



Gateway: Medical Detectives 8th Grade

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Reviewed by the Curriculum Advisory Committee
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Approved by the Board of Education
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COURSE TITLE: Gateway – Medical Detectives

GRADE LEVEL: 8th Grade

CONTENT AREA: Career and Technical Education

Course Description:

Students play the role of real life medical detectives as they analyze genetic testing results to diagnose disease and study DNA evidence found at a “crime scene.” They solve medical mysteries through hands on projects and labs, investigate how to measure and interpret vital signs, and learn how the systems of the human body work together to maintain health.

Taken from www.pltw.org

Course Rationale:

Through topics like robotics, flight and space, and DNA and crime scene analysis, middle school students engage their natural curiosity and imagination in creative problem solving. PLTW’s Gateway program is a strong foundation for further STEM learning in high school and beyond, challenging students to solve real-world challenges, such as cleaning oil spills and designing sustainable housing solutions. Using the same advanced software and tools as those used by the world’s leading companies, students learn how to apply math, science, technology, and engineering to their everyday lives.

Taken from www.pltw.org

Course Scope and Sequence

Unit 1: What is a Medical Detective? (13 days)	Unit 2: Mysteries of the Human Body Systems (17 days)	Unit 3: Murder Mystery (15 days)
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Essential Terminology/Vocabulary

Unit 1: pltw biomedical science, blood pressure, contagious, diagnose, diastolic pressure, epidemic, heart rate, homeostasis, hyperthermia, hypertension, hypothermia, infection, inoculation, outbreak, pathogen, pulse, symptom, systolic pressure, vaccine, virus, vital signs

Unit 2: blind spot, brain stem, central nervous system, cerebellum, cerebrum, chromosome, deoxyribonucleic acid, dominant trait, gel electrophoresis, gene, mutation, nervous system, neuron, noise induced hearing loss, optic nerve, pedigree, recessive trait

Unit 3: algor mortis, autopsy, chromosome, dna fingerprinting, forensic science, gel electrophoresis, gene, medical examiner

Approved Course Materials and Resources:

- Gateway to Engineering: Rogers, Wright, Yates, ©2010 ISBN-13: 978-1-4180-6178-4
- Project Lead the Way's *Learning Management System (LMS)*