

Cambridge AICE Chemistry 2

- PS 1 Calculate lattice energy and relate the value of lattice energy to ionic charge, ionic size, thermal stability and solubility.
- PS 2 Display a qualitative and quantitative understanding of electrochemical and electrolytic cells.
- PS 3 Understand the concept of weak ionic equilibria and perform related equilibrium calculations.
- PS 4 Develop and use rate equations in order to understand the concept of reaction kinetics.
- PS 5 Describe and explain the physical and chemical properties of the Group IV elements and their tetrachlorides and oxides.
- PS 6 Describe and explain the physical properties of transition elements, their ions and their complexes.
- PS 7 Describe the structure and common chemical reactions of benzene and its related compounds.
- PS 8 Describe the common reactions of carboxylic acids and acyl compounds.
- PS 9 Describe the main chemical reactions of amines and amine related compounds.
- PS 10 Diagram and explain the process of polymerization and deduce the monomers and polymers involved in polymerization reactions when given appropriate data.
- PS 11 Understand the application of chemistry to living systems with respect to proteins, nucleic acids, energy transfers and essential metals.
- PS 12 Understand practical applications of analytical chemistry including electrophoresis, nuclear magnetic resonance spectroscopy, x-ray crystallography, chromatography and mass spectrometry.
- PS 13 Understand and describe how chemistry is applied to the design of new materials and to overcome environmental problems.
- PS 14 Plan, carry out and communicate practical laboratory work.
- PS 15 11-12.RST.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
- PS 16 11-12.RST.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
- PS 17 11-12.RST.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.
- PS 18 11-12.RST.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
- PS 19 11-12.WHST.1 Write arguments focused on discipline-specific content.
- Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.
 - Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.
 - Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
 - Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
 - Provide a concluding statement or section that follows from or supports the argument presented.

- PS 20 11-12.WHST.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- PS 21 11-12.WHST.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.