

VAPA at South Region High School #9 Chemistry B

PROJECT #1 – The Drug Movie

The Drug Unit is a thematic interdisciplinary unit designed for Chemistry Students at VAPA and STEAM High Schools. During this unit, students study prescriptive drugs, over the counter drugs, and illicit drugs. Students examine these drugs from historical, societal, biological, and mathematical perspectives. They learn content from the disciplines of chemistry, biology, math, literature, history, and technology. The unit ends with a digital video project. Products include a storyboard for an educational drug movie, a five-minute educational drug video, a persuasive essay on an illicit drug, a lab notebook containing lab write-ups on drug synthesis, and a statistical analysis of drug use and awareness on the school campus.

Essential questions: How do drugs impact your body, your family, your community, and your world?

Duration: 6 weeks

CA standards/domains: History, Chemistry, Statistics, and Technology

Assessments: Rubrics were used to evaluate storyboards, movies, essays, and presentations of learning.

Learning Goals

Students will understand:

- Use of stoichiometry for calculating synthesis of products and reactants
- How pH of chemicals change the physical characteristics of drug products
- How drugs affect the nervous and endocrine system
- The statistics calculations required
- The history of the opium wars and the current issues surrounding drugs

Students will be able to:

- Use digital video software to create and edit a digital video
- Research a broad topic using a variety of both primary sources, to cite sources accurately in MLA format
- Synthesize aspirin in the lab
- Write a persuasive essay
- Analyze contemporary literature
- Utilize statistics to create information about a population and use the evidence in writings.

PROJECT ROLES:

The Project Manager: Manages and tracks the status of all tasks associated with the project.

The Producer/Director: Primarily responsible for scheduling production and editing of the movie. (for groups of five, two student may serve in this role)

The Storyboard Artist: Primarily responsible for creating the storyboards with input from the team.

The Research Analyst: Primarily responsible for combining input from all team members into the final research paper.

PROJECT DELIVERABLES:

Deliverable	Due Date	Points
The Word Wall	Wednesday, Jan 16 th	(7 points)
Illicit drug choice due	Tuesday Jan. 22 th	(5 points)
Research Paper Due	Tuesday Jan 29 th	(15 points)
Storyboard Plan due (research completed Facts & Images are printed as integrated into storyboard)	Tuesday Feb. 5 th	(10 points)
Final Draft of Storyboard due (Dialogue and picture frames are completed and pasted to a poster-board)	Friday Feb. 8 th	(25 points)
The Aspirin Lab	Wednesday, Feb 6 th	
The Aspirin Lab Report Due	Friday, Feb. 8 th	(25 points)
Individual Persuasive Essay	Friday Feb. 15 th	(10 points)
Rough Draft of Movie in Production (I-Movie, Final Cut, etc.)	Friday Feb. 15 th	(10 points)
Final Cut Movie Due	Friday Feb. 22 th	(100 points)

THE RESEARCH PAPER

Students study the chemistry of drugs, learning about chemical bonding, balancing equations, and nomenclature. Students study the effects of drugs on the nervous and endocrine systems. Students study statistics by examining the results of a student survey on drug use and exposure. Students also learn about the history of drugs and about the global drug market. Students examine current societal issues pertaining to drug use, sales, and abuse. Students read literature that discusses drug use and the drug trade. Students also write persuasive essays on drugs.

THE STORYBOARD

The group must submit a copy of a storyboard indicating the shots and shot sequence planned for Project 1. The storyboard sketches need not be elaborately drawn – stick figures are acceptable. The storyboard should illustrate the planned shot sequence for every shot intended in the finished project, along with a brief written description of the action below each storyboard shot sketch. Please submit a storyboard in advance of production; no equipment use for Project 1 for students who do not meet pre-production requirements or do not have an approved storyboard.

THE MOVIE

This two-month unit culminates in a project in which each student creates a five-minute educational digital video on a drug of their choice. This digital video project requires students to synthesize many of the difficult concepts and vocabulary introduced throughout the unit. For the digital video project, students must present the history of the drug, the chemistry of the drug, how the drug affects the body, the drug's role in contemporary culture, statistics about the drug, the drug's impact, and a strong anti-drug message. Not only must the video contain these required elements, but the movie must also be professionally organized, formatted, and edited. So, in addition to content synthesis, the drug movie project requires students to apply their research skills, skills in technology, and teamwork skills.

DON'TS & BE CAREFULS:

Projects longer than 6:00 minutes or shorter than 4:00 minutes, subtract 15 points per minute (and fraction thereof!)

The project **MUST** be edited before it is submitted for credit.

No dangerous stunts or activities of any kind – you are responsible for your set!