

### Table of Contents

Why Project Based Learning? 1

Upcoming Project 1

The Essentials 2

Students will create a model scale town made of three-dimensional shapes (polyhedra, cylinders, and cones.) Students will have to be able to determine which buildings are necessary in their town, determine the shape of each building, and construct each building using paper templates. Students will need to adhere to a budget. Costs will be determined by one rate for all visible surface area and a different rate for all bases. Students will use estimation skills for initial planning purposes. Students will assign roles within their groups, such as city manager, mayor, CFO, etc. Each group will need to present their model to the class; including a cost-analysis.

**Upcoming Project: 3-D’ville**

Project based learning allows students to understand some of the most frequently asked questions – Why do I need to know this? How will this help me later on in life?

Project based learning allows students to collaborate on projects that focus on a “big question.” Students will tackle the question from a real world perspective – meaning how would someone outside the classroom answer the question and complete the project.

When a student is involved in authentic based learning they have a more vested interest in their involvement and in the outcome. Also, students who participate in project based learning have input and choice in the project which further increases their interest and participation level.

One way that project based learning is tied to real-life experiences is by incorporating **21st century skills**: creativity, innovation, critical thinking, problem solving, communication, collaboration, productivity, accountability, leadership, and responsibility are all skills that will be incorporated into the upcoming project: 3-D’ville.

The many components of project based learning will help to create a meaningful connection between the learning and the student. This connection can create “buy-in” from the student and therefore increases the student’s interest, understanding and performance.

To have a better understanding of what project based learning encompasses read “the Essentials” on page 2.

# Why Project Based Learning?

By Casey Nosky

###### Kiva Elementrary, 6709 E. McDonald Drive, Scottsdale, AZ 85253

###### http://susd.kiva.schoolfusion.us/ cnosky@susd.org   480.484.2200

Nosky News

June 7, 2010

Below outlines the seven key essentials that are implemented in project-based learning:

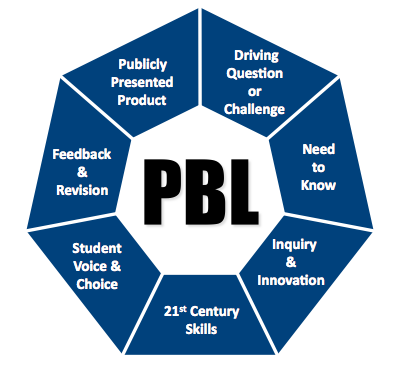
* **is organized around an open-ended Driving Question or Challenge.** These focus students’ work and deepen their learning by centering on significant issues, debates, questions and/or problems.
* **creates a need to know essential content and skills.** Typical projects (and most instruction) begin by presenting students with knowledge and concepts and then, once learned, give them the opportunity to apply them. PBL begins with the vision of an end product or presentation which requires learning specific knowledge and concepts, thus creating a context and reason to learn and understand the information and concepts.
* **requires inquiry to learn and/or create something new.** Not all learning has to be based on inquiry, but some should. And this inquiry should lead students to construct something new – an idea, an interpretation, a new way of displaying what they have learned.
* **requires critical thinking, problem solving, collaboration, and various forms of communication.** Students need to do much more than remember information—they need to use higher-order thinking skills. They also have to learn to work as a team and contribute to a group effort. They must listen to others and make their own ideas clear when speaking, be able to read a variety of material, write or otherwise express themselves in various modes, and make effective presentations. These skills, competencies and habits of mind are often known as "[21st Century Skills](http://www.bie.org/about/21st_century_skills)".
* **allows some degree of student voice and choice.** Students learn to work independently and take responsibility when they are asked to make choices. The opportunity to make choices, and to express their learning in their own voice, also helps to increase students’ educational engagement.
* **incorporates feedback and revision.** Students use peer critique to improve their work to create higher quality products.
* **results in a publicly presented product or performance.** What you know is demonstrated by what you do, and what you do must be open to public scrutiny and critique.

“What is PBL?” Buick Institute for Education: Project

Based Learning for the 21st Century. June 7, 2010.

http://www.bie.org/about/what\_is\_pbl.

**“Students need to do much more than remember information—they need to use higher-order thinking skills.”**



Caption

# The Essentials