



PBL Workshops On Deck

Kenya Wilson

*Lancaster Independent School District
STEM/ Science Instructional Coach*

Join us at:

<http://padlet.com/kenyawilson/hlo75fxfgs3f>



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The Great Debate

Content

vs.

21st Century Skills

(The trick is in PBL workshop planning)



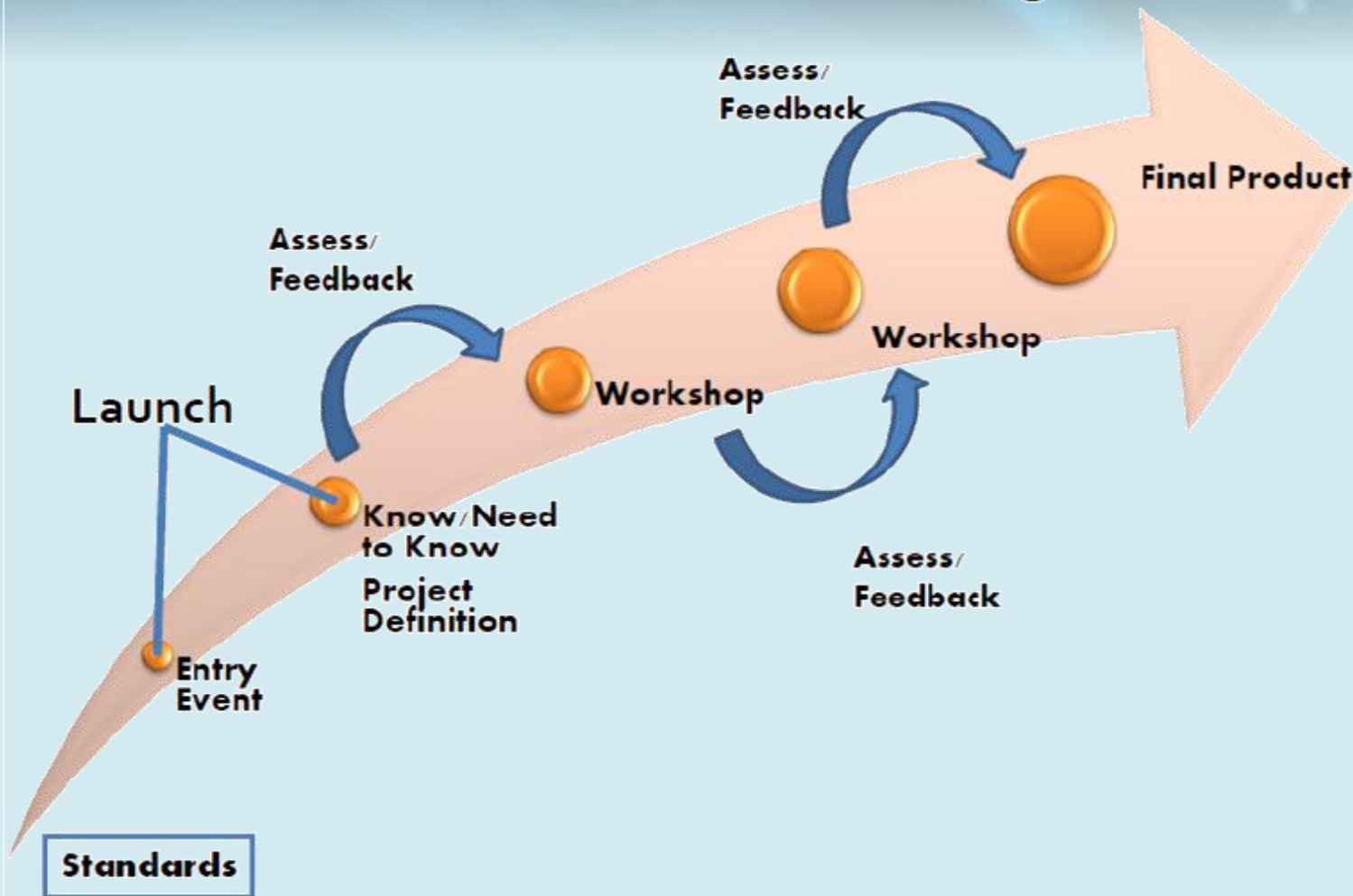
“I expect you all to be independent, innovative, critical thinkers who will do exactly as I say!”

