



## ADW GRADE 6-8 ENGINEERING STANDARDS & INSTRUCTION GUIDE

Engineering (E )	Standards	Core Concepts	Scientific Terms and Scientists	EdTech Resources
SC.6-8.E.1	Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.	<ul style="list-style-type: none"><li>• The more precisely a design task's criteria and constraints can be defined, the more likely it is that the designed solution will be successful.</li><li>• Specification of constraints includes consideration of scientific principles and other relevant knowledge that are likely to limit possible solutions.</li></ul>		<a href="https://ulxplorlabs.org/fire-forensics-claims-and-evidence/?utm_source=influencer&amp;utm_medium=cpc&amp;utm_campaign=coolcatteacherblog&amp;ck_subscriber_id=61531712">https://ulxplorlabs.org/fire-forensics-claims-and-evidence/?utm_source=influencer&amp;utm_medium=cpc&amp;utm_campaign=coolcatteacherblog&amp;ck_subscriber_id=61531712</a>
SC.6-8.E.2	Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.	<ul style="list-style-type: none"><li>• There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem.</li></ul>		



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<b>SC.6-8.E.3</b>	Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.	<ul style="list-style-type: none"><li>• There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem.</li><li>• Sometimes parts of different solutions can be combined to create a solution that is better than any of its predecessors.</li><li>• Although one design may not perform the best across all tests, identifying the characteristics of the design that performed the best in each test can provide useful information for the redesign process—that is, some of those characteristics may be incorporated into the new design.</li></ul>		
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