

# Scrapbook

## Introduction to the IDP

The Morbus Museum of Infectious Diseases was created to inform visitors and students about infectious diseases such as zika, STDs, syphilis, and measles. The museum was created by a group of 36 students that were determined to share their research and exhibits about the diseases. The museum has a variety of interactive booths, art works, information posts, and films to make sure the visitors have an insightful experience. The students hope that visitors are able to take this information and share it.

# The Museum



The Morbus Museum of Infectious Diseases was created to inform visitors and students about infectious diseases such as zika, STDs, syphilis, and measles. The museum was created by a group of 36 students that were determined to share their research and exhibits about the diseases. The museum has a variety of interactive booths, art works, information posts, and films to make sure the visitors have an insightful experience. The students hope that visitors are able to take this information and share it because it would mean that the students did a great job at conveying their information.

# The Students



# Day One

# Selecting Leaders



Description:

The students selected their leaders.

The leaders are Erika "Isis" Brooks and Tavio Pela.

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# First Discussion



Date: 4/06/17

Description:

The group is having a brainstorming session where individuals offer their ideas.

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# Writing Team



Date: 4/06/17

Description:

The teams were chosen by the members' preference. For today, the members are reviewing the rubric and proposing ideas.

The writing team includes Afelix Le, Ikenna Maduno, Marvin Alfaro, Connor Lee, Rashad Montgomery, and Nolan Lee.

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# Biotech Team



Date: 4/06/17

Description:

The teams were chosen by the members' preference. For today, the members are reviewing the rubric and proposing ideas.

The members in this group are Gracelyn Pham, Antony Alvarado, Andres Mazas, and Daniel Villarreal.

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# Website Team



Date: 4/06/17

Description:

The teams were chosen by the members' preference. For today, the members are reviewing the rubric and proposing ideas.

The members in this group are Wesley Soo-Hoo, Gustavo Pech, and Luis Leon.

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# Presentation Team



Date: 4/06/17

Description:

The teams were chosen by the members' preference. For today, the members are reviewing the rubric and proposing ideas.

The members in this group are Oscar Avila, Vanessa Lopez, Owen Sweeny, Devin Hilario, Shelby Johnson, Abraham Soto, Alejandra Padilla, Winnona Li, and Stephanie Becerra.

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# Chemistry Team



Date: 4/06/17

Description:

The teams were chosen by the members' preference. For today, the members are reviewing the rubric and proposing ideas.

The members in this group are Yvonne Macias, Jonathan Reyes, Jose Ramirez, Elpidio "Ryu" Dimayuga, and Emily Hernandez.

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# Scrapbook Team



Date: 4/06/17

The scrapbook team reviewed the rubric and began documenting each group's progress.

The group members include Ashley Torres, Cameron Esperanza, Bryan Rivas, and Diego Chinchilla.

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# Day Two

# Expert Epidemiologist



Date: 4/07/17

Description:

Holguin, John R., an epidemiologist with a Masters in public health, came to our classroom to give us insight on our topic. The students asked questions.

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# Expert Talk

Date: 4/7/17

## Description

Team members are attentively listening to the expert to begin forming ideas for the museum and its exhibitions.

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# Second Discussion



Date: 4/7/17

Description:

After listening to the expert about diseases and other topics, the group held a discussion to resolve on what diseases we want to focus our research on. The chosen ones were syphilis, zika, and measles.

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# Scrapbook Budget Planning

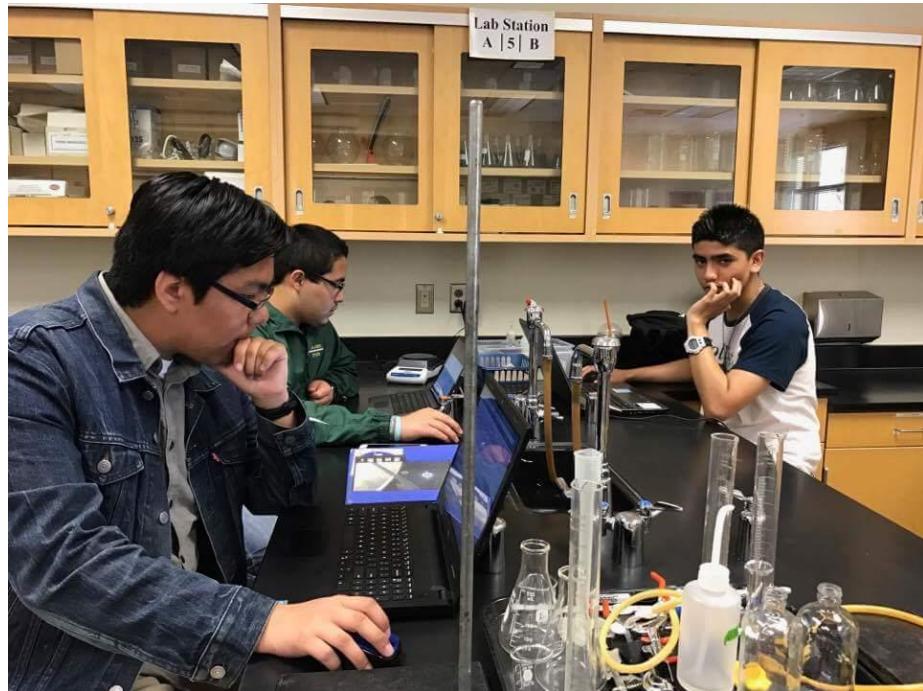
Date: 4/21/17

Description:

The scrapbook team gathered and began discussing materials they would need to complete the project. They formed a list with the items and turned it into the leaders to be compiled with the other groups' budget list.



