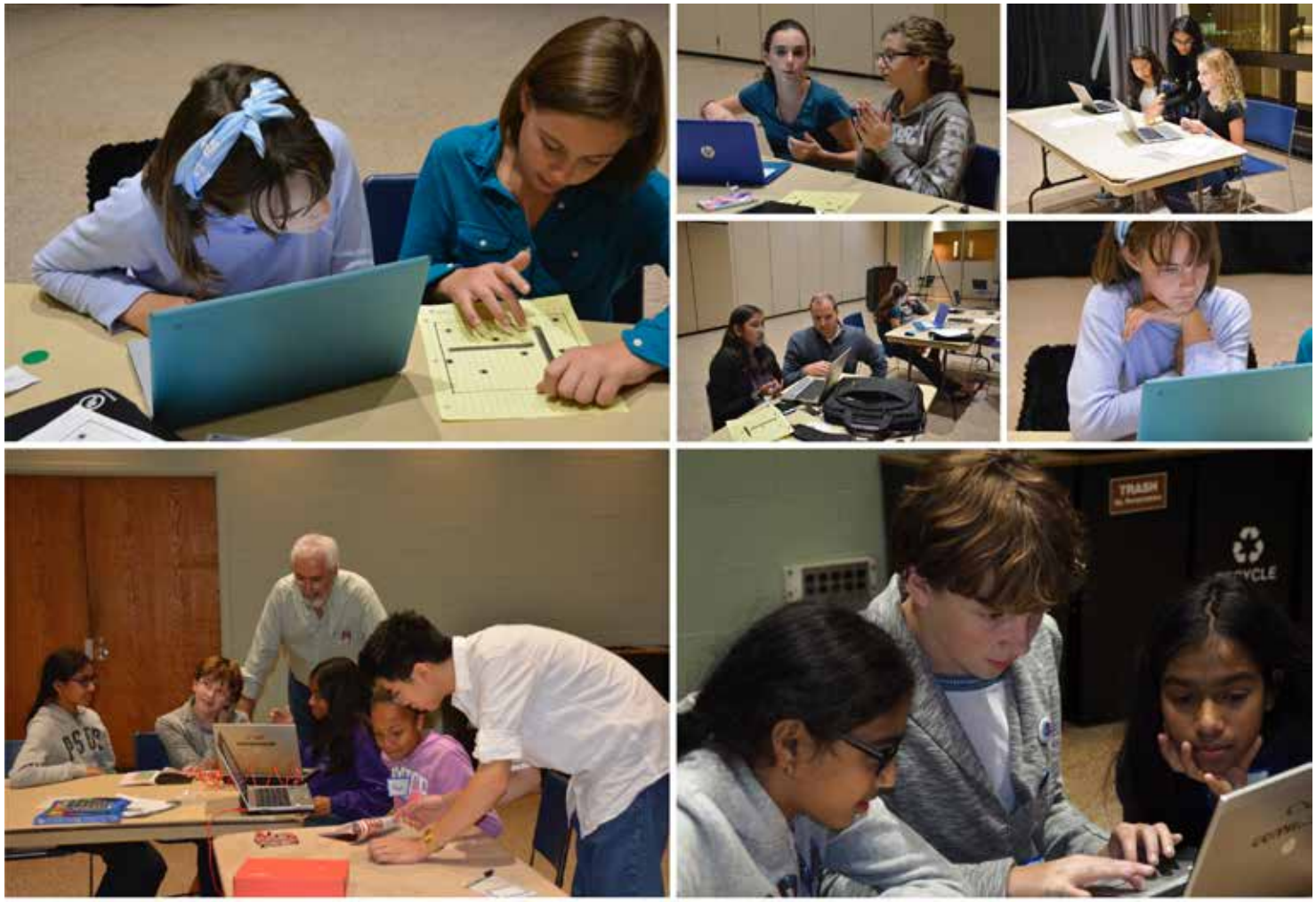

the stars
challenge
Code Secrets:
Girls, Science, and Coding
Fall 2015

Learning to code makes kids feel empowered, creative, and confident. If we want our young women to retain these traits into adulthood, a great option is to expose them to computer programming in their youth.

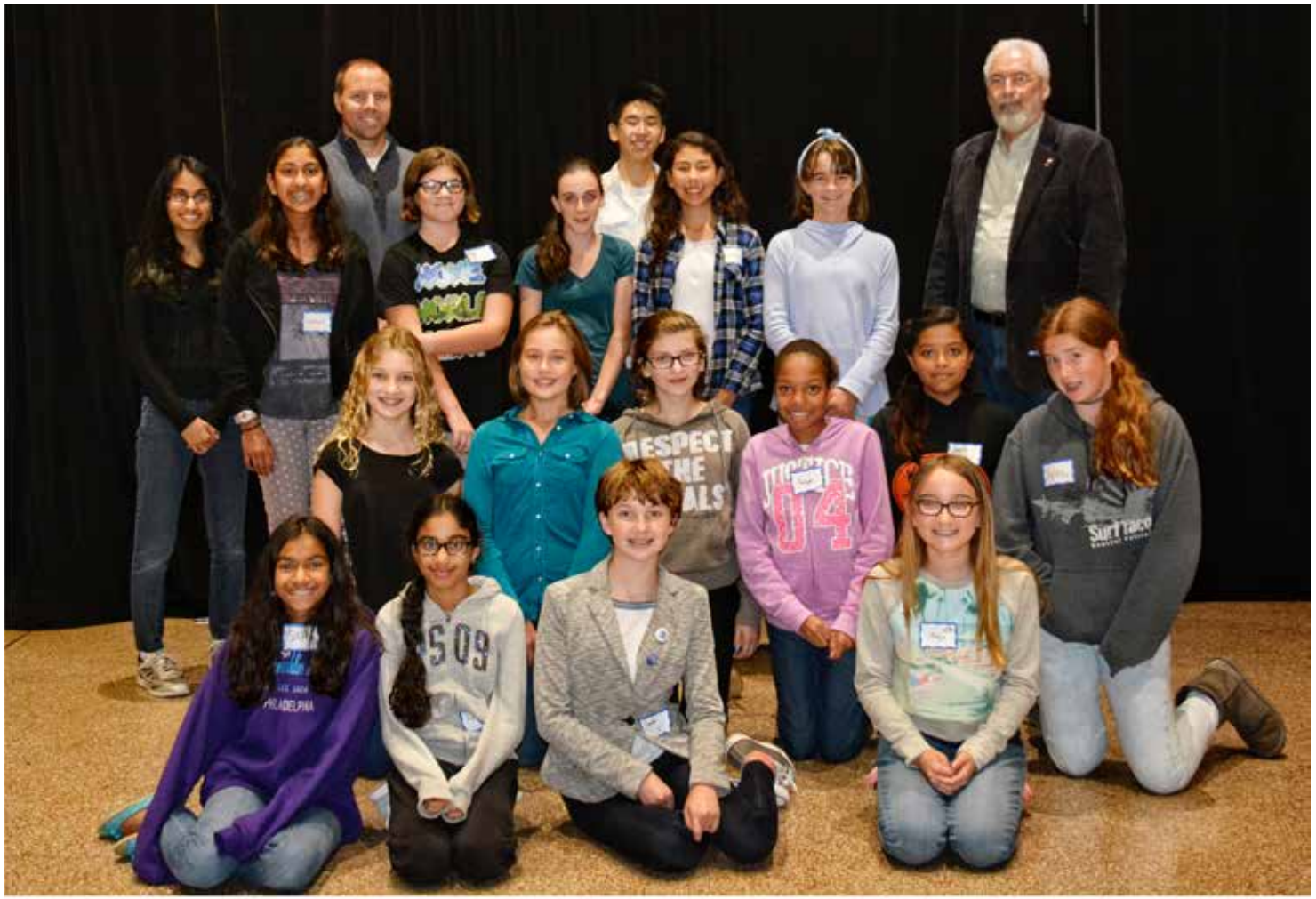
Susan Wojcicki
Senior Vice President, Google

The importance of being able to code is steadily increasing in today's working and academic environments. Although we're not trained as programmers, we both use programming in our jobs as STEM educators. This has afforded us the opportunities to observe the differences among our students who can and cannot code. Many people think of coders as those who sit isolated at a computer all day, but we wanted to demonstrate how coding can be a fun and interactive experience. This was especially true with this group who represent our second year of students taking the course. We were thrilled with the level of enthusiasm and the intrinsic motivation that the girls brought to each class. They helped us with refining activities as our course continues to evolve and we always walked away each evening looking forward to the next week's gathering.

