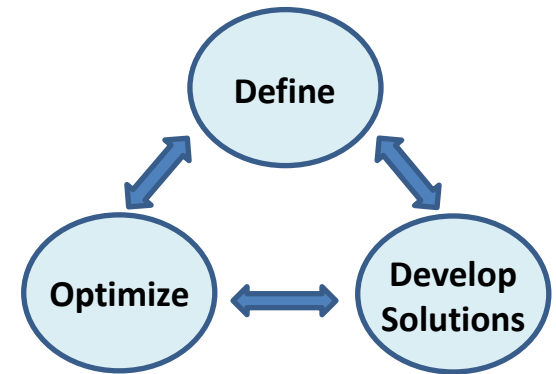


**Engineering Design in NGSS** synthesized from NGSS Appendix I

	<b>K-2</b>	<b>3-5</b>	<b>6-8</b>	<b>9-12</b>
<b>DEFINE &amp; DELIMIT</b>	Identify situations that people want to change as problems that can be solved through engineering	Specify criteria and constraints that a possible solution to a simple problem must meet	Attend to precision of criteria and constraints and considerations likely to limit possible solutions	Attend to a broad range of considerations in criteria and constraints for problems of social and global significance
<b>DEVELOP SOLUTIONS</b>	Convey possible solutions through visual or physical representations	Research and explore multiple possible solutions	Combine parts of different solutions to create new solutions	Break a major problem into smaller problems that can be solved separately
<b>OPTIMIZE</b>	Compare solutions, test them, and evaluate each	Improve a solution based on results of simple tests, including failure points	Use systematic processes to iteratively test and refine a solution	Prioritize criteria, consider trade-offs, and assess social and environmental impacts as a complex solution is tested and refined



*Engineering in NGSS emphasizes engineering design practices that all citizens should learn.*

**ENGINEERING** – a systematic process for solving problems

**TECHNOLOGY** – the result of engineering practice