



SCIENCE DEPARTMENT COURSE OFFERINGS



SCIENCE DEPARTMENT

Courses for 10th Grade +

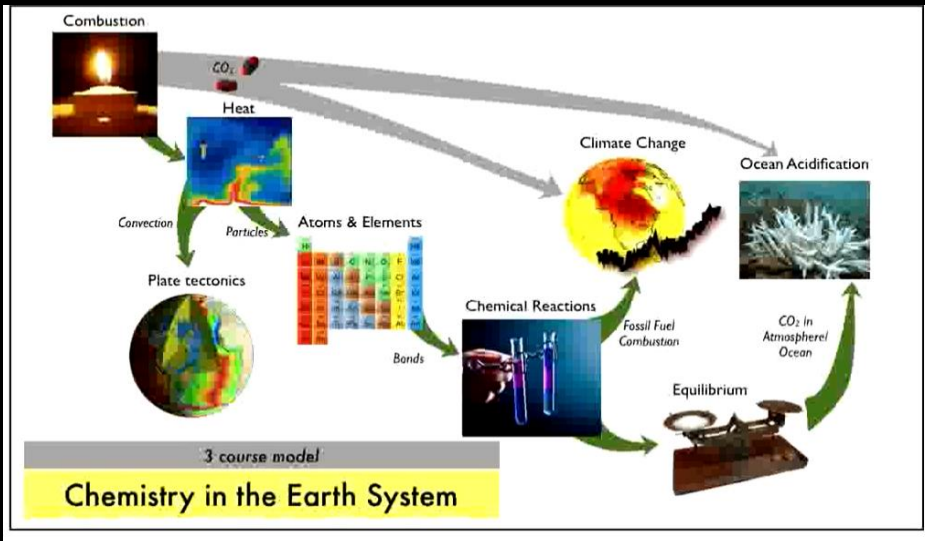
*ALL courses are a-g lab science approved!

CHEMISTRY IN EARTH SYSTEMS

#5140

Cool Experiments & Hands-On Activities

- **Burning snacks to measure energy!** You'll do a *calorimetry lab* where you burn chips to see how much energy they have—like figuring out which snack is the best fuel
- **Candle Lab:** Watch a candle burn and figure out what's happening—where does the wax go? What's in the smoke? You'll make your own model of energy flow.
- **Flame Test Lab:** Make colorful flames and discover how different metals create different colors—like fireworks in the classroom
- **Reactivity Lab:** Drop metals in water or acid and watch them fizz and react—predict which ones will go wild



Real-World Connections

- **Climate Change Detective:** Learn how burning fuels changes Earth's climate and design ways to reduce carbon footprints—like building an eco-friendly house or city
- **Ocean Acidification:** Discover how pollution affects oceans and shells—then design experiments to see what happens to seashells in acid
- **Plate Tectonics & Heat Flow:** Use simulations to see how heat moves inside Earth and drives earthquakes and volcanoes

Fun Challenges & Tech

- **Design Your Own Calorimeter:** Build a device to measure heat and improve it using thermodynamics—like being an engineer
- **Online Simulations:** Play with virtual models to explore energy, molecules, and even plate tectonics—science meets gaming
- **Rates of Reaction Lab:** Speed up or slow down chemical reactions—like making things fizz faster or slower

LMC CHEM 6
MS. SPAINHOWER
#0717

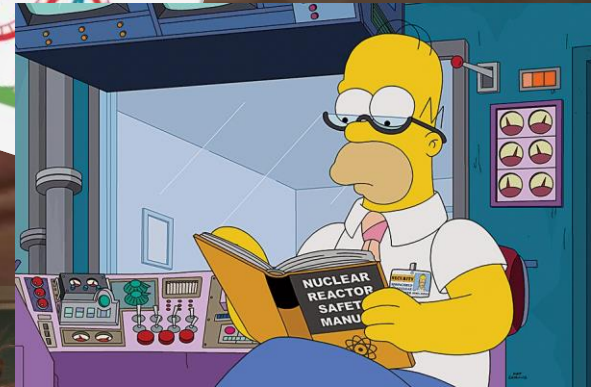
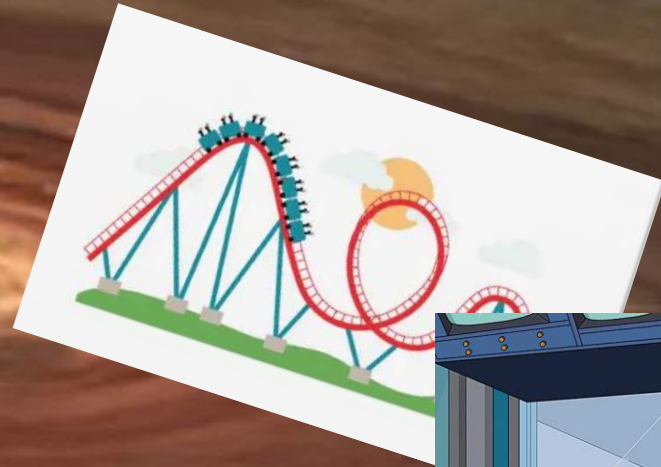
- This class is a GREAT way to get your Chemistry credit for High School AND college at the same time!! FOR FREE!
- Lots of FUN lab experiments!!
- PreReq: Alg 1 C or better
- COURSE # 0717