# Biotech Team



Date: 4/21/17

Description:

The biotech team is currently researching course requirements for careers.

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# Chemistry Team



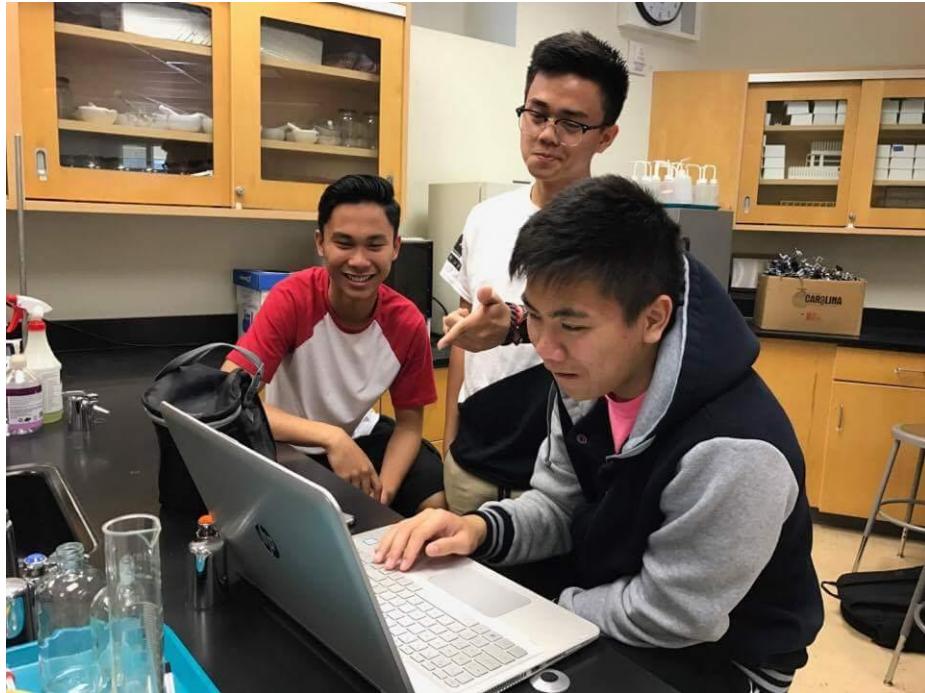
Date: 4/21/17

Description:

The chemistry group were researching chemical equations for each disease that the IDP group had voted for.

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# Math Team



Date: 4/21/17

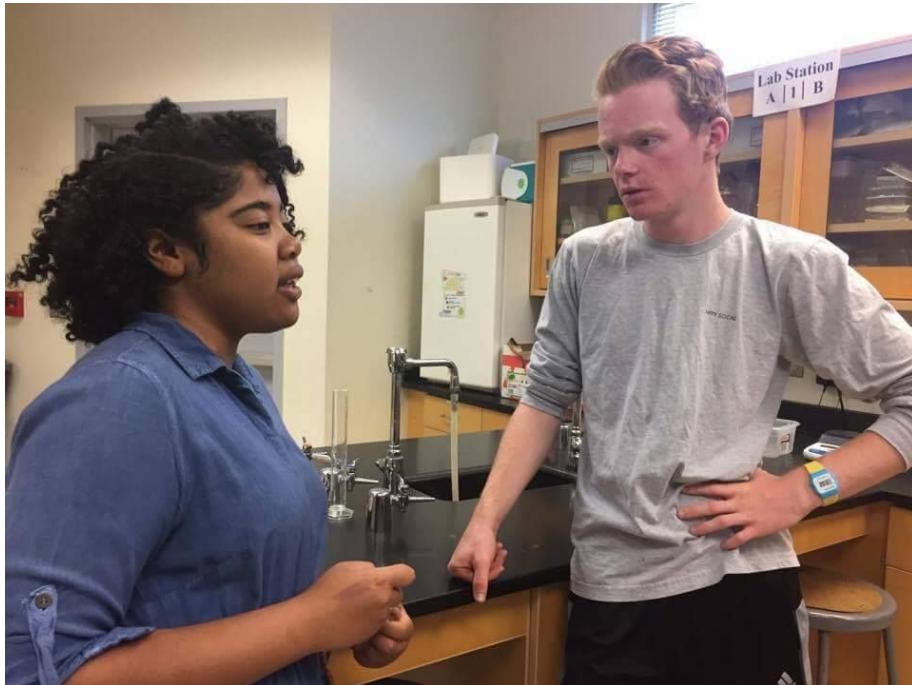
## Description:

The Math Team was researching graphs and equations that they could possibly use to explain the trends of past, present, future outbreaks.

The math team members include Vinh Le, Joshua Fajardo, Bon Corpus, and Emily Hernandez.

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# Documentary Team



Date: 4/21/17

Description:

The two members of the documentary team are currently writing a script for the documentary.

The members of this team include Owen Sweeney and Erika "Isis" Brooks.

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# Writing Team



Date: 4/21/17

Description:

The Writing Team is researching past, present, the possibilities of future outbreaks.

