# Weekly Lesson Plan (Week at a Glance) – AP Chemistry – Unit 2: Compound Structure and Properties

Dates: September 29 – October 3, 2025

Subject: AP Chemistry.

Teacher: Finnegan

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| Day | Learning Target (LT) & Success Criteria (SC) | Activation of Learning (5 min) | Focused Instruction – I DO (10 min) | Guided Instruction – WE DO (10 min) | Collaborative Learning – Y’ALL DO (10 min) | Independent Learning – YOU DO (10 min) | Closing (5 min) |
| Monday (Sept. 29) | LT: I am learning about chemical changes and relation to law of conservation of mass.SC: I can identify and differentiate between physical and chemical changes.SC2:I can calculate products from reactants. | DIN: Particulate diagram of precipitation reaction. | Chemical and physical properties introduction. | Phys/Chem examples together. | Chemical and physical properties gallery walk. | Glycolysis stoichiometry calculations. | Calculations exit ticket. |
| Tuesday (Sept. 30) – Types of Chemical Bonds | LT: I can distinguish between ionic, covalent, and metallic bonds and explain their properties based on electron interactions.SC1: I can classify a bond type given electronegativity differences.SC2: I can explain how bond type affects conductivity, malleability, and melting point. | Quick Write: “Predict which type of bond NaCl forms and why.” | Modeling with Think-Aloud: Teacher walks through bond classification examples, narrating reasoning. | Graphic Organizer (Guided): Fill in Venn diagram comparing ionic, covalent, metallic bonds. | Jigsaw Strategy: Students in groups become “experts” on one bond type, then teach peers. | Choice Board: Students select practice task (classify compounds, draw electron sharing diagrams, or summarize bond properties). | Exit Ticket: “Explain one property of metals using metallic bonding.” |
| Wednesday (Oct. 1) – Intramolecular Forces & Potential Energy | LT: I can explain how bond energy relates to bond strength and molecular stability.SC1: I can analyze energy diagrams to determine relative bond strengths.SC2: I can connect bond energy to endothermic/exothermic processes. | Anticipation Guide: True/false prompts (“Breaking bonds releases energy”). | Worked Examples: Teacher shows bond energy calculation (coordinates) with step-by-step reasoning. | Reciprocal Teaching: Small groups read bond energy coordinate diagrams and classify. | Socratic Seminar: Discuss “Why do stronger bonds have higher potential energy but lower reactivity?” | Performance Task: Analyze a combustion reaction and calculate total energy change. | 3-2-1 Summary: 3 things learned, 2 connections to reactions, 1 lingering question. |
| Thursday (Oct. 2) – Structure of Ionic Solids | LT: I can describe the lattice structure of ionic solids and relate it to their macroscopic properties.SC1: I can explain high melting points and brittleness using lattice structure.SC2: I can compare ionic solids to molecular solids in structure and properties. | Do Now – Diagram: Label NaCl lattice and predict properties. | Direct Instruction (Mini-lecture + visuals): Show lattice models and crystal structures with analogies. | Prompting & Cueing: Scaffold questions to connect lattice to conductivity and brittleness. | Team Problem Solving: Groups analyze why NaCl conducts only when molten/aqueous. | Graphic Organizer (Independent): Complete chart comparing ionic solids, molecular solids, metals. | Peer Debrief: Turn to partner, explain “Why does lattice structure cause brittleness?” |
| Friday (Oct. 3) – Application & Synthesis | LT: I can evaluate how bonding and solid structures explain real-world material properties.SC1: I can analyze unfamiliar materials based on bonding/structure.SC2: I can justify predictions about material properties using bonding models. | Engaging Video: Short clip on diamond vs. graphite properties with guiding question. | Analogies: Teacher explains diamond vs. graphite bonding with real-life analogies (network covalent vs. molecular solids). | FRQ Friday. | FRQ Friday. | FRQ Friday. | Revisit Learning Target: Students rate understanding 1–4 and share one takeaway. |