

STEM + Library + NASA Resources = Engaged Students

Rita Hennessey

NASA Endeavor STEM Teacher Leader Certificate Program

Professional Development Project title: *STEM and the Library: Everything You Need to Know About Collaborating with your Science Teachers but Were Afraid To Ask* (presentation and supporting materials can be found here: bit.ly/stemlib).

The presentation is for all K-8 library media specialists in my district (New Haven [CT] Public Schools), and the topic was selected to help our department collaborate with science teachers and to remain relevant. Two years ago, almost half of the positions were eliminated (and remaining library media specialists are now halftime at two buildings, and some schools don't have a media specialist at all). I wanted to present to our department so that those that are flexible will have a common vocabulary to collaborate with their science teachers, and the library media specialists that have a block schedule can begin to implement STEM into their curriculum, or go deeper into STEM using the BEST curriculum. There are some libraries with full Makerspace facilities and equipment, others are still traditional libraries with limited STEM equipment.

Audience: All K-8 media specialists in the district, who serve in K-8 and 5-8 schools (the 9-12 media specialists meet separately). Each media specialist has the potential to reach every student in their building(s). There are 11,618 students in the 22 K-8 schools served by the library media specialists (most media specialists serve two schools).

The presentation begins with an introduction to the 5 E Lesson Plan format and 3 D Learning, but the majority of the lesson focuses on resources from

Endeavor STEM classes and NASA resources (especially lesson plans and the BEST curriculum).

Reflection and feedback:

The ten library media specialists attended the online presentation, eight participants completed the survey.

Twenty-two percent (22%) of respondents agreed with “This presentation has helped prepare me for collaborating with science teachers and/or implementing STEM/maker activities in the library?” and 78% strongly agreed.

Sixty-eight percent (68%) strongly agreed with the statement “I will incorporate NASA resources into my lessons, and/or recommend them to other teachers,” and 32% agreed.

Additional comments:

“I am going to see how I can incorporate a lot of the things taught in this PD into my technology classes next year. I truly needed this... a year ago! Very informative and helpful.”

“Well organized and thought out presentation”

“Thank you for assembling such a helpful list of resources.”

“In one building I have (A STEAM Magnet School) we have multiple grades attached to space. These resources are a gold mine and will certainly increase student engagement and involvement in their learning.”

Names & email addresses of two participants:

Kim Rogers, kim.rogers@new-haven.k12.ct.us

Ariana Buckley, ariana.buckley@new-haven.k12.ct.us

References

Home . DESIGN SQUAD GLOBAL: PBS KIDS. (n.d.). Retrieved from

<https://pbskids.org/designsquad/>

Homepage. (n.d.). Retrieved from <http://stemteachingtools.org/>

May, S. (2017, July 18). Activity Guides. Retrieved from

<https://www.nasa.gov/audience/foreducators/best/activities.html>

May, S. (2017, July 17). Engineering Design Process. Retrieved from

<https://www.nasa.gov/audience/foreducators/best/edp.html>

My NASA Data. (n.d.). Retrieved from <https://mynasadata.larc.nasa.gov/>

National Science Teachers Association - NSTA. (n.d.). Books & Resources.

Retrieved from <https://www.nsta.org/publications/stembooks/>