



## **Patrick Kaplo**

Patrick (Pat) Kaplo is an 11th–12th grade Physics teacher at Windham High School where he has taught since 2010. Previously he taught for six years at Campbell High School in Litchfield, NH. Building a new physics program from scratch was Patrick Kaplo's task when Windham High School opened its doors in 2009. After only six years, nearly 80% of all students will take physics before graduating and the WHS program boasts the highest AP Physics enrollment in New Hampshire.

Mr. Kaplo drives engagement in his classes by asking his students to build six foot tall trebuchets, ride CO<sub>2</sub>-powered fire extinguisher rocket carts to study Newton's Laws, use high frame rate cameras and motion capture software to analyze projectiles, fire vacuum-powered ping-pong balls over 400 MPH, and visualize wave phenomena in an 8-foot long fire tube, among other things. His 200 YouTube physics videos extend his contact time with students by three hours per day.

Pat transitioned into physics teaching after serving in the US Navy's nuclear power program for six years and working in industry for five. His work experiences and educational background have steered his professional course toward STEM project work as a means of further deepening engagement for his students.

He initiated afterschool programs to improve access to science and engineering for female students, as well as a high-altitude ballooning team which has launched science payloads to the edge of space for data collection and brought back spectacular photographs of the curvature of the Earth. Recent connections with Dartmouth College's arctic studies program have initiated student-led development of an underwater robot to facilitate climate change field research in Greenland.

Pat earned a B.S. in mechanical engineering from Worcester Polytechnic Institute and a M.Ed. from the University of Massachusetts at Lowell.

Mr. Kaplo can be reached at [pkaplo@windhamsd.org](mailto:pkaplo@windhamsd.org) or 603-321-5843.