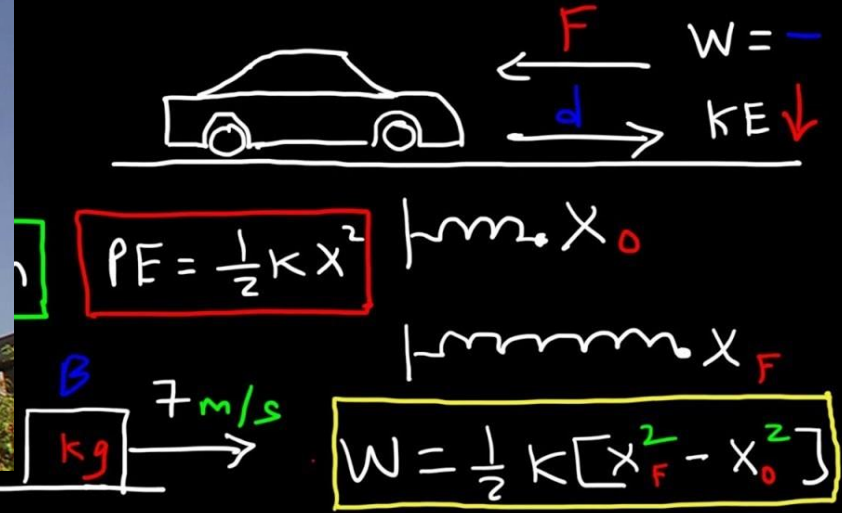
PHYSICS IN THE UNIVERSE – MR. BREWER

#5165

- Get hands on the way the world around us works!
 - Its SHOCKINGLY FUN!
 - Design a roller coaster and a balloon car
- Units include: Mechanics, Electrostatics, Energy, and Astronomy
- Learn about the solar system and how galaxies form
 - Learn about NUCLEAR power
- Not a lot of homework.
- Need a 3rd lab science for UC, CSU, or other college admission?
- Geometry is recommended (there is a little math)



Welcome to AP Physics 1



- With Mr. Brewer! #5185
- Get hands on the way the world around us moves!
- NO PHYSICS EXPERIENCE REQUIRED!
- Fun experiments and demos
- Earn possible college credit for 1st semester Lab Physics
 - Great experience to study engineering, medicine, or any science
- Build a great community of friends striving toward a goal.
- Counts as a lab science for UC, CSU, or other college admission
- Geometry/Algebra II is recommended. GREAT TO TAKE WITH CALCULUS!



AP ENVIRONMENTAL SCIENCE

MS. CROW #5092



Environmental science is a broad field that examines the relationship between humans and the environment, focusing on understanding the impact of human activities on the environment and finding sustainable solutions.

APES is an interdisciplinary field of study where we learn transferrable science skills through engaging labs.

- **With Ms. Crow**
- **Grades 10 - 12**
- **Chemistry or LMC Chem concurrent *strongly* recommended**



SCIENCE DEPARTMENT

Courses for 11th and 12th Grade

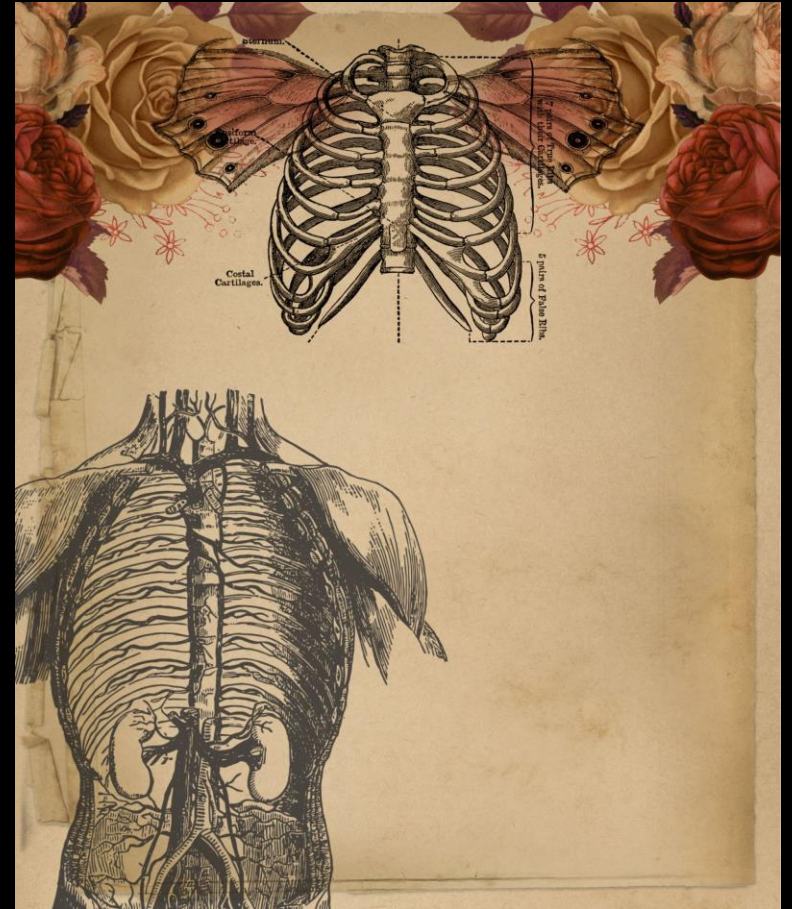
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ANATOMY & PHYSIOLOGY #5060

