

Preparing students

for the

global

economy



LANSDOWNE
HIGH SCHOOL

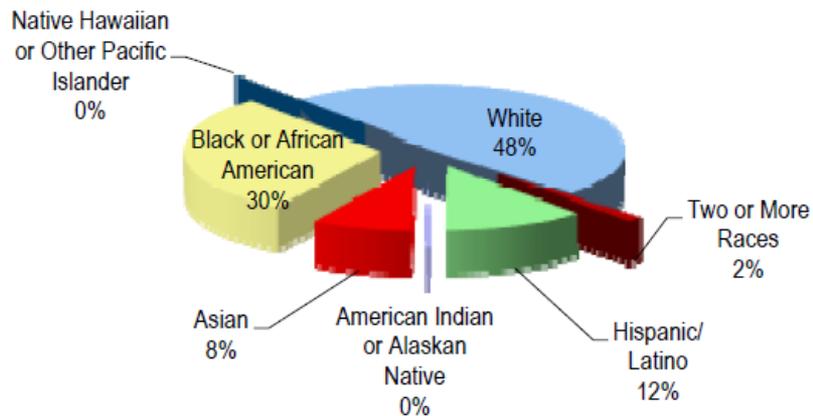
- Cutting-edge technology, equipment and materials
- Collaboration
- Problem-solving rather than lectures
- College credit for high school courses

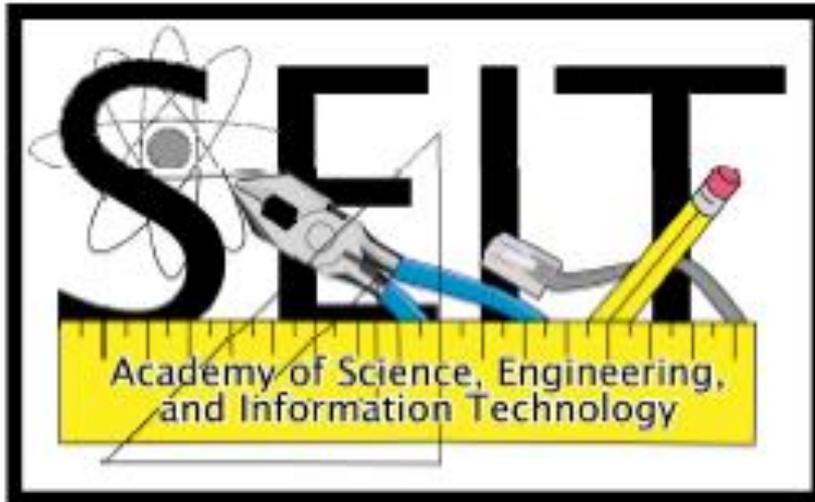


Lansdowne High School

- Baltimore County Public School
- Total Enrollment = 1234 students
- Started PLTW Biomed in 2011-2012
- Certified in 2013

Enrollment by Race/Ethnicity





**Biomedical Science (PLTW)
&
Engineering and IT**



Lansdowne High School
LansdowneHS.bcps.org

Project Lead the Way: Biomedical Sciences

PLTW offers an intensive focus on the concepts of human medicine and bioinformatics. Project Lead The Way Courses are structured on the principles of biomedical science, human body systems, medical interventions, and biomedical innovation. Students who select this pathway must be strong in math and science with a desire to enter medical science in the future.

Biomedical Sciences Courses Offered:

- ◇ *Principals of Biomedical Science*
- ◇ *Human Body Systems*
- ◇ *Medical Interventions*
- ◇ *Biomedical Innovations*

AP Courses Offered:

- ◇ *AP Biology*
- ◇ *AP Environmental Science*
- ◇ *AP Anatomy and Physiology*
- ◇ *AP Psychology*



Engineering and Information Technology

Engineering and IT offers a unique combination of engineering and programming courses in order to prepare students with the ability to design and construct both physical structures such as bridges, houses, and machinery and computer programs such as Web sites and apps. This blend of digital and non-digital constructions strengthens students' abilities to be effective in multi-disciplinary environments.

Engineering and IT Courses Offered:

- ◇ *GT Engineering*
- ◇ *Java/HTML*
- ◇ *GT Physics*
- ◇ *C++*
- ◇ *AP Computer Science*



