

Workshop Topic	K-2 Alignment	3-5 Alignment	6-8 Alignment
LEGO Engineering	<b>K-2-ETS1-2 Engineering Design</b> Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	<b>3-5-ETS1-3 Engineering Design</b> Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	<b>MS-ETS1-4 Engineering Design</b> Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.
Circuits and Bots	<b>Busy Bots</b>  <b>K-2-ETS1-3 Engineering Design</b> Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	<b>Snappy Circuitry</b>  <b>4-PS4-3 Waves and Their Applications in Technologies for Information Transfer</b> Generate and compare multiple solutions that use patterns to transfer information.	<b>Snappy Circuitry</b>  <b>MS-PS3-3 Energy</b> Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.
Magnet Magic	<b>K-PS2-1 Motion and Stability: Forces and Interactions</b> Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.	N/A	N/A
Scientific Illustration	<b>2-LS4-1 Biological Evolution: Unity and Diversity</b> Make observations of plants and animals to compare the diversity of life in different habitats.	<b>4-LS1-1 From Molecules to Organisms: Structures and Processes</b> Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.	<b>MS-LS1-5 From Molecules to Organisms: Structures and Processes</b> Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

Activity	K-2 Supporting Standards	3-5 Supporting Standards	6-8 Supporting Standards
<b>Mission: POSSIBLE!</b>	<b>K-2-ETS1-2 Engineering Design</b> Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	<b>3-5-ETS1-3 Engineering Design</b> Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	<b>MS-ETS1-4 Engineering Design</b> Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.
<b>ScienceLIVE</b>	<b>Cross-Cutting Concepts: Scale, Proportion, and Quantity and Cause and Effect</b>		
<b>StarLab Show</b>	<b>Cross-Cutting Concept: Scale, Proportion, and Quantity</b>		
<b>Family Science Night</b>	<b>K-2-ETS1-1 Engineering Design</b> Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	<b>3-5-ETS1-3 Engineering Design</b> Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	<b>MS-ETS1-4 Engineering Design</b> Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.