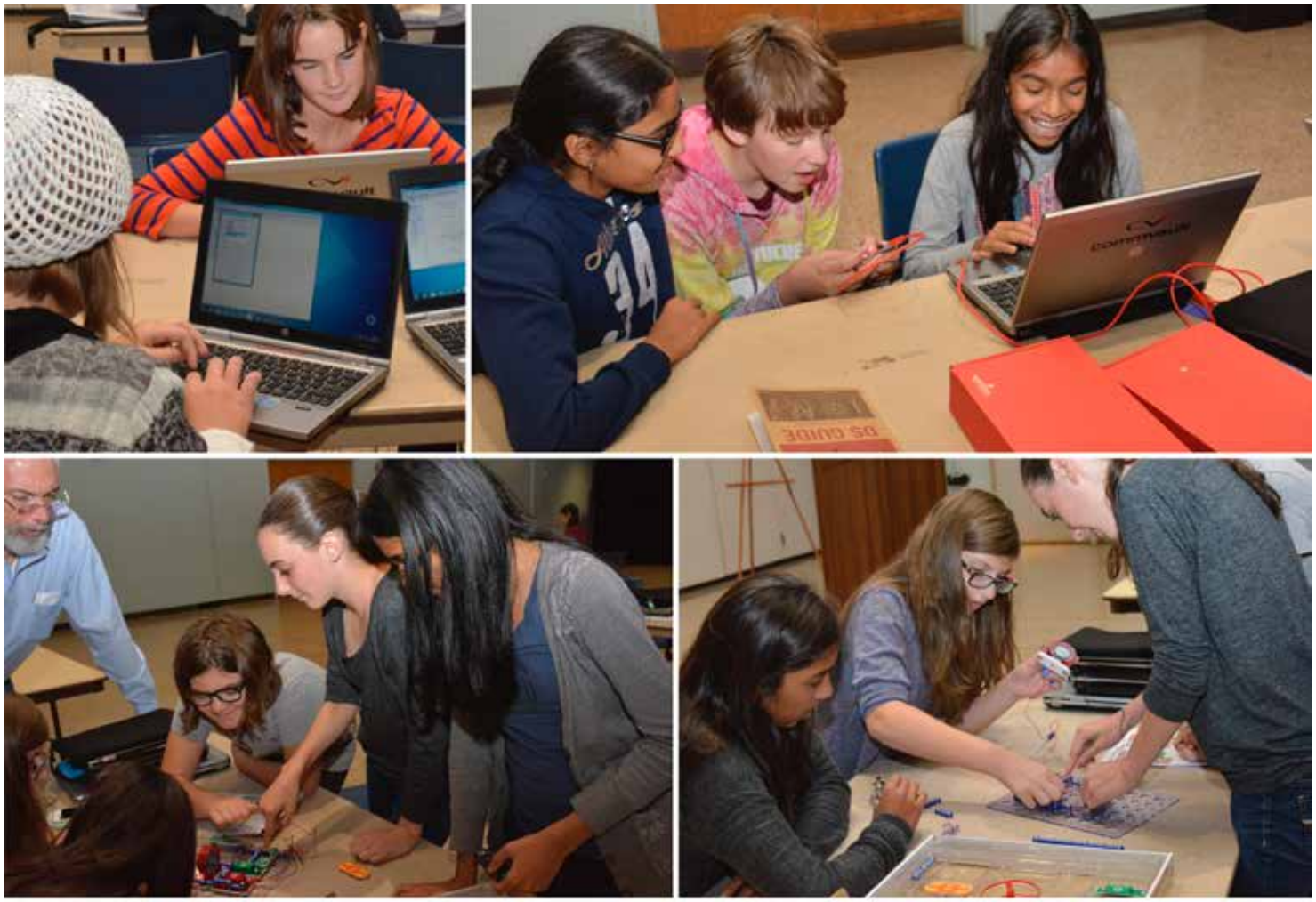
Thanks for being so much fun!
Mr. Roche and Mr. Hanas



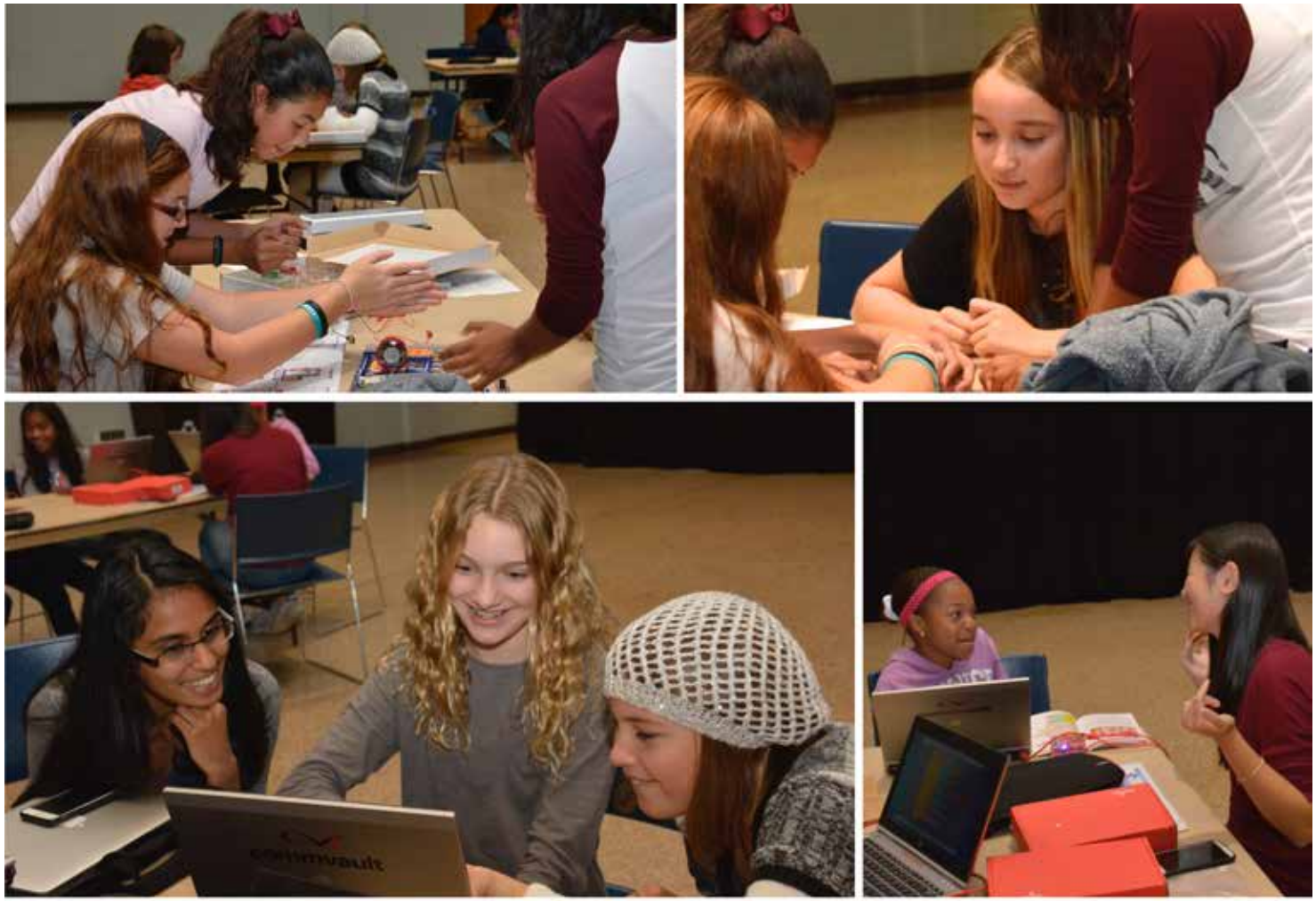
First night introductory experiences - tailoring challenges for both veterans and novices



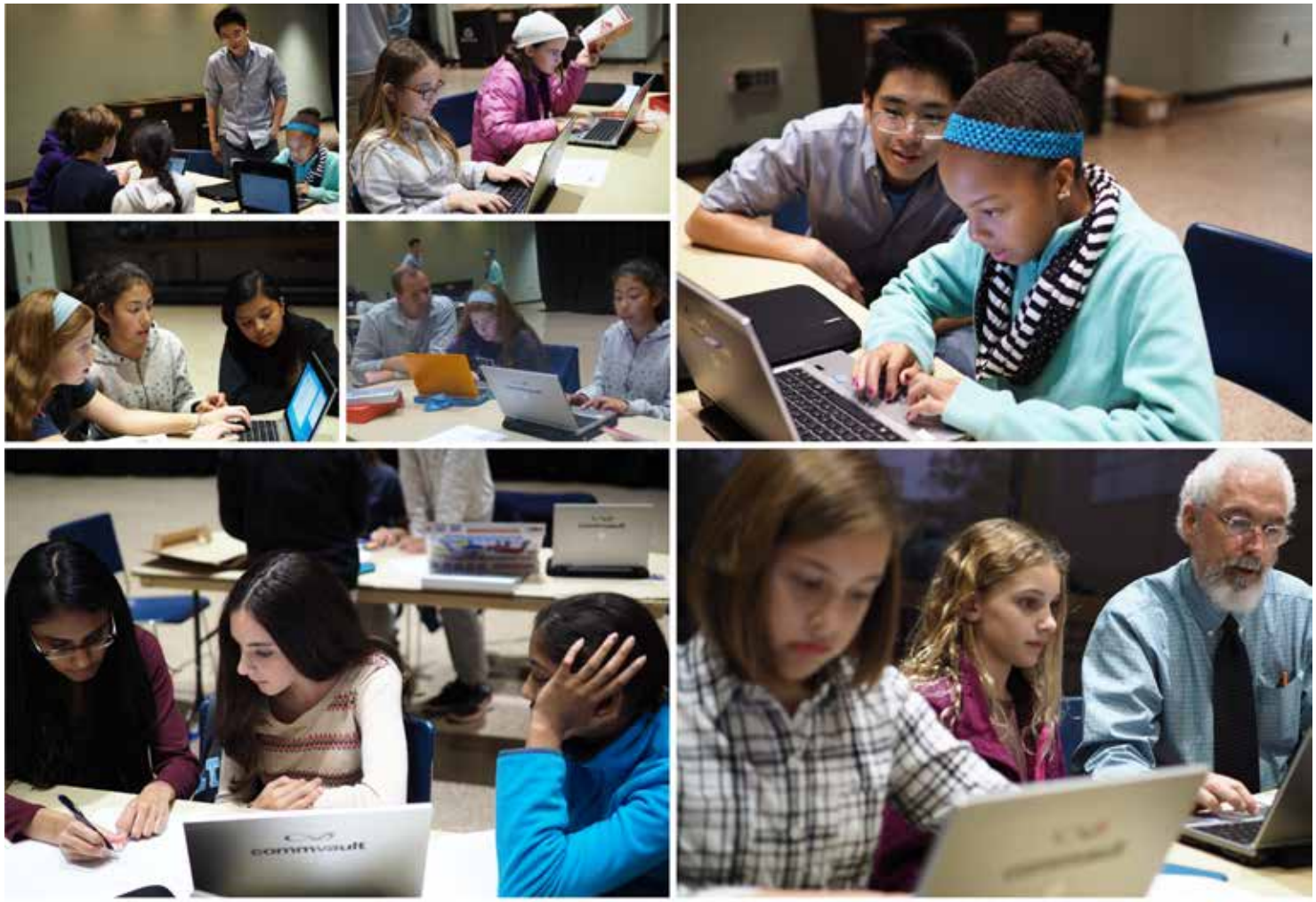
Everyone's here except for Priscilla, one of our rotating TA's



