOICE
★ INCLUDING HOW STUDENTS SPEND THEIR TIME. ★ SPACE FOR KIDS TO OWN THE LEARNING
- ★ 21ST CENTURY SKILLS
TEACH & ASSESS THESE! THEY DON'T JUST HAPPEN.
- ★ INQUIRY & INNOVATION
STUDENTS FOLLOW A TRAIL OF LEARNING THAT BEGINS WITH THEIR OWN QUESTIONS.
- ★ FEEDBACK & REVISION -- FAIL FORWARD!
CRITIQUE • TINKER • REVISE
- ★ PUBLICLY PRESENTED PRODUCT
AUTHENTIC AUDIENCE • HIGHER LEVELS OF QUALITY • MORE ENGAGEMENT

KINETIC SCULPTURES

- PUBLIC ART, PUBLIC SERVICE.
- think about something
 - tinker
 - build it
 - create it
 - fix it when things go wrong
 - get hands dirty & make something
 - display to the community

"sometimes we're too concerned about the standards. Do we really know what students will need to know? We know they'll need COMMUNITY, PROBLEM SOLVING, COLLABORATION."



EACH STUDENT CREATED A KINETIC SCULPTURE. WROTE A PROPOSAL TO INSTALL IT. COLLABORATED ON A RESEARCHED GOOGLE MAP OF PUBLIC ART - CREATING A WALKING TOUR.

MANAGING PROJECTS

MANAGEMENT IS TO CREATE INDEPENDENT THINKERS & THINKERS IN GENERAL.

SOME GROUPING STUDENTS...
Strategies:

- ACADEMICS
- BEHAVIORAL
- LEADER ORIENTATION
- ART & TECHNOLOGY SKILLS
- KIDS THAT "DON'T DO" TOGETHER → "SLACKER HARBOR" (the non-performing student may become a leader.)
- INTENTIONALLY RANDOM TO BUILD SKILLS
- COMFORT GROUPS FOR CONTENT
- 3 OR MORE (IN CASE OF ABSENCE)

THE KEY IS INTENTIONALITY.

USE GROUPS TO SET THE STUDENTS UP FOR SUCCESS.

entry event

...elicits questions, leaves breadcrumbs, builds engagement. (doesn't push out content.)

- FIELD TRIP
- GUEST SPEAKER
- FILM, VIDEO, WEB
- SIMULATION OR ACTIVITY
- PROVOCATIVE READING
- STARTLING STATISTICS
- PUZZLING PROBLEM
- A PIECE OF CORRESPONDENCE
- SONG, POEM, ART
- LIVELY DISCUSSION

THE WING PROJECT:

- ★ STUDENTS PICKED THEIR TEAMS (Thinking about strengths, areas of need, who to help...)
- ★ CREATED A TEAM AGREEMENT (How they work together, deal with issues)
- ★ DESIGN · CONSTRUCT · TEST (Multiple Trials)
- ★ PRESENT TO ENGINEERS (Celebration of Products)

Better to learn it yourself rather than from a teacher. You'll remember it the rest of your life.

HANDS OFF! DON'T HELICOPTER THEIR GROUPS. GIVE THEM SPACE TO WORK ON THE PROBLEMS THEY CAN.

YOU MUST GIVE UP POWER TO EMPOWER STUDENTS.



CRITICAL FRIENDS Protocol

FB

ASSESSING PROJECTS

CULTURE of EXCELLENCE

- Need to know list**
- W
 - W
 - W
 - W
 - W
 - W
 - W
 - W
 - W
 - W

← STUDENTS OWN THIS LIST. WE USE IT AS A TOOL TO MAKE SURE WE'RE ON THE RIGHT TRACK. A FORMATIVE ASSESSMENT STRATEGY.

GIVE ME Shelter AN EXPEDITIONARY PROJECT

Does the project meet the

8 ESSENTIAL elements?

PROJECT: REALITIES & IMPACT OF HOMELESSNESS IN PORTLAND, MAINE. CREATING MULTIMEDIA ART INSTALLATION FOR PARENTS & THE SUBJECTS.

WHAT'S THE DRIVING QUESTION?

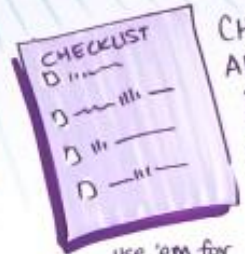
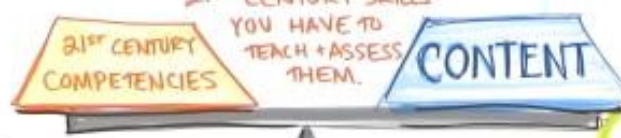
PEER CRITIQUE - HIGH LEVEL THINKING & CRAFTING A NARRATIVE

IS THE GOAL TO TELL THE STORY OR SOLVE THE PROBLEM?

DON'T AVERAGE FORMATIVE ASSESSMENTS IN... ALLOW KIDS TO TAKE CHANCES, MESS UP & GET REWARDED WHEN THEY GET THEIR BEST!



