



## National Evaluation Series™ Test Framework Worksheet Chemistry

|            | Notes:   |  | Multiple-Choice<br>Questions<br>(approx.) | Test Proportion (approx.) |  |  |  |
|------------|--|--|---|---------------------------|--|--|--|
|            | CONT   | ENT DOMAIN I—NATURE OF SCIENCE   | 27  | 18%                       |  |  |  |
| Competency | 0001 Understand principles and procedures of scientific inquiry.   |  |   |                           |  |  |  |
|            | 0002   | Understand the history and nature of science.  |   |                           |  |  |  |
|            | 0003   | Understand the relationships among science, technology, engineering, mathematics, and society.     |   |                           |  |  |  |
|            | CONT   | ENT DOMAIN II—MATTER AND ATOMIC STRUCTURE  | 27  | 18%                       |  |  |  |
| Competency | 0004 Understand the properties of matter.  |  |   |                           |  |  |  |
|            | 0005   | Understand atomic theory and the periodic table.   |   |                           |  |  |  |
|            | Understand the kinetic molecular theory, the nature of phase changes, and the gas laws.                      |  |   |                           |  |  |  |
|            | CONTENT DOMAIN III—ENERGY AND CHEMICAL BONDING 34 23%  |  |   |                           |  |  |  |
| Competency | Understand the principles of thermodynamics and calorimetry.   |  |   |                           |  |  |  |
|            | 8000   | 8 Understand energy relationships in chemical bonding, chemical reactions, and physical processes. |   |                           |  |  |  |
|            | 0009   | Understand the nomenclature and structure of inorganic and organic compounds.                      |   |                           |  |  |  |
|            | 0010 Understand chemical bonding and intermolecular forces and their effect on the properties of substances. |  |   |                           |  |  |  |
|            | CONT   | ENT DOMAIN IV—CHEMICAL REACTIONS   | 34  | 23%                       |  |  |  |
| Competency | 0011 Understand the nature of chemical reactions.  |  |   |                           |  |  |  |
|            | 0012   | Understand the principles of chemical equilibrium.   |   |                           |  |  |  |
|            | 0013   | Understand acid-base chemistry.  |   |                           |  |  |  |
|            | 0014   | Understand oxidation-reduction reactions and electrochemistry.                                     |   |                           |  |  |  |
|            | CONTENT DOMAIN V—STOICHIOMETRY AND SOLUTIONS 28 18%  |  |   |                           |  |  |  |
| Competency | 0015   | Understand the mole concept.   |   |                           |  |  |  |
|            | 0016 Understand stoichiometry.   |  |   |                           |  |  |  |
|            | 0017 Understand the properties of solutions and colloidal suspensions.                                       |  |   |                           |  |  |  |