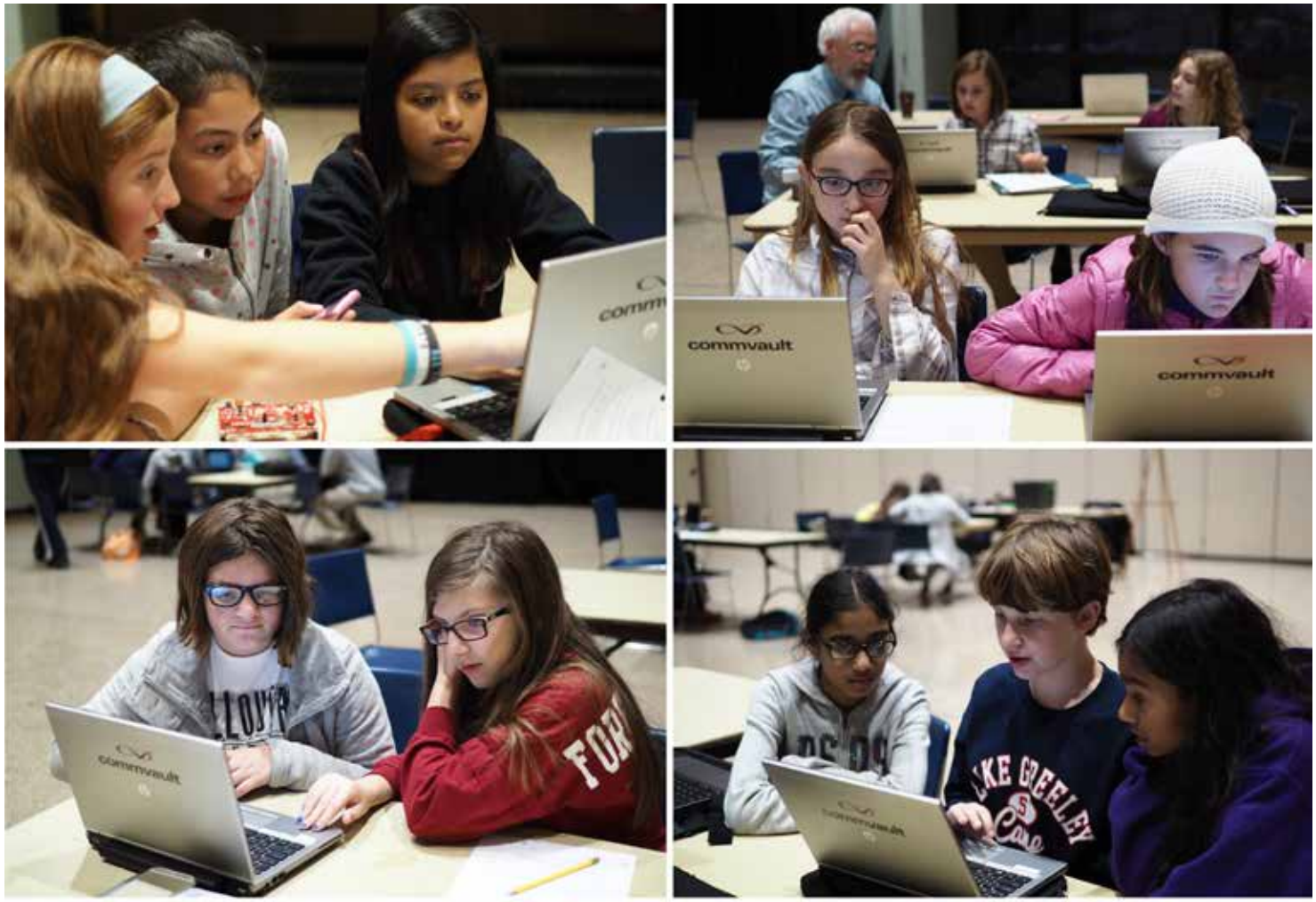
An introductory circuits kit entertained some of our "newbies" while veterans were intrigued with a new "digital sandbox" device



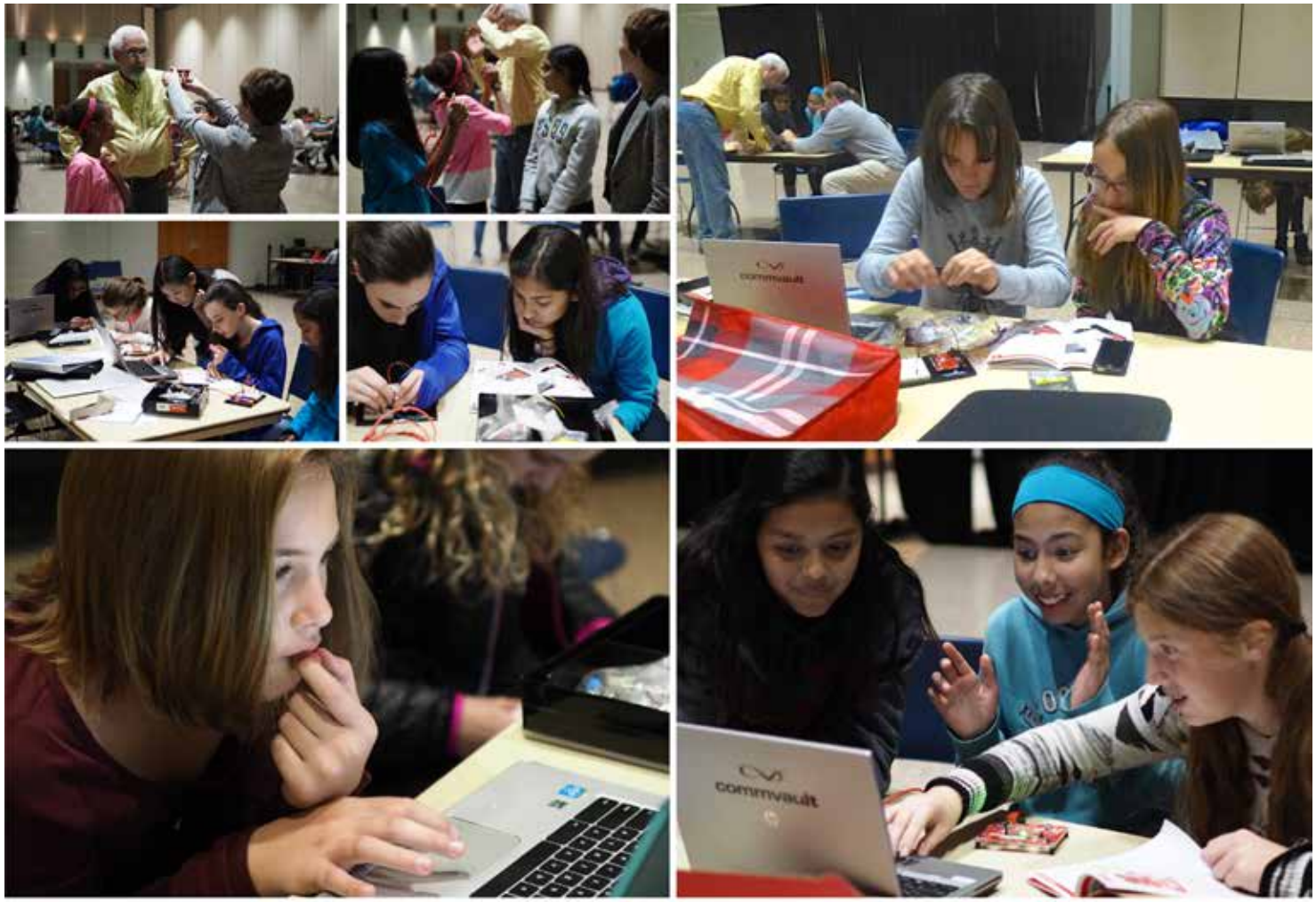
There's a certain joy in observing that moment when "the light bulb turns on" above a student's head



