



# BELL Academy

*Bayside Enrichment & Long-Distance Learning Academy – MS 294*

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September 24, 2014

Dear 6<sup>th</sup> Grade Families,

The 6<sup>th</sup> grade Science classes will be taking their first Unit Pre Test the week of 9/29. Below is a list of topics and skills that will be covered during this unit, which will last approximately 10 weeks. We will have a strong emphasis on the Scientific Inquiry Process. Although this test will not be counted in their average, students should try their best so I can get an idea of how to best support their skills and content understanding throughout the unit.

## **Unit 1: Scientific Inquiry and Simple Machines**

- Students will acquire the skills necessary to engage in scientific thinking and discussion. They will work towards the end of year goal, which is to be able to independently design and carry out a scientific investigation.  
Students will be asked to:
  - differentiate between qualitative and quantitative observations
  - identify independent variables, dependent variables, and constant variables in a given experiment
  - identify the levels of independent variable in an experiment
  - explain why the number of trials in an experiment are important
  - graph data they have collected in either a line or bar graph
  - interpret scientific diagrams
- Students will explore the concept of energy transformations within simple machines.  
Students will be asked to:
  - identify types of simple machines
  - explain the advantage a machine provides to its user
  - explain and identify the relationship between potential and kinetic energy
  - identify and explain energy transformations
  - calculate the amount of work done ( $w = F \times d$ )

**For resources students can refer to throughout the unit, please visit my Science Website and click on “Resources”, then click on the “Internet Resources” button. A calendar of the year’s topics will be posted on my website shortly.**

[contonascience.weebly.com](http://contonascience.weebly.com)

Thank you for your continued support,

Ms. Contona