High School
Biomedical Sciences

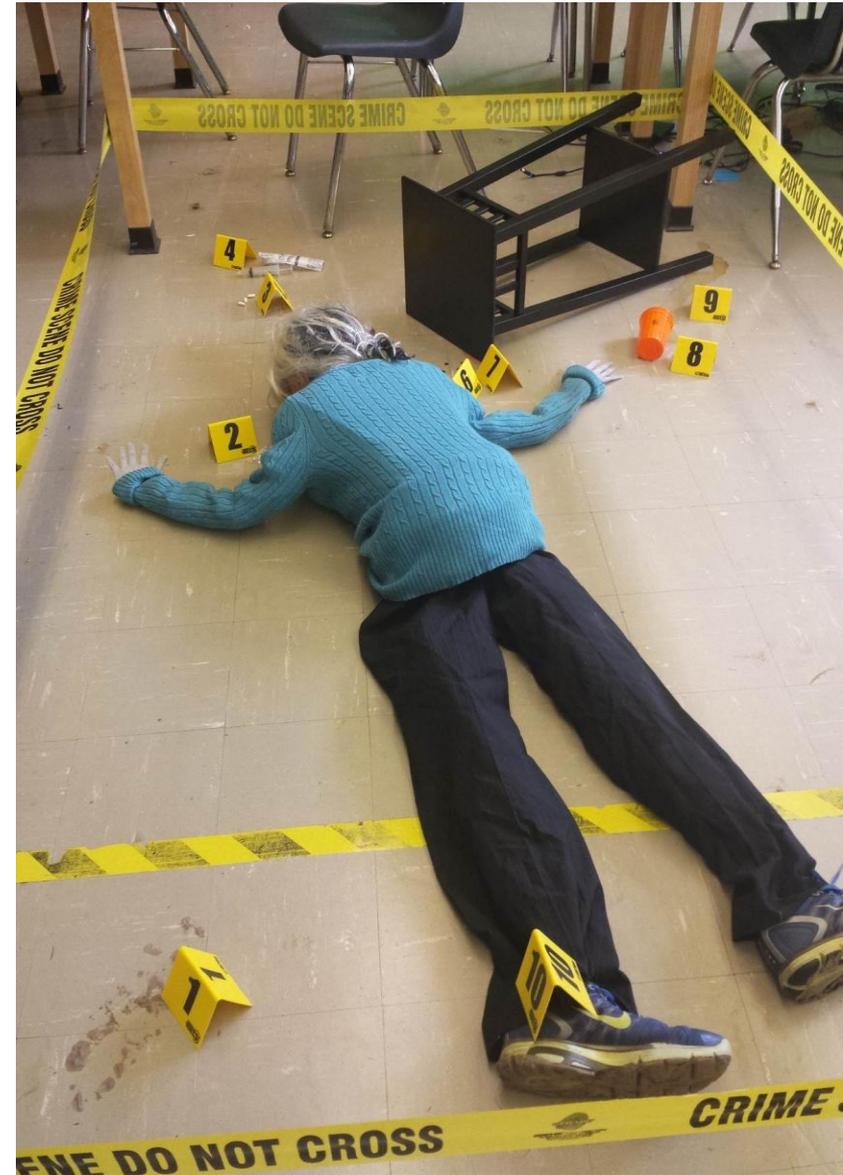




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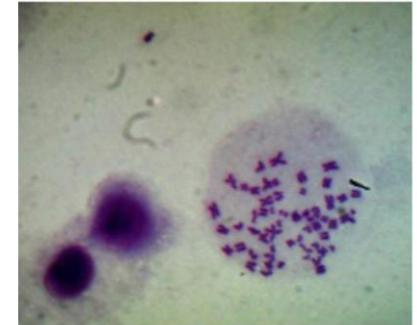
Course 1: Principles of the Biomedical Sciences (PBS)

Anna Garcia



Course 1: Principles of the Biomedical Sciences (PBS)

- Study of:
 - Human Biology
 - Medicine
 - Intro to research processes
- Variety of health conditions













Course 2: Human Body Systems

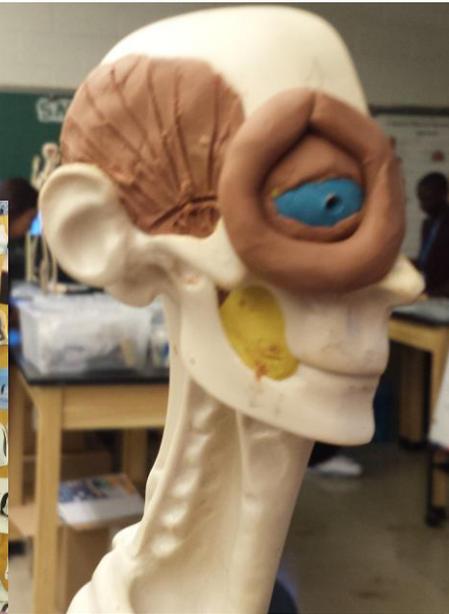
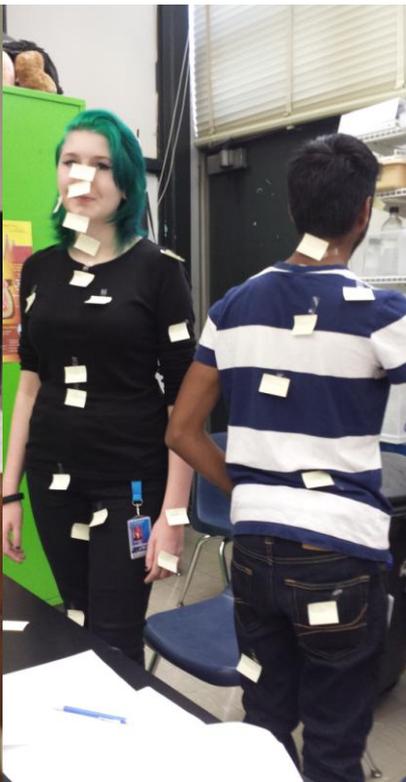


