What would happen if they were alone in the jungle! Life Challenges!

Tuğba BOZDOĞAN
ÇIRPI MUSTAFA ADANIR SECONDARY SCHOOL, BAYINDIR, İZMİR TURKEY, tugbabozdogan@gmail.com

INTRODUCTION

Students learn best when they are active and enjoy when they like the topic. They can solve a real life problem or answer a complex question if they have enough time. Using **Project Based Learning (PBL)** method ,students can demonstrate their knowledge and skills in the best way and they can produce excellent public products or presentations for real audience. We have science fairs are done at the second semester in every year. In those fairs students study on real life problems or challenges and produce excellent jobs. Here you can see examples of these projects done by my students that is what problems or challenges they solve, how they work and finally develop a product or presentation .

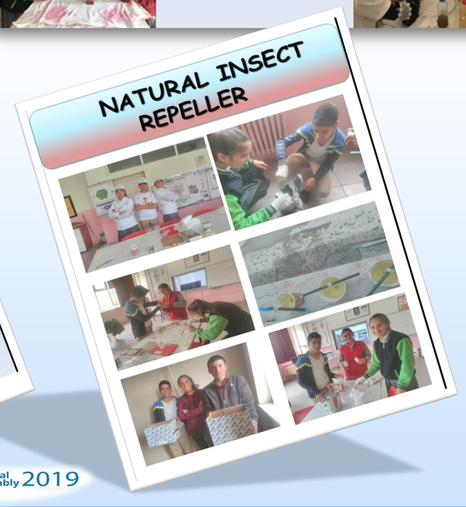
OBJECTIVES

- ❖Developing scientific skills
- ❖Understanding of the nature of Science.
- ❖Promoting scientific vocations.
- ❖Developing deep content knowledge as well as critical thinking
- ❖Developing creativity and communication skills

MATERIALS AND METHODS

Periodic Abacus

Students have tried to find a solution to memorize the symbols of the elements and also their uses and they have design an abacus which consists of 30 elements. They used wooden cubes and four sides of those cubes which show the element's name, its atomic symbol, number and a picture related its uses, in order.



Natural Detergent:

Household products have been found to contain very powerful and often toxic chemicals that you unknowingly expose yourself to in the course of an ordinary day. One of the most common household products is laundry detergent. Students have tried to find a solution this problem by making their own natural detergent by using vinegar and boiled potatoes

RESULTS

Periodic Abacus :With the help of this periodic abacus students can remember easily the symbol, number and the uses of elements in a fun way.

Natural Detergent: Students have seen that their detergent is eco-friendly, works well as a stain remover. In addition they have seen that their detergent is in laundry will whiten, brighten, reduce odor, and soften clothes without harsh chemicals. It is safe to use in both standard and high-efficiency washers and is beneficial to septic tanks and the environment.

CONCLUSIONS

- ✓Students actively engage with PBL projects that provide real-world relevance for learning.
- ✓Students can solve problems that are important to them and their communities.
- ✓PBL leads to deeper understanding and greater retention of content knowledge.
- ✓ Students are better able to apply what they know to new situations.
- ✓Students develop deep content knowledge as well as critical thinking, creativity, and communication skills in the context of doing an authentic, meaningful project.
- ✓Students interact with adults, businesses and organizations, and their community, and can develop career interests.

EGU General Assembly 2019