

# Next Generation Science Standards for Zero Waste



Science & Engineering Practices



Disciplinary Core Idea



Crosscutting Concept

4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>
<p><b>4-ESS2 Earth's Systems</b></p> <p><b>ESS2.E: Biogeology</b> Living things affect the physical characteristics of their regions. (4-ESS2-1)</p> <hr/> <p><b>4-ESS3 Earth and Human Activity</b></p> <p><b>ESS3.A: Natural Resources</b></p> <ul style="list-style-type: none"> <li>Energy and fuels that humans use are derived from natural sources... (4-ESS3-1)</li> </ul> <hr/> <p><b>4-PS3 Energy</b></p> <p><b>PS3.D: Energy in Chemical Processes and Everyday Life</b></p> <ul style="list-style-type: none"> <li>The expression "produce energy"...(4-PS3-4)</li> </ul> <hr/> <p><b>3-5-ETS1 Engineering Design</b></p> <p><b>Asking Questions and Defining Problems</b> Asking questions and defining problems...</p> <p><b>Influence of Engineering, Technology, and Science on Society and the Natural World</b></p> <ul style="list-style-type: none"> <li>People's needs and wants change over time...(3-5-ETS1-1)</li> </ul> <p>Engineers improve existing technologies...(3-5-ETS-2)</p>	<p><b>5-ESS3 Earth and Human Activity</b></p> <p><b>ESS3.C: Human Impacts on Earth Systems</b> Human activities in agriculture, industry... (5-ESS3-1)</p> <hr/> <p><b>5-PS1 Matter and Its Interactions</b></p> <p><b>PS1.B: Chemical Reactions</b></p> <ul style="list-style-type: none"> <li>When two or more different substances are mixed... (5-PS1-4)</li> </ul> <hr/> <p><b>5-PS3 Energy</b></p> <p><b>PS3.D: Energy in Chemical Processes and Everyday Life</b></p> <ul style="list-style-type: none"> <li>The energy released [from] food was once energy from the sun...5-PS3-1)</li> </ul> <hr/> <p><b>3-5-ETS1 Engineering Design</b></p> <p><b>Asking Questions and Defining Problems</b> Asking questions and defining problems...</p> <p><b>Influence of Engineering, Technology, and Science on Society and the Natural World</b></p> <ul style="list-style-type: none"> <li>People's needs and wants change over time... (3-5-ETS1-1)</li> </ul> <p>Engineers improve existing technologies...(3-5-ETS-2)</p>	<p><b>MS-LS1 From Molecules to Organisms: Structures and Processes</b></p> <p><b>LS1.B: Growth and Development of Organisms</b></p> <ul style="list-style-type: none"> <li>Animals engage in characteristic behaviors...(MS-LS1-4)</li> </ul> <hr/> <p><b>MS-ESS3 Earth and Human Activity</b></p> <p><b>ESS3.C: Human Impacts on Earth Systems</b></p> <ul style="list-style-type: none"> <li>Human activities have significantly altered the biosphere...(MS-ESS3-3)</li> </ul> <p><b>ESS3.D: Global Climate Change</b> Human activities, such as the release of greenhouse gases from burning fossil fuels... (MS-ESS3-5)</p> <hr/> <p><b>MS-ETS1 Engineering Design</b></p> <p><b>Asking Questions and Defining Problems</b> Asking questions and defining problems...</p> <p><b>Influence of Science, Engineering, and Technology on Society and the Natural World</b></p> <ul style="list-style-type: none"> <li>All human activity draws on natural resources...(MS-ETS1-1)</li> </ul> <p>The uses of technologies... (MS-ETS1-1)</p>