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# Presentation Team



Date: 4/21/17

Description:

The Presentation Team discussed the group's color scheme and consistency. They had also organized the IDP group's budget list, asking each team for any materials that would be needed.

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# Day Three

# Biotech



Date: 4/28/17

## Description:

Today the Biotech Team is compiling information and research into the Educational Flow map. In total they are making four flow maps with different course requirements for a specific major/career.

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# Presentation



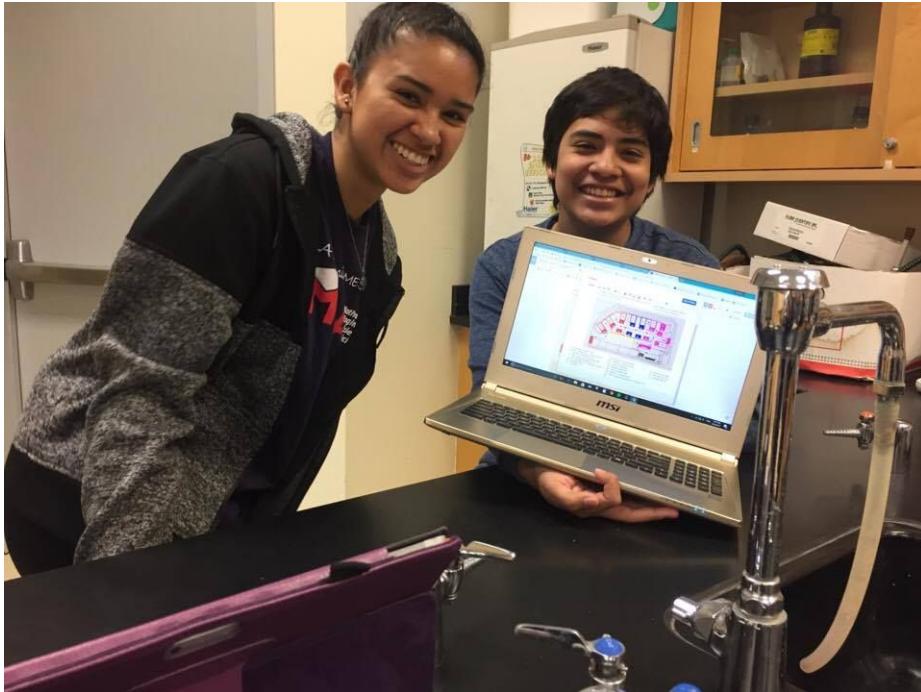
Date: 4/28/17

## Description:

The presentation group had a discussion about finalizing details for each of the exhibits. They then set a goal for themselves which was to write about syphilis (this is what they're focusing on currently).

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# Presentation

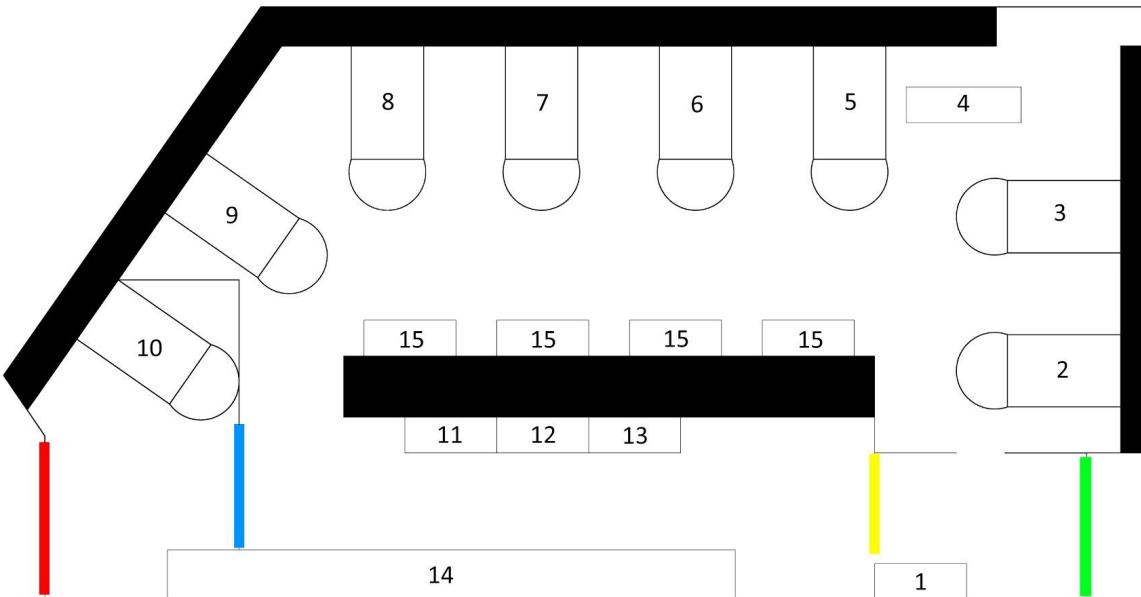


Date: 4/28/17

Description:

Two of the presentation members (Abraham Soto and Stephanie Becerra) are working on finalizing the exhibit blueprint.

