Advanced Placement at Jackson High School

AP Courses for Freshmen

AP Human Geography

- Population trends, cultures, spatial patterns, global data

AP Computer Science Principles

- Designing programs to solve problems
- Applying abstractions in computation and modeling
- Analyzing and communicating about computation

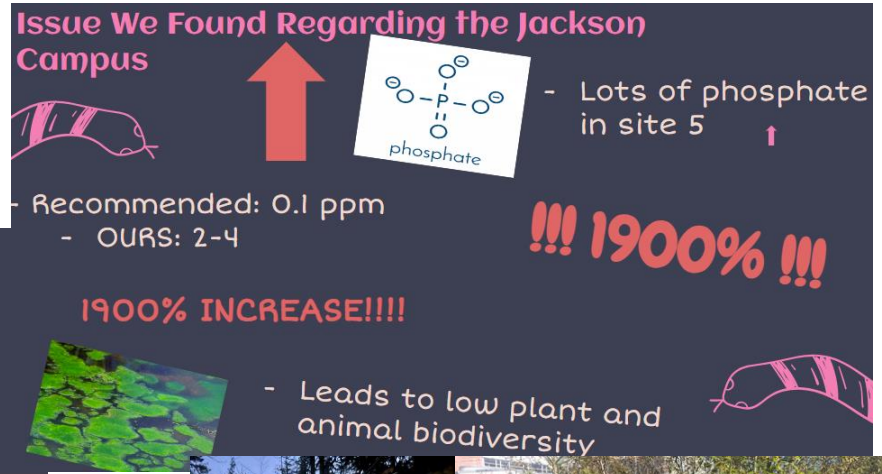
AP Environmental Science (APES)

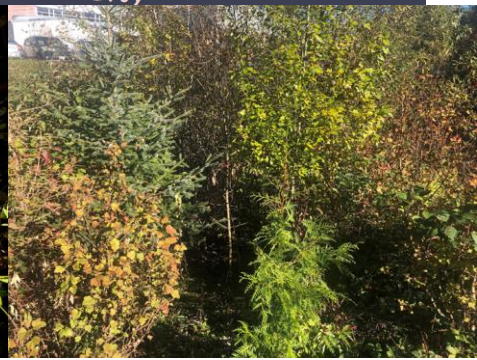
AP students learn by DOING!

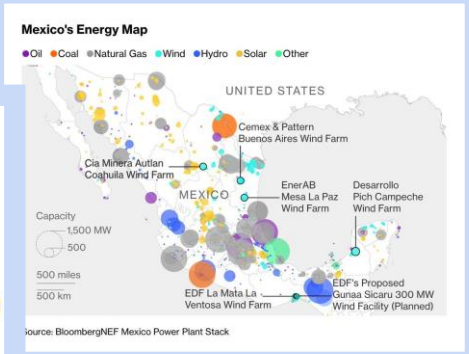
The **majority** of learning is from **projects, activities,** and **labs**

APES Unit 1: My Community Ecology

- Sample water, soil, biodiversity around campus
- Ideas to fix issues
- Real opportunities for change
- Ecology, sustainability