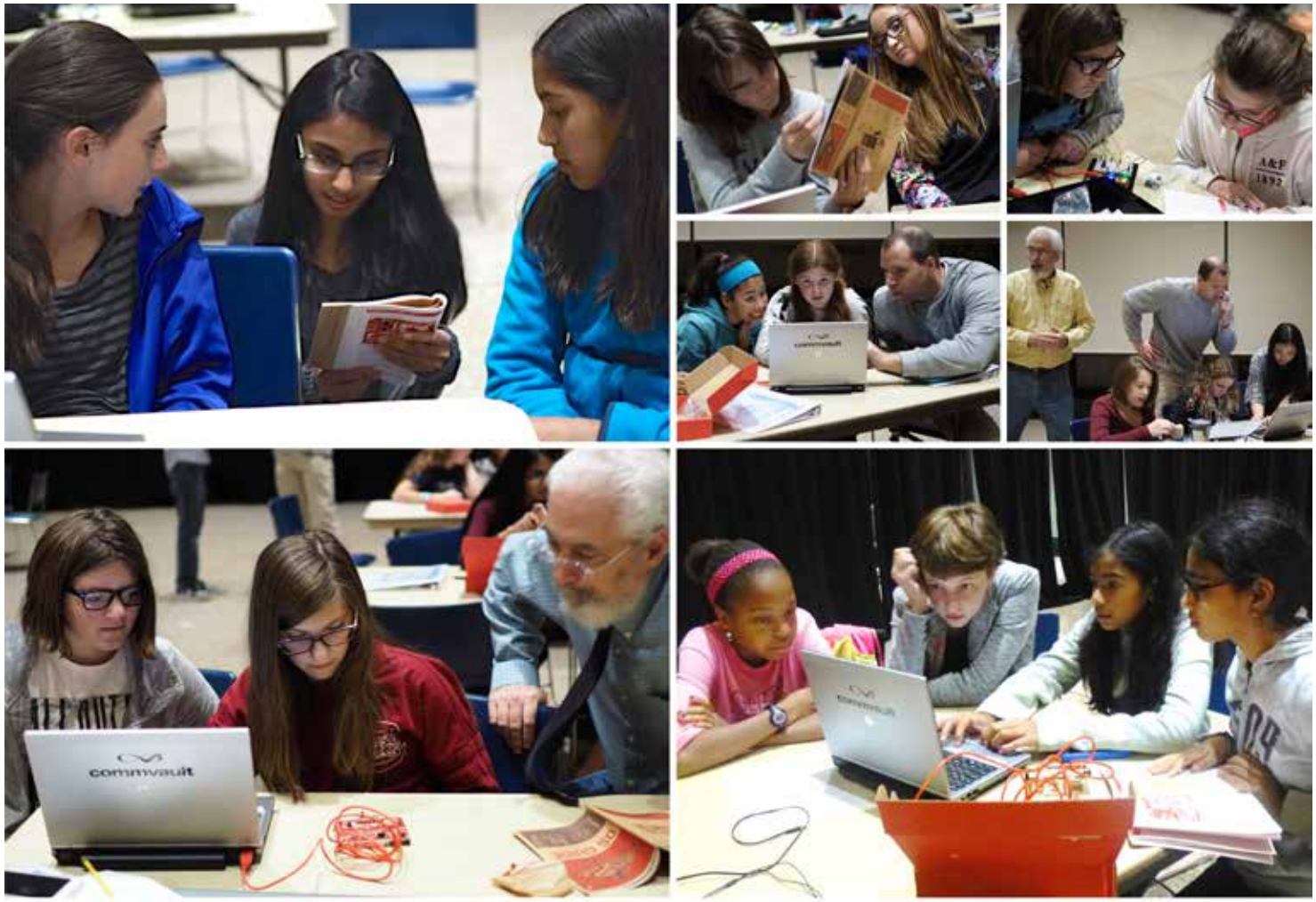
Amayah impressing Jon with some Processing code



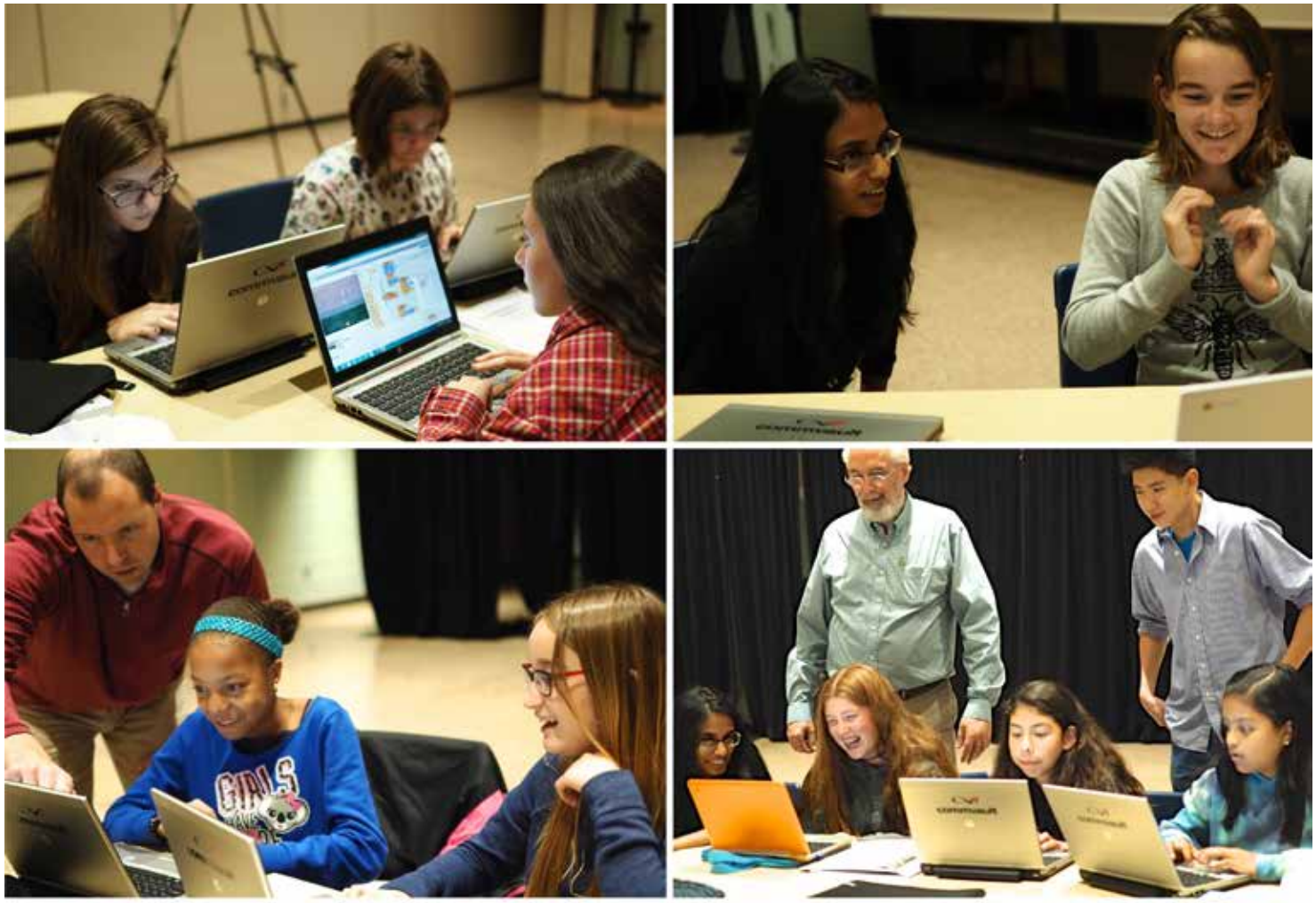
Ryley, Ivanna & Joann getting their hands on a digital sandbox device