# Final Blueprint of Museum



## Legend

■ Emergency Exit

■ Entrance to Exhibit 10

■ Museum Exit

■ Entrance/Exit

1: Infectious Diseases Table

6: Airborne Diseases Exhibit

11: Hand Sanitizer/Utensils

2: Zoonotics Exhibit

7: Measless Exhibit

12: Preventions Exhibit

3: Zika Virus Exhibit

8: STD Exhibit

13: Hand Sanitizer Exhibit

4: Baby Heads Exhibit

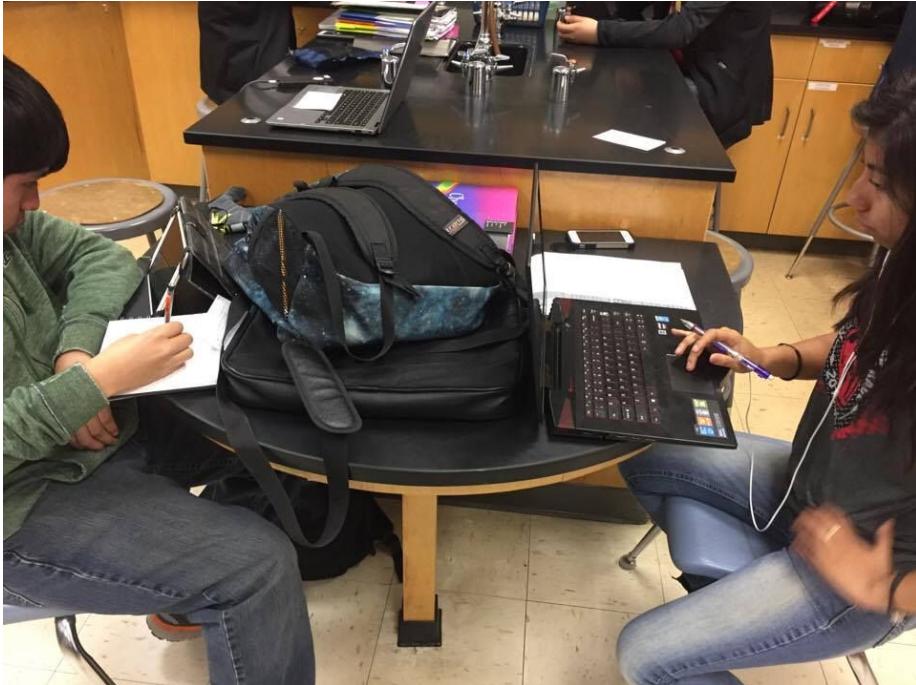
9: Lab Activity

14: Preventions (White Board)

5: Spin the Wheel Activity

10: Syphilis UV Light Activity

# Chemistry



Date: 4/28/17

Description:

The Chemistry Team is researching the process of how a virus spreads and the process of how a virus infects victims by using proteins.

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# Writing



Date: 4/28/17

## Description

The Writing Team focused on organizing the groups APA citations.

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# Math



Date: 4/28/17

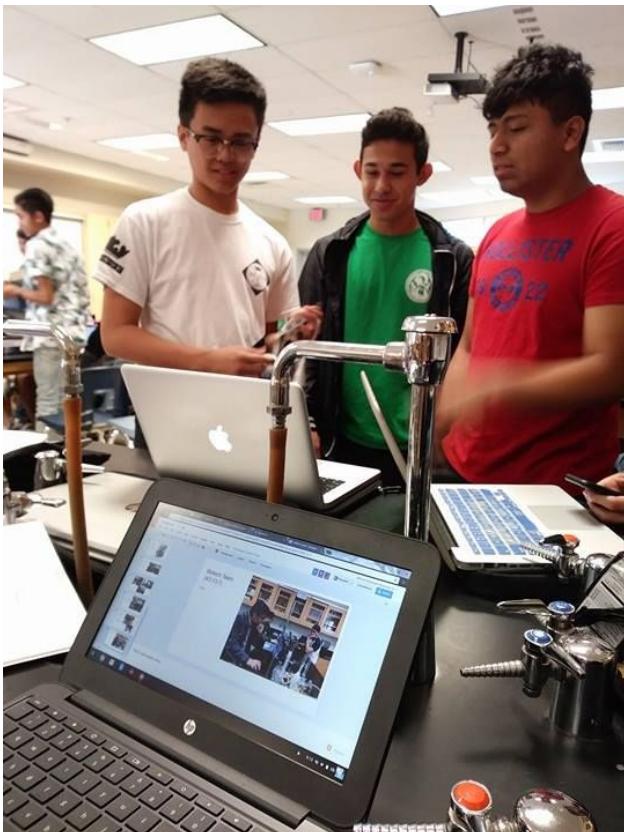
Description:

The Math Team began writing descriptions/explanations for the graphs they have chosen.

The team consists of Vinh Le, Joshua Fajardo, Bon Corpus.

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# Building



Date: 4/28/17

Description:

The Building Team started to dimension the exhibit areas by using measuring tape and a map of the classroom.

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# Scrapbook



Date: 4/28/17

Description:

Continued their scrapbook activities.

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# Day Four

# Students Working



Date: 5/08/17

Description:

The students continued to work on the same tasks they were assigned to do on Day Three.