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Lesson Sequencing

Problem-Based Learning



The Design Process

Adapted from material developed by the Museum of Science, Boston

Generate

- ⇒ Design a plan
- ⇒ Identify resources

G

R

Refine

- ⇒ Modify
- ⇒ Improve

Imagine

- ⇒ Brainstorm solutions
- ⇒ Explore possibilities

I

E

S

Share

- ⇒ Communicate
- ⇒ Present

T

Execute

- ⇒ Implement the plan
- ⇒ Test the plan

Think

- ⇒ Identify the problem
- ⇒ Ask questions

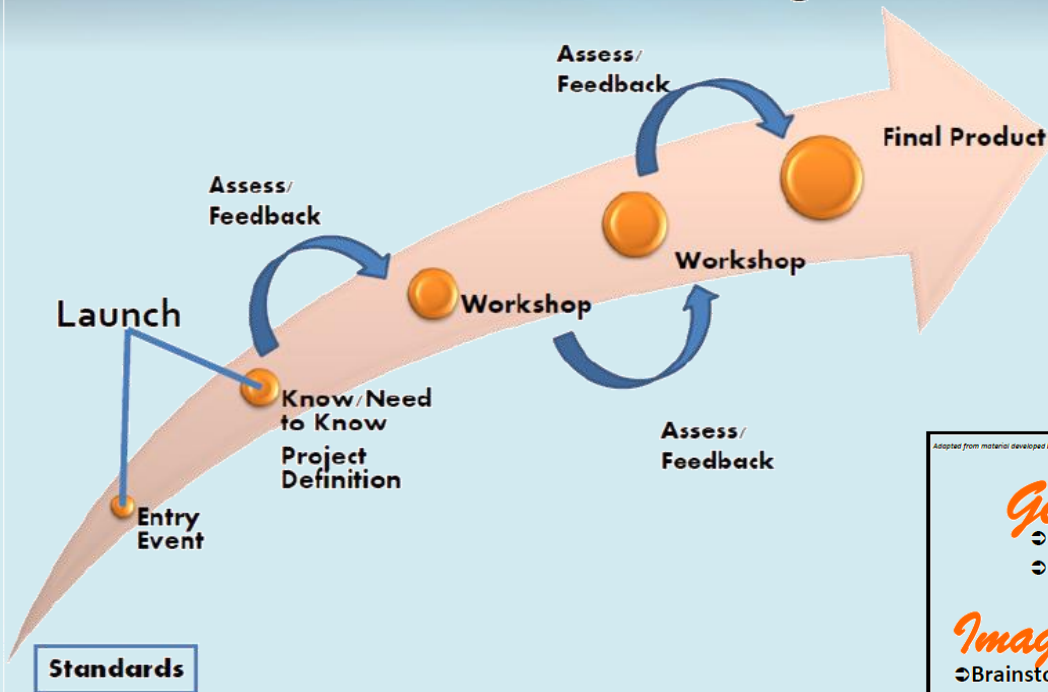
The
TIGERS'
Design Process



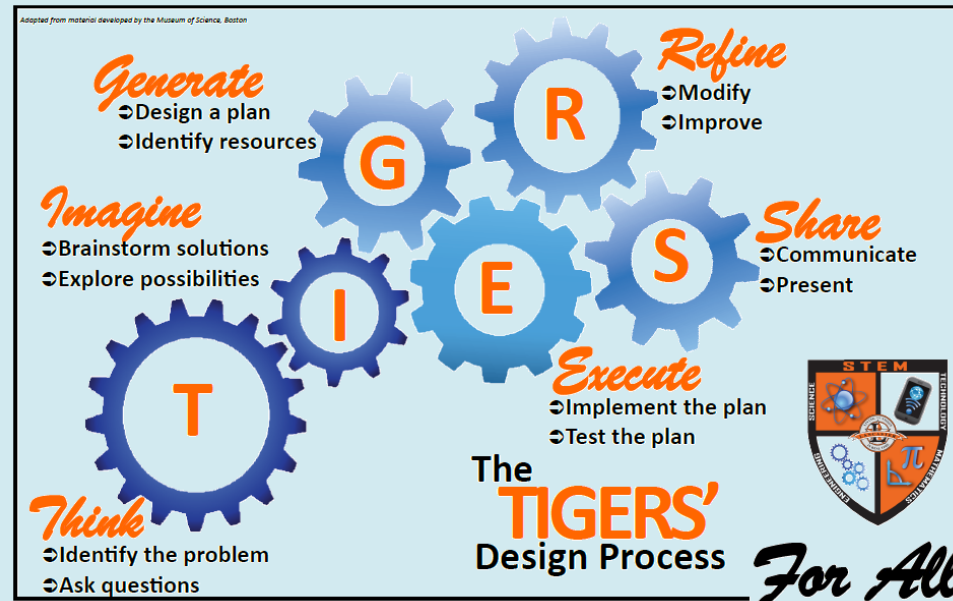
For All

The Design Process

Problem-Based Learning



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The Standards

5.9- Organisms and environments. The student knows that there are relationships, systems, and cycles within environments. The student is expected to

5.9A- Observe the way organisms live and survive in their ecosystem by interacting with the living and non-living elements. (R)

5.9C- Predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways. (S)

PBL workshops should address the following questions.

- What are organisms?
- How do organisms live and survive in their ecosystem? How do they interact with living and non-living elements?
- Define biotic and abiotic. Provide examples of each.
- How do abiotic changes affect biotic organisms?
- What is an ecosystem? What are the primary characteristics of various ecosystems?
- How does an ecosystem differ from an environment?
- What factors affect the diversity of an ecosystem?
- Identify some living and non-living components of various ecosystems.
- How do populations differ from communities?
- Give examples of how an increase/decrease in population of one organism affects the population of another organism in its community.
- Habitat, niche, population, community, ecosystem, environment. Use one image to represent and identify each of these terms.
