

STEM in the library

The SGS library has a new collection of hands-on STEM (science, engineering, technology, and math) and problem-solving kits. Many items were earned through our Scholastic book fair sales, and the library also received a \$500 grant from the South Central Kansas Library System to purchase materials. Librarian Amy Brownlee used the STEM kits as a stations / centers activity with older students in the library. She also made them available if students finished a lesson early. The kits are available for teachers to check out to have in their room for center activities or indoor recess. Next year, Brownlee plans to expand STEM in the library for all her K-5 library skills classes.

STEM materials in the library include:

- Ozobots: Small, line-following robots that are programmed through colored markers. Students learn beginning computer coding by using color codes to give the robot commands such as speed up, slow down, spin, or make a u-turn.
- Lego classic: A set of 1500 bricks along with mini-figures and extra wheels for building vehicles.
- Lego Crazy Contraptions: A set of Legos that comes with an instruction book for building creations that move.
- Circuit kits: With our book fair points, we were able to purchase several kits that teach kids about electrical circuits. Kits include Circuit Madness, MakeyMakey, and littleBits.

In addition to science, engineering, technology, and math (STEM) skills, these kits also involve technical reading, problem solving, and teamwork / interpersonal skills.

In April, Mrs. Brownlee provided a training to SGS teachers explaining how STEM activities help prepare students for high-demand STEM careers and engage students' problem-solving and teamwork skills. The teachers had a chance to try out all the library's STEM kits.

You can learn more about STEM in the library and see photos and videos of our students using the STEM materials by visiting our site: <http://librarylessonsks.wikispaces.com/STEM+Hands-on>.

Student thoughts on STEM

Fifth graders spent five weeks working on STEM activities in the library. 41% of the students chose the Ozobots as their favorite STEM station. Here are some of their comments:

What did you like about STEM stations?

- That they help kids learn how to turn into successful scientists and engineers.
- You can have fun and learn stuff at the same time.
- How you get to make it your own. There aren't rules telling you what you can and can't make. It brings out your creative side.

What did you learn from STEM stations?

- That you can work together and make each other's ideas better.
- I'd have to say I overall learned more about experimenting. I loved how the stations taught me a little better to be patient and truly think about all the endless possibilities.
- I learned more on teamwork, friendship, and how to build electric circuits.
- I got to use my imagination to build something cool.
- Circuits were my favorite because I know how to do a bunch of technological things with machines and they taught me how to do more.
- I learned that if you don't put it together right then it won't work.
- That you can build anything out of anything.