

# THE ADVENTURES OF MEG A. MOLE, FUTURE CHEMIST

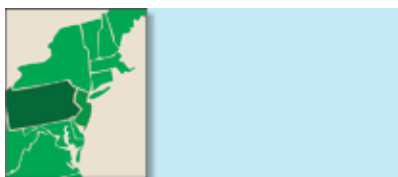


FEATURED CHEMIST:

MARY KATE BOGGIANO

*This year's Earth Day theme, "The Sky's the Limit" is also very true when it comes to careers in chemistry. For this year's Chemists Celebrate Earth Day celebration, I traveled all the way to Pennsylvania, where I met Mary Kate Boggiano, a chemist with Armstrong World Industries!*

**M**s. Boggiano makes new adhesives and coatings for floors. Adhesive is another name for glue! Coatings are used to protect things. The coatings she makes are used to protect floors. This is like wearing my lab coat to protect my clothes, but the coatings she makes are created to stay on all the time! Ms. Boggiano investigates different coatings and adhesives to see whether a material already exists and then researches to see if it will work on the flooring.



Not all coatings and adhesives work the same. For example, some floors are made of wood and others are made of plastics or other materials. Coatings and adhesives react differently to different materials, so she works

to find the best ones for each need!

In the lab, Ms. Boggiano makes new materials that she thinks will make good coatings and adhesives. She also tests them for different things



*Ms. Boggiano introduced me to a special kind of flooring called linoleum.*

like stickiness, discoloration, hardness, and other properties that affect how they will last and look. When working with chemicals, she always wears her safety goggles (like me) and never works alone!

One of the important things in designing floor coatings and adhesives is to make sure they contain no (or low) volatiles. Volatiles are chemicals that vaporize, or go into the air. Fewer volatiles means the air will be healthier to breathe and is much safer for the atmosphere.

I asked Ms. Boggiano if she liked science when she was growing up. She said she has "always been fascinated with learning how materials and technologies work." She also told me she was "very fortunate to have family and friends who encouraged her to be curious about the world around her." In school, although she felt like she did better in math than chemistry, thinks that "chemistry is more fun because chemical reactions are everywhere in life. Understanding why chemical reactions happen,



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and sharing that with others, helps everyone to understand and take care of our world.”

So where is Ms. Boggiano’s work seen by kids? Everywhere! It can be found in the classroom, hallways, or even in the gym! You may be walking on or playing basketball on an Armstrong floor. In stores, restaurants, or at the dentist’s office, you may find their floors too! At home, Armstrong vinyl and linoleum is probably in your kitchen and bathrooms. If you have wooden floors, they could be made by Armstrong!

The neatest thing I remember learning about Ms. Boggiano’s work is about the coatings she develops. They are made so that it’s easier to take care of the floors. She says, “This is important if someone were to color the floor with crayons or roller skate in the house.” And everyone knows that Meg loves to color and roller skate!



Ms. Boggiano and I took a break from our interview to pose for a quick photo.

## *Personal Profile: Mary Kate Boggiano*

*Favorite food?* Crab!

*When is your birthday?* February 12th

*Favorite Pastime?* Kayaking and hiking

*What is an accomplishment you are proud of?* I hiked across the Grand Canyon.

*About your family?* My fiance and I live with our cat, Chester, and our dog, Buttercup.



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