**S-94**

AP Chem Full Exam Review Choice Board

**Review Log portion stays in the classroom. Update it in class each day.**

Digital copy posted on calendar and Class Website (AP tab 🡪Study Section 🡪 Full Exam Review).

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| Perseverance is the hard work you do after you get tired of doing the hard work you already did.-Newt Gingrich |
| **Notes Review and Rewrite**BEST PLACE TO START. So important to flip through and see all the things we have covered! *Example of Evidence:* Get a new paper out and take notes on your notes.  | **Thou Shalt Not Forget Review**Quiz each other, make flashcards, use the online quiz another teacher made (link on class calendar), etc.*Example of Evidence:* Scratch paper of work.  | **5 Minute Madness Activities**Must stay in the classroom and be put back nice and neatly when done!*Example of Evidence:* Notes on the key points, parts you got wrong, parts you realize you need to review, etc.  | **Review Test Folder and Rework old Qs**Phone on wall, sit where no devices. MUST SIGN FOLDER OUT AND BACK IN. STAYS IN CLASS. *Example of Evidence:* You can staple a purple paper to the old quiz with your new work.  |
| **Read the Actual AP Chem CED**It is long, just jump to the actual chem content. Read through what they claim you should be able to do! *Example of Evidence:* Notes on things to review. | **AP Classroom Practice Questions**I made tons available. I won’t be able to grade your FRQs but I think I made the rubrics viewable. *Example of Evidence:* Scratch paper of work.  | **Released AP Exam FRQs**SUCH GOOD PRACTICE. Seriously. Please do a lot of these! Good way to get mixed topic review!*Example of Evidence:* Scratch paper of work.  | ***Quality* YouTube Videos**Playlist of AP Daily Videos, and links to Doc Dena, Mr. Farabaugh, Mr. Patenaude on my YouTube Channel*Example of Evidence:* Take notes on the videos.  |
| **Lab Specific** **Review**Lab notebook, handouts, Two Pagers, lab skills PowerPoint on the Labs tab on website, look through released FRQs for lab based ones, etc.*Example of Evidence:* Scratch paper of notes.  | **AP Chem Review Binder**Hard copy stays in the classroom! Digital copy on class website somewhere... I honestly don’t remember where everything is saved anymore!*Example of Evidence:* Get a new paper out and take notes on your notes.  | **Full Exam Review by Big Idea Document**College Board doesn’t organize by “Big Idea” anymore, but it is a nice document that covers all topics even if in a different order. *Example of Evidence:* Get a new paper out and take notes on your notes.  | **20 Day Test Review Book or Scanned Copy**An old resource that we have used for years, but it is still a good option. Some things aren’t in the class anymore but those should be obvious. *Example of Evidence:* Get a new paper out and take notes on your notes.  |
| **crackAP.com****Albert iO**More MCQ practice. Please do AP Classroom Q’s first since we know those are actual AP questions.*Example of Evidence:*Scratch paper of work. | **Previous Years** **Student Made Games**Try out one of the student made games from last year and give me some feedback on it.*Example of Evidence:* Feedback form for Mrs. Farmer.  |  **“Down the Rabbit Hole”**Shape  Description automatically generated with low confidenceDive into the random Extra Review Material Folders on the Class Website. There are SO many great things other teachers have shared with me, but it is impossible to organize and vet all of them. Good stuff, just make sure you are covering all topics, chapters, etc. Keep yourself focused, not bouncing around between random resources!*Example of Evidence:* Scratch paper of your work.  |

