


Standards Focused Project Based Learning



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Norms



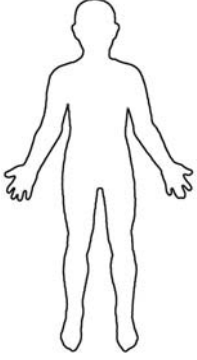
- Everyone contributing deepens everyone's learning
- Humor is nurturing
- Monitor own Zone of Proximal Growth
- Seek to understand before being understood –Stephen Covey (Questions are gifts)

Please set cell phones to vibrate or silent mode, or turn off. Thank you.




5 Minute University



YOUR IDEAL GRAD – BEGIN WITH THE END IN MIND



GETTING FROM HERE TO THERE

Input	Process	Output
		 <ul style="list-style-type: none"> Leader Worker Creator Analyzer Communicator Problem solver Initiator Collaborator Empathizer

What Students Need that PBL Meets



Did you know...

Entry Document

Your mission if you choose to accept...
In the 21st Century global culture, students must be able to decipher and create knowledge using high order thinking skills individually and in collaboration teams.



Your important task is to **develop a standards-focused PBL unit or mini unit** that incorporates these skills (rigor) in a real world context (relevance) that supports (relationships) student's growth.

Learning Targets

- Develop understanding of PBL components in connection to current teaching practices.
- Build knowledge of the book as a resource.

Needs to Know

In small groups, brainstorm a list of needs to know that you have in order to accomplish you mission: Develop a Standards-Focused Project Based Learning Unit or Mini Unit.



PBLA Real-world Example



FOR THE 21ST CENTURY

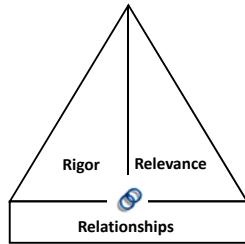
What and Why of PBL

- Say Something



pp. 3-10



PBL AS ENABLER



- Rigor → is more than high test scores
- Relevance → Evokes prior knowledge; reveals future application
- Relationships → drive rigor

"YEAH, BUT ..."

- It's not standards-based
- My students aren't ready
- I don't have time and support
- I can't use traditional teaching tools
- It's loud and messy
- No individual accountability
- I can't cover all required material/standards

"DOING PROJECTS"

Activity Based Teaching	PBL
Teacher directed	Student driven
Single answer	Open-ended
Summative	On-going
Thematic	Driving question/challenge
Fun	Engaging
Answer giving	Problem solving
School world	Real world
Curricular add-on	Curricular focus

Continuum of Practice

4D DESIGN

D_{efine}

D_{esign}

D_{ebrief}


D_o

PBL Experience

My Inspiration Lite

- <http://storywind.net/mil.htm>
- <http://storywind.net/mil2.htm>
- <http://storywind.net/mil3.htm>
- <http://storywind.net/mil4.htm>
- <http://storywind.net/mil5.htm>

PBL Walkthrough



Turn to Project Planning Form Tab

- Begin with the End in Mind
- Craft the Driving Question
- Plan the Assessment
- Map the Project
- Manage the Process

PROJECT PLANNING FORM

PROJECT OVERVIEW PART 1: DEFINE

Name of Project:	Duration:								
Subjects/Course:	Grade Level:								
Other subject areas to be included, if any:									
Project Idea Summary of the issue, challenge, investigation, scenario, or problem.									
Driving Question									
Content and Skills Standards to be addressed:									
21 st Century Skills to be explicitly taught and assessed (T) or that will be encouraged (E) by project work, but not taught or assessed:	Collaboration	T	A	E	Other	T	A	E	
	Presentation								
	Critical Thinking								
Culminating Products and Performances	Group:				Presentation Audience:				
	Individual:				Class				
					School				
					Community				
					Experts				
					Web				
					Other:				

Standards Focused Project Based Learning

PROJECT PLANNING FORM

PROJECT OVERVIEW PART 2: DESIGN

"Grabber" to launch inquiry & generate interest:

Assessments	Formative Assessments (Checkpoints During Project)	Quizzes/Tests Journal/Learning Log Preliminary Plans/Outlines/Prototypes Rough Drafts Online Tests/Exams	Practice Presentations Notes Checklists Concept Maps Other
	Summative Assessments (End of Project)	Written Products, with rubric Oral Presentation, with rubric Multiple Choice/Short Answer Test Essay Test	Other Product(s) or Performance(s), with rubric Peer Evaluation Self-Evaluation
Debriefing Methods	(Individual, Group, and/or Whole Class)	Journal/Learning Log Whole-Class Discussion Survey	Focus Group Fishbowl Discussion Other
	Resources Needed	On-site people, facilities: Equipment: Materials: Community resources:	

PROJECT PLANNING FORM

PROJECT TEACHING AND LEARNING GUIDE

Project: _____ Course/Semester: _____

Knowledge and Skills Needed by Students to successfully complete culminating products and performances, and do well on summative assessments	Scaffolding Materials / Lessons to be Provided by the project teacher, other teachers, experts, mentors, community members
	→
	→
	→
	→
	→
	→
	→
	→
	→

