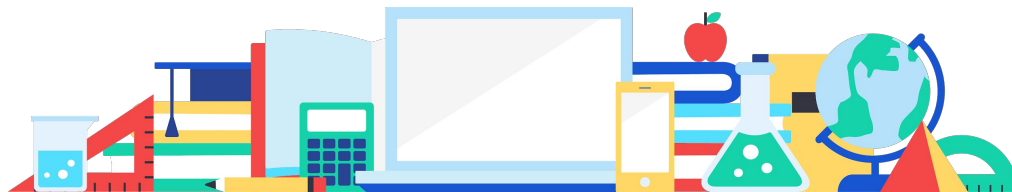




AP Chemistry Topics & Resources

Updated January 2021



Topics

- **Atoms, Compounds, and Ions**
 - Introduction to the Atom
 - Ions and Compounds
 - Names and Formulas of Ionic Compounds
- **Chemical Reactions**
 - Types of Reactions
 - Balancing Chemical Equations
- **Stoichiometry**
 - Moles
 - Molecular Composition
 - Limiting Reagent Stoichiometry
- **Electronic Structure of Atoms**
 - Coulomb's Law
 - Bohr's Model of the Hydrogen Atom
 - Quantum Numbers and Orbitals
 - Electron Configurations
 - Predicting Ionic Charges
- **Periodic Table**
 - Periodic Trends
- **Chemical Bonds**
 - Types of Bonds
 - Lewis Dot Structures
 - Polarity
- **Gas Laws**
 - Kinetic Molecular Theory
 - Maxwell-Boltzmann Diagram
 - The Ideal Gas Equation
 - Dalton's Law
 - Non-ideal Gas Behavior
- **States of Matter and Intermolecular Forces**
 - States of Matter
 - Intermolecular Forces
 - Solutions
- **Chemical Equilibrium**
 - Equilibrium Constant
 - Changes in the Equilibrium Constant
 - Le Châtelier's Principle
 - Solubility
- **Acids and Bases**
 - pH
 - Acid Strengths
 - Acid-Base Equilibria
- **Buffers, Titrations, and Solubility**
 - Neutralization Reactions
 - Indicators
- **Thermodynamics**
 - Heat and Temperature
 - Enthalpy
 - Entropy
- **Redox Reactions and Electrochemistry**
 - Oxidation-Reduction Reactions
 - Galvanic and Electrolytic Cells
- **Kinetics**
 - Rate Laws
 - Collision Theory
 - Reaction Mechanisms
 - Arrhenius Equation
- **Nuclear Chemistry**
 - Radioactive Decay

Links to Resources

Additional Resources

- [Khan Academy](#)
- [Boundless Chemistry](#)
- [Albert](#)
- [The Organic Chemistry Tutor](#)
- [Crash Course Chemistry](#)
- [Melissa Maribel](#)
- [AP Chemistry Lectures](#)
- [ketzbook](#)
- [CourseNotes](#)
- [Varsity Tutors](#)
- [OpenStax](#)
- [Chemistry LibreTexts](#)

Reference used to create slides:

Chemical Principles: The Quest for Insight, Fifth Edition by
Peter Atkins and Loretta Jones



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