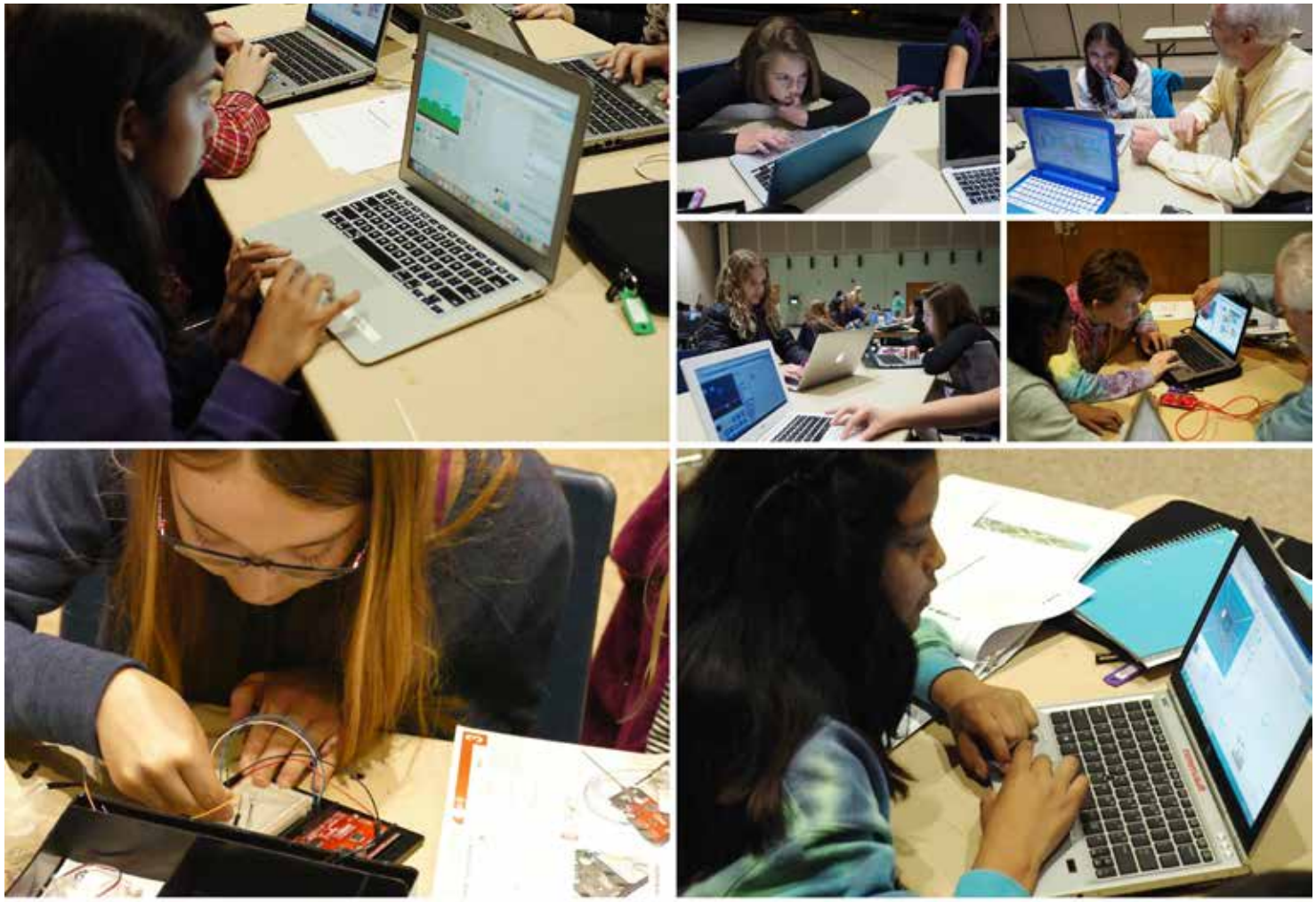
Mr. Roche reacting to "the ugly detector" as well as our "newbies" getting their first taste of breadboards



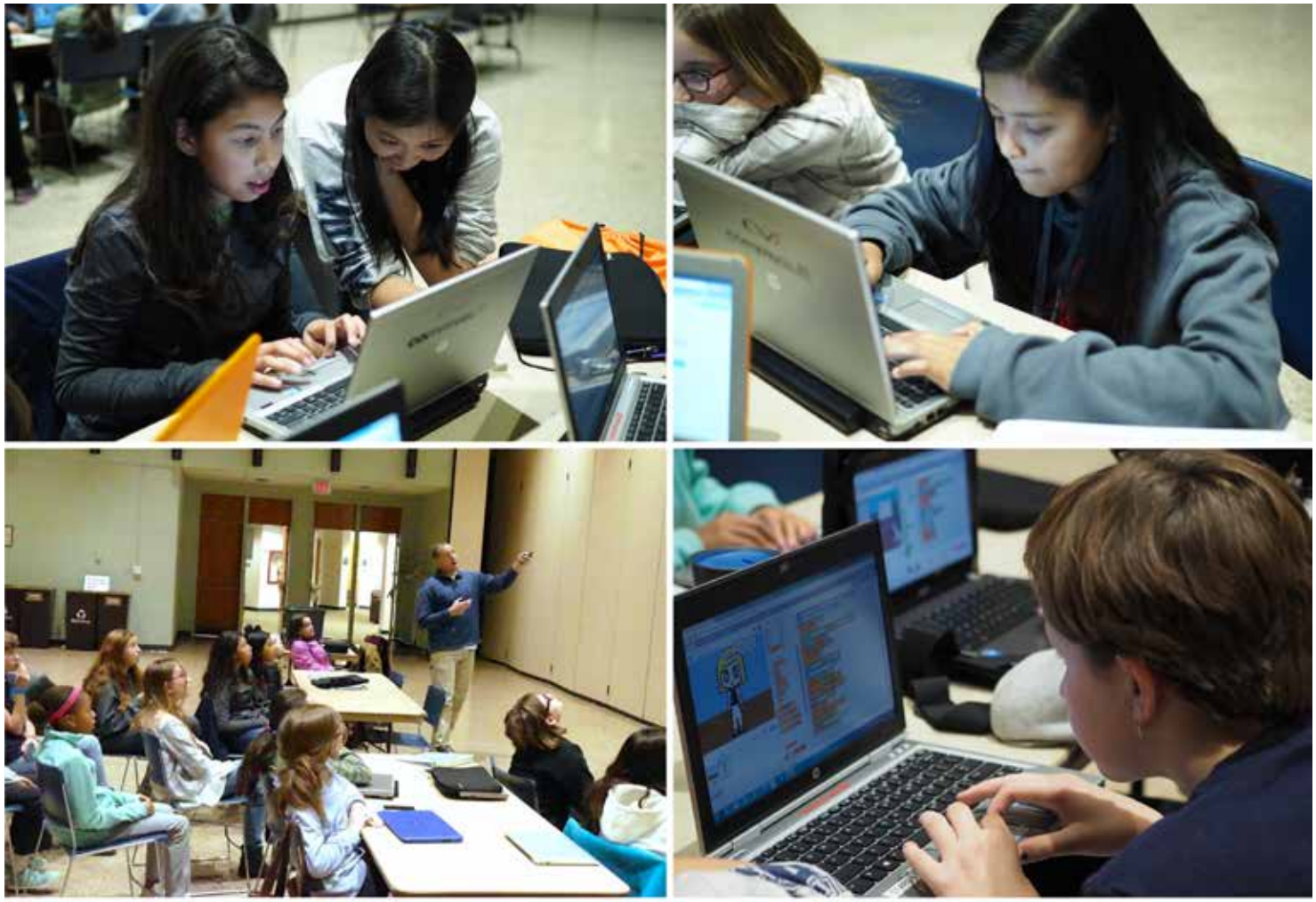
Trouble-shooting both hardware and software became routine portions of our Monday evenings…



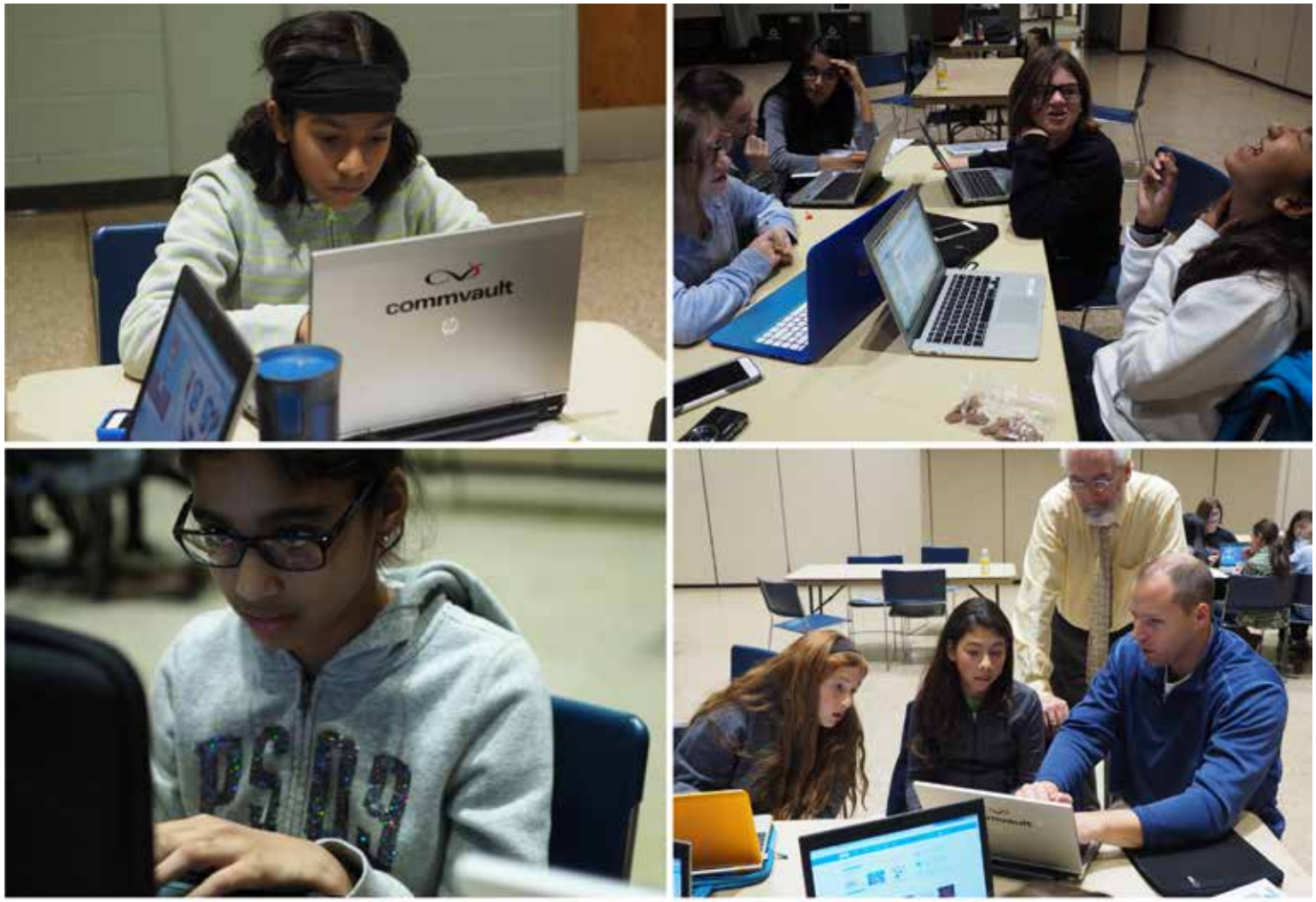
… and it was more fun when the students gained confidence & accomplished the trouble-shooting on their own!



