



MOUSE Squad Moments

A Student Tech Leadership Program of Aspiranet, a California nonprofit

2013 - 2014

Printing Takes On A New Dimension

MOUSE Squads are exploring how printers can be used to innovate, have fun, and quite possibly, help students determine a career. Using state-of-the-art technology, students design objects with computer-aided engineering software and then print the objects out on a 3D printer.



In the Central Valley, Turlock High's MOUSE Squad Coordinator Bob Hoskins used personal funds to buy the squad's first 3D printer kit, the Velleman K8200. Bob says that "turning his students loose on the 3D printer allowed them new ways to express their creativity." Turlock High's MOUSE Squad drew a motor mount for a radio-controlled airplane using Google SketchUp, converted the image to G-code, and printed the motor mount to be installed in their electrically propelled airplane made from Dollar Store foam panels.

Watching the students have fun while they learn, Bob began developing a 3D curriculum in conjunction with Elijah, a technician from San Francisco-based *Type A Machines* that manufactured the printer. Bob encourages other MOUSE Squads to introduce their students to 3D printing, saying "students will benefit from developing the critical thinking and problem solving skills that are enhanced by creating printed solid objects. It is an affordable technology for classroom use and can be implemented without changing the layout of most classrooms."

In San Carlos, Silicon Valley, Central and Tierra Linda Middle School MOUSE Squad students work with IT Director Tom Keating and Tech Assistant Naomi Williams, to learn and evaluate potential learning

resources, such as 3D technology for use with Common Core curriculum.

The group's recommendations are taken back to the school planning team for consideration and possible implementation. For MOUSE Squad student Danny D of Central Middle School, exposure to 3D technology through MOUSE Squad activities are helping him "learn and experiment with really cool stuff" and design a career, which he says is "definitely going to be engineering."

Tablet Take Over

As more and more schools adopt tablets as the computer of choice for students, educators rush to integrate these devices smoothly into the classroom. In Riverside County, the MOUSE Squad is there to help. When MSCA corporate partner, Nvidia, donated older tablets to MOUSE Squad, students at two schools in Moreno Valley jumped at a chance to get under the hood and investigate how tablets work.



At Vista del Lago High School in Riverside County, the Ravens MOUSE Squad explores hardware miniaturization, touch screen and sensor functionality, and how to make repairs in the tablet environment. MOUSE Squad Coordinator Janice Carter says, "By better understanding how tablets work, students will be able to help others get the best out of their device."

At Bayside Community School, MOUSE Squad focuses on the tablet's hardware and software issues that arise. They assist with installing updates, transferring files, and reviewing educational apps.

Next stop? Programming and creating new Android apps.

We're All Leaders

In the East Bay, all students joining Valley View Middle School's MOUSE Squad are accepted. And no matter what clique students are in, everyone is welcome ... and thriving. During a recent MOUSE Squad session, principal Ean Ainsworth, walked in and observed 'popular' students sitting next to quiet students, special ed students, and 'troublesome' students — all engaged and discussing various computer parts. Principal Ainsworth was emotional as he told MOUSE Squad Coordinator Shauna Hawes, "This is a triumph to see these students sitting together, collaborating, and being members of the same team, laughing and appreciating each other."



Two examples of students emerging as true leaders are *L* and *H*. *L* is a popular, athletic girl who is also known to be "disruptive." But when *L* was assigned to fix a teacher's tech problem, the teacher remarked "I can't believe what a helpful leader *L* has become!"

This year's MOUSE Squad has several members from the district's Autism Magnet program, and *H* is a leader among them. Identified as having autism and selective mutism, *H* is someone who was willing to do the tasks assigned, but tends to hang back when working with others. Mrs. Hawes talked through her thinking process so *H* can follow along and pairs him with more verbal students. *H* now communicates with teachers and peers by asking questions, identifying steps for problem resolution, and most recently, conducting a class on reconfiguring Chromebooks. Shauna beams, "*H* has really blossomed in MOUSE Squad!"

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Questions or comments?

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Avatar Avalanche Winner

MSCA licenses our online curriculum from MOUSE, a NYC nonprofit. Each month a microproject competition is held and in September 2013, Andrea from American Canyon Middle School in Napa County won the Grand Prize for the 'Avatar Avalanche.'



Andrea explains, "I chose to draw my avatar, with symbol representations of myself. Several symbols surround 'me' in this picture.

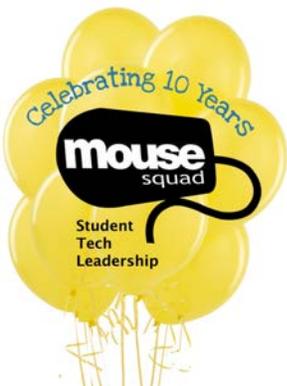
The wrench and gear represent my willingness to assist and fix things, which ties in with the smiling face which shows I do my best to be positive whenever I am working.

As for the network connection bars, I included them for I am most experienced when it comes to networking.

The light bulb represents how I put thought into whatever it is I may be doing, whilst the pencil symbolizes the fact that I still enjoy traditional methods, even though I use technology quite often.

The game controller and the headphones represent my leisure time, or my hobbies outside of MOUSE Squad."

MOUSE Squad curriculum is now aligned to Common Core, Next Generation Science, Career Tech Ed and National Education Technology Standards



10th Anniversary & Fundraiser
May 2014

Spotlight:Volunteers of the Year

GRACE MAH



Grace Mah volunteers at Crittenden Middle School in Mountain View. "Grace is able to blend the technical with the personal and has been an inspiration to our squad, especially to the girls who are so enthusiastic. Grace is a wonderful role model for our students and her commitment is evident, week in and out."

GLEN CHEW



Glen Chew's skills and enthusiasm have inspired the squad members and staff at Crittenden Middle School to utilize their MOUSE Squad students as their 'go to' tech support. "Glen has directed the MOUSE Squad in evaluative activities where new curriculum and materials are piloted for future elective classes. Glen has been a true asset."

WOLF WITT



Wolf Witt, an Intel engineer and a born teacher, volunteers at Graham Middle School in Mountain View. Wolf's passion for programming is very engaging. "I love to watch Wolf work with our MOUSE Squad students. He is enthusiastic and skilled while caring, helpful and focused. The students really appreciate his commitment to their learning."

CORPORATE VOLUNTEER SPONSOR OF THE YEAR



A special thank you to our partner, Franklin Templeton Investments (FTI), for their commitment to and encouragement of their employees volunteering in the community. At our May 2013 STEM event, we recognized FTI as our very first Corporate Volunteer Sponsor of the Year!



FTI employees, Tom Deane and Mike Fong, were also honored with our Corporate Volunteer of the Year award. Both are continuing to volunteer for the third year at George Hall Middle School in San Mateo. Thanks Tom and Mike, you rock!



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INVESTMENTS

Thank you to all those who support the award-winning STEM (Science, Technology, Engineering, Math) MOUSE Squad Student Tech Leadership program where students learn, lead, create and collaborate with technology.



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