

# Eastport South Manor Junior-Senior High School

*"Commitment to Excellence"*

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## WEEKLY OBJECTIVES

**Subject: Regents Physics**

**Week #: 4**

**Date: 9/23 - 9/27**

**Teacher: Ward and Lever**

Topic: Nuclear Physics & The Standard Model

Learning Objectives:

1. Describe the Standard Model of matter and explain the role of force carriers.
2. Introduce and apply universal mass unit.
3. Find the charge of baryons and mesons.
4. Define and list the quarks and leptons.
5. Explore Einstein's Theory of Relativity.
6. Calculate the energy in mass conversion problems.

Instructional Strategies:

1. Lecture and note taking
2. SmartBoard
3. Problem solving activities
4. Group work including carousel activity.
5. Group work including research math assignment.

Learning Activities (Technology/DI):

1. Spectral Lines Lab
2. Use of spectrometer to read spectral lines of Hydrogen
3. Build quarks with charge cards

Assessment/Data:

1. Homework assignment #3
2. Modern Math Packet