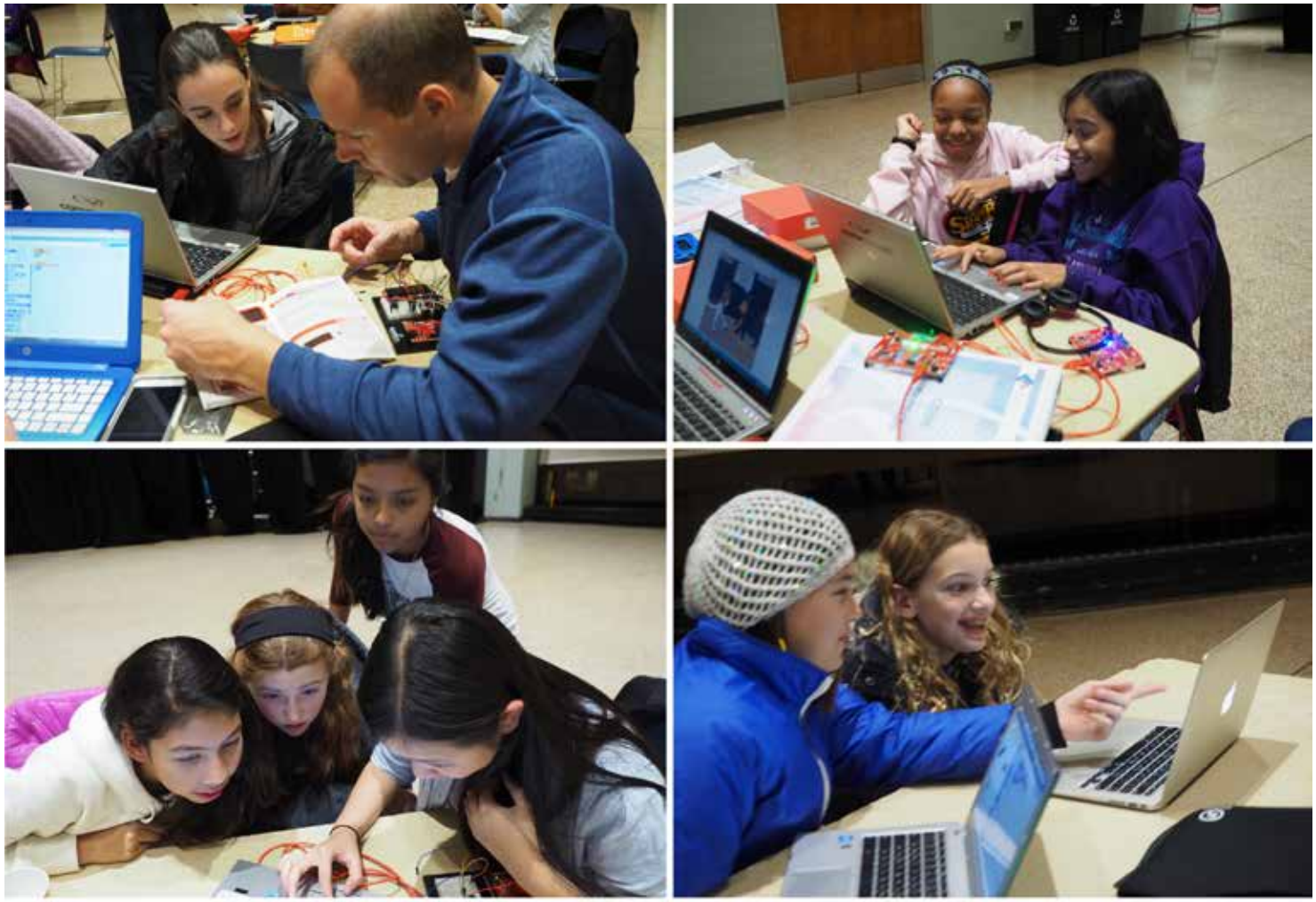
Students were given the opportunity to pursue their own final projects.



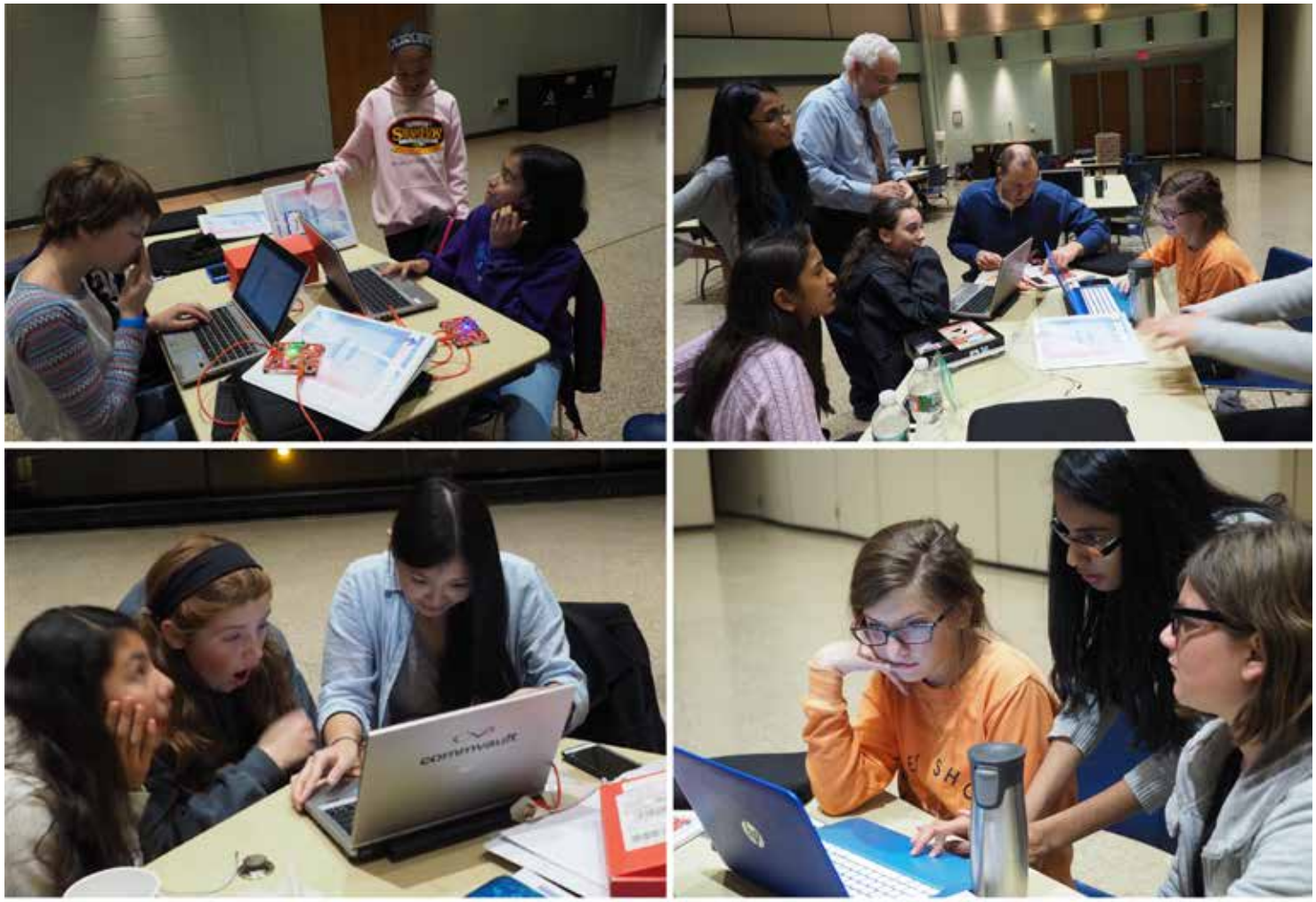
Mr. Hanas introduced MIT's Scratch platform and advanced the block programming skill set (& creativity) of all