PROJECT PLANNING FORM

PROJECT CALENDAR

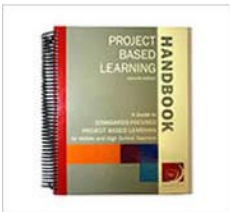
Project: _____ Start Date: _____

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
PROJECT WEEK ONE				
PROJECT WEEK TWO				
PROJECT WEEK THREE				

SCOPE OF PROJECT

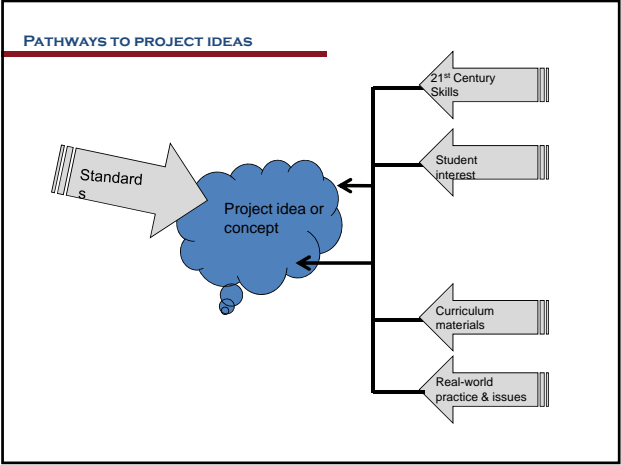
	Limited	Ambitious
Duration	15-20 contact hours	40+ contact hours
Breadth	One subject (1-2 power standards)	Interdisciplinary (3-4 power standards)
Technology	Basic	Extensive
Outreach	Classroom	Community/World
Collaboration	One teacher	Many teachers, outside experts, community
Audience	Classroom	Experts, community, world, web
Student Autonomy	Teacher-defined; tightly managed	Co-defined and managed

PBL HANDBOOK: A FINGER WALK



Jigsaw

1. "Ah Ha" Discovery or What's "important" to know
2. Summary of the reading



PROJECT IDEAS/CONCEPTS: A FEW EXAMPLES

Students function as a research team determining the most reliable product brands for consumers to purchase. The teams choose a product and determine which qualities are the most important for consumers. These qualities must be testable. The teams choose three examples of the selected product, create a hypothesis and design and perform an experiment to test it. The teams exchange testing protocols and products with another group and embark on a second round of testing to compare results, which they discuss in a PowerPoint presentation to an audience.

Students work in groups to design and construct a ballistic device that launches an object in a flight path that follows a parabola. They use low cost materials (PVC pipe, plywood, rubber bands, etc.) to build the device, which must be capable of repeated firings. Students participate in multiple tests and use the data they record to redesign their device if needed. Each team makes an oral presentation using PowerPoint slides to summarize their findings.

PROJECT IDEAS/CONCEPTS: A FEW EXAMPLES

Students read a book of their choosing from a list of books that have been banned at some time in the U.S., and discuss their books in peer reading groups. They write a persuasive essay, in the form of a letter, about whether or not their book should be banned at their school. To culminate the project, students stage a mock trial to dramatize issues of free speech and the role of censorship.

Students act as "set designers" for a TV reality show who need to propose a working ecosystem for an artificial biosphere. Each team is assigned a particular ecosystem: a rain forest, a desert, fresh water ponds and swamps, tundra, grasslands, coniferous forest, and a deciduous forest. Students conduct research on their ecosystem as they learn about the characteristics of all ecosystems and build understanding of what makes a balanced ecosystem work. In preparation for an oral presentation of their proposals, student groups create detailed posters and a written report.

PROJECT IDEAS/CONCEPTS: A FEW EXAMPLES

Students become marketing teams for major food corporations who are asked to review their corporation's choice of an archetypal character to sell their product (Puritan Oil, Calumet Baking Soda, Marlboro cigarettes, Aunt Jemima syrup, etc.). Students research the historical features of their group's archetype and then determine if that archetype is appropriate for the values of modern America and attractive to consumers. Each team presents its findings and recommendations to a panel of community members.

PBL Preplanning

- Identifying and explore units for project ideas

A GRABBER: AN EXAMPLE



Wrap Up

- Register as a user at www.leadingpbl.org
- Read Getting Started on the site.
- Register with Skype
- Bring back 1-2 project ideas
- Develop an elevator pitch
 - What do students need to know, understand, and be able to do?
 - How does this project engage students in the learning targets?

Project Idea Exchange

Make your best elevator pitch

- Include student needs based on standards
- What will they do to meet those needs?



