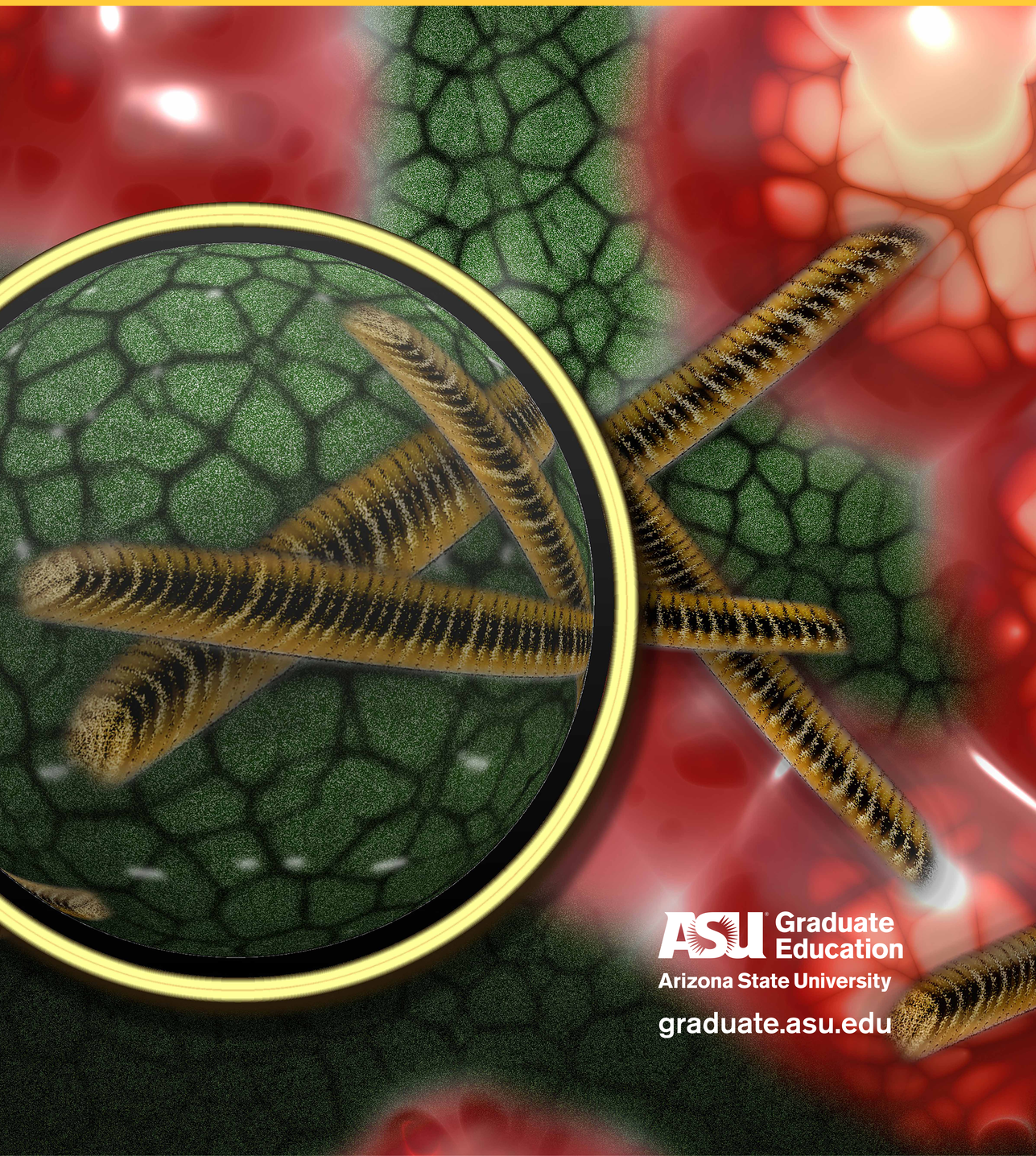
How do you stop an antibiotic-resistant "superbug" that infects more than two million people and kills 23,000 in the U.S. every year? By demonstrating how antibacterial properties in clay, used in healing since ancient times, can attack persistent and deadly infections such as MRSA. Keith Morrison, a doctoral student in the School of Earth and Space Exploration, was a key researcher in the interdisciplinary study in cooperation with the School of Life Sciences.

