Project–Based Learning

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What is PBL?

- **Project Based Learning** is a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to a complex question, problem, or challenge.

What are the Characteristics of PBL?

- 1. **Students are at the center of the learning process.**

- There is balance between student control and teacher-planned structure.
- Students apply their interests and passions to culminating products and performances.
- Students learn through inquiry.
- Students often work collaboratively.
2. Projects focus on important learning objectives that are aligned with standards.

- Developed around core curricular concepts that address national or local standards.
- Clear objectives that focus on what students should know as a result of their learning.
- Project work culminates in student products and performance tasks such as persuasive presentations and informational newsletters that demonstrate understanding of content standards and learning objectives.

3. Projects involve on-going and multiple types of assessment.

- Multiple checks for understanding use varied assessment methods.
- Students have models and guidelines for high quality work and know what is expected of them.
- Opportunities for reflection, feedback, and adjustment are embedded in the project.

4. The project has real-world applications.

- Projects are relevant to students' lives.
- Students may present their learning to an authentic audience, connect with community resources, tap into experts in the field of study, or communicate through technology.

5. Students demonstrate knowledge through a product or performance.

- Students may demonstrate learning through presentations, written documents, constructed displays, proposals, or even simulated events such as a mock trial.
- These final products allow for student expression and ownership.
6. Technology supports and enhances student learning.

- Technology tools are used to support the development of thinking skills, content expertise, and creation of final products.
- With technology, students have more control over final results and an opportunity to personalize products.
- Students may collaborating through email and self-made Web sites, or presenting their learning through multimedia.

7. Thinking skills are integral to project work.

- Project work supports the development of both metacognitive and cognitive thinking skills such as collaboration, self-monitoring, analysis of data, and evaluation of information.

8. Instructional strategies are varied and support multiple learning styles.

- A range of instructional strategies ensures accessibility and provides opportunities for every student to succeed.
- Instruction may include the use of different cooperative grouping strategies, graphic organizers, and teacher and peer feedback.


- The project is framed by a meaningful problem to solve or a question to answer.
How do we design a PBL lesson?

Reiterative Steps for PBL Planning

1. IDENTIFY learning outcomes.
2. DESIGN the problem scenario.
3. DETERMINE form of group processes.
   - Collaborative vs cooperative - role-playing
4. IDENTIFY assessments for individual and group accountability.
5. DEVELOP assessment and instructional materials.
6. SELECT technology tools.
7. CREATE productperformance sample.
8. PREPARE students for group work.
9. DESIGN opening and closing events and calendar of activities.

EX: Designing Earthquake Resistant Structures

- Because California is in an earthquake zone, your team of experts has been asked to design and build a structure that will withstand an earthquake.
- You should build the structure as high and sturdy as possible.
- It will be tested on a “shake table” and compared to the success of the structures of your competition.
- Finally, a panel of judges will evaluate your presentation and test and determine the winner.