- Define diversity. Which ecosystems have the greatest or least diversity? What abiotic factors affect diversity? Give examples of how changes in ecosystems affect diversity.
- Define succession and extinction
- How do volcanos, droughts, storms, and mudslides affect ecosystems?
- Explain how invasive species affect environments.
- How has our environment changes with the constructive of more highways and homes?

The Launch

1. Read the PBL Launch document.

TIGER PRINTS

ALL ABOUT THE BIG WORLD WE LIVE IN

Volume 1 – January 20, 2015

Animals Escape! Help Needed!

Zoo asks for public to help

LANCASTER, TX – A train carrying animals to a zoo crashed just north of the Lancaster Town Square. Six car loads of animals escaped and caused chaos throughout the city. Animal Control is currently rounding up all wildlife. A decision has been made that a zoo will be created at the Bear Creek Nature Preserve here in town to house the animals.

The city is asking the public for help in designing the facility. The zoo will need to have six biome sections: Rainforest, Grassland, Aquatic, Deciduous Forest, Taiga, and Desert.

Each section of the zoo must address the basic needs of all animals in the biomes, the living and nurturing elements of the biomes, food chains from within the biomes, and how the habitat might be threatened by human interaction or overpopulation.



Animals from multiple biomes mixed together after the train crash yesterday. These animals need a safe and specialized new home. Are you the one who can help?

Did You Know? Have you ever wondered who designs zoos? A zoo designer plans new zoos and improves old ones. Zoo designers build safe environments that meet the animals' needs. Animals in a zoo come from many different places. Each kind of animal is adapted to a specific environment. A zoo designer has to understand the specific needs of each animal in order to create the perfect home for each.

Anyone interested in assisting in the design of the Bear Creek Zoo should submit their zoo plans no later than February 22, 2015.



Let's Play Cards!