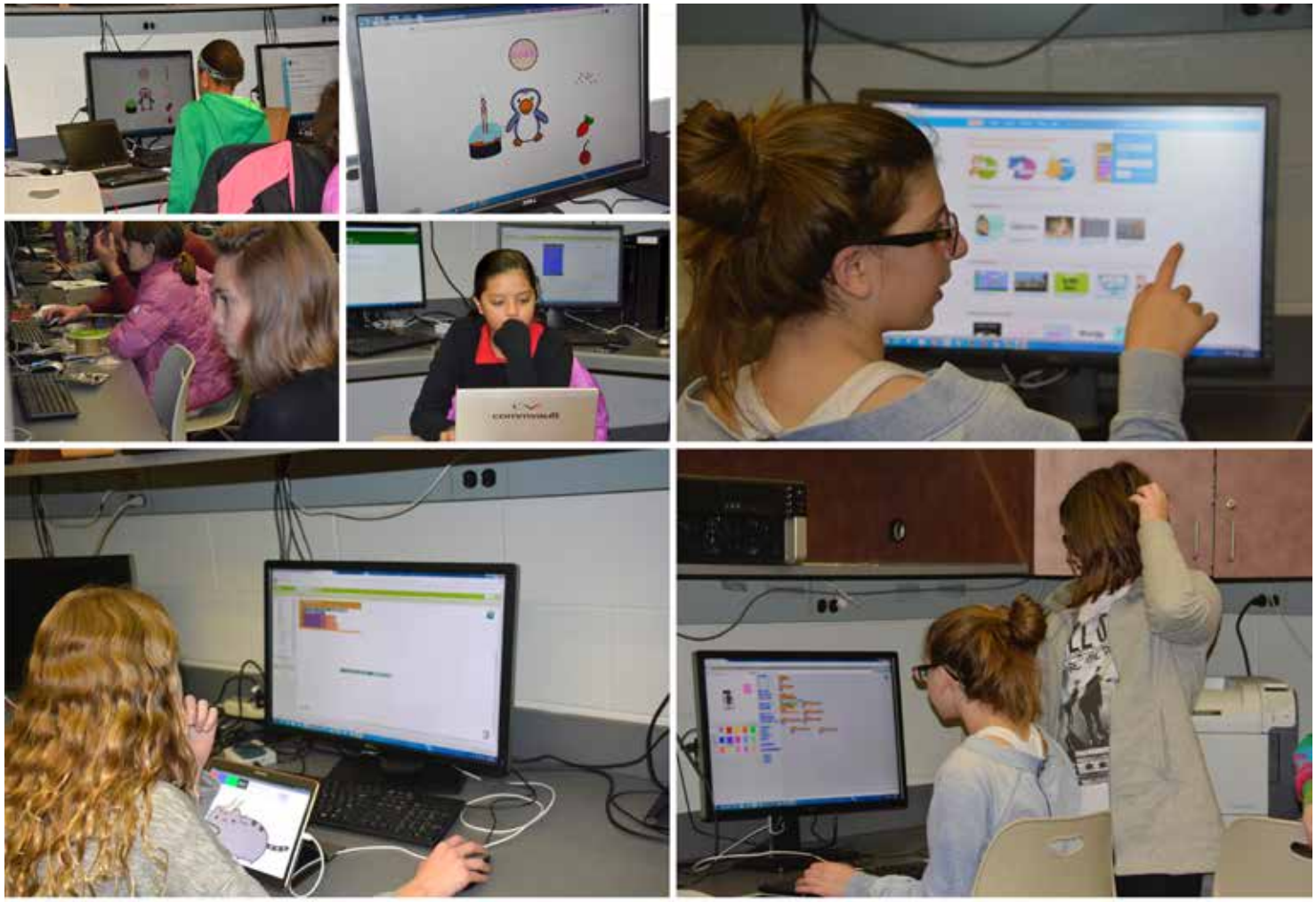
Gail & Kavita always entertained each other (even that evening when Gail Skyped in from Mexico!)



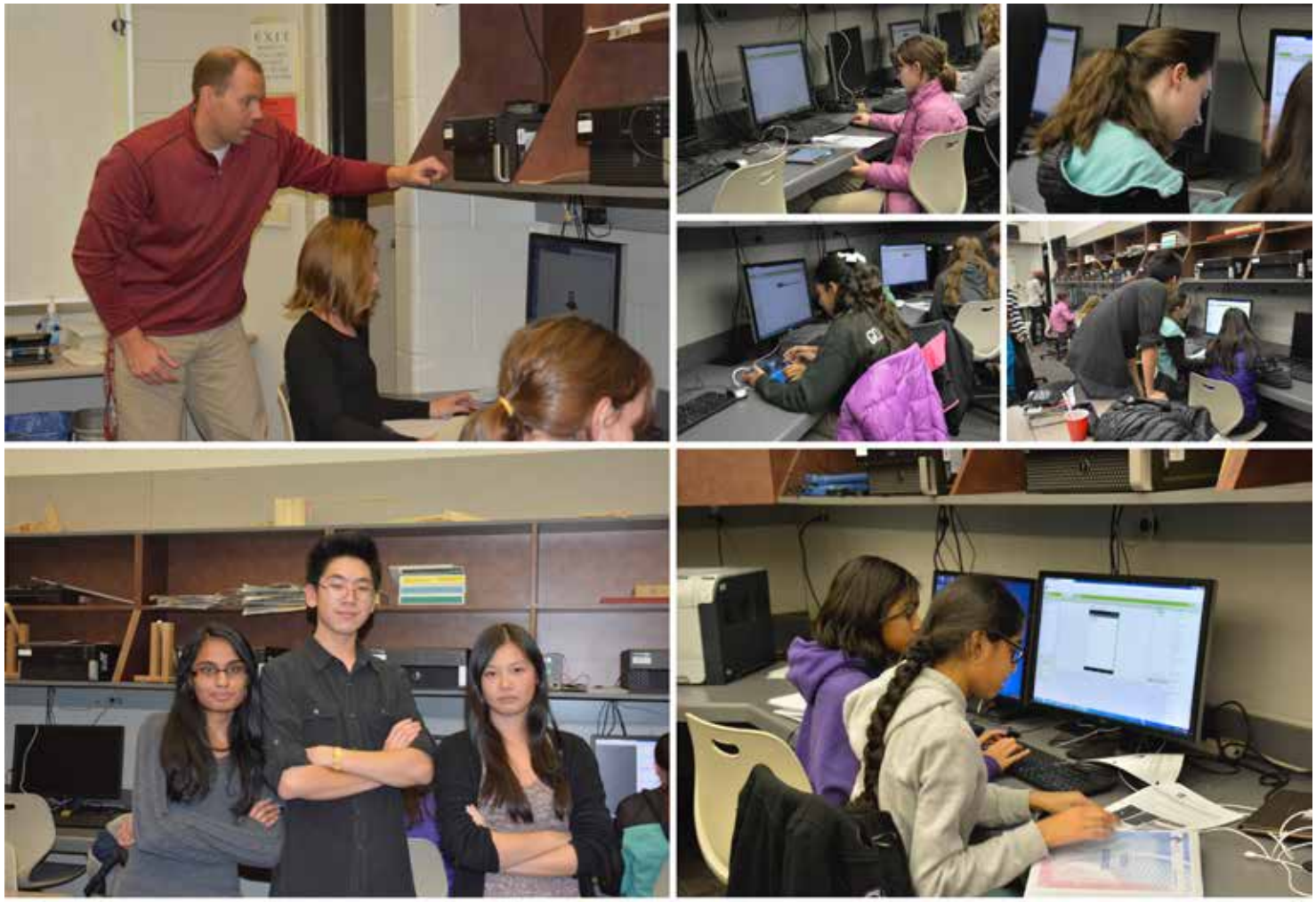
Cassidy attempted the most complex breadboarding with her Intruder Alert device



