AP Chemistry: APSI - Jordan Rose (Summer 2024)

Day 1	Essential Topics
AM1	**UNDERSTANDING THE COURSE** **Welcome and Introductions** Norms and Agenda for the Day and Week Building a Successful Program **The Growth Mind-Set** Teaching Resources Equity, Inclusion, and Promoting Diversity Broadening Access to AP Toolkit Making the AP Chemistry Laboratory Inclusive for All Learners
AM2	**Understanding the Framework and Scope of the Course** Course and Exam Description WalkThrough Course Overview: Units, Big Ideas, Enduring Understandings, and Learning Objectives **Unit 1: Atomic Structure and Properties** **Science Practices 1, 3, & 4 - Representations and Intermolecular Forces** Mass Spectrometry Guided Inquiry Lab Manual Investigation 3 (Hard Water) PES Concepts and Simulations
PM1	**Unit 2: Molecular and Ionic Compound Structure and Properties** Using Particulate Diagrams Coulomb's Law and Free Response Questions Guided Inquiry Lab Manual Investigation 6 (Bottle Set Lab)
PM2	**Unit 3: Intermolecular Forces and Properties** IMFs and Free Response Questions Scoring IMFs - Student Samples Guided Inquiry Lab Manual Investigation 5 (Chromatography) **Thinking Ahead Day 1 - Scaffolding and Spiraling the Science Practices**

Day 2	Essential Topics
AM1	**PLANNING YOUR COURSE** **Exploring the Unit Guides** Understanding the Score and Sequence Beer's Law Concepts and Instrumentation Guided Inquiry Lab Manual Investigations 1, 2 (Carolina Lab Kit - Spectrophotometric Analysis of Food Dyes) **Unit 4: Chemical Reactions** Guided Inquiry Lab Manual Investigation 4 (Fruit Juice) Guided Inquiry Lab Manual Investigation 7 (Green Chemistry - Separation of a Mixture) Lab Reports
AM2	**Unit 9: Applications of Thermodynamics** Electrochemistry and Oxidation-Reduction Voltaic Cells Lab
PM1	**Planning Your Course - Standard vs Alternate Pathways** Using AP Classroom Data for Planning Instructional Planning and Score Reports **TEACHING THE COURSE** **Reviewing the Instructional Approaches**
PM2	**Using the Topic Pages** WICOR Strategies **Thinking Ahead Day 2 - Instructional Strategies for Specific Topics**

Day 3	Essential Topics
AM1	**Science Practices 2, 5, & 6 - Experimental Design, Calculations, and Argumentation** **Unit 5: Kinetics** Hungry, Hungry, Hippos Activity Mechanisms Guided Inquiry Lab Manual Investigation 10 (Marble Statue) Guided Inquiry Lab Manual Investigation 11 (Crystal Violet)
AM2	**Unit 6: Thermodynamics** Guided Inquiry Lab Manual Investigation 12 (Hand Warmer Design Challenge) Hess's Law Virtual Activity **Lab-based FRQ**
PM1	**Unit 7: Equilibrium** Bingo Chip Q vs K Activity Progressive Precipitation Activity Guided Inquiry Lab Manual Investigation 13 (LeChatelier Rainbow)
PM2	**Unit 8: Acid and Base Equilibrium and Buffers** Titration Screen Experiment Buffer Problems Guided Inquiry Lab Manual Investigation 14 (pH Curves) Guided Inquiry Lab Manual Investigations 15 & 16 (Buffers) **Thinking Ahead Day 3 - Connecting the Exam to the Curriculum**

Day 4	Essential Topics
AM1	**ASSESSING STUDENT PROGRESS** **AP Exam Structure** Free Response Prompts Activity Task Verbs Chief Reader Reports **AP Classroom** New Features Data Driven Instruction Class Progress
AM2	**Formative vs Summative Assessments** Topic Questions and AP Daily Videos Personal Progress Checks AP Question Bank Student Self-Scoring
PM	**BECOMING A MEMBER OF THE AP COMMUNITY** **Scoring Free Response Questions** **AP Course Audit and Curricular Requirements** Course Audit Syllabi Construction **Next Steps - Joining the AP Teacher Community and Finding Additional Resources** College Board Resources Share Fair Workshops, Institutes, Mentoring AP Reading Final Questions & Key Takeaways