

# Honors Chemistry Midterm Review

## Matter and Measurement

- Chemical properties
- Compounds
- Density calculations
- Elements
- Kinetic energy
- Laboratory equipment
- Laboratory safety
- Metric unit conversions
- Mixtures
- Percent error
- Physical properties
- Potential energy
- Significant figures

## Atomic Structure

- Atomic emission spectrum
- Average atomic mass
- Electron configurations
- Energy levels
- Frequency
- Isoelectronic
- Isotopes
- Molar mass
- Mole to gram conversions
- Mole to particle conversions
- Orbitals
- Percent abundance
- Protons, neutron, electrons
- Rutherford's Gold Foil Experiment
- Thomson's cathode ray experiment
- Sublevels
- Valence electrons
- Wavelength

## Periodic Table

- Atomic number
- Atomic radius
- Electronegativity
- Group
- Ionization energy
- Ions
- Period
- Periodic trends
- Properties of metals/nonmetals

## Bonding

- Covalent bond
- Hybridization
- Ionic bond
- Lewis Diagrams
- Metallic bond
- Nonpolar covalent bond
- Polar covalent bond
- Properties of solids/bonding types
- VSEPR/shapes of molecules

## Formulas and Equations

- Balancing chemical equations
- Empirical formula
- Endothermic reactions
- Exothermic reactions
- Molecular formula
- Naming compounds
- Percent composition
- Writing chemical formulas
- Types of Reactions