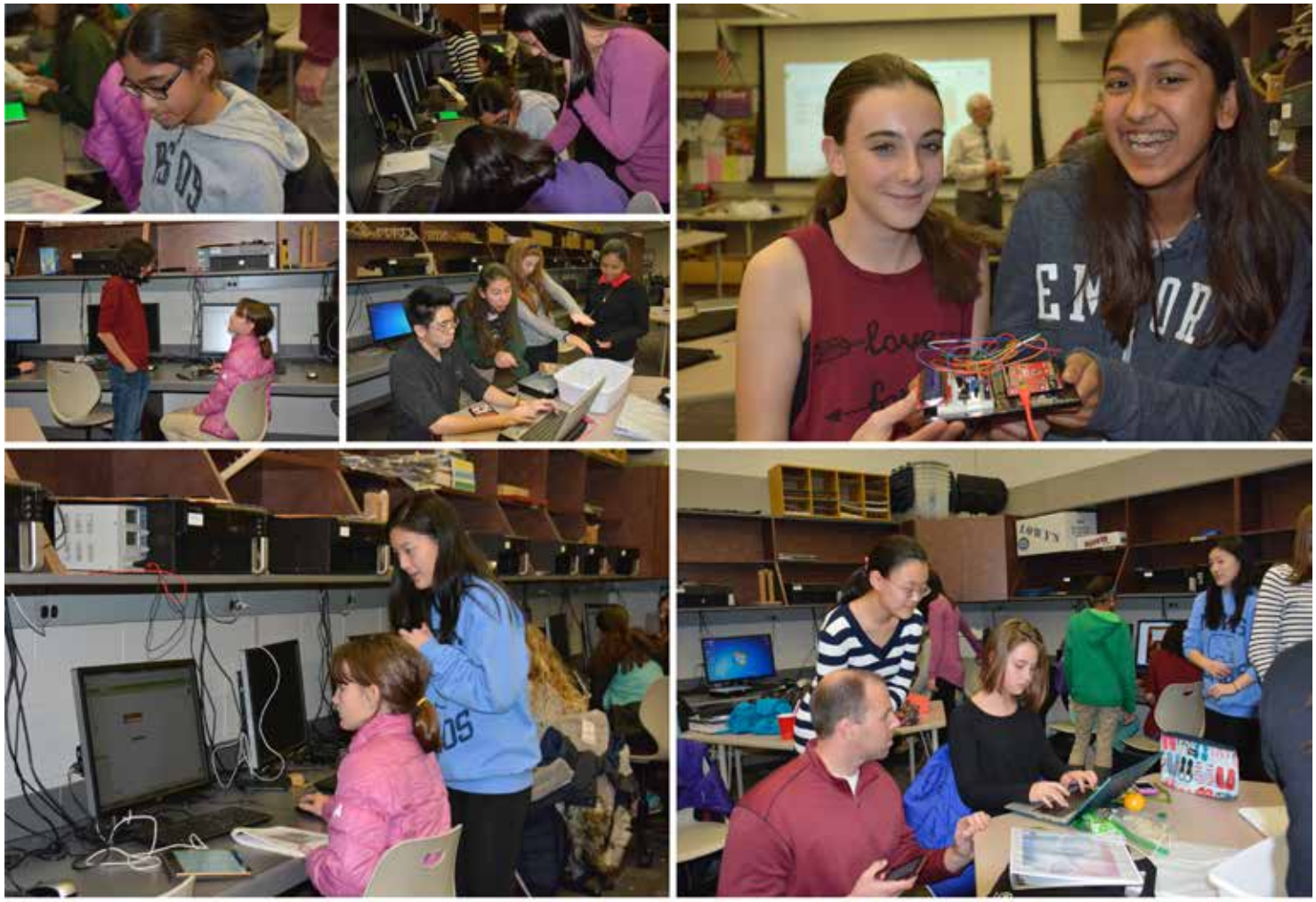
Priscilla to the rescue



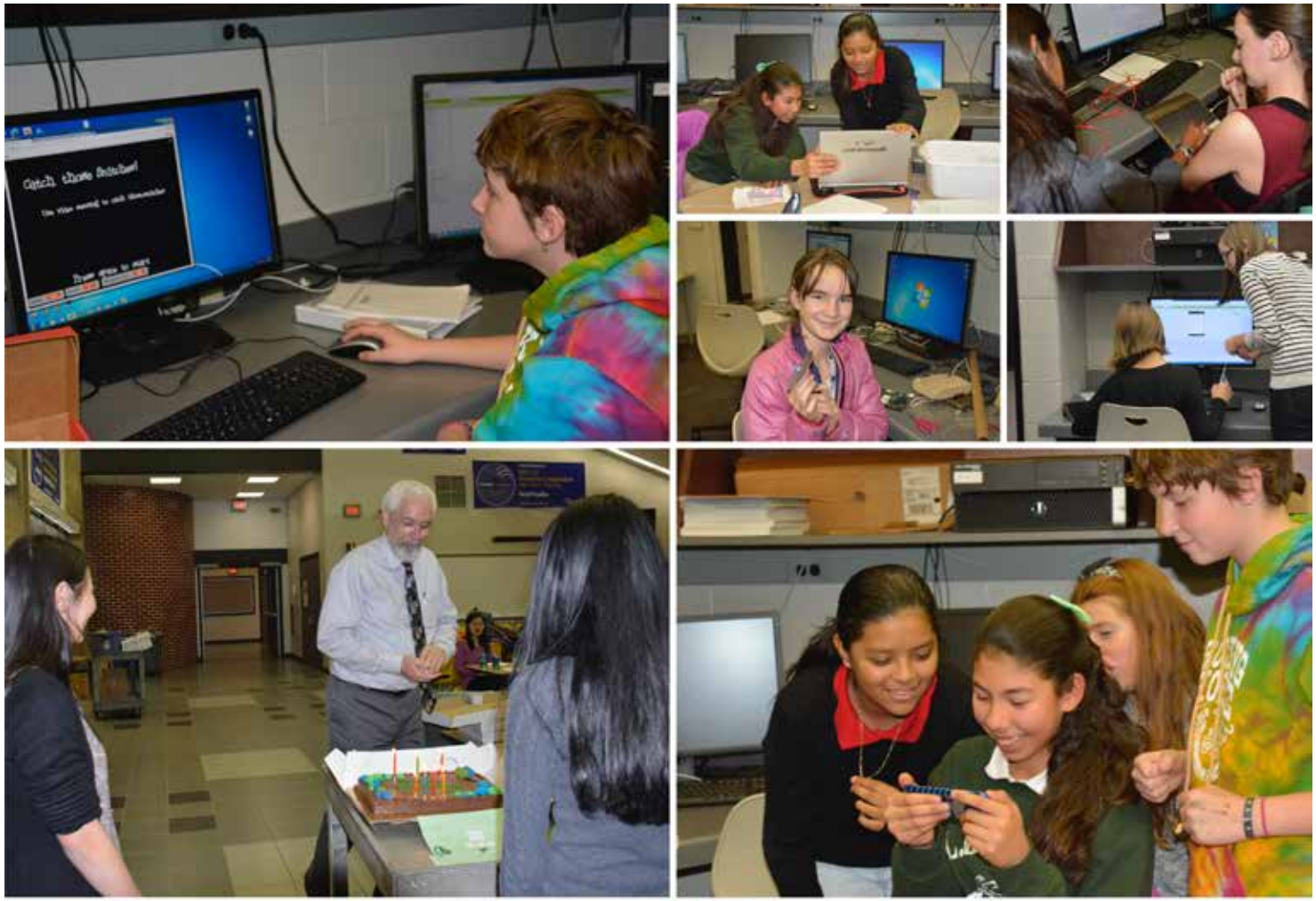
HTHS programming students hosted the girls at a showcase featuring Android App Inventor...



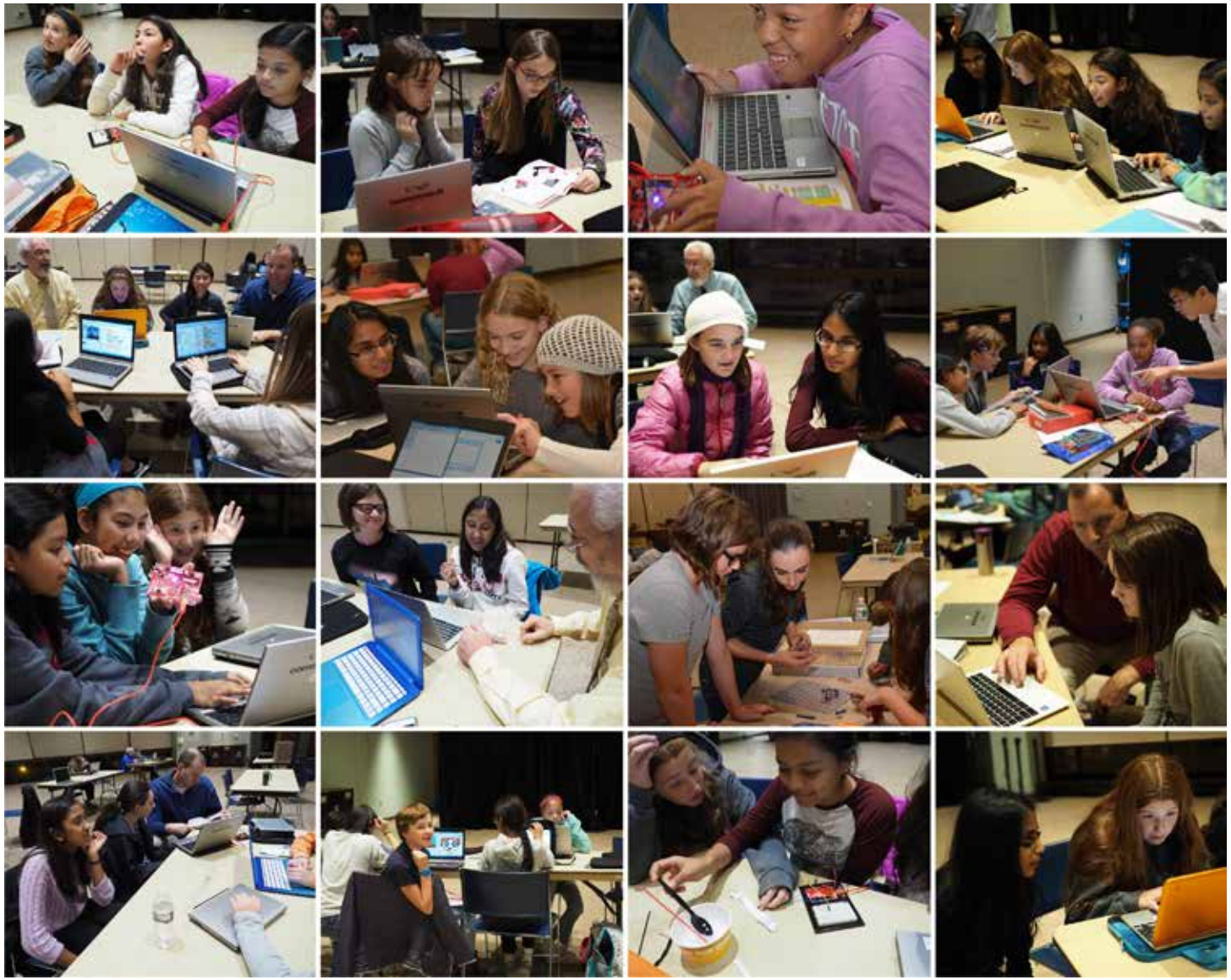
… where our TA's were striking the pose to communicate, "you've now got the skills to debug your own code"



Putting the finishing touches on individual projects



An unexpected end of course cake was quickly devoured by 15 young ladies with tremendous appetites (for learning)

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