



ALUMNI ACROSS TECHNOLOGY SPACES

ANDREA TEHAN CARNES '99

Devices and Apps as Tools in Education

At Millbrook Andrea loved working at the zoo, traversing up into the canopy walkway, and researching in the wetlands, and here she fell in love with science. After graduating from Union College (with a major in anthropology and minor in biology), she joined the Peace Corps and served in Jamaica for two years, teaching environmental science to students in pre-school through grade 6. Teaching became her passion, and she enrolled at George Washington University in D.C., graduating with a master's degree in transition special education. After two years as a full-time high school teacher in Silver Spring, MD, Andrea and her husband made the decision to leave the hectic pace of the city. When a position opened at Stoneleigh-Burnham School in 2011, Andrea applied and was hired, and they made the move to Greenfield, MA. Originally hired as the director of their academic center and teacher in both the math and science departments, she transitioned to teaching Algebra I and 8th grade science full time in 2013.

CREATING A SCHOOLWIDE IPAD PROGRAM

In 2012 Andrea led the development of Stoneleigh-Burnham's 1-to-1 iPad program, which requires students to utilize an iPad in their daily school work. While the iPads allow teachers to utilize some cool programs, there are other primary benefits of the program. There is now far less reliance on textbooks, and thus students no longer struggle to lug heavy books around campus. The overall expense of book purchases for families has also been greatly reduced. Over a three-year process, all students were equipped with iPads that include the apps they need to use in classes. The school's tech office configures all the devices with a school-created Apple ID, and this allows the school to



push out new apps and app updates, as needed, and to manage subscriptions to an app that can later be shared with another group of students.

The program has been very successful, even while the school has dealt with expected challenges. Teachers can share their extra help schedule with students and schedule appointments; a calendar reminder will pop up on their iPad screen or will go to them via email. Many homework assignments are posted online, and students can write comments below the assignment if they don't understand something. Teachers can reply in real time. "For me, as a middle-school teacher trying to engage students and get them



excited about science and math, it's been wonderful, including using tools like Kahn Academy for review videos and practice problems. I also use Google Classroom and assign podcasts for the kids to listen to or a quick review video on YouTube. If I have students who are out of school, I can record myself giving the notes to the class and then post it, so no one is ever behind.”

Andrea is an avid user of technology in her own classroom, but she understands that every classroom is different and the technology itself needs to be flexible and adaptable. “Our language department has gone back to using regular textbooks—their online books were too glitchy. I use my math and science textbooks online, but I do have some hard copies of the science book in my classroom. We’ve found that iPads aren’t great for typing, so we also have a legion of Chromebooks in every nook and cranny of our school within easy reach for typing essays. We have technology here everywhere!”

POLICIES FOR TEENS & TECHNOLOGY

The iPad program and boom of smartphones on campus over the past six years has led the school to the review and develop rules for overall use of personal technology devices. Middle school students must check in all their electronics before they go to bed. All phones and iPads must be brought into the dorm common

room to be charged—the room is locked overnight. By the 9th and 10th grade, dorm faculty work with students to plug in their devices at night in a place that is not next to their bed. Access to the internet is also turned off at 11 p.m. The goal with upper formers is to have established such good habits that students can manage their screen time without too much faculty oversight.

All students follow certain campus-wide technology rules: no devices during morning meetings, and no devices in the dining hall. During the academic day, students may not use their phones at all, and they cannot use their iPads when walking through campus. Any apps that are not relevant to specific classwork must be closed at the start of class, and during the day students may not use the iPad for social media purposes. Teachers can check a student’s iPad at any time, or they can have all students logged into their Apple Classroom. This connects the iPads to an online portal where teachers can see exactly what students are doing on each device. The Apple Classroom also comes into play during study hall for middle schoolers, as house parents can monitor if their student residents are using their iPads appropriately. A three-strike policy means students who are abusing the iPad will have all apps not related to classwork removed.

“Ultimately, our policies will continue to be updated as needed, and that will happen with a lot of student input. It’s so important to continually check in and ask them how they are doing.”