

## SEEING THE PROGRAM IN ACTION







#### **VIBRANT MINDS**



412 W. Carl Karcher Way Anaheim, California 92801 714-563-2390 FAX: 714-563-2401

#### E-MAIL:

administration@vibrantminds.us

#### **WEBPAGE:**

www.vibrantminds.us

#### VIBRANT MINDS FACEBOOK:

www.facebook.com/VMCharterSchool



## VIBRANT MINDS CHARTER SCHOOL

### OUR SCHOLARS ARE CHAL-LENGED TO IMAGINE, PROBLEM SOLVE, AND CREATE

#### THIS IS PROJECT- BASED LEARNING

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

#### Play with purpose:

Develop prototypes, ask questions.

#### Sustained inquiry:

Ask questions, then dig deeper.

#### Critique & revision:

Scholars evaluate results of their own learning.

#### **Public product:**

Scholars exhibit high-quality projects.

## HERE'S THE PBL ENGINEERING DESIGN PROCESS

Scholar engineers use this process to guide problem solving and project creation. Asking questions, imagining solutions, planning designs, creating and testing models, and making improvements are all parts of the cycle.



## WHY PROJECT- BASED LEARNING?

#### **Critical Thinking**

Scholars not only acquire important knowledge and skills; they learn how to research complex issues, solve problems, develop plans, manage time, organize their work, collaborate with others, and persevere and overcome challenges.

#### Take Risks & Fail Fast

Scholars make mistakes and try new experiences in a safe environment. We are honest when things do not work, do not prolong failures, and quickly adjust. This includes knowing when to let something go and try something new.

#### **A Learning Story**

- Role-playing
- Real-world problems
- Scholar choice
- Collaboration
- Authentic audiences
- Authentic assessments
- Real-world expertise
- Inquiry-based



# PROJECT-BASED LEARNING AT VIBRANT MINDS CHARTER SCHOOL

Engineering or technology is all about using the power of science to make life better for people, to reduce cost, to improve comfort, to improve productivity, etc.

- N. R. Narayana Murthy

Studies have shown that projects can increase scholars' interest in STEAM because they are authentically involved in solving real-world problems, working with others, and developing creative solutions. Scholars learn best when encouraged to utilize their own strengths and knowledge of the world around them to delve deeply into the topics presented in their classes. It is through integrated STEAM projects that this type of learning can occur.

Scholars at Vibrant Minds Charter School use the engineering design process to design, create, test, and revise projects like:

- Robot carriages
- Drone delivery systems
- Cup towers
- 3D maps
- Chicken coops
- Minecraft portraits
- Bridges
- NASA Mars Expedition