

Dear IEEE,

Thank you for giving Mrs. Leyden the grant. It helped get us electronic snap circuits for us to use during our chapter on electricity. I have one at home and was excited to use them in school. They were really fun to learn with and I wish we could do the whole chapter over again. It was fun making a machine that could charge a battery by using a hand crank in the green energy set. It was also very cool to see the light arrangements that you can do in the light set. It was fun to make music on a keyboard that you connect to a speaker in the sound set. I liked making a fan that lights up and moves really fast in the motion set. All in all, the money you gave to Mrs. Leyden ended up helping not just me, but my whole science class here at IHM.

Thank you,
Devin



STEM Learning Through Snap Circuits

STEM Learning Through Snap Circuits is an inquiry-based hands-on approach to learning about electricity, circuits, and energy. The project involves students working in small groups to complete circuits and see the transformation of different forms of energy. Stations were set up with kits that allowed students to experiment with motion, sound, light, and alternate energy. Due to the large number of options offered by the kits, students were able to challenge themselves as they mastered skills.

Through the duration of the project, five different Snap Circuit kits were used (2 stations of each kit). The students were carefully pre-arranged in groups of two or three, and they worked in that particular group for 1-2 class periods. Then, the students rotated to a new station to learn about another form of energy with a new group. At each station, the students studied the type of energy, took notes in an online notebook, built circuits using that type of energy conversion, and then added a photo of the circuit to their notebook.

Though I feel that the project was incredibly successful, I plan to make some changes for next year. I would love to allow more time for the students to explore. I also intend to have the students complete the background notes in their online notebook prior to coming to class. In addition, I will create quizzes to assess their knowledge throughout the project. I truly did not run into setbacks along the way with the exception of time.

If I were to create a headline for a news release, it would be "IHM students love science." I received more thank you's and excitement from students after this unit than from any unit before. The students were learning, communicating, and exploring. To evaluate my progress, I used student online notebooks, photos taken during the project, and a final test. Due to the fact that no pricing changes had occurred, my budget was accurate.

Detailed Budget Prices are quoted through amazon.com.

Snap Circuits Strobe Light & Sound Kit by Elenco $\$18.67 \times 1 = \18.67

Snap Circuits LED Fun Science Kit by Elenco $\$17.95 \times 2 = \35.90

Snap Circuits SC300 Electronics Discovery Kit by Elenco $\$45.99 \times 2 = \91.98

Snap Circuits Alternative Energy Green by Elenco $\$59.99 \times 2 = \119.98

Snap Circuits Motion Electronics Discovery Kit by Snap Circuits $\$56.77 \times 2 = \113.54

Snap Circuits Sound Electronics Discovery Kit by Elenco $\$55.20 \times 2 = \110.40

Subtotal (11 items): \$490.47