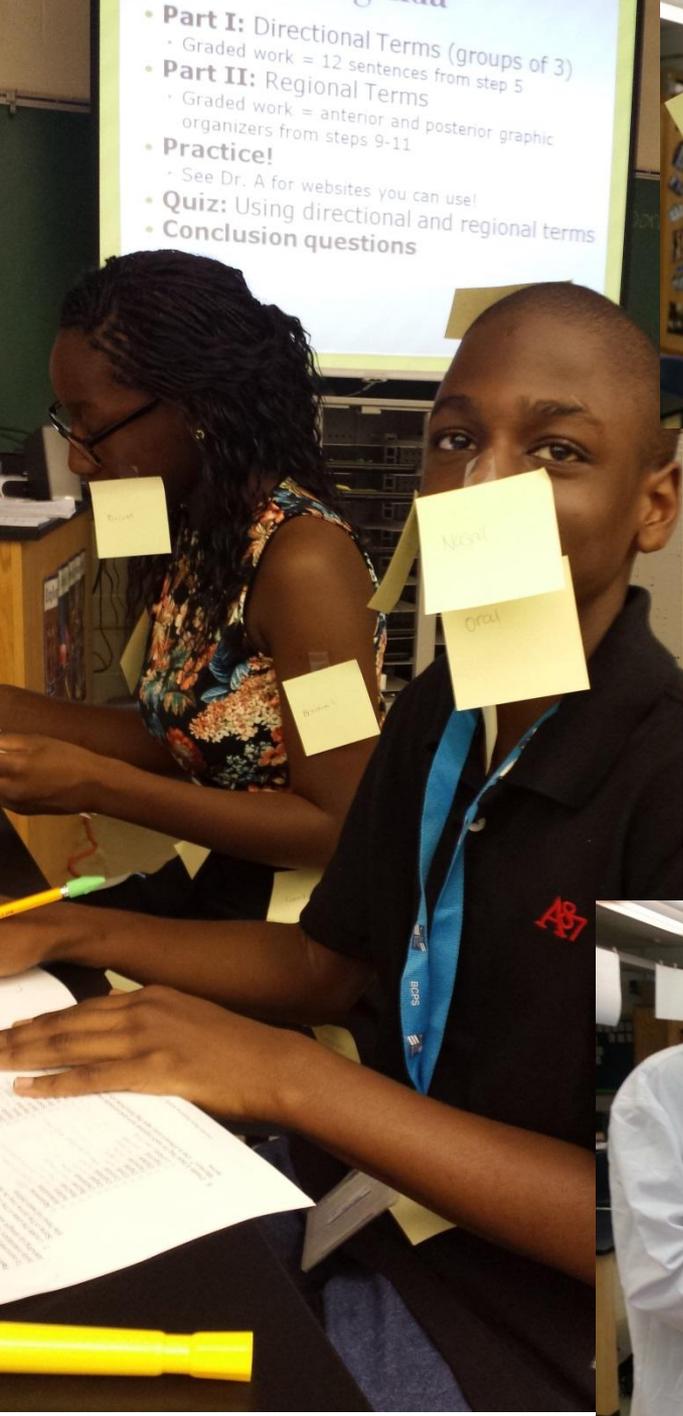
MISSING PERSON'S REPORT
 Viking Police Department
 Lansdowne High School
 3800 Hollins Ferry Road
 Baltimore, MD 21227

Race:		Height:	Relatives:		
African-American	5' 6"	Weight:	Jackie	Jason Howard, father Sharon Howard, mother Jacinda Howard, sister	
Hat:	Jacket/Coat:	140 lb	Hair:	Eyes:	Sex:
		Shirt:	Black	Brown	Female
Age:	DOB:	Red blouse	Pants:	Skirt/Dress:	Shoes:
33	January 27, 1981	Social Security #:	Black		B
Overall Health:		XXX-XX-XXXX	Scars/Marks/Tattoos:	Lotus tattoo on v side of right hi	
Good				Last Seen Health Condition:	
Last Seen By:				Asthma attack	
Jacinda Howard				Last Seen Location:	
				Last S	

