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2. Valley Stream South H.S.
3. 11<sup>th</sup> – 12<sup>th</sup> grades
4. Regents Physics / AP Physics

5. CCLS Standards Addressed

*Mathematics -*

<b>MP.2</b>	Reason abstractly and quantitatively.
<b>MP.4</b>	Model with mathematics.
<b>HSN.Q.A.1</b>	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
<b>HSN.Q.A.2</b>	Define appropriate quantities for the purpose of descriptive modeling.
<b>HSN.Q.A.3</b>	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.
<b>HSA.SSE.A.1</b>	Interpret expressions that represent a quantity in terms of its context.
<b>HSA.SSE.B.3</b>	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.
<b>HSA.CED.A.1</b>	Create equations and inequalities in one variable and use them to solve problems.
<b>HSA.CED.A.2</b>	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
<b>HSA.CED.A.4</b>	Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.

6. Step2Step Physics – Mechanics (\$4.99)

<http://www.nerdislandstudios.com/Products.html>

<https://itunes.apple.com/us/app/step2step-physics-mechanics/id546699730?mt=8>

7. Step2Step Physics – Mechanics is an app that reviews problem solving Mechanics problems. Topics include Kinematics (1D and 2D), Newton’s Laws, Energy, Momentum, Circular Motion, and Universal Gravitation. The app walks students through each type of problem, from identifying variables and their units to choosing the proper formula for solving each problem. If a student makes a mistake, they are provided with feedback that is targeted to that specific mistake. Individual progress can be tracked either on a student’s personal iPad, or on a classroom iPad using the “switch user” feature. Students can even email progress reports to their teachers.
8. Step2Step Physics is advertised as an alternative to a private physics tutor. While I don’t know if it’s that good, this is probably the best review app there is for physics mechanics concepts. While some apps will have videos for students to watch (e.g. Khan Academy), there isn’t usually enough hands-on learning/problem solving time for students to reinforce the knowledge acquired. Step2Step can be done as a class together by projecting my iPad onto the SmartBoard, or it can be completed as a homework assignment. The only limitation is that this app only covers the material for the first half of the year. Nevertheless, it’s still a useful tool to drill the basics into students. Otherwise, students have trouble verbalizing why they utilize the problem solving steps that they choose to use.