APES Unit 2: Global Climate Summit*

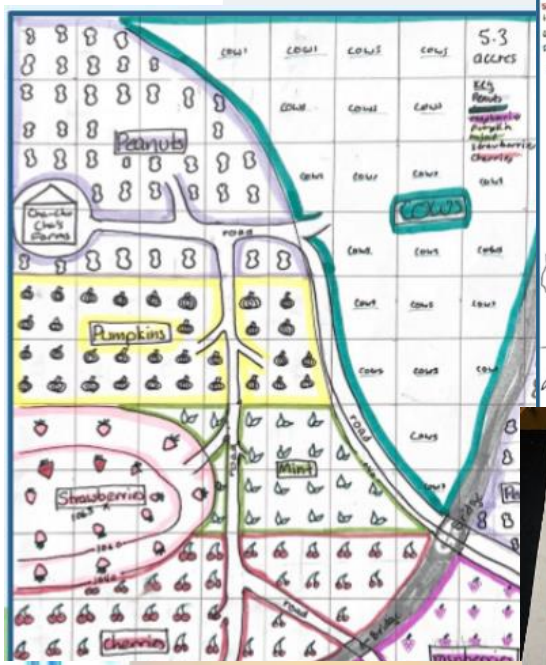
Pollution

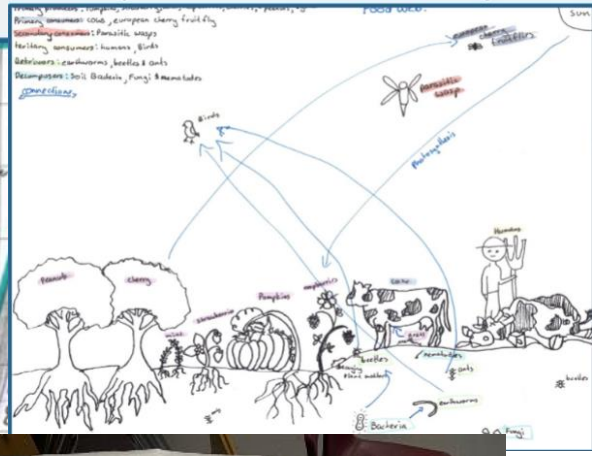
Climate change

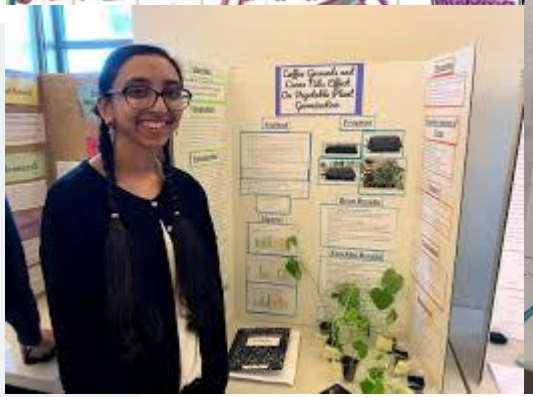
Energy consumption

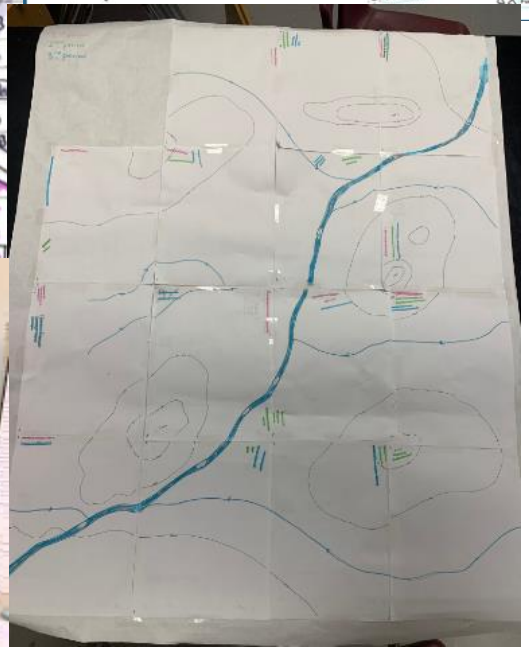
Human population growth

**Lots of overlap with HUG*





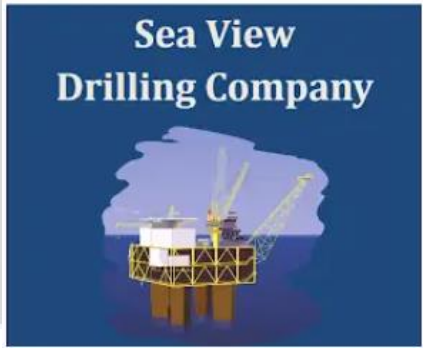




*Food Systems

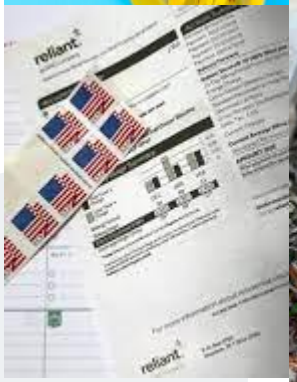
- Agriculture/food production
- Soil
- Watersheds
- Water pollution

*Lots of overlap with HUG



APES Unit 4: Oceans in Action

- Weather patterns
- Fire
- Aquaculture
- Oil spills
- Plate tectonics



APES Unit 5: Ecological Footprint

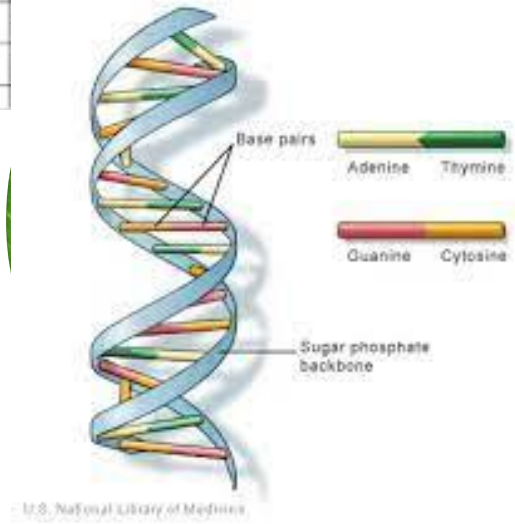
- Energy use
- Energy math
- CO_2 emissions and carbon sequestration
- Energy conservation

APES Unit 6: AP Test Prep

3 practice tests, including one **full-length test at school**

Diagnostic tools to find areas that need improvement

Assignment	Page	Day Assigned	Due Date	Important Dates
Albinism Pedigree Narrative	3-4	May 9, 2022	May 10, 2022 @ beginning of class	WHOLE PACKET TURN IN: MAY 27th @ beginning of class
Albinism Punnett Squares	5-6	May 10, 2022	May 11, 2022 @ beginning of class	
Karyotype	7	May 11, 2022	May 12, 2022 @ beginning of class	
Albinism: From Genotype to Phenotype	8-9	May 12, 2022	May 13, 2022 @ beginning of class	
Albinism: DNA Mutations Lab	10-12*	May 16, 2022	May 16, 2022 @ beginning of class	
Protein Modeling	13-16*	May 18, 2022		
UV and Geography	17-18	May 19, 2022		
Biology of Skin Color	19-21	May 20, 2022		
Allele Frequency:		May 23, 2022		