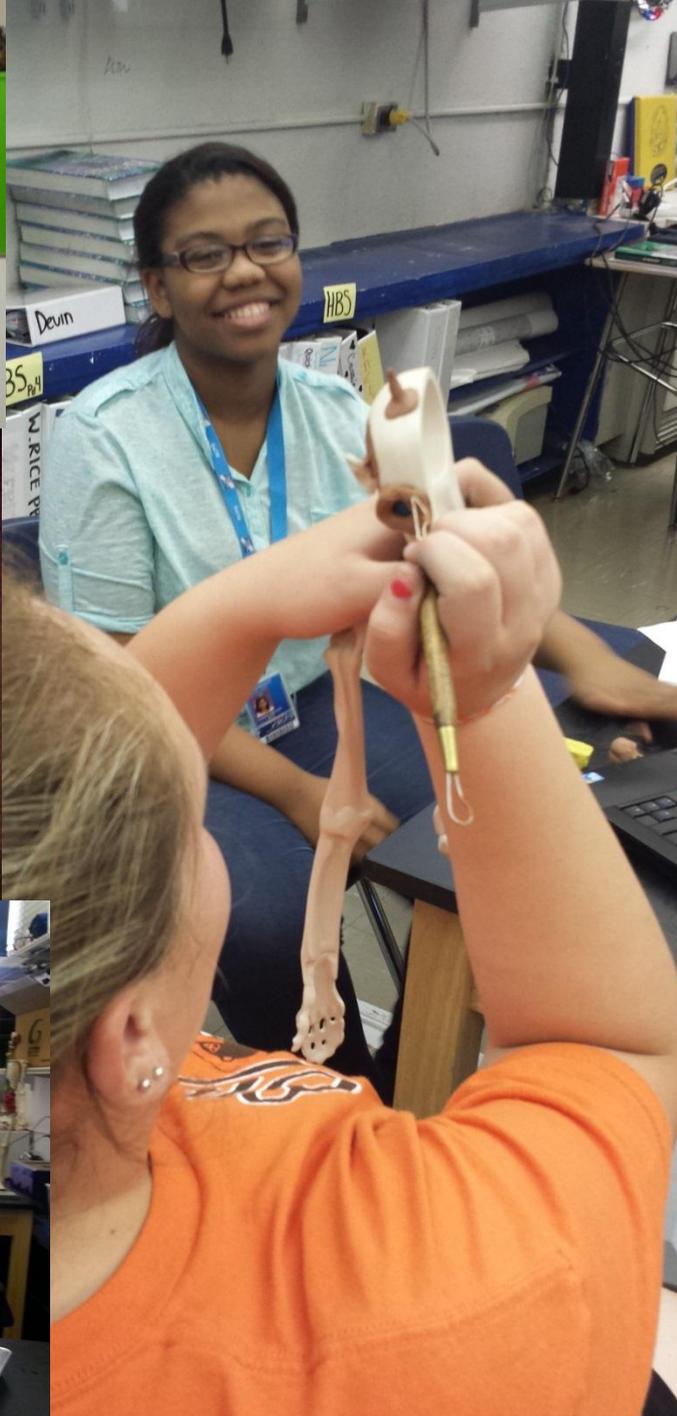
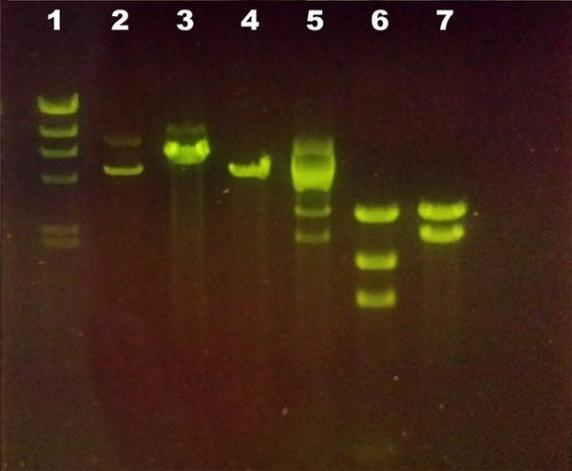
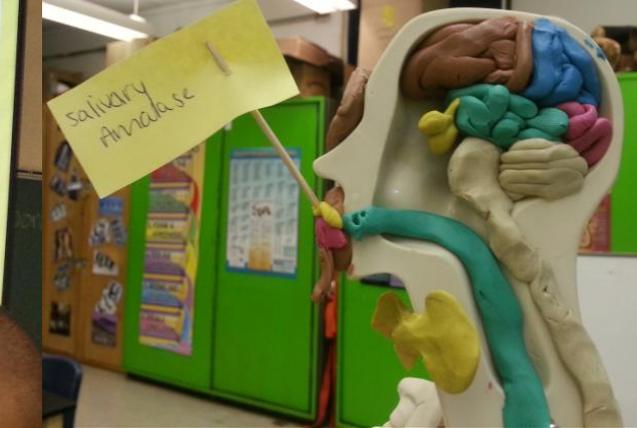
Course 2: Human Body Systems (HBS)

- Human anatomy
- Human physiology
- Relevance to human health





- **Part I: Directional Terms (groups of 3)**
 - Graded work = 12 sentences from step 5
- **Part II: Regional Terms**
 - Graded work = anterior and posterior graphic organizers from steps 9-11
- **Practice!**
 - See Dr. A for websites you can use!
- **Quiz: Using directional and regional terms**
- **Conclusion questions**

