What is DNAZone?

DNAZone is an educational outreach program that provides informal science education to students in grades K-12. With engaging demonstrations and interactive experiments, DNAZone fosters students’ interest in science, technology, engineering and mathematics (STEM). In addition, the program provides professional development training and classroom resources to Pittsburgh-area science teachers.

Founded in 2009, DNAZone is organized by members of the Center for Nucleic Acids Science and Technology (CNAST), an interdisciplinary research center at Carnegie Mellon University. Through DNAZone, CNAST sets out to improve students’ attitudes and beliefs towards science as well as their appreciation for collaboration and interdisciplinary work.

CNAST’s outreach program benefits from a strong collaborative relationship with the University of Pittsburgh’s Chemistry Department. DNAZone is supported by the David Scaife Family Charitable Foundation, the Camille & Henry Dreyfus Foundation and the National Science Foundation.

Inquiries concerning the application of and compliance with this statement should be directed to the vice president for campus affairs, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-2056.

Carnegie Mellon University publishes an annual campus security and fire safety report describing the university’s security, alcohol and drug, sexual assault, and fire safety policies and containing statistics about the number and type of crimes committed on the campus and the number and cause of fires in campus residence facilities during the preceding three years. You can obtain a copy by contacting the Carnegie Mellon Police Department at 412-268-2323. The annual security and fire safety report is also available online at www.cmu.edu/police/annualreports.

Obtain general information about Carnegie Mellon University by calling 412-268-2056.

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DNAZone holds a variety of professional development workshops throughout the year for Pittsburgh-area high school and middle school science teachers. These workshops are centered around topics typically related to the DNAZone classroom kits. At these workshops, teachers are trained in how to correctly use the classroom kits and to teach the corresponding lesson plans. In addition, teachers are invited to provide feedback on the kits to help in the continual growth of the classroom kit program.

Workshops are taught by Carnegie Mellon University and University of Pittsburgh faculty, and Pittsburgh Public School teachers. Instructors have experience with both the scientific topic and the Pittsburgh Public School science curriculum. Teachers who attend the workshops receive Act 48 Continuing Professional Education credit.

Find out about upcoming teacher professional development workshops on DNAZone’s event calendar:

www.cm.edu/cnast/calendar-of-events/

Classroom Kit Lending Library

DNAZone and the University of Pittsburgh’s Chemistry Department have partnered to create classroom science kits for 4th-12th grade classrooms. The kits cover a variety of science-related topics and are specifically designed to fit into the curriculum of Pittsburgh-area public schools. Each kit fulfills one or more of the Pennsylvania Common Core standards as outlined by the Pennsylvania Department of Education. And, each kit contains all the materials necessary for a teacher-led science experiment and lesson. Kits consist of one set of teacher materials and twelve sets of student materials, which can be used comfortably in classrooms of up to 40 students.

Lesson plans and student activity sheets for each classroom kit are available on DNAZone’s website. The kits, which include teacher and student instructions, necessary materials and safety information are available free-of-charge from DNAZone’s lending library upon request through DNAZone’s website.

Check out a full listing of classroom kits at:

www.cm.edu/cnast/classroom-kits/

Science Demonstrations

With the help of CNAST undergraduate students, graduate students, postdoctoral fellows, staff scientists and faculty members, DNAZone provides engaging science demonstrations at various events throughout the year. DNAZone brings talented volunteers to local schools, community centers and clubs to teach students about key scientific concepts relevant in their everyday lives. By involving students in interactive demonstrations, DNAZone hopes to open students’ eyes to the science that is all around them.

DNAZone provides science demonstrations for students ranging from K-12th grade. These demonstrations cover a number of scientific topics that can often be catered to fit into a specific event theme or time constraint. All demonstrations are hands-on and promote an interactive learning environment.

Would you like to have a science demonstration at your school or community center? Contact Hannah Diorio-Toth at hdiorio@andrew.cmu.edu.