

2024 NSTA National Conference in Denver

THURSDAY & FRIDAY, MARCH 21-22, 2024
Colorado Convention Center, Room #407

THURS. 8:00-9:00 AM • Room #407

Forensic Escape Room: Design Your Own Biotech Adventure

Explore the world of forensic science with these fun and exciting escape room activities! Try forensic blood detection and agarose gel electrophoresis experiments, decipher clues, and solve puzzles. Learn to design your own escape room to have students unravel the evidence and free the innocent.

THURS. 10:50-11:50 AM • Room #407

Code Breakers: Using CRISPR to Rewrite Genetics

Unleash the power of gene editing with your students using REAL CRISPR-Cas technology to knock out colorful genes in *E. coli*. Identify successful knockout based on the cell color. Experiment by switching RNA templates and analyzing results, letting your students prove the specificity of CRISPR!

THURS. 1:00-2:00 PM • Room #407

The Sweet Laboratory: Exploring Food Science with Biotechnology

Bring inquiry into your classroom with food science! Learn how to extract dyes from candy to analyze using agarose gel electrophoresis and paper chromatography. Students use the simple techniques as a starting point to design experiments, test hypotheses, and use STEM techniques to analyze results.

THURS. 2:20-3:20 PM • Room #407

Put the M into STEM: Quantitative Techniques for Biotechnology

You've planned the experiment and collected data, now let's discuss the best way to analyze it. In this workshop, we'll use PCR and ELISA to bring quantitative data analysis and statistics to the lab. Mastery of these skills is crucial to prepare students for careers in biotechnology and STEM.

EDVOTEK® Workshop Schedule

THURS. 3:40-4:40 PM • Room #407

Heavy Metal: Investigating the Effects of Environmental Toxins on *C. elegans*

Unlock biology's mysteries with model organisms! Join our workshop to learn how to culture and study *C. elegans* in your classroom laboratory. Explore heavy metal effects using a simple locomotion assay. Integrate STEM concepts, data collection, and statistics for an enriching learning experience.

FRI. 8:00-9:00 AM • Room #407

Introducing Your Students to CRISPR with Sickle Cell Gene Editing

Explore Nobel Prize-winning CRISPR in our hands-on electrophoresis workshop! This powerful biotechnology breakthrough is making dramatic changes to human health RIGHT NOW. Dive into CRISPR biology with quick experiments modeling cures for genetic diseases like Sickle Cell Anemia and Cystic Fibrosis.

FRI. 9:20-10:20 AM • Room #407

Lion Family Reunion: Conservation Biology Genetics

Wildlife conservators often return captive-bred animals to their native habitats to rewild the area. In this interactive workshop, we'll explore the use of RFLP analysis and phylogenetics in conservation biology to analyze the DNA samples of two lions. Can we return them to their ancestral home?

Visit us at Booth #624

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