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# Day Five



Date: 5/10/17

Description:

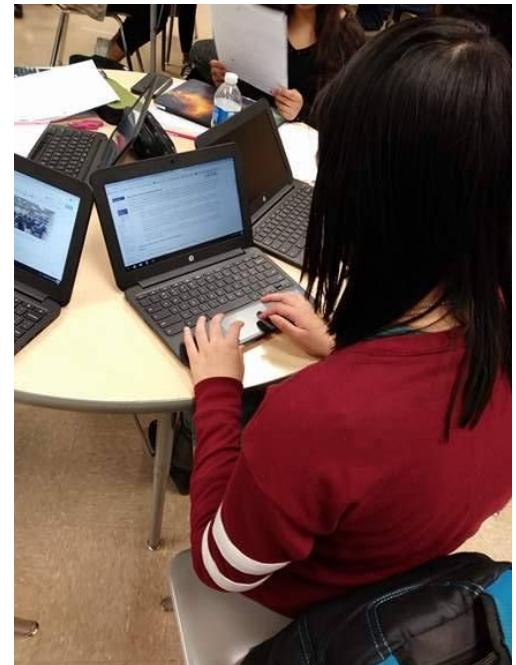
Once again the students gathered and continued to finish their tasks.

# Biotech Group

Date: 5/10/17

Description:

The Biotech Group is typing up lab procedures.



# Building Group



Date: 5/10/17

Description:

The Building Group is adding changes and fixing the final map of the museum.

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# Writing & Presentation Groups



Date: 5/10/17

Description:

A member from the Writing Group is working with the Presentation Group to complete the descriptions of the galleries that are going to be present in the museum.

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# Presentation and Aesthetics



Date: 5/10/17

Description:

This group is working on the English assignment which includes searching American literature. They also fixed the budget by eliminating some items that were too costly.

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# Chemistry Group



Date: 5/10/17

Description:

The Chemistry Group is finishing up their summaries of the diseases and their processes.

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# Overseer



Date: 5/10/17

Description:

One of the IDP leaders (Tavio Pela) is organizing content for the rubric check-up that will be happening this Friday, May 12.

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# Day Six

# Chemistry Rubric Check Off



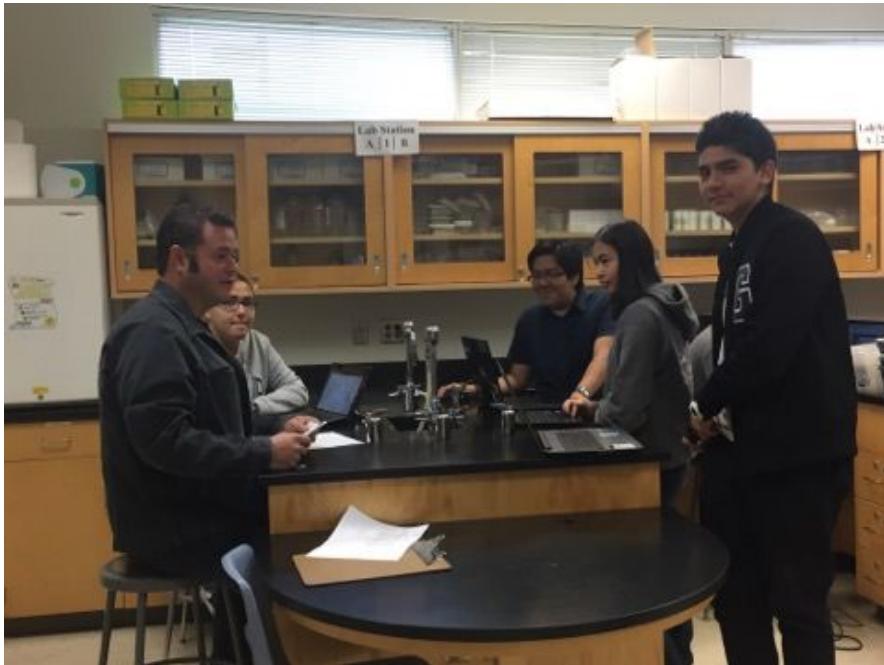
Date: 5/12/17

Description:

Today is rubric check off, which means the advisors/teachers are going to check the students' work, advise on what they can do better and direct them. This is the chemistry team.

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# Biotechnology Rubric Check Off

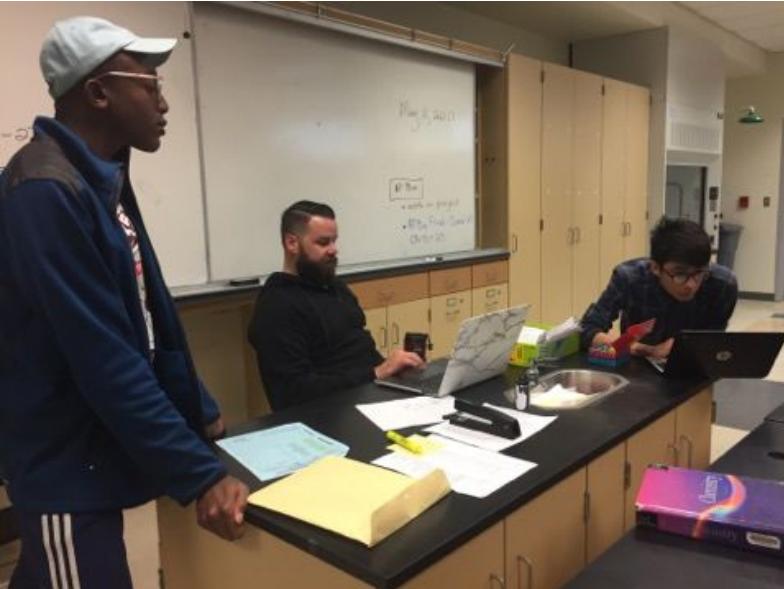


Date: 5/12/17

Description:

Mr. Gonzalez is advising the biotech team and reviewing their work.