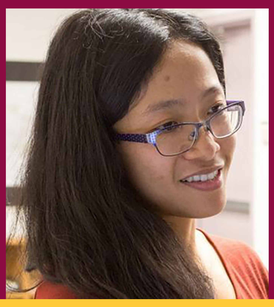
fighting dirty with bacteria



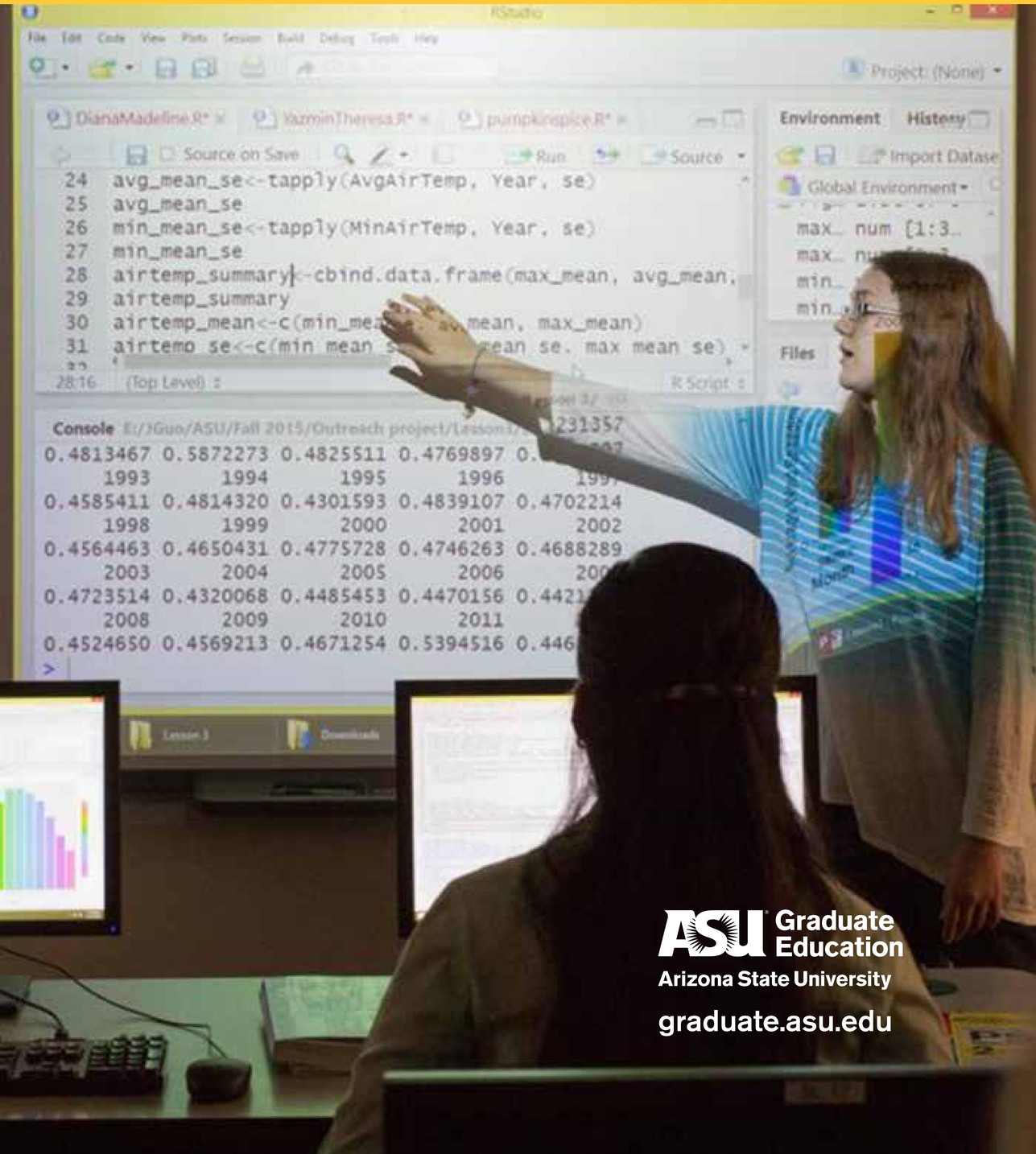
ASU Graduate Education
Arizona State University
graduate.asu.edu

How do you spark the natural curiosity of young learners?

