



DEADLY (AND NOT SO DEADLY) DISEASES

Tuesdays, September 13-December 13 (no class Oct 11, Nov 8, or Nov 22; 11 weeks)

1:00pm-2:30pm

Ages 11+

Adventure through history, biology and chemistry to understand the progression of various diseases, conditions and treatment methods that have developed. Students study pathology and physiology through organ dissection, microscope analysis and experimentation. All lab costs are included in registration fee.

Location: Discover Science Center - Peachtree City

Course fee: \$250 OR \$25/lab

10% off sibling discount

Register for full semester or individual labs.

LAB SCHEDULE:

TUBERCULOSIS - Tuesday, September 13

Learn about epidemiology and disease transmission and understand the spread of the sneaky bacteria that causes tuberculosis, *Mycobacterium tuberculosis*.

CATARACTS - Tuesday, September 20

Students dissect an eye to better understand how vision works, why cataracts impair sight and locate where they develop inside the eye.

MONO VS STREP - Tuesday, September 27

Learn the difference between viruses and bacteria, how different illness can result in similar symptoms, and discuss the dangers of unnecessary antibiotic use.

EBOLA - Tuesday, October 4

Explore RNA and how the Ebola virus is transmitted, analyze the response methods used in the 2014 Ebola outbreak and assess the future threat of Ebola.

MALARIA - Tuesday, October 18

Investigate mosquitos under a microscope to understand how they could transmit disease, learn what causes malaria and why only some mosquitos carry *Plasmodium*, the malaria parasite.

KIDNEY FAILURE - Tuesday, October 25

Students dissect a kidney as we discuss its structure and function to understand the importance of hydration, kidney disease and when dialysis is needed.

CARDIAC ARREST - Tuesday, November 1

Dissect a bovine heart to examine the structure of the chambers, arteries and veins, and analyze the statistics, prevention and differences between these two potentially fatal heart conditions.

INFLUENZA - Tuesday, November 15

Why do some people get a flu shot every year? Why is the flu shot more effective some years than others? How is the flu shot developed? This week, we investigate the interaction between antigens and antibodies.

CHOLERA - Tuesday, November 29

Let's talk about poop! Actually, let's talk about the importance of safe drinking water and how cholera can rapidly spread. Students design water filtration systems and compare various purification methods.

FEVERS AND CHILLS - Tuesday, December 6

What does it mean to say your fever broke? What is the purpose of a fever anyway? Learn about our immune response and examine some of the famous fevers throughout history.

SCURVY - Tuesday, December 13

Investigate the symptoms and history of scurvy, and the role vitamin C played in its cure. Students conduct color changing chemical reactions with vitamins that give strength to our immune system.