



What's Happening?

Stick Your Nose in Our Business!



I Can Make an App for That!

Students at Timberlane now have the opportunity to design and build applications for Android phones in Mrs. Albert's new Creating Mobile Applications course. Students analyze and implement various solutions to real world problems, for example creating a reminder, information tracking, or text messaging app. Their apps aren't all practical, however. They are currently flexing their design talents

by creating a game similar to Whack-a-Mole. In this game each successful 'mole' whack causes the phone to vibrate; a winning score results in a spoken message saying, "You win!"

"This course allows students to create flashy output more quickly," says Mrs. Albert. Students use AppInventor 2, a Google and MIT collaboration. This is a drag and drop programming language that facilitates students' designs and solution implementations while preventing students from getting bogged down in the details of coding Android apps. Students use an existing app to become familiar with the model, customize that

existing app, and finally create a new app of their own. The app they create runs on the class set of Android phones.

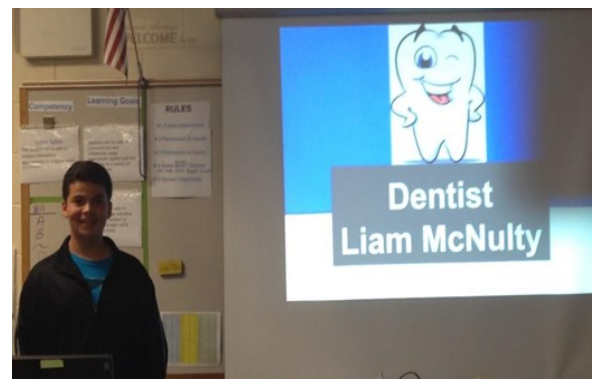
A unique aspect of this course is that students are able to formulate their own problems, and then use their knowledge of computers to solve them.

It is a project-based, hands-on course intended for any student with an interest in design.



Middle School Students Know How to Excel!

During technology class students are working on their critical thinking and decision making skills using real life situations. The 6th grade students are using Excel to graph data from a survey. The 7th grade students are using simple formulas to calculate a comparison of healthy and unhealthy amount of calories using menus from fast food restaurants. The 8th grade students are transferring their knowledge from Excel to Google spreadsheets by creating a budget based on the salary of a possible future career they have chosen.



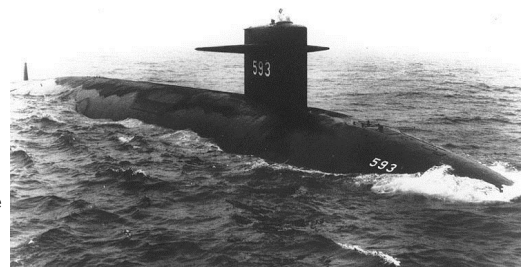
One 8th grade student commented, "I learned that if you don't budget your income you could spend more than you have."

Ions, Geigers, and Squares...Oh My!!

Dive, Dive, Dive!

The Middle School Team BC Earth Science students recently employed toy submarines and frogmen to demonstrate density differences can propel objects within fluids. These 1950s baking powder powered toys were immersed in water wherein chemical reactions and resultant low density carbon dioxide release repeatedly moved these toys upwards through the water column. The activity was reinforced via discussions and video presentations of how modern submarines actually work.

To this end, the class focused on a real world and tragic example of increased density and resultant loss of buoyancy. This is the April 10, 1963 loss of the USS Thresher (SSN-593) off the NH coast. The attack boat, built and based in Portsmouth and designed to destroy Soviet ballistic missile subs, was the fastest, deepest diving, and most advanced submarine in the American arsenal. The loss of all 129 hands [many civilians on board were Rockingham County residents] is still the world's greatest submarine disaster. Nonetheless, the Thresher was never struck from the Navy's active roll and remains to this day on "Eternal Patrol."



New Year, New Balance



The New Balance facility in Lawrence MA opened their door to TRHS engineering, business and robotics team students to get a glimpse into the world of advanced manufacturing. Students were amazed by the entire experience. "If I had to sum it up in one word, it would be awesome" claimed Mark Cerniglia, teacher and robotics team coach who helped to organize this experience. New Balance engineers stressed the importance of the return on the students' future college investment, both academically and financially. The engineers emphasized the benefits of STEM during high school. Students enjoyed the lab tours in which they got to see the use of various 3D printing methods by the Advanced Concepts department for both future technologies and in-house tooling. The state of the art racing and training shoes that came from this were simply amazing.



The members of the robotics club found the AME lab to be especially inspiring. The economics of employing new technologies into the manufacturing line with respect to the return on the investment was emphasized. This was a valuable lesson for our engineering and business students. The Sports Lab was impressive. The engineers discussed the need for scientific data in the decision making process for product lines. The students were able to witness the use of real time sensor data collection, graphical and statistical analysis.

The Prototype Shop was outstanding. The use of laser technology to minimize waste and maximize product during pattern cutting was really impressive. The students were very interested in all of the product lines especially the sports shoe designed for the military. They learned that some of the projects are long term with several iterations which is part of the engineering design process that ultimately leads to a manufactured product. TRHS hopes to continue this relationship for both the robotics club and the academic classes in the future. There is also the hope to tour more facilities and continue to spark the interest in future careers in business and engineering.

Oh the Humanities.... Here Comes the Judge!

On September 16, eighth grade students were visited by the Honorable Judge Joseph Laplante as part of a kick off event for our first quarter's theme of "Social Justice" in Language Arts. Judge Laplante is a federal judge for the United States District Court for the District of New Hampshire.

The purpose for the visit was to familiarize our eighth graders with the process of jury selection prior to reading the play *12 Angry Men* by Reginald Rose.

The stage was literally set as Judge Laplante explained the process by actively involving the students in a mock jury selection. Potential jurors were questioned by Judge Laplante and

our student representatives for the prosecution and the defense. They were then either accepted to the jury or rejected based on potential biases. Judge LaPlante talked about the importance of performing one's civic duty and fielded some amazing questions from our audience. His visit is certain to have left a lasting impression with our eighth grade learning community.



World Languages in the Digital Age

World Language students at TRHS now have even more opportunities to use technology to enhance their learning and develop their language skills! Last year, the language teachers began to discuss ways to increase student technology use and whole class computer access. The department proposed to relocate the student computers from eight different classrooms into one centralized location.

With the support of the administration and through the collaboration and hard work of the teachers, technology specialists, and custodial staff, this idea has become a reality!



TRHS room 110 is now a World Language computer lab / classroom and a hub of language activity. The teach-

ers and students are very flexible in scheduling and sharing this space so that all classes have an oppor-

tunity to use the room. Students in French, German, and Spanish classes are able to use the lab to access course and age appropriate authentic listening and reading resources on the Internet. Students practice and record themselves speaking using Audacity or websites like Lingtlanguage.com. Writing skills are reinforced and refined as students participate in written conversations on class blogs and wikis, submit assignments to Turnitin.com, or collaborate with classmates through Google Docs. Teachers and students alike are excited about using this space and about exploring the endless possibilities to use technology to access authentic cultural resources and to support student learning of World Languages!