In a knowledge society, the future workforce needs women and other underrepresented students who are educated in STEM (Science, Technology, Engineering and Mathematics) fields. Graduate students are passionate about sharing their knowledge with young students through workshops and summer classes with hands-on experiments. Doctoral student Jessica Guo received a NASA grant to teach 11th- and 12th-grade girls computer coding skills and how to work with big data.

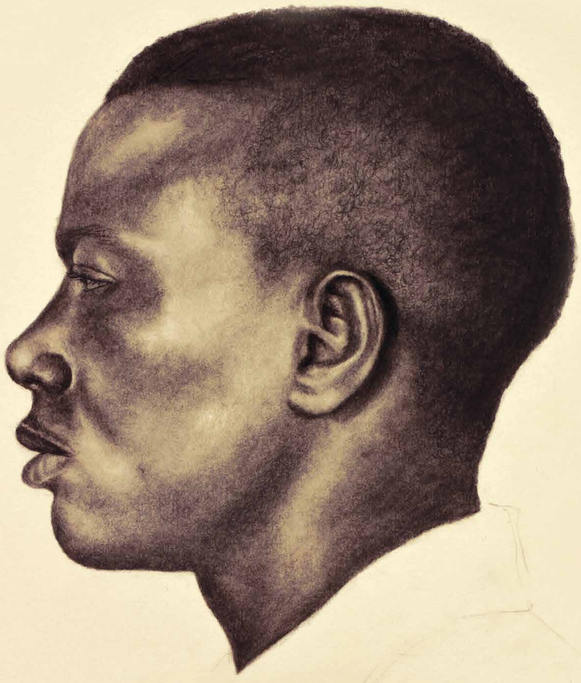


inspiring k-12 learning



How do we as a society heal racial divides? With only 8.7 percent of faculty coming from underrepresented racial or ethnic groups, teaching plays a critical role in addressing public concepts about race. ASU alum Kevin Quashie, professor of women and gender studies at Smith College, explores language and public "ideas of blackness." His work offers new ways to think about African American selfhood in which the notion of quiet challenges traditional views of African American culture. "Quiet is a metaphor for the inner life, and as such, enables a more nuanced understanding of black culture."

exploring public concepts of race



THE SOVEREIGNTY OF QUIET
Beyond Resistance in Black Culture

KEVIN QUASHIE

ASU Graduate Education
Arizona State University
graduate.asu.edu

The worst locust outbreak in 60 years struck Argentina. Farmers reported insect swarms more than four miles long and almost two miles high. During major outbreaks, locusts can swarm over 20 percent of the Earth's land surface, decimating crops in more than 60 countries. To the rescue is Arianne Cease, an ASU doctoral graduate in biology, now a senior sustainability scientist and professor at ASU. She helps

farmers globally find sustainable solutions to protect their crops and livelihood. Her interdisciplinary studies include ecology, physiology, and how interactions between humans, plants and animals affect agriculture.

fighting locust invasions

ASU Graduate Education
Arizona State University
graduate.asu.edu

Can art inspire engineering? Six ASU graduate students with the Ira A. Fulton Schools of Engineering used a variation of centuries-old origami, called kirigami, as a design template for lithium-ion batteries in a “cut-n-twist” pattern that can be stretched to more than 150 percent of its original size. Stretchable and foldable batteries mark a breakthrough in developing wearable electronic devices such as

watches and “smart” clothing. They can also be used for flexible displays (think: bendable phone) or electronic sensors imprinted on the skin to track health and monitor healing, as well as flexible body components for robotics.

fusing engineering with art

ASU Graduate Education
Arizona State University
graduate.asu.edu

Can language and culture affect our ability to communicate globally? Karen Carter, an ASU PhD in English, analyzes how language and its structure can empower citizens and foster global collaboration. Her research begins in the emerging democracy of the Philippines. Carter will use rhetorical and linguistic methods to analyze hundreds of NGO (nongovernmental organizations) proposals and the advent of TANs (transnational advocacy networks). NGOs and TANs advocate for causes such as poverty relief, fair-trade agreements and the spread of knowledge. This study may help inform policy and forge international relationships.

advancing global connections

ASU Graduate Education
Arizona State University
graduate.asu.edu