Dr. Christine P. Wiamer 3rd Marking period Computer Lesson April 2, 2015

On the AP Physics 1 exam in May, students may encounter graphs of many types of vectors represented, including force, displacement, velocity and acceleration. In order to become familiar with these types of graphs and the real life motion that they represent, I completed a lab on 3/24 with my students to explore this concept. In the lab, they used Vernier probes which measure displacement, velocity, acceleration and force on various objects (including battery operated toy cars) to explore what the graphs of each vector would look like. Also, because the probes were new and mostly, not used in Physics classes before, there were some concerns about hookup of them to a laptop computer. Would the probes work well enough to gain useful information?

During the lab, it was determined that the probes can be directly hooked up via the USB directly into a laptop and do not need an extra interface as previously thought. The students downloaded the program to make graphs and to run experiments using the probes, onto their computers. In summary, then, the lab was successful because all of the tested probes gave useful data and the students were able to see how, for example, using a force on an object could generate its corresponding graph.