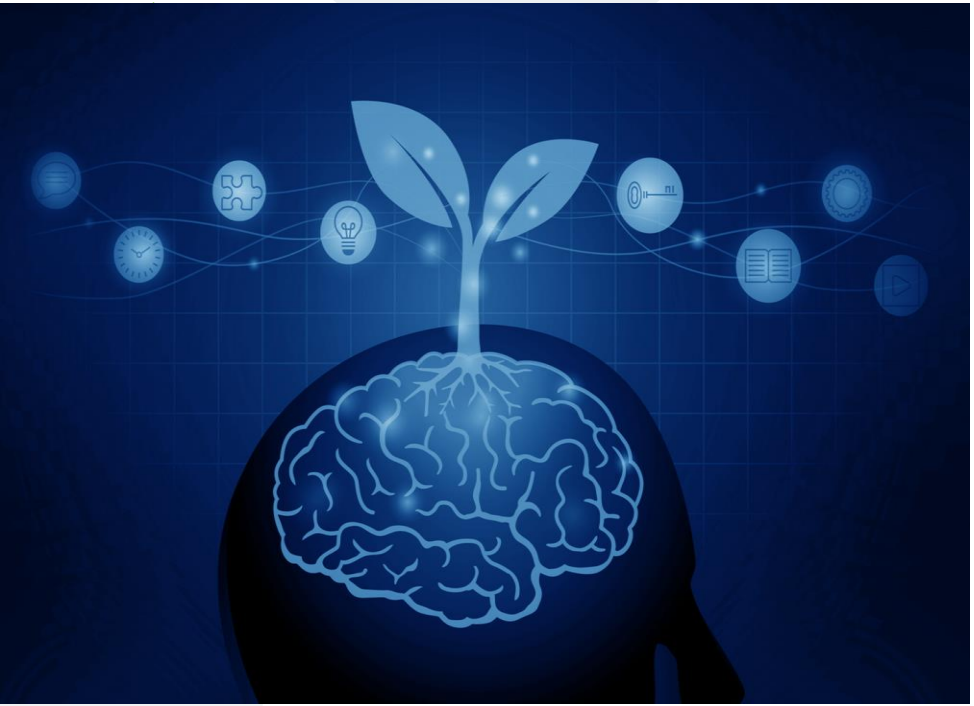
U.S. National Library of Medicine

APES Unit 7: Biology Bombardment

DNA → protein

Physiology

Growth Mindset & Resilience



Important for all AP courses

College-level classes (and tests!)

Students learn by reflecting and catching misconceptions

- Test corrections
- Review
- Learning reflections

“High challenge, high support”

Grades in APES

National AP test in May

- 4 or 5 → A in APES ***for the year***
- 3 → B in APES for the year (or keep higher grade earned in class)
- 1-2 → no change

Homework in AP classes

APES has **an hour or so** every day, on average. More on some days and less on others.

HUG and CSP have less (but more than most freshman classes)

Can you take AP and have extracurricular activities?

Yes! Most students have one or more activities. But it will take careful **time management** if you have more than one.

Be prepared to give something up, like some of your “down time.”

How many AP classes should you take?

- If you're not sure…
  - Take one!
- If you're super confident….
  - HUG and APES complement each other well
  - CSP is good for kids who love computing
- ***Maybe don't***…
  - …take all 3 :(

What's good about AP?

- AP will open your eyes and change the way you see the world and your place in it.
- Learning in AP classes (especially APES) is hands-on and collaborative. You will get to know your classmates really well. :)
- AP will teach you how to study and be a successful student.

I asked APES students what advice they would give 8th graders deciding whether to take AP next year, and here is a sampling of what they said:

“Don’t take AP if you aren’t willing to get below an A on anything, because I was told that and I didn’t listen (anytime someone told me that before, it wasn’t as hard as I thought, but this class will actually test you in ways you probably haven’t been tested before: academically, but also with your perseverance and work ethic and collaboration). This class is also super fun and engaging and you’re literally always learning something new. It is challenging, but it’s also enjoyable if you’re able to stay on top of work, prioritize, and put in a LOT of effort on studying.

If you have activities during the week or you’re always busy after school, this class will be hard. You have to plan on at least an hour of homework after school every day, so sometimes on weeks before tests you might have to skip things to study. Also, if you don’t love the subject of environmental science, it will be less enjoyable!”

- “Just because you took coordinated science, does not mean that you should or have to take AP. You can take all of the ‘freshman’ AP classes later. It’s okay to ramp up.”

- “It’s a lot of work but it’s worth it because you learn so much and improve as a student.”

- “Be prepared to work hard, and have some friends that also take the same classes because even if you are not in the same class, you can study together and help each other.”

- Time management! Time management! Time management!