Biomedical Sciences | High School Biomedical Sciences Program

The PLTW Biomedical Sciences (BMS) Program is a sequence of courses, all aligned with appropriate national learning standards, which follows a proven hands-on, real-world problem-solving approach to learning. Students explore the concepts of human medicine and are introduced to topics such as physiology, genetics, microbiology and public health.

BMS Biomedical

Learn Biology, Forensic Science, Physiology, Anatomy, Genetics, Biotechnology and More !!!!

Through activities, like dissecting a heart, students examine the processes, structures and interactions of the human body – often playing the role of biomedical professionals. They also explore the prevention, diagnosis and treatment of disease, working collaboratively to investigate and design innovative solutions to the health challenges of the 21st century such as fighting cancer with nanotechnology.

Contact :
Mr. Ekott@ 11356
E Leffingwell Ave
Norwalk, CA 90650
(562) 868-0431
ext. 4526

Lancers do STEM

BMS courses complement traditional science courses and can serve as the foundation for STEM-centered or specialized academies. The program is designed to prepare students to pursue a post-secondary education and careers in the biomedical sciences.

STEM SCIENCE

PLTW offers STEM opportunities at every level.

PROJECT LEAD THE WAY
PLTW
Igniting imagination and innovation through learning.

LANCERS

STEM
Science • Technology • Engineering • Math

PRINCIPLES OF BIOMEDICAL SCIENCE

Biomedical Sciences Pathway Courses

- **Principles of the Biomedical Sciences (PBS)**
  - Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. This course is designed to provide an overview of all the courses in the Biomedical Sciences program and lay the scientific foundation for subsequent courses
- **Human Body Systems (HBS)**
  - Students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration.
- **Medical Interventions (MI)**
  - Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. The course is a "How-To" manual for maintaining overall health and homeostasis in the body. Students are exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important roles scientific thinking and engineering design play in the development of interventions of the future.
- **Biomedical Innovation (BI)**
  - Students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health.