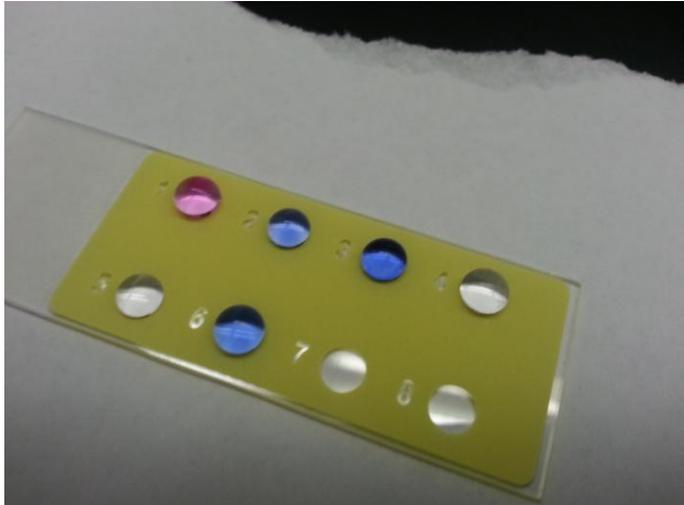




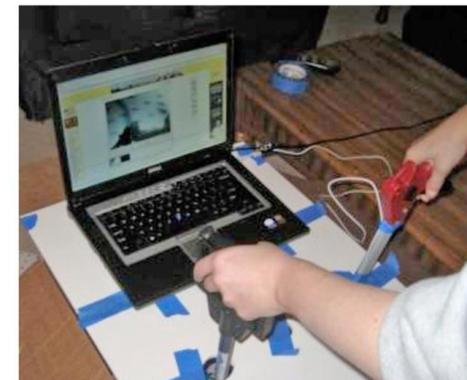
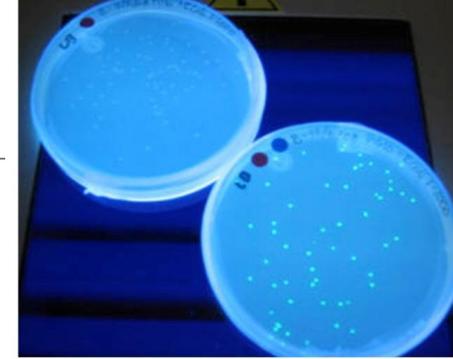
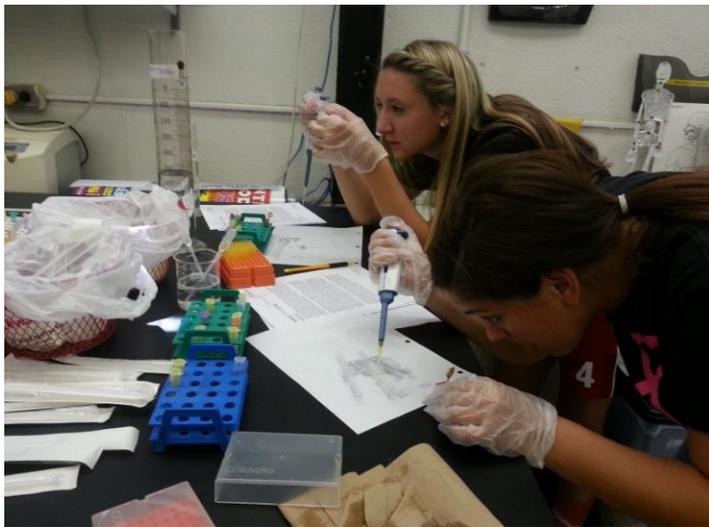
Course 3: Medical Interventions (MI)



Course 3: Medical Interventions (MI)



- Prevention
- Diagnosis
- Treatment of disease
 - Immunology
 - Surgery
 - Genetics
 - Pharmacology
 - Medical devices
 - Lifestyle choices



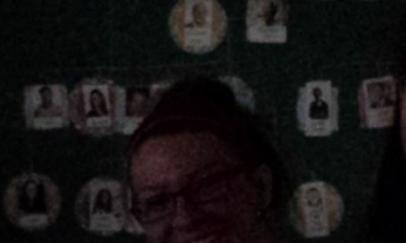


Quinolone Penicillins (β -Lactam)

These types of antibiotics work by blocking synthesis of the cell wall. As the penicillins do not have a cell wall, they are not affected by the antibiotic's binding process.

