

# S.T.E.M. Day 2012

## West Point Elementary School



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**Nadiene Sapiente, Principal**

# S.T.E.M. in a Nutshell

- S.T.E.M. is an acronym representing fields of study in science, technology, engineering, and mathematics.
- Students were engaged in activities that allowed them to discover the fun of engineering through hands-on processes.

# Engineering Design Process

## ASK

What is the challenge?  
What do we know already?

## IMAGINE

Brainstorm possible solutions.  
Consider design options.

## PLAN

Choose the best design.  
Draw a picture.

## CREATE

Build solutions based on plan.  
Test it out.

## IMPROVE

Study test results.  
Modify design to make it better.  
Test it out again.

# Kindergarten

Our little friends were "creeping us out" for their S.T.E.M. Activity. Kindergarteners designed a movable mechanism to understand how movement is created or controlled.



# First Grade

There were no "weak links" in first grade! Their S.T.E.M. activity was examining the concept of structures. They investigated ways in which structures are made and designed structures with professionals and cadets from the Department of Civil Engineering.





# Second Grade

Second grade was all fluff! Their S.T.E.M. activity was "Marshmallow Challenge". Students were challenged to create the tallest stand-alone structure using marshmallows and spaghetti.



# Third Grade

Our third graders were flying high! They "Lifted Off" with a S.T.E.M. activity that allowed them to design and test factors that impact airplanes taking off.



# Fourth Grade

Fourth grade had a blast! Their S.T.E.M. activity was "Blast Off". Using ketchup bottles, they created make-shift rockets to test which one would go the greatest distance when launched with an air launcher. Luckily, these bottles were empty!



# FUN FACTS

1. Teachers and S.T.E.M. professionals participated in a "Meet and Greet" which was held prior to the classroom activity. This collaborative activity provided the opportunity for both entities to share their expertise and possible concerns.
2. Over 134 volunteers were in classrooms on this day.
3. S.T.E.M. professionals and cadets from the United States Military Academy were an integral part of this activity.
4. Feedback from the S.T.E.M. professionals was unanimous. They stated that they had "a blast", "would definitely come back again", and had an "awesome" time.
5. Transportation was provided for the campus S.T.E.M. professionals and cadets.