WEB-BASED RESOURCES

- www.bie.org
- www.pbl-online.org
- www.novelapproachpbi.com
- <http://collaboratory.nunet.net/cwebdocs/index.html>
- www.imsa.org
- www.glef.org

... On-line project libraries

- <http://projects.hightechhigh.org/>
- <http://www.pbl-online.org/>
- <http://pathways.ohiorc.org/>
- <http://www.envisionprojects.org/cs/envision/print/docs/750>
- http://www.wested.org/pblnet/exemplary_projects.html
- <http://virtualschoolhouse.visionlink.org/projects.htm>



Day 2

Developing Driving Questions



[JS-SNL](#)

Planning Questions

Starting Point for Unit and Lesson Planning

- What should students know, understand, and be able to do?
- How will students demonstrate what they know?

During Development of Unit and Lesson Planning


- What will you do for students who do not succeed?
- What will you do for students who already know the unit?

A DRIVING QUESTION IS ...

- Provocative
- Open-ended
- Authentic
- Concrete
- Relevant and rigorous
- Requires core knowledge to answer
- Requires 21st Century Skills complete
 - Communication
 - Collaboration
 - Critical Thinking and Problem Solving

• Design tip: A project can be shaped by a challenge statement, an investigation, a community issue or student interest




REFINING A DQ 

What is a safety shed?

↓


How can we design and build a cost-effective, fireproof safety shed that can be used in all high schools in the district?

REFINING A DQ 

What is a heart-healthy meal for seniors

↓

How do heart-healthy meals nurture seniors and extend longevity?

REFINING A DQ 

What schools of art have most influenced the world

↓

Does art influence culture or does art simply reflect the culture that produced it.

US History: 1820-66


Know Fugitive Slave Law, underground rail road, values, "actions speak louder than words"

Understand **That Conflict clarifies our values based on our choices.**

Do Demonstrate understanding of points of view based on values by writing.

Objective
Assess values of people involved on both sides of the slavery issue.

Standards
MCF: Historical Perspective – I.2.1 & 2




A Ride for Liberty -- The Fugitive Slaves

US History: 1820-66

Understand **That Conflict clarifies our values based on our choices.**

Driving Question **How do our values help us decide when to take a stand in spite of great consequences to our comfortable living?**



A Ride for Liberty -- The Fugitive Slaves

Exploring Writer's Voice

- Concept: Understand that authors use voice to create interesting writing or communication.
- Driving Question
How does author voice capture our interests and desire to read and know more?

Big Ideas/Universal Truths

From Jay McTighe:

- | | |
|----------------------|--------------------|
| Abundance/Scarcity | Conflict |
| Acceptance/Rejection | Continuity |
| Adaptation | Cooperation |
| Aging/Maturity | Courage |
| Balance | Culture |
| Change/Continuity | Cycles |
| Challenge | Defense/Protection |
| Communities | Discovery |
| Connections | Diversity |

Driving Questions

- Social Studies:
 - Who were the best leaders of the 20th Century?
 - What is the price of “progress”?
- Math:
 - How can we use the principles of probability to assess the state lottery system?
 - Is it better to buy or lease a car?
- Science:
 - What are we made of?
 - Should we produce genetically engineered foods?
- English:
 - What is “good writing”?
 - How do we persuade others?

YOUR TURN

Working in groups (2-3 per group), use the given project, and identify, refine or create a driving question. (pp. 128-147)

Report Out

▪Your group's ideas/observations

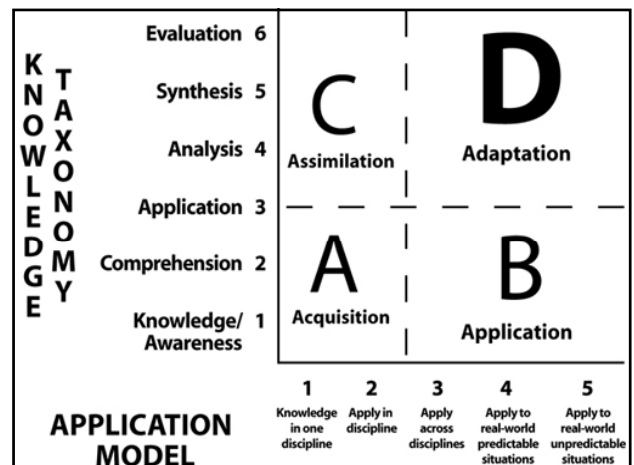
 Student Samples of Final Projects.pdf

THE REFINING PROTOCOL

- Question 1:** Can my students read and comprehend the driving question?
- Question 2:** Is the driving question open-ended or can it be answered with a “yes” or “no”?
- Question 3:** Does the driving question allow me to create a local context for the topic(s) under study?
- Question 4:** Does the driving question offer opportunities for students to express voice and choice?
- Question 5:** Does the driving question ask students to engage in an inquiry that is both rigorous and relevant?
- Question 6:** Does the driving question allow me to design both individual and collaborative tasks that require higher-level thinking skills?
- Refining Question 7:** Does the driving question require students to learn new skills and knowledge and to demonstrate higher-level understandings or applications?

Assessments In-Depth

- Rubrics
- Performance Tasks



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