LAUNCH

ANTICIPATED WORKSHOP CONTENT

EXPERT WORKSHOP PRESENTATION PREPARATION

ANTICIPATED WORKSHOP CONTENT

Expert

EMERGING WORKSHOP CONTENT

PBL PRESENTATIONS

FORMATIVE ASSESSMENT

AUDIENCE RESPONSE SYSTEMS

Students present culminating products which may include:

- | | | |
|------------|-----------------------|---------------|
| Narratives | Exhibitions | PSA's |
| Letters | Webs sites | Scrapbooks |
| Proposals | Graphic presentations | Diagrams |
| Essays | Flow charts | Reenactment |
| Editorials | Videos | Paintings |
| Reports | Slide Shows | Oral history |
| Plays | Collages | Newscasts |
| Songs | | Data Displays |

Emerging Workshops are created by the teacher in response to formative assessment data. They are planned for performance based learning or to meet needs of small group learners.

Audience response assessments allow students to engage and participate in real time. They provide immediate data collection. Examples include clickers and Navigator systems. Online survey sites like poll-it, survey monkey, and kahoot can be used to accomplish these tasks.

If technology is limited, white boards and response cards can be equally effective.

Structure: Small Group

Time: 10-15 min.

Structure: Small Group

Time: 15-20 min.

Structure: Whole Group

Time: 45 min. (3-6 min. per group)

The PBL process is designed to engage students in a learning process that is student-centered and inquiry-based.

Structure: Small Group

Structure: Small Group

Time: 15-20 min.


Students present their products to the audience. The audience provides feedback and asks questions. This process is repeated until the students are satisfied with their products.


Practice mastery in all individual and critical




PBL Workshop Deck Key

 Launch Card (1)

 Content Workshop Cards (24)

 Expert Workshop Cards (4)

 Assessment Cards (9)

 Emerging Workshop Cards (5)

 Critical friends Card (1)

 PBL Presentation Card (1)




 PBL Celebration Card (1)

 Deck Key Cards (2)

Let's Practice!

1. Read the PBL Launch document and student expectations provided.
2. “Play” your **yellow** cards by placing them into a “used” deck and writing them into your PBL calendar as the first, last, and closing activities.

PBL Instructional Calendar

PROJECT WEEK ONE				
				
PROJECT WEEK TWO				
				
PROJECT WEEK THREE				
				

Planning Anticipated Workshops

3. With your table team, decide how to best teach the standards provided with the **red** workshop cards. Write these activities into your PBL calendar. Remember, all small group workshops should have simultaneous PBL project time. Play your red cards by placing them in your “used” deck.

The image shows a 'PBL Instructional Calendar' grid. At the top is an orange header box with the text 'PBL Instructional Calendar'. Below it is a grid with three main sections labeled 'PROJECT WEEK ONE', 'PROJECT WEEK TWO', and 'PROJECT WEEK THREE'. Each section contains five columns representing days. Red rectangles represent workshop cards, and yellow squares represent project time. In Week One, the first day has a yellow square, and the next four days have red rectangles. In Week Two, the first three days have red rectangles, the fourth is empty, and the fifth has a yellow square. In Week Three, the first day has a yellow square and the rest are empty.

PBL Instructional Calendar				
PROJECT WEEK ONE				
Yellow Square	Red Rectangle	Red Rectangle	Red Rectangle	Red Rectangle
PROJECT WEEK TWO				
Red Rectangle	Red Rectangle	Red Rectangle		Yellow Square
PROJECT WEEK THREE				
Yellow Square				

Planning Formative Assessments

4. Now consider your **assessments**. You should assess students every two days, at minimum. Play those cards by placing them in the used deck and writing them on your PBL calendar.

PBL Instructional Calendar				
PROJECT WEEK ONE				
Yellow	Red	Red Purple	Red	Red Purple
PROJECT WEEK TWO				
Red	Red Purple	Red	Purple	Yellow
PROJECT WEEK THREE				
Yellow				

Planning Expert Workshops

5. What other skills may your students need to create their PBL product? These are taught during **expert** workshops. You'll need 1-3 expert workshops. Play these cards and write the activities into your calendar.