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| Topic List – General overview, not everything you need to know!**Check things off this list as you review. Make sure you are studying all the chapters!** |
| **Unit 1 – Thermochemistry** | **Unit 5 – Atomic Structure** | **Unit 9 – Solutions** |
| * Concepts, Definitions, Calculations
* Endo vs. Exo
* Specific Heat
* Calorimetry
* Heating Curves
* Hess’s Law
* Heat of Formation
* Bond Energy
 | * Concepts, Definitions, Calculations
* Waves
* Effective Nuclear Charge
* Shielding
* Periodic Trends – Radius, IE, Electronegativity, Electron Affinity
* Ionic Radius
* Isoelectric Species
* Photoelectron Spectroscopy
 | * Concepts, Definitions, Calculations
* Concentration Calculations
* Mole Fractions
* Heat of Solution – steps and calculations
* Raoult’s Law
* Ideal vs. Non-ideal Solutions
* Solubility trends
 |
| **Unit 2 – Thermodynamics**  | **Unit 6 – Bonding** | **Unit 10 – Acid Base** |
| * Concepts, Definitions, Calculations
* Spontaneity
* Entropy
* Gibbs Free Energy
* Gibbs-Helmholtz Equation
* Connection to Equilibrium
* “Rat Link” Equation
 | * Concepts, Definitions, Calculations
* Ionic vs. Covalent
* Bond length, strength, multiplicity
* Bond Energy
* Coulomb’s Law
* Lattice Energy
* Steps that make up the Enthalpy of Formation Energy
* VSEPR
* Resonance
* Formal Charge
* Polarity
* Hybridization
* Sigma and Pi Bonds
 | * Concepts, Definitions, Calculations
* Conjugates
* Self Ionization of water, Kw
* Strong vs. Weak – Including things like predicting strength of oxyacids
* Strong vs. Weak Calculations
* Less Common Calculations Like Percent Ionization
* Salts
* Buffers, Buffer Capacity
* Henderson-Hasselbalch
* Ksp
* Titrations – questions involving graphs, concepts, and calculations
* Indicators
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| **Unit 3 – Kinetics**  | **Unit 7 – Gas Laws** | **Unit 11 - Electrochemistry** |
| * Concepts, Definitions, Calculations
* Average Rate
* Instantaneous Rate
* Rate Expressions
* Rate Laws
* Units on Rate Constant
* Integrated Rate Laws
* Graphing Rate Data to find Orders and Rate Constants
* Half-life for Different Order Rxns
* Collision Theory
* Maxwell-Boltzman Distribution Changes with Temperature and Catalysts
* Mechanisms
* Rate Laws with Intermediates
 | * Concepts, Definitions, Calculations
* Gas Laws
* Ideal vs. Real Gas Behavior
* Ideal Gas Law
* “Molar Mass Kitty”
* Gas Density
* Dalton’s Law of Partial Pressures
* Mole Fractions
 | * Concepts, Definitions, Calculations
* Oxidation and Reduction
* Oxidation Numbers
* Balancing Half Reactions
* Cell Potential
* Cells – labeling, components
* Galvanic vs. Electrolytic
* Connection to Thermodynamics
* Calculations connecting Thermodynamic Variables to Electrochem - ∆G°, E°cell, K
* Nernst Equation
* Concentration Cells
* Electroplating
* Electrolysis of Water
 |
| **Unit 4 – Equilibrium** | **Unit 8 – IMFs** | **Lab Based Topics** |
| * Concepts, Definitions, Calculations
* Equilibrium Expressions with Concentration or Pressure
* Equilibrium constant
* Le Chatelier’s Principle
* Reaction Quotient
* Ice Tables
 | * Concepts, Definitions, Calculations
* Types of IMFs – LDFs, DP-DP, H-bond, Ion-DP, Ion Induced DP, DP Induced DP
* Relative Strength of IMFs
* Effects on Properties
* Vapor Pressure
 | * Appropriate equipment selection
* Sig figs related to equipment
* Named lab techniques
* Good lab technique/skills
* Error propagation
* Types of lab graphs
 |

Name:    Period:    Seat #:

Review Log

**Review Log stays in the classroom. Update it in class each day.**

Log what you did from the choice board each day in class, and 4/7 days of the week at home. Tell me the topics you covered and what type of review activity you did. Choose a variety! Be honest...this is my attempt to keep you focused, on task, and help you make smart choices. You have worked SO hard this year, don’t stop now!

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| **Week 1**  |
| **In Class** | Monday | Tuesday | Block Day | Friday |
| **At Home** | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ |
| **Week 2 – SPRING BREAK – PLEASE KEEP WORKING!**  |
| **In Class** | Monday | Tuesday | Block Day | Friday |
| **At Home** | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ |
| **Week 3**  |
| **In Class** | Monday | Tuesday | Block Day | Friday |
| **At Home** | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ |
| **Week 4**  |
| **In Class** | Monday | Tuesday | Block Day | Friday |
| **At Home** | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ |
| **Week 5**  |
| **In Class** | Monday | Tuesday | Block Day | Friday**Brain Break Day!**No chemistry today! |
| **At Home** | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ | Date: \_\_\_\_ / \_\_\_\_\_ |