2023 NSTA National Conference in Atlanta

THURSDAY & FRIDAY, MARCH 23-24, 2023

EDVOTEK® Workshop Schedule

THURS. 9:45-10:45 AM **GWCC, Room B202**

Left at the Scene of the Crime: High School Forensics

There's a break-in at the lab. Your students become forensic scientists as they walk into a crime scene. Analyze samples for blood and then catch the criminal with DNA fingerprinting. This exciting workshop will include ways to incorporate biotechnology and gel electrophoresis into your classroom.

THURS. 11:40-12:40 PM **GWCC, Room B202**

Sweet Science: Exploring Complex Mixtures with Biotechnology

Explore the science of candy colors! We will extract food dyes from candy and separate them using agarose gel electrophoresis and paper chromatography. By separating the different colors, students learn about complicated mixtures, charges on molecules, and how science relates to everyday life.

THURS. 1:00-2:00 PM **GWCC, Room B202**

Introducing Your Students to Gene Editing with CRISPR

The gene-editing tool CRISPR is one of the most exciting biotechnology breakthroughs of the past decade. In fact, this technique won the Nobel Prize in 2020! In this hands-on workshop, we'll explore CRISPR biology using fast, easy experiments that model the development of a cure for Cystic Fibrosis.

THURS. 2:20-3:20 PM **GWCC, Room B202**

Transform Your Class into a Neuroscience Laboratory

Neuroscience is one of science's fastest growing fields. Students learn about the field by exploring Huntington's and Alzheimer's, two neurodegenerative disorders. We will analyze the Huntingtin genes using PCR and electrophoresis and explore the biology behind Alzheimer's disease with an ELISA.

THURS. 3:40-4:40 PM **GWCC, Room B202**

Teaching the Polymerase Chain Reaction in One Lab Period

Want to learn more about technologies used in today's laboratories? If so, join this hands-on workshop! You'll explore two biotechnology techniques, PCR and electrophoresis.. These experiments will help your students understand how techniques like genetic engineering work in a real-world context.

FRI. 8:00-9:00 AM **GWCC, Room B202**

Exploring the Genetics of Taste: SNP Analysis of the PTC Gene Using PCR

Explore the relationship between genotype and phenotype using Phenylthiocarbamide (PTC). Some think PTC tastes bitter, while others find it tasteless. The ability to taste PTC is linked to variations in a taste receptor gene. In this workshop, you will use PCR to distinguish between PTC alleles.

FRI. 10:40-11:40 AM **GWCC, Room B202**

Exploring STEAM With Transformation

Creating colorful bacteria with transformation is a memorable way to teach the central dogma of molecular biology. Take it a step further and have your students create art with the colorful cells! In this workshop, we'll share tips for transformation success and create bio-art with microbial paint!

Visit us at Booth #1215

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