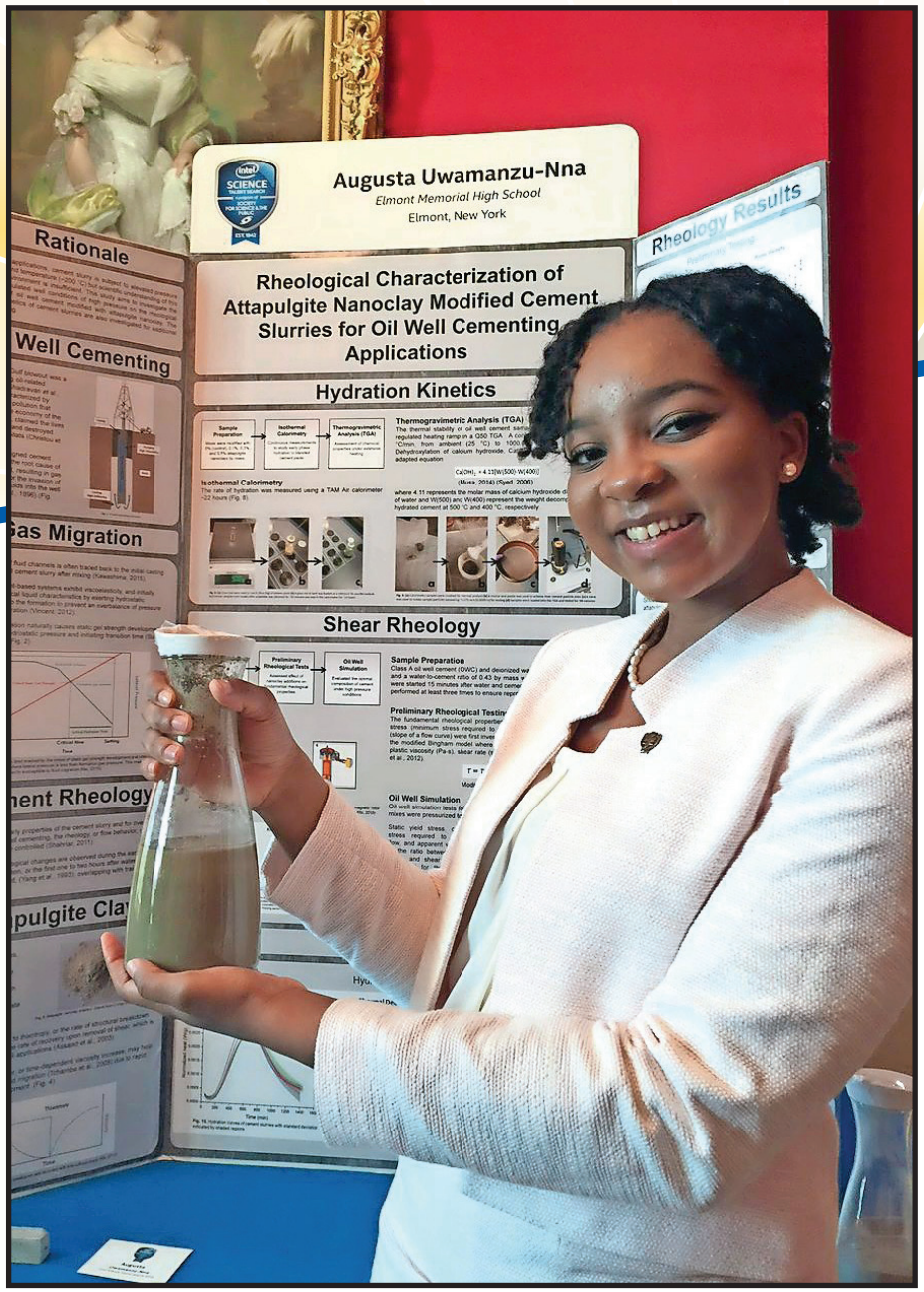
Carolina's Young Innovators℠

AUGUSTA UWAMANZU-NNA

Elmont, New York — **Age 17 at the time of innovation**



ACHIEVEMENT: DEVISED A METHOD TO IMPROVE CEMENT FOR UNDERSEA SEALS

Have you ever wanted to do something different for a science fair project, to do something that stands out among the others? That's what lead Augusta to learn about cement.

Augusta began working with cement to set herself apart from other students while searching for a science fair project. What she found was that cement is second only to water in global consumption and its production accounts for up to 7 percent of human-made carbon emissions.

While investigating ways to reduce cement's carbon footprint, Augusta discovered a cement mixture that can withstand deep-sea conditions. By adding a nanoclay ingredient called attapulgite to cement slurries, undersea cement seals that are commonly used on oil rigs could be strengthened. Her new cement could one day prevent oil rig catastrophes that pollute water and injure animals.