

## **Innovation at Their Fingertips**

*By Naomi Gossement and Matthew Whiman, Innovation Academy Charter High School students*

In a world growing increasingly reliant on technology, there is a constant emphasis on innovation. To prepare for success in today's world, it's essential that secondary students are taught to think in new ways. While many high schools focus their curriculum so their students can pass standardized testing, it's difficult to find exactly what most students need: an education suitable for our technologically changing world.

At Innovation Academy Charter School—which includes a middle and high school—we see and experience innovation on a daily basis, from the work displayed in our school hallways to the learning technologies available to us. Most importantly, we see innovation in our own work.

Innovation is visible in many ways beyond our school name. One glimpse of a class in action and you can find new, project-based approaches to learning. Every class at Innovation Academy has its own unique curriculum that manages to meet the state standards, while going above and beyond in learning and enrichment.

### **From robots to current affairs**

In English class, you may find the students in the midst of a conversation connecting the latest book they read to their real-life experiences. Further down the hall, the freshman engineering class may be using Roomba robotic vacuum cleaners to perform tasks, such as creating music with a series of beeps while following a pre-programmed path. Walking into a freshman history class, you may learn about something you've never even heard of before, such as the genocide in Darfur, Sudan. Although genocide is a subject often considered grim and sensitive, it is necessary knowledge that goes hand-in-hand with our school's mission: preparation for life and citizenship in the global community.

As students, we want to be aware of current events so we are prepared to play an active role in the world we live in. As a culmination to its unit on genocide, the freshman class will host Camp Darfur, an event to raise money and awareness about the situation in Sudan. To prepare for this, students will participate in creative and fundraising endeavors to help raise money for genocide awareness programs. In addition to raising money, students can change their perspectives by listening to several genocide survivors talk about their experiences. Instead of just learning about genocide

and moving on, we strive as a community to make a difference, to make the education we are getting matter and to act on the information.

### **Skating to a solution**

Sophomores studying the Industrial Revolution in history class participated in a hands-on activity that allowed them to better understand the efficiency of an assembly line.

They were assigned partners and given two pieces of paper with parts of inline skates outlined on it. Then, the partners had 10 minutes to create as many inline skates as possible. The skates needed to be cut out, glued together and colored. If anything was not done neatly, they would not be counted as complete. After that task, the partners were put into groups of four, with each team member having a specific task, such as cutting, coloring, gluing or inspecting for quality. The same amount of time was given to create as many inline skates as possible.

The students quickly found they were able to more than double the amount of inline skates made by using an assembly line rather than an individual process. This helped the students learn about the efficiency of assembly lines and how it led to the success of the Industrial Revolution. Activities such as this, which happen every day at Innovation Academy, are perfect ways of setting students up to succeed in the future.

In another example of a typical Innovation Academy activity, a sophomore biology class was hiking in the woods and found evidence of a large mammal. The students were asked to search the environment for clues about what the mammal could be and then compare that to identifiers in field guides. From the dew claw tracks, a huge body print in the snow, the scat and bite marks on tree bark, the class successfully categorized the animal as a moose.

### **Foundation of Innovation Academy**

Currently, Innovation Academy Charter High School is small, with only students in grades 9 and 10. The expectation is to add grades 11 and 12 in the next two years as students advance. For a school so small, though, there is a lot going on. Each Friday, Innovation Academy students are able to further explore an academic area of interest with “choice block.” During this hour, students are exposed to enriching classes that allow them to have fun while also being engaged by the material.

Some examples of activities offered during choice block are learning sign language, robotics, a green task force driven to convert the school to an environmentally clean school and a class that studies the films of director Alfred Hitchcock that finds students shadowing Hitchcock's famous style in their own short films.

Innovation Academy is more than a school: It's also a close-knit community and a new approach to education. Its emphasis on innovation and real-life application has helped students become independent thinkers who are willing to take any path to new solutions.

*Naomi Gossement and Matt Whiman are sophomores at Innovation Academy Charter School. Naomi is particularly interested in literature, art and dance; Matt's greatest areas of interest are writing, art and music. They have been students at Innovation Academy since they were in fifth-grade.*

*Innovation Academy Charter School is a public school in Tyngsboro, MA, that provides middle and high-school students with a challenging, interdisciplinary college preparatory education. Educators prepare students for the 21st century through an emphasis on holistic learning, higher order and critical thinking skills, and practical application and integration of curriculum areas. For more information, visit [www.innovationcharter.org](http://www.innovationcharter.org).*