BALANCE IT OUT



CHECKLISTS ARE USEFUL, BUT THEY DON'T INDICATE QUALITY.

use 'em for minimum requirements



RUBRICS ARE FOR QUALITY

DON'T DEVALUE KIDS WORK BY GIVING A TEST ALONG WITH THE PRODUCT. IF YOU NEED EVIDENCE OF CONTENT - EMBED IT IN THE RUBRIC.

LET KIDS INTERNALIZE THE LEARNING & COLLABORATE



LOOK AT THE SHAPE! "WINGS COULD BE POINTIER." "MAKE THE WING LONGER, LIKE A TRIANGLE"



"NICE TRIANGLES!" "MAKE THE TAIL BUMPS POINT DOWN, NOT IN."



"WINGS GOT ROUND AGAIN"



"HE MADE A LOT OF PROGRESS, HE PERSEVERED WITH IT." - PEER COMMENT
 "HIS FRIENDS WERE HONEST, & SPECIFIC. BUT NOT MEAN."
 "HE MADE 6 DRAFTS!"
 "HE USED A SHARP EYE." *EB*

PBL IS MESSY. BE MESSY INTENTIONALLY WITH FORMATIVE ASSESSMENTS.

REFLECTIONS

GALLERY WALK



GUIDES PLANNING & REFRAMES CONTENT STANDARDS OR BIG IDEAS.

NOT GOOGLE-able.
OPEN ENDED & COMPLEX.

CREATES A SENSE OF INTEREST & CHALLENGE

REMINDS THEM

"WHY WE'RE DOING THIS TODAY"

CAPTURES & COMMUNICATES THE PURPOSE

INITIATES & FOCUSES INQUIRY

...BUT NOT SO SMALL THAT THERE'S NO ROOM FOR MOVEMENT

THE DRIVING QUESTION POINTS THE WAY.

A DRIVING QUESTION CAN MAKE OR BREAK A PROJECT.

SOME TYPES OF DRIVING QUESTIONS:

- ★ **DEBATABLE**
... BUT NOT FAKE DEBATABLE
"SHOULD WE CARE ABOUT THE ENVIRONMENT?" ... UH, YEAH.
- ★ **REAL WORLD ROLE**
FOR STUDENTS ... ESPECIALLY ELEMENTARY
- ★ **SPECIFY A PRODUCT**
A CHALLENGE TO DESIGN, PLAN, PRODUCE OR CREATE SOMETHING.

THINGS THAT MAKE YOU GO... HMMM...

A GOOD DRIVING QUESTION MAKES A KID THINK.

FINAL PROJECT

is in direct alignment.

All the work on the driving question relates to the project.

If you want 21st century learners, you need to teach 21st century skills!

The understanding that it takes time to plan a project.

IN THE DEPTH AND BREADTH.

EFFECTIVE DQs ARE DIFFICULT TO WRITE BUT CRITICAL TO DEPTH OF LEARNING AND ENGAGEMENT.

PUT SOME AWESOME SAUCE ON THAT.

WE LEARNED ABOUT AUTHENTIC LEARNING IN AN AUTHENTIC WAY.

DQ: DRIVING QUESTION IS EVERY GREEN BUT ARE YOU THINKING OF DRIVING?

WHY IS SOME DEBATABLE THE PROBLEM BUT NOT THE QUESTION? HOW CAN WE MAKE IT MORE SPECIFIC?

COMMON CORES ARE THE "WHATS" PBL IS THE "HOW."

BEYOND PBL, WE SHOULD BE ASKING: HOW CAN WE DEVELOP THE SKILLS WE WANT TO INCLUDE IN OUR CLASS? GREAT QUESTION!

THE DQ IS CRITICAL TO ENGAGING THE STUDENTS THAT MAY BE RESISTANT.

PROJECT TITLE: WEAR IT!
WHAT IS THE BEST NEW IDEA FOR WEARABLE TECHNOLOGY?
GRADE LEVEL: 11 & 12

PROJECT IDEA: SEARCH, DESIGN AND PROTOTYPE A NEW PIECE OF WEARABLE TECHNOLOGY
CONTENT: ENGINEERING, PRODUCT RESEARCH, DESIGN
PUBLIC AUDIENCE: TECH COMPANIES, VC'S, TECH PUBLS, TOY COMPANIES, GAMES

PROJECT TITLE: BUILDING BRIDGES
GRADE: 10

DRIVING QUESTION: HOW CAN A BETTER RELATIONSHIP BE CREATED BETWEEN FIRST NATIONS & THE FEDERAL GOV'T?
CONTENT: CRITICAL THINKING, RESEARCH, COMMUNICATION, HISTORICAL EVENTS
PRODUCTS: PODCAST, NEWSCAST DEBATE, WRITTEN PROPOSAL
PUBLIC AUDIENCE: POLITICIANS, COMMUNITY MEMBERS

PROJECT TITLE: WHAT A MESS
GRADE: 4

DRIVING QUESTION: HOW CAN WE SOLVE THE TRAFFIC PROBLEM IN TANKARD?
PROJECT IDEA: INVESTIGATE, OBSERVE & INTERVIEW
PRODUCTS: PROPOSAL, AD CAMPAIGN, DEBATE
PUBLIC AUDIENCE: THE TANKARD GOV'T, CITIZENS OF TANKARD

FIRST DRAFTS

DRAFT

DRAFT

7/28