# Writing Rubric Check Off



Date: 5/12/17

Description:

Mr. Bucko is checking the work the writing team has completed so far.

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# English Rubric Check Off



Date: 5/12/17

Description:

Ms. Brennan is discussing the content of the rubric with the presentation team since they are in charge of some parts of the English rubric.

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# Math Rubric Check Off



Date: 5/12/17

Description:

Ms. Figueroa is checking the math team's progress.

# Documentary Team



Date: 5/12/17

Description:

The documentary team finished their script so they will begin recording the audio.

# Outside Work

# Documentary Team



Date: 5/17/17

Description:

The documentary team was ready to begin filming, so they gathered a group of volunteers to act out the script.

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# Presentation Team



Date: 5/17/17

Description:

The presentation team began to do some decorations for the museum. They are making paper mache.

# Day Seven

# Scrapbook Team



Date: 5/19/17

Description:

The scrapbook team is researching templates for their physical scrapbook. They are also adding new pictures and descriptions to their digital scrapbook. This team was also given the task to do some research on syphilis.

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# Biotechnology Team



Date: 5/19/17

Description:

The biotechnology team is making sure their work meets the standards of the rubric.

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# Building and Presentation Teams



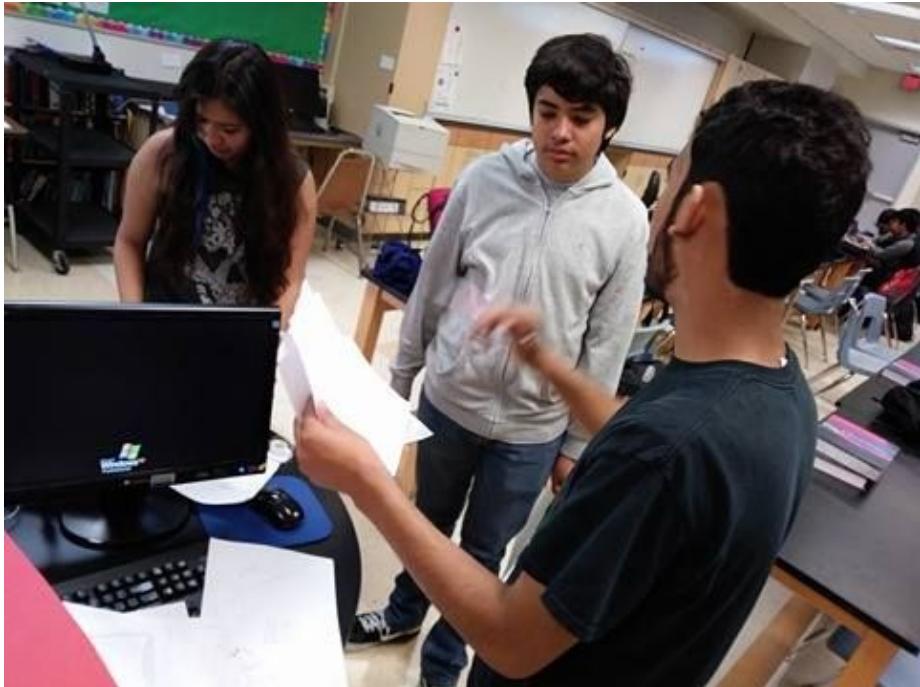
Date: 5/19/17

Description:

The teams are collaborating to discuss the plans for the galleries. They are also planning out dates for building the museum and its components.

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# Presentation Team



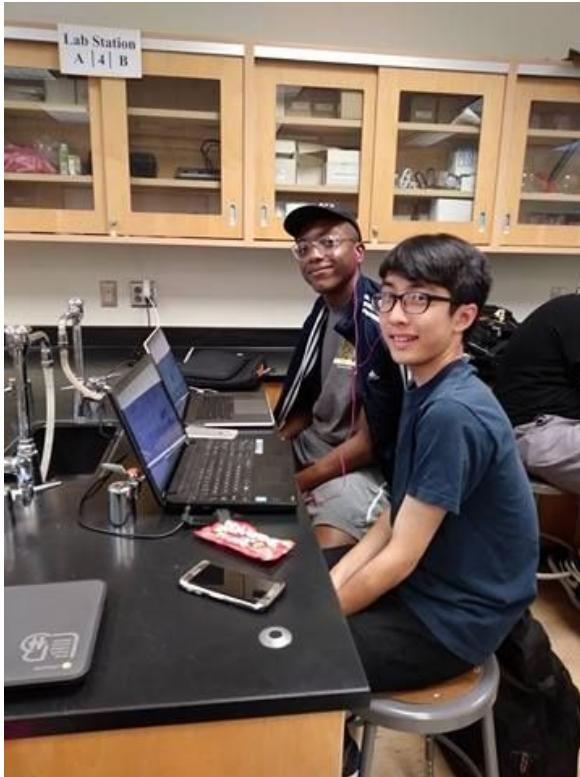
Date: 5/19/17

Description:

The other part of the presentation team is going over the storyboards of the galleries. They are organizing the storyboards to show tem to their advisor.