MR. CUNNINGHAM

In this class, students will learn about the organ systems that make up the human body, and how the organs work together to keep the body running.

Students will dissect specimens, perform physiology labs, and engage in a variety of fun and interesting hands-on activities to enrich their learning experience.



FORENSICS #5125

MS. NARBAITZ & MS. KOHLER

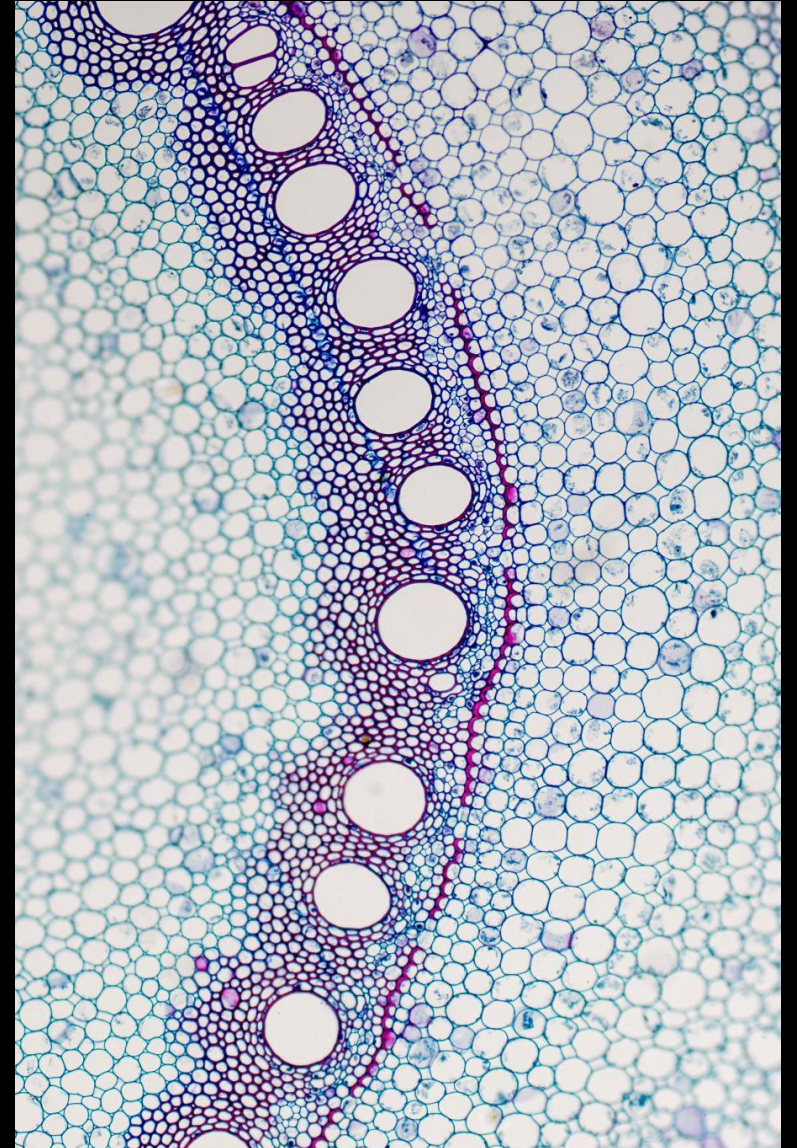


- This is a hands-on class where students will gain experience in techniques used by real forensic investigators.
- Units include: Blood, hair, DNA, fingerprinting, fibers, ballistics, arson, autopsy, and abnormal psychology.
- We learn and practice techniques doing labs every week, so regular attendance is essential so you can best participate and practice.
- No homework is assigned.
- Get a lab science credit and have fun solving crimes while learning about the psychology behind some criminal behaviors.
- Completion of Living Earth and Chemistry with a C or better is recommended.

