3-19-15 STEM-sational Learning Webinar Q&A Log
Questions and comments from live Demco webinar as answered by Susan Gunnewig

Q: What age do they do the building robots?
A: The children in the webinar picture were 36 months to 48 months.

Q: Is there more current research? These studies are 7–11 years old.
A: I am not aware of any other studies available. By the way, studies are considered reliable for 10 years or more.

Q: What type of timeframe are these activities done over?
A: The gravity unit, for example, has three large chunks. Testing the effects of gravity with sinking objects with and without water, blowing bubbles and flying paper airplanes. The teacher had this unit in her classroom for 6 weeks. She had 22 children in the preschool classroom. She actually followed the children’s interest too to guide time length.

Q: In your mention of science/STEM in schools, I do not see any mention of physics or engineering activities. Why is that? In the preschools that I have observed there are many of these activities going on. Just as one example, in every preschool there is lots of block play.
A: Yes, you are correct. The construction activity I shared is an example of engineering because the children construct a box and test out the value of the box they constructed. After throwing or tossing the box they determine if the contents broke or not. If the contents break, the teacher asks them to evaluate the box they constructed as a possible factor. Of course, they must predict first. I am not aware of physics activities but would be happy to know of some examples. Please share with us.

Q: When you refer to centers, are they centers the students rotate through or center areas the students choose to participate in. Could the STEM center work in either setup?
A: Yes, that is exactly correct. Some of the introductory book read/modeling for the STEM center’s activities were presented during CIRCLE time. The good news is these activities are flexible and do not rely on a definite framework.

Q: Are you familiar with the Education Research Center’s PK science series Cultivating Young Scientists, including Exploring Water with Young Children (also Nature and Structures volumes) that fit right into your inquiry model? Thank you for sharing Cubelets.
A: No, I am not, but thank you for the tip. I will check them out. Sounds interesting.

Q: What's Susan's contact info again?
A: sgunnewig@hatchearlychildhood.com
I would love to hear from you.

Q: Where can we purchase the Cubelets?
A: They are available at amazon.com for $159.99.
Loving this webinar, because I teach this same way. I am a certified in STEM Teaching and Learning from the University of Cincinnati and because no Pre-K was teaching STEM in my area, I started a STEM K–5 Private school. The name of our school is QSTREAM (Science, Technology, Reading, Engineering, Art, and Science). Reading and art is very important at this age. STEM does not work without reading at this age and young students love display their knowledge through Art. My school was on the local news just two weeks ago to follow the pipeline from Pre-K to the workforce. The interview ended on the Air Force base, symbolizing a career in STEM.

A: Congratulations! I am so proud of your efforts. I am interested to know more about how you became a certified STEM teacher. Please share. You can email me at sgunnewig@hatchearlychildhood.com.

I am a STEAM Coordinator and I’ve been training ECE and OST staff on ways to include and develop STEM/ STEAM programming. We are currently incorporating the NGSS.

A: Fabulous! I am not aware of NGSS. Please email me at sgunnewig@hatchearlychildhood.com to tell me more. Keep up the great work!

Toddlers engage in STEM naturally all the time ... it’s how they learn. Teachers just need to become more aware of how STEM (or STEAM) is naturally a part of early childhood curriculum and doesn't require contrived activities. Teachers need to be more intentional in connecting all the natural learning with the standards of STEM.

A: Thank you so much for your guidance. I am hoping the Washington University link I provided may be helpful too.