Effective against Gram Positive

SMITH FAMILY



TRACK

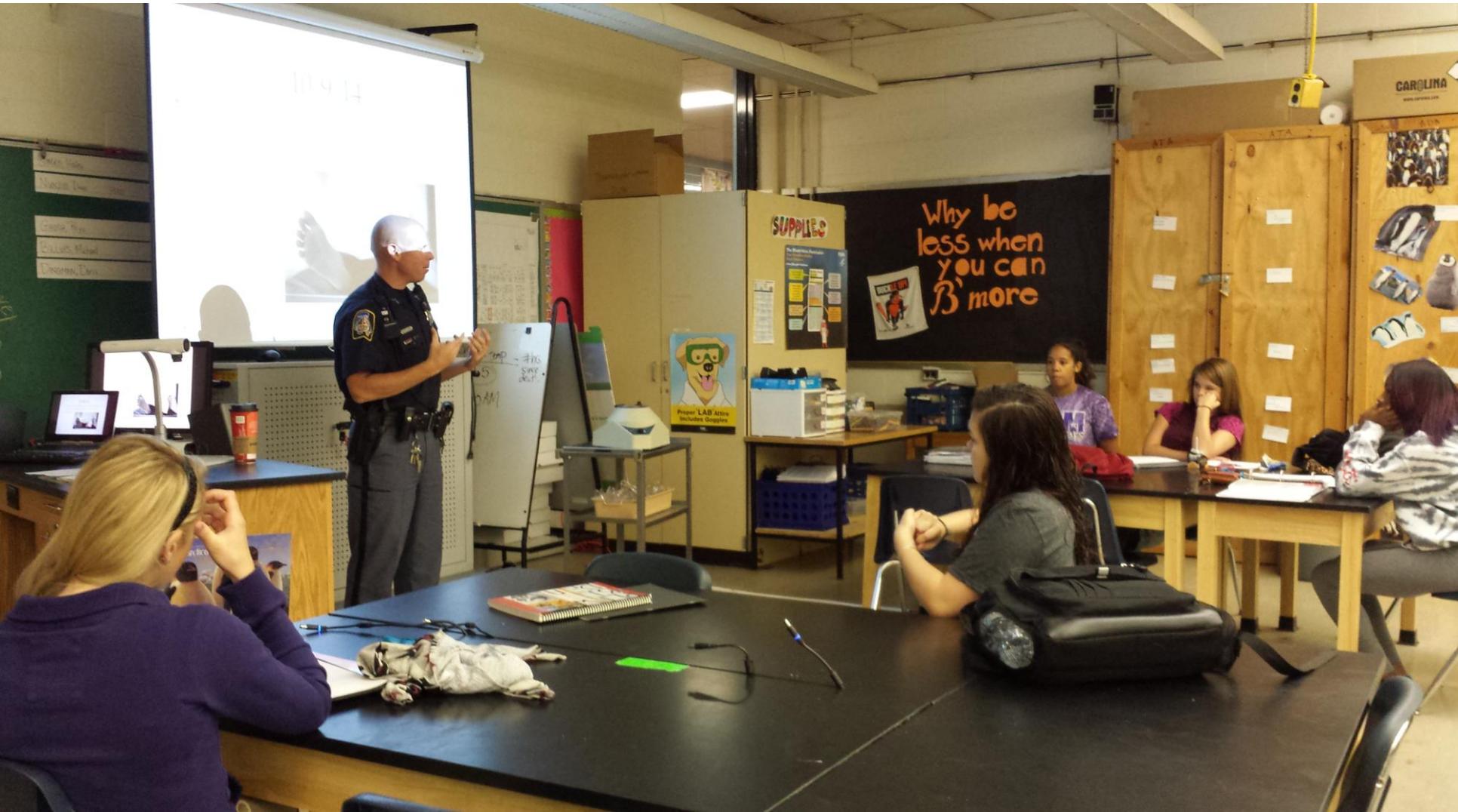
WILLIAM

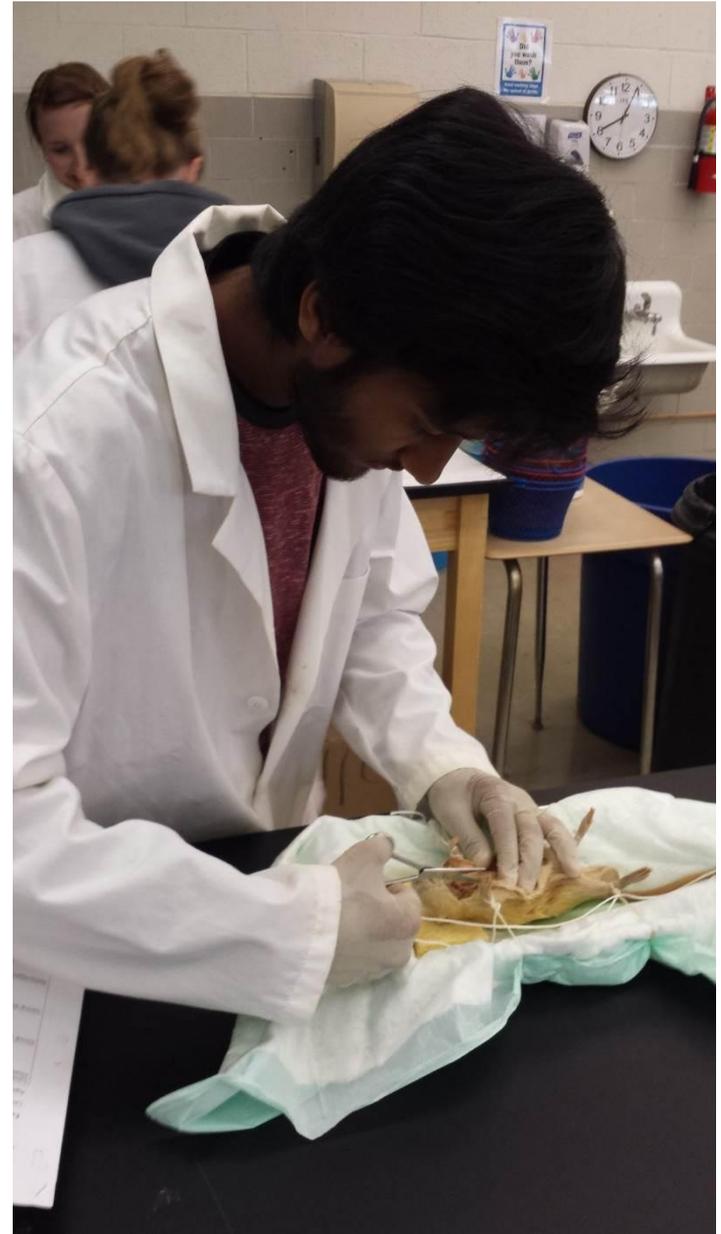
PRACTICE LIKE A CHAMPION

TRACK



Course 4: Biomedical Innovation (BI)









