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December 2014
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Army Corps

share life lessons with elementary school students

By *Dr. JoAnne Castagna, Ed.D.*



Lt. Col. John A. Knight, deputy commander, U.S. Army Corps of Engineers, New York District giving students his autograph. *Credit: JoAnne Castagna, Public Affairs.*

“Can I have your autograph?” a third grade student asked Lt. Col. John A. Knight, deputy commander, U.S. Army Corps of Engineers, New York District. Knight took the piece of paper the student handed to him and signed it. “Can I also?” shouted another student. Knight smiled and chuckled as the class of third graders began to quickly huddle closely around him. All asking for autographs.

The students are from Brownsville Elementary School in Brooklyn, New York (P.S. 150). Recently, Knight and other Army Corps presenters spoke with the school’s third, fourth and fifth graders as part of the District’s STEM Program (Science, Technology, Engineering and Math).

“The goal of the STEM Program is to inspire young girls and boys to pursue careers in science, technology, engineering and mathematics,”

said Jean Lau, equal employment opportunity office (EEO) specialist

and STEM outreach coordinator with the U.S. Army Corps of Engineers, New York District.

The District did the STEM program as part of the school’s “Dad’s Bring Your Child to School Day and Career Day.” Knight and the rest of the presenters were treated like rock stars and asked a lot of questions and this is exactly the result they wanted from these students that live in an impoverished area of New York City and lack positive role models.

The presenters took this opportunity to share some life lessons.

“You have to make the right decisions”

Knight walked into the class rooms wearing his fatigues and the students were impressed.

A boy asked him what his favorite combat weapon was. Knight pointed to his head and said “This.” He continued, “I get asked this question a lot by students and I always

say that this (pointing to his head) is your best weapon for success. Study. You have to have a dream, a passion and work hard.”

Another student asked Knight what his biggest challenge was. Knight said that when he was in middle school that he almost made a decision that could have changed the path of life. He said that he was hanging around with a bad crowd.

He could have continued to stay with this crowd, but he decided not to. He said, “It wasn’t ‘cool’ but the right thing to do. If I had made a different decision, taken a different path in life, I may not be where I am today. You will also be faced with decisions like this. There will always be challenges.”



You have unlimited possibilities



Seth Greenwald, technical manager, Engineering Division, U.S. Army Corps of Engineers, New York District talked with the students about careers in engineering.

Greenwald asked the students what they thought engineers created. The students shouted out - bridges,

buildings, spoons, furniture and computers. Greenwald said, “You are right. Engineering touches everything.”

Greenwald said, “After coming up with an idea, an engineer will create a sketch to illustrate the concept. If you want to be some

one who turns their ideas into reality by using the design process - you should consider becoming an engineer.”

As an example, he showed the students a simple line sketch that one of his colleagues did. He told the students that this was the initial concept for something that helped people during Hurricane Sandy!”

You can solve puzzles that will help society

Gail Woolley, civil engineer, U.S. Army Corps of Engineers, New York District said, “Engineers are problem solvers. We take pieces of a puzzle and try to solve a problem.”

She gave an example of a project she is working on - The Jamaica Bay Marsh Island Project.

She asked the students if they knew that there are actual islands in Jamaica Bay and many of them didn’t know this. She said that over the years these islands have been disappearing fast and we aren’t

sure exactly why.

She told the students that she and her team brainstormed to see how this problem could be solved.



The team realized that they can use dredged sand from the District's New York/New Jersey Harbor Dredging Program to build these islands up again. The harbor is dredged to allow large container

ships into the harbor. Usually this dredged sand is placed in the ocean, but we used it to create these islands.

Woolley said proudly, "What is also wonderful is that after these islands get restored we are seeing



wildlife return to them. It makes me feel good that I designed an island - made a difference.”

She added, “Creating these islands involves math. I had to figure out how much sand was needed to build up the island. This required measuring and calculating.”

A student asked her if she dreamed of becoming an engineer when she was a kid. She responded by saying that when she was in 7th grade in girl scouts her troop had a field trip to City Hall. “We visited all of the departments including the Civil Engineering office.

I was fascinated by the designs displayed in the office. When the troop was leaving the office, the engineer who spoke with us was closing the office door. I asked him what type of engineer he was and he said a civil engineer. This is when I knew I wanted to be the same thing.”

You should keep learning.

Lau talked with students about what she did for the Army Corps and how she has grown in her job.

Lau was a Psychology major when she joined the Army Corp 13 years ago to be a counselor. Today she works for the agency’s Equal Employment Opportunity Office. She told the students that this office makes sure that “everyone at the agency is treated equally no matter if you black, white, male or female.”

A student asked her if she liked her job and where she saw herself in the future. Lau said that she loved it and that she always wants to keep learning. Never keep still.

Ian Pumo, civil engineer, U.S. Army Corps of Engineers, New York District talked with the students about how he decided to become an engineer.

He told the students that when he was in high school he was working with the school’s theater group.

He was responsible for designing and constructing the sets and coordinating volunteers and technicians. He didn't decide to major in engineering until his high school counselor told him that what he was doing was Civil Engineering.

Pumo felt it was important to relay this to the students to show them that many of us don't know what we want to do with our lives when we are young and that they should continue to do what they enjoy

and continue learning so that they can figure it out.

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