AP BIOLOGY COURSE # 5010

Ms. Spainhower

AP Biology is a fun, demanding course in which students learn about living things and natural systems. As they learn, students will work on a variety of hands-on activities, laboratory experiments, and online simulations. This curriculum is rapidly evolving, and students will learn the most current developments in the fields of genetics, cell biology, ecology, and evolution as they prepare for the AP Biology Exam.





AP CHEMISTRY COURSE #5160 MS. SPAINHOWER

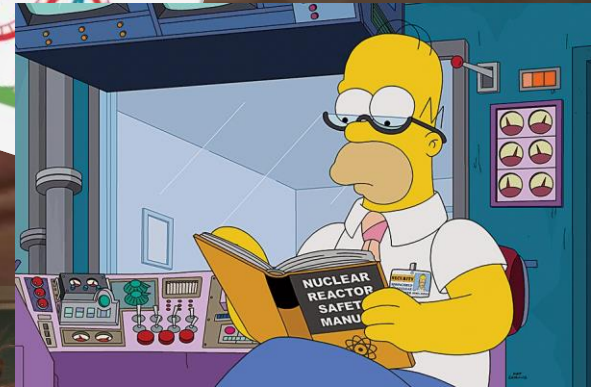
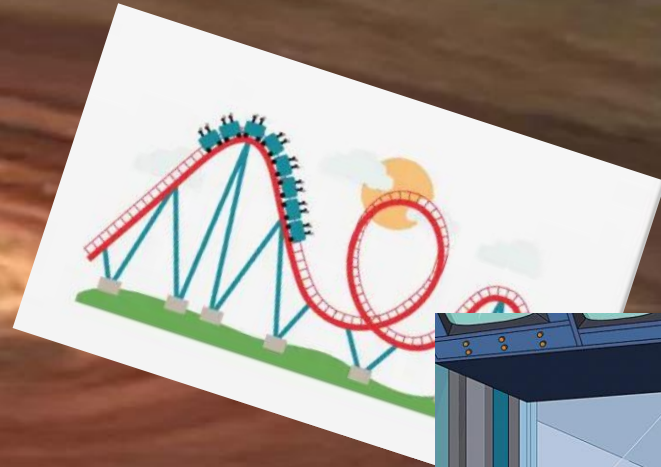
- AP Chem will help prepare you for all College level Science courses!!
- Cool upper-level lab experiments and analysis
- Lots of MATH!! Great to take with AP Physics 2!
- Recommend: Chemistry and Alg 2 concurrent



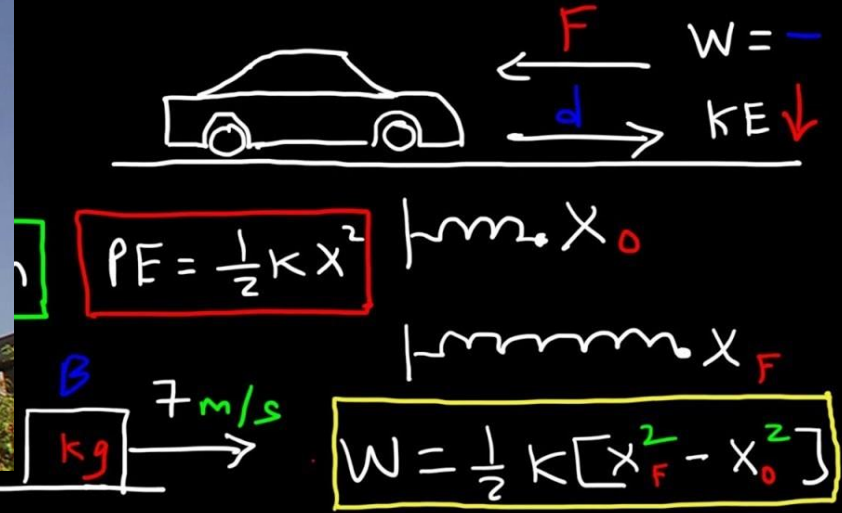
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AP PHYSICS 2 – MR. BREWER

- **NO AP PHYSICS EXPERIENCE REQUIRED!**
 - Pre req: Physics in the Universe or AP Physics 1
- **Fun experiments and demos**
 - Fluids, thermodynamics, optics and lenses and more!
- **Earn possible college credit for 2nd semester Lab Physics**
 - Great preview of topics if you want to study engineering, medicine, or any science
- **Build a great community of friends striving toward a goal.**
- **Counts as a lab science for UC, CSU, or other colleges**
- **GREAT TO TAKE WITH AP CHEMISTRY**

