

NRC Framework Disciplinary Core Ideas (DCIs) <sup>20</sup>	AP Chemistry Big Ideas <sup>22</sup>	ACS General Chemistry Curriculum Map Anchoring Concepts <sup>23,24</sup>	College Board Chemistry Standards for College Success <sup>25</sup>	MSU Core Ideas <sup>26</sup>
PS1: Matter and its interactions <ul style="list-style-type: none"> <li>• PS1.A: Structure and properties of matter</li> <li>• PS1.B: Chemical reactions</li> <li>• PS1.C: Nuclear reactions</li> </ul>	1. Atoms 2. Chemical and physical properties 3. Reactions: rearrangement of atoms and electrons	I. Atoms III. Structure/Function V. Chemical Reactions	Matter	Atomic/Molecular Structure and Properties
PS2: Motion and stability: forces and interactions <ul style="list-style-type: none"> <li>• PS2.B: Types of interactions</li> </ul>	6. Bonds and interactions	II. Bonding IV. Intermolecular Forces	No corresponding standard	Electrostatic and Bonding Interactions
PS3: Energy <ul style="list-style-type: none"> <li>• PS3.A: Definitions of energy</li> <li>• PS3.B: Conservation of energy and energy transfer</li> <li>• PS3.C: Relationship between energy and forces</li> <li>• PS3.D: Energy in chemical processes and everyday life</li> </ul>	5. Thermodynamics/energy	VI. Energy and Thermodynamics	Energy and change	Energy
No corresponding DCI	4. Rates/kinetics	VII. Kinetics VIII. Equilibrium	Matter and change	Change and Stability in Chemical Systems