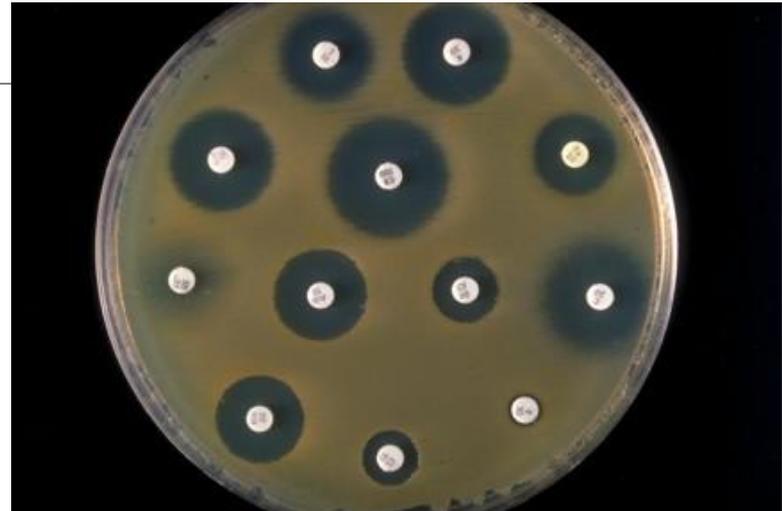


Lansdowne Student Presenters

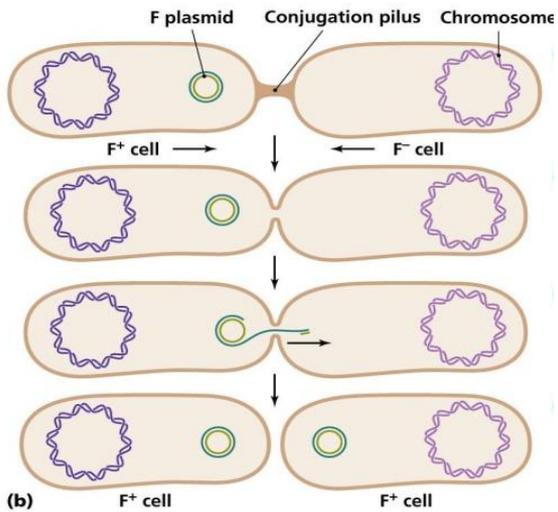
- Julia Corns (Junior)
- Naomi Corns (Junior)
- Elizabeth McGruder (Junior)
- Billy Devilbiss (Sophomore)
- Scarlet Hernandez (Sophomore)
- Harry Trinh (Sophomore)