PBL Instructional Calendar				
PROJECT WEEK ONE				
Yellow	Red	Red Purple	Red Green	Red Purple
PROJECT WEEK TWO				
Red	Red Purple	Red Green	Purple	Yellow
PROJECT WEEK THREE				
Yellow				

Leaving Space for Emerging Workshops

6. **Emerging** workshops can now be placed

PBL Instructional Calendar				
PROJECT WEEK ONE				
Yellow	Red	Red Purple	Red Green	Red Purple
PROJECT WEEK TWO				
Red Blue	Red Purple	Red Green	Blue	Purple Yellow
PROJECT WEEK THREE				
Yellow				

Updates

Digital Tools Update for PBL Workshops on Deck

Interactive ~~Whiteboard~~ Lessons

Promethean Planet Teaching Resources
~~EdScapes~~
Teacherled.com

Vocabulary Activities

Text2MindMap (creates graphic organizer from an outline)
~~MakeBeliefsComix~~ (comic strip generator for vocabulary cartoons)

Article Reviews

~~Pedlet~~ (post reviews to a wall for teacher feedback)
~~Socrative~~ (online quiz to assess student understanding, immediate feedback)

Graphic Organizers

Text2MindMap (graphic organizers from outlines)
~~Diagrama~~ (graphic organizers, ability to be a little more complex)
~~BeautifullyThink~~ - Interactive Timeline (easy to create timelines by date, time or event)

Claze Activities

Claze Test Creator
(l.georges.online.fr/tools/claze.html)
LearnClick.com (online Claze quizzes)

Six Thinking Hats

~~Pedlet~~ (post student responses with notes)
~~ling~~ (post responses with sticky notes)

Comic Strips

~~MakeBeliefsComix~~ (free comic strip maker, no registration required)

Thinking Maps/Concept Maps

~~MindMap~~ (free, links to Google account)
Text2Mind Map (outline to mind map)

Resource Modules

~~ClassMii~~ (teachers create resource modules)
~~LessonPaths~~ (set up a series of web pages for your students to progress through in a linear fashion. Could support PBL content/research)

Games and Multiple Response Systems

~~Kahoot!~~ (class quiz game)

Experimental Inquiry Lessons

Setting up a blog would be a great way to record the steps of the inquiry process.
~~KidBlog~~ (free system for teachers to monitor student blogs)
~~WriteUp~~ for Education (set up student websites/blogs for free)

Experiments/Labs

Google Forms (create your own forms for data collections, aggregated into a single spreadsheet)

Guest Speakers

~~Meogo~~ (a system that connects STEM professionals to classroom)
Skype in the Classroom (education.skype.com)

Student Panels

Skype
Google Hangouts (can have up to 10 accounts in a videoconference at a time)
Meeting Burner (free video conferencing for up to 10 people) (meetingburner.com)

Quick Writes

Google Forms
~~Socrative~~

Maps and Charts

Google Sheets
~~ClassGo~~ (create charts from data)
Scribble Maps (write over Google Maps and save)

Web 2.0 Presentation Formats

~~The Kerppoo~~ (site has been taken down)
Prezi
~~eMaze~~
Haiku Deck

Interdisciplinary Content Session

ScreenCast / Screencast-o-matic
Whiteboard tutorial videos

Learning Logs

~~KidBlog~~
~~WriteUp~~ for Education
WordPress

Student Reflection

~~Pedlet~~
~~Socrative~~
~~NewsPost~~
~~Polleverybody~~
~~Polldaddy~~ (create free polls online for students to respond to)

Audience Response Systems

~~Plickers~~ (each student is assigned a large QR code. The teacher scans the room with their smartphone and instantly gets data on what students get it and who needs additional help)

Performance Tasks

~~Rubric~~ (build a rubric and score it immediately by just clicking on each box. It does the math for you)
~~Technology~~ Rubric Generator (quickly and easily build a printable rubric)

Quiz

~~Socrative~~ (online quiz maker, immediate data)

Questions & Reflections

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Kenya Wilson
kenyawilson@lancasterisd.org