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# Writing Team



Date: 5/19/17

Description:

The writing team is completing their research on syphilis.

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# Writing Team



Date: 5/19/17

The other part of the writing team is doing a write up of how the chosen diseases have impacted the past.

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# Chemistry Team



Date: 5/19/17

Description:

The chemistry team is discussing their work with the Overseer because they are struggling to complete their work. As of now, the members are trying to complete the chemical processes.

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# Overseer



Date: 5/19/17

## Description

Tavio, our leader, is walking around talking to the teams to make sure they have their work completed.

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# Day Eight

# Morbus Museum



Date: 5/22/17

Description:

The IDP members are now starting to build the museum.

# Morbus Museum



Date: 5/22/17

Description:

The IDP members are now starting to build the exhibits.

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# Day Nine

# Building



Date: 5/23/17

## Description

With the deadline coming closer, the students are rapidly and diligently working together to set up the museum.

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# More Building



Date: 5/23/17

## Description

With the deadline coming closer, the students are rapidly and diligently working together to set up the museum.

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# Placing Decorations



Date: 5/23/17

## Description

The students are hanging up models of viruses for display.

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# Overseer



Date: 5/23/17

## Description

Tavio, one of our leaders, is happy with the progress.

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# Displays & Visuals



Date: 5/23/17

## Description

The students are busy cutting and gluing visuals and information.

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# The Displays



Chlamydia is the most prevalent STD in the United States and is caused by infection with Chlamydia trachomatis. The STD itself is very dangerous because generally infections are asymptomatic, or show no symptoms; this is most seen in the general population of women. An untreated infection can result in pelvic inflammatory disease, which can be a major cause of infertility, ectopic pregnancy, and chronic pelvic pain. Also, if a chlamydial infection goes untreated, it could facilitate the transmission of an HIV infection; this is true for most inflammatory STDs. Pregnant women with a chlamydial infection run the most risk because they can pass the infection to their babies during delivery. Babies that have received the infection from their mothers can develop ophthalmia neonatorum, which can lead to blindness and pneumonia.

# The Displays



In terms of infectious diseases, STDs have proven to be the most difficult to deal with. This is because viral STDs are typically retroviruses. At this point in time, we can't cure them by eradicating the viruses from the body. What we can do is manage such diseases, like HIV, with medications to suppress their symptoms. In particular, antiretroviral drugs and various drug "cocktails" are used to manage such illnesses. However, Hepatitis B has a vaccine to prevent contraction of the disease. HPV vaccines also exist to prevent the prevalence of the disease. Bacterial STDs are different in that we can treat them completely with antibiotics.

On the other hand, treatment isn't necessary when people prevent contraction of STDs in the first place. Education on STDs is vital for people to be able to effectively prevent disease. Generally, abstinence is the most "effective" method, in that it prevents sexual contact altogether. Vaccination on those that can be inoculated against is a favorable step. Mutual monogamy and lessened sexual partners reduce the rate of spread amongst the population. Lastly, physical sexual protection/barriers like condoms, when used properly, significantly contribute to the health of the sexually-active population.

# The Displays



The Art Wall is a showcase of artwork that relate to the theme of the museum, infectious diseases. It includes art that depicts how the artists felt about a specific disease such as zika, AIDS, or another STD.

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# The Displays



The natural topography of LA plays a major role in the distribution of measles, for the “barriers” prevent there to be a major distribution of this disease. Although there is a general crowding of buildings and people in the LA area its topography is sufficient to mostly prevent a large spread of measles. The “barriers” of LA i.e. mountains and bodies of water, act as a shield for the residents that protect them from coming into contact that often with this disease, as measles is a viral disease not an air/water borne disease thus hindering the disease to spread as easily. Human behavior also plays a key role for the more often an infected community interacts with another uninfected community, the higher the risk of the uninfected community becoming infected.

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# The Displays



In the 1950s, Zika was first discovered. Zika continued via mosquito transmission, and the first major outbreak had occurred in 2007. In 2008, Zika was found to be sexually transmitted when a researcher contracted it in Senegal and transmitted it to his wife in Denver. Since then, in 2015, there have been recent outbreaks in Brazil.

Thus, infectious diseases have had a large purveyance throughout history. They have also been shown to have various methods for transmission, such as zoonotically, aquatically, sexually, etc. They have been able to transmit regionally, such as from Brazil to America.

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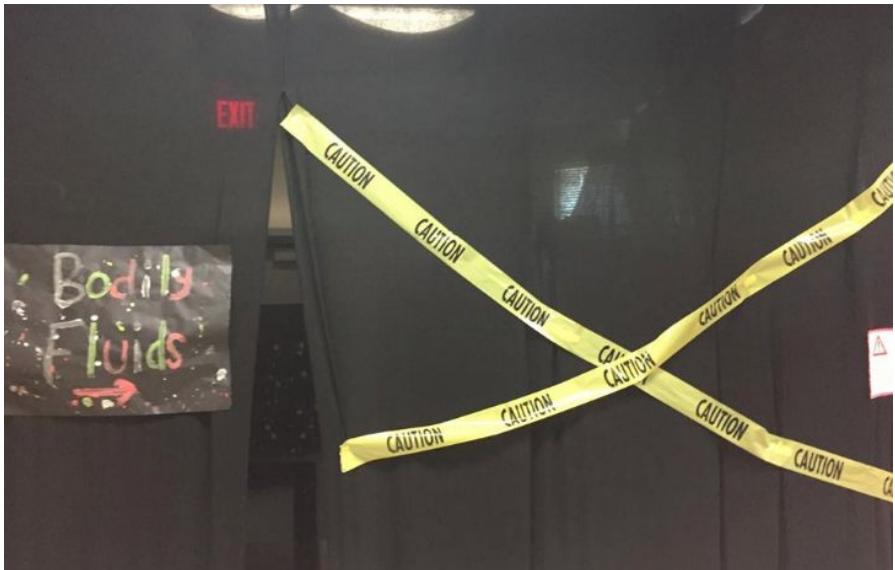
# The Displays