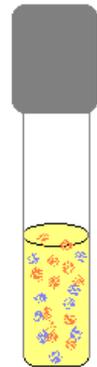
LANSDOWNE
HIGH SCHOOL



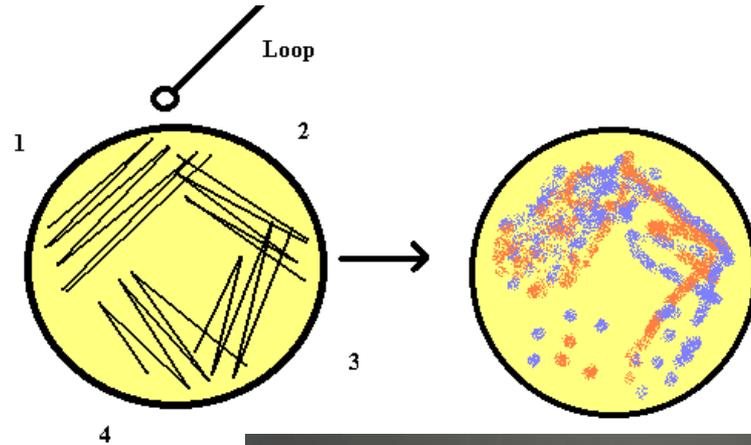
Isolation Streak



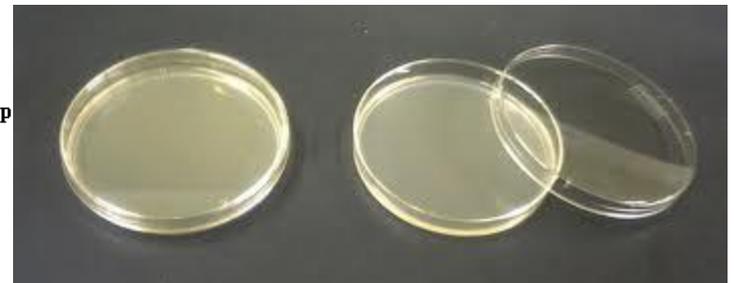
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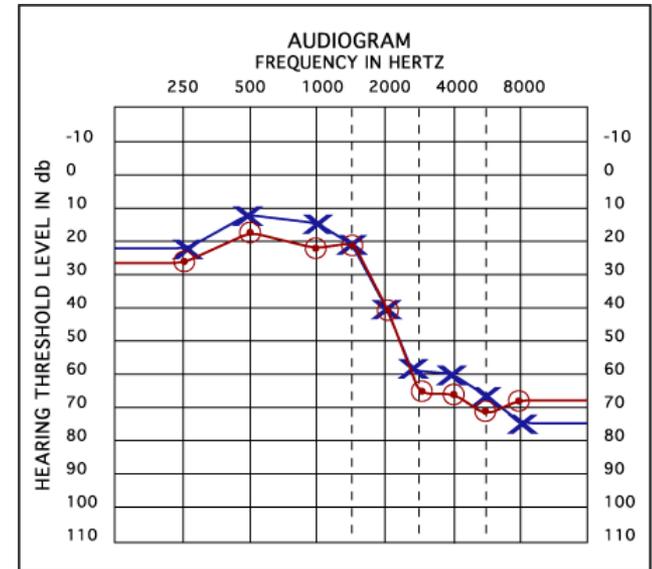
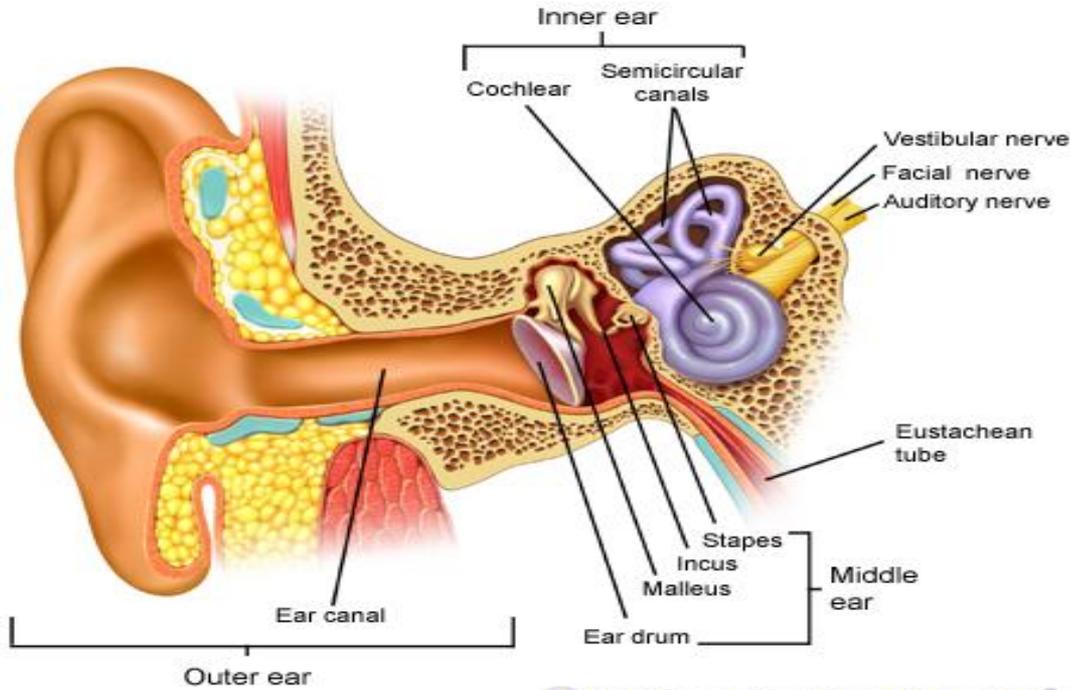


**Mixed Broth Culture
 (2 types of bacteria)**

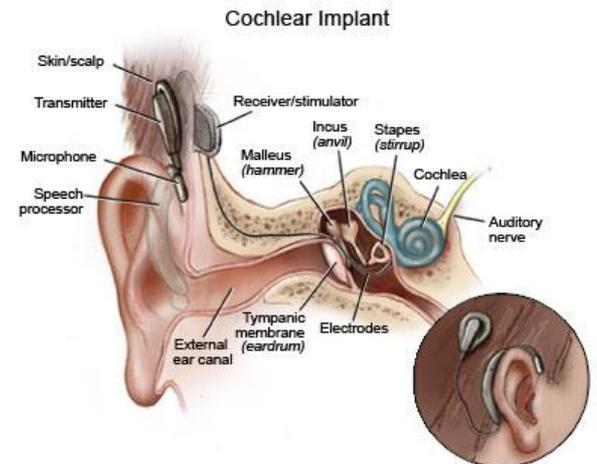


**Isolation Streak
 Showing path of loop**





virtualmedicalcentre.com





Eyelid

Pupil

Sclera

Iris



Ciliary body

Cornea

Iris

Lens

Ciliary body

Sclera

Retina

Choroid

Vitreous humor

Fovea

Optic nerve

Zonules



