Twin Falls refugee students win 3D-printing competition

POCATELLO, Idaho (March 5, 2019) — A team from the Newcomer Center at Robert Stuart Middle School in Twin Falls won first place in the Idaho STEM Action Center’s 2019 Eastern Idaho FabSLAM Showcase Feb. 23 at Idaho State University in Pocatello.

One of two such facilities in the Twin Falls School District — the other is at Lincoln Elementary — the Newcomer Center assists students and families who are newly arrived in the United States. They provide their charges with a thorough introduction to American culture and school processes and instruct the students in English and core subjects for about six months or until they are comfortable with school and prepared to transition to their home schools.

The FabSLAM Showcase was the culmination of a project that began in October 2018 when the STEM Action Center trained and equipped coaches from 15 eastern Idaho schools and libraries to assemble teams to vie in the competition. Each team identified a natural resources problem in their community that could be addressed using 3D printing and digital fabrication and developed and documented a product to help resolve it. The teams presented their solutions to a panel of judges and a public audience for review and feedback.

Comprised of students in grades 6-8 who emigrated from Chad, Uganda, Tanzania, and Mexico, the Newcomer Center team’s solution addressed the need to prevent mud homes in Sudan and Uganda from being destroyed by rain. Dubbed Think Tank, the team included Eca Bilemanga, Cesar Alejandro Hernandez, Ibrahim Ibrahim, Jawabu Kambale, Patience Kauyavu, Grace Kayitesi, Jake Miller, and Eric Niyonzima. Coached by teacher Khrista Buschhorn, the kids designed a rain diversion and catchment system comprised of an awning, gutter, water pipe, and storage tank to protect homes during the rainy season and collect the water for use during the drought season. In addition to bragging rights, the students won a 3D printer and a $200 cash prize. Visit http://sites.google.com/mytfsd.org/tfsdnewcomerclass for details on their project.

Students from Upper Carmen Charter School near Salmon took second place and won $300. They designed a digital library of wild and domestic animal tracks to help their fellow students develop a greater appreciation of local wildlife in their area, which is located in a river valley bordering a national forest. Named Fern Waters, the team included Cayden Logan, McCoy McFarland, Ana Rice, Sean Sapr, Lauren Ulshafer, and Naomi Witte and was coached by teacher Eryk Foss. Visit www.fernwatersfamily.org/fabslam for details about their project.

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Teams from Snake River Middle School in Blackfoot and West Minico Middle School in Rupert tied for third place, with the latter also earning the Students’ Choice Award. Both teams won $250 each for showing, plus West Minico Middle School received another $250 for winning Students’ Choice.

Concerned about the growing problem of ocean pollution, Snake River Middle School’s team conceived a solar-powered vessel called SOCER, short for Submarine Ocean Cleaner Environmental Recycler, to collect marine waste and melt it down. The team, coached by teacher Kirsten Leavitt, included Connor Goodwin, Leo High, Ryan Pugmire, Brindley Secrist, and Justin Wray. Visit http://sites.google.com/view/s-o-c-e-r/home for details about their project.

Teacher Brandi Milliron coached the West Minico Middle School team, which was named WRECS after the garbage-sorting machine it developed called the Waste Recycling Environment Cleaning Sorter. Students included Teely Bott, Oakland Edwards, Reese Evans, Cree Milliron, Kaidence Mitchell, and Michael Sonner-Cranney. Visit http://spark.adobe.com/page/uAtCfEZISRNpF for details about their project.

Launched by the Digital Harbor Foundation in 2013, FabSLAM is designed to engage youth in identifying, designing, prototyping, testing, and iterating solutions to real-world problems. The Digital Harbor Foundation partnered with the Association of Science-Technology Centers and the Technology Councils of North America to expand the Baltimore program nationwide, with youth from Idaho and Pittsburgh participating since 2016.

According to Dr. Angela Hemingway, executive director of the STEM Action Center, competitions like FabSLAM are important to the future of Idaho, because STEM knowledge and skills are needed for critical and creative thinking, problem solving, innovation, and collaboration.

“Idaho is the fastest-growing state in the U.S., its tech sector is the second fastest-growing in the nation at 6.3 percent, and 80 percent of all jobs will require technology skills within the next 15 years,” Dr. Hemingway said. “Meanwhile, Idaho’s unfilled STEM jobs leaped from 3,800 in 2016 to 6,300 in 2018, which represents nearly $413 million in lost personal wages and more than $22 million in lost state tax receipts.”

Hemingway said the Idaho Department of Labor predicts upwards of 100,000 STEM jobs will exist in Idaho by 2024. She said these jobs will represent $6.5 billion in personal income and almost $350 million in tax revenue if Idaho’s workforce is posed to fill them.

The STEM Action Center is also hosting Western Idaho and North Idaho FabSLAM showcases March 9 and March 16 in Meridian and Coeur d’Alene, respectively. Statewide 42 organizations ranging from schools and libraries to after-school programs — including 225 students and 58 educators and coaches — are participating this year.

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About the Idaho Stem Action Center
The Idaho STEM Action Center was created in 2015 because Idaho citizens are not entering the
STEM pipeline fast enough to meet current and future Idaho workforce needs. Its goals are to
coordinate and facilitate implementation of STEM programs, align education and workforce
needs, and increase awareness of STEM throughout Idaho. The organization is working with
industry, government, educators, and students to develop new resources and support high-quality
teacher professional-development opportunities to foster a STEM-educated workforce that
ensures Idaho’s continued economic prosperity. Visit STEM.idaho.gov for more information.

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