Human behavior has played a large role in the spread of Zika. Zika was first contracted due to scientific research (WHO). Originally, it was only found in monkeys, but during a 1952 study trying to demonstrate the presence of neutralizing antibodies to Zika virus in sera in Uganda it was first detected in a human. In 2011, a scientist working in Senegal came home with Zika. He passed it to his wife, which suggested that Zika could be spread sexually, which was later confirmed (WHO). In 2016, there was another development in our knowledge of Zika when it was discovered that Zika can be teratogenic, meaning that Zika can be passed down to the child of an infected pregnant woman. It causes microcephaly, a birth defect that causes the child to be born with an abnormally small head, which inhibits proper brain development.

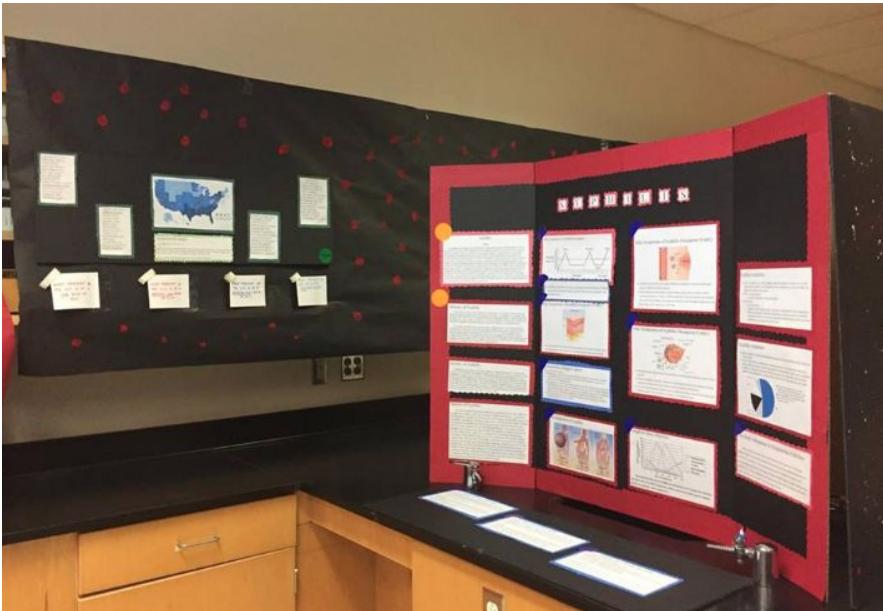
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# The Displays



- “In 2015, a total of 23,872 P&S syphilis cases were reported. During 2014–2015, the national P&S syphilis rate increased 19.0% to 7.5 cases per 100,000 population, the highest rate reported since 1994.”
- Effects on Human Body:
  - Can lead to stillbirths, sores, and rashes.
- Local Region
  - On the Rise in LA
- “Syphilis, which is also curable, can lead to complications such as blindness if allowed to progress. It has been of particular concern recently in California, where early cases of the sexually transmitted disease among women more than doubled from 248 to 594 from 2012 to 2014.”

# The Displays



In the future there could be a novel antiviral drug that may protect people infected with measles from getting sick and prevent them from spreading the virus to others. Scientists from the Institute for Biomedical Sciences at Georgia University, the Emory Institute for Drug Development and the Paul-Ehrlich Institute in Germany developed this drug and tested it on animals infected with a virus closely related to one that causes measles. Virus levels were significantly reduced when the animals received the drug by mouth and it prevented them from dying of the disease. This drug could potentially boost the eradication efforts by rapidly suppressing the spread of the virus during local outbreaks. Although this has already been done, mathematical modeling can once again be used to obtain an accurate picture of the population prevalence of measles susceptibility.

# The Final Product

# More Displays



Date: 5/25/17

Zika Virus Global Connection  
Exhibit

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# Walkthrough

Date:5/25/17

Part of the museum.



# Morbus



Date: 5/25/17

Museum Complete!

# Walkthrough



Date: 5/25/17

Description: A walkthrough.

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# Documentary



The documentary will be displayed to give an introduction to readers.

# Website



Home

Exhibits

Visit

FAQ

Resources

# Morbus

Museum of Infectious Diseases



Link: <http://morbus.tk/>

# Student Reflections

# Tavio Interview



Date: 5/22/17

Description:

The students are being interviewed about their IDP experience.

# Afelix Interview



Date: 5/22/17

Description:

The students are being interviewed about their IDP experience.

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# Ashley Interview



Date: 5/22/17

Description:

The students are being interviewed about their IDP experience.

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# Antony Interview



Date: 5/22/17

Description:

The students are being interviewed about their IDP experience.