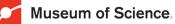




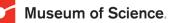
Alignment to Utah Science with Engineering Education (SEEd) Standards							
Unit	Science Concept Connections	Utah SEEd Kindergarten					
Raise the Roof: Designing Shelters	light and shadowthe warming effect of the Sunanimals and animal needs	Weather Patterns: K.1.3, K.1.4 Living Things and Their Surroundings: K.2.3					
Here's the Scoop: Designing Trash Collectors	 the basic needs of living things animal habitats and ecosystems	Living Things and Their Surroundings: K 2.4					
Sort It Out: Programming Robots to Recycle Computer Science	 human impact on the environment recycling and environmental stewardship 	Living Things and Their Surroundings: K.2.4					





Units with Life Science Topics

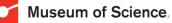
Unit	Engineering and		Utah SEEd Standards				
Unit	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
The Best of Bugs: Designing Hand Pollinators	Agricultural Engineering		2.2.4	2.2.3 2.3.1	3.2.5		
	Insects and Plants			2.3.2			
Just Passing Through:	Bioengineering	K.2.1	2.2.4		3.2.5		
Designing Model Membranes	Needs of Organisms						
No Bones About It: Designing Knee Braces	Biomedical Engineering						
	Skeletal and Muscular Systems					4.1.1	
A Slick Solution: Cleaning an Oil Spill	Environmental Engineering				3.2.5		5.3.1
Also listed with Earth Science	Ecosystems				3.2.6		5.3.3
Thinking Inside the Box:	Package Engineering	K.2.1	1.2.1	2.3.1		4.1.1	
Designing Plant Packages	Plants	N.Z. 1	1.2.1	2.3.2		7.1.1	





Units with Earth Science Topics

Unit	Engineering and			Utah SEEd	Standards		
Unit	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Catching the Wind: Designing Windmills	Mechanical Engineering	K.1.1			3.1.2 3.3.1		
Also listed with Physical Science	Weather				3.3.2		
Now You're Cooking: Designing Solar Ovens	Green Engineering					4.2.3	
Also listed with Physical Science	Energy and Energy Resources					4.2.3	5.3.4
A Slick Solution: Cleaning an Oil Spill	Environmental Engineering	K.1.1 K.2.2					5.1.2 5.1.4
Also listed with Life Science	Ecosystems	K.2.4					5.3.4
Solid as a Rock: Replicating an Artifact	Materials Engineering			2.3.1		4.1.4	
Available as a digital unit. Materials Kit not available for purchase.	Rocks and Minerals			2.3.2			
A Stick in the Mud:	Geotechnical Engineering			2.1.2	3.1.3		5.1.1
Evaluating a Landscape	Landforms and Maps			2.1.2	3.1.3		5.1.3 5.1.5
Taking the Plunge:	Ocean Engineering						5.1.1 5.1.2
Designing Submersibles Also listed with Physical Science	Sinking and Floating						5.1.4 5.2.2
Water, Water Everywhere:	Environmental Engineering				3.2.6		5.1.4
Designing Water Filters	Water				0.2.0		5.3.4

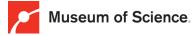




Units with Physical Science Topics

Unit	Engineering and			Utah SEEd	Standards		
	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
An Alarming Idea:	Electrical Engineering					4.2.3	5.2.2
Designing Alarm Circuits	Electricity					4.2.4	5.2.2
The Attraction Is Obvious:	Transportation Engineering				3.3.4		500
Designing Maglev Systems	Magnets				3.3.5		5.2.2
Catching the Wind:	Mechanical Engineering				3.1.1	4.0.1	
Designing Windmills	\\/acther				3.3.1 3.3.2	4.2.1 4.2.4	5.3.4
Also listed with Earth Science	Weather				5.5.2		
To Get to the Other Side:	Civil Engineering	K.3.1			3.3.1		
Designing Bridges	Forces	K.3.2			3.3.3		
Lighten Up: Designing	Optical Engineering		1.3.2			4.0.0	
Lighting Systems	Light		1.3.3			4.3.2	
A Long Way Down:	Aerospace Engineering				3.3.1		
Designing Parachutes	Solar System				3.3.2 3.3.3		
Marvelous Machines:	Industrial Engineering				3.3.1		
Making Work Easier	Simple Machines				3.3.3		

Physical Science continues on next page.





Units with Physical Science Topics, continued

Unit	Engineering and		Utah SEEd Standards					
Unit	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	
Now You're Cooking: Designing Solar Ovens	Green Engineering					4.2.3	5.3.4	
Also listed with Earth Science	Energy					4.2.4		
Sounds Like Fun:	Acoustical Engineering		1.3.1			4.2.3 4.3.1		
Seeing Animal Sounds	Sound		1.3.4			4.3.3		
A Sticky Situation: Designing	Materials Engineering			2.3.1 2.3.2			5.2.3	
Walls	Earth Materials			2.3.2			0.2.0	
Taking the Plunge: Designing Submersibles	Ocean Engineering			2.3.1			5.1.2 5.1.4	
Also listed with Earth Science	Sinking and Floating			2.3.2	2.3.2		5.2.2	
A Work in Process: Improving a Play Dough Process	Chemical Engineering Process Engineering			2.3.1 2.3.2			5.2.2 5.2.3	
	Solids and Liquids							

Museum of Science. Uta

Engineering Essentials Alignment to Utah Science with Engineering Education (SEEd) Standards



Grade	Unit	Engineering Field	Utah SEEd Standards
1st	Designing Lighting Systems	Optical Engineering	1.3.2 1.3.3
2nd	Designing Hand Pollinators	Agricultural Engineering	2.2.3 2.3.1 2.3.2
3rd	Designing Maglev Systems	Transportation Engineering	3.3.4 3.3.5
4th	Designing Solar Ovens	Green Engineering	4.2.3 4.2.4
5th	Cleaning an Oil Spill	Environmental Engineering	5.1.2 5.1.3 5.3.1 5.3.3 5.3.4

EiE[®] Engineering Adventures Alignment to ^{Museum of Science} Utah Science with Engineering Education (SEEd) Standards



Unit	Engineering Fields and		Utah SEEd Standards	
Sint	Science Connections	Grade 3	Grade 4	Grade 5
Bubble Bonanza: Engineering Bubble Wands	Materials Engineering Matter and Its Interactions			5.2.2 5.2.3
Go Green: Engineering Recycled Racers	Green Engineering Energy, Forces	3.3.1	4.2.1	
In Good Hands: Engineering Space Gloves	Materials Engineering Properties of Materials, Energy Transfer	3.1.3	4.2.2 4.2.3	5.2.2
Liftoff: Engineering Rockets and Rovers	Aerospace Engineering Forces and Interactions	3.3.1 3.3.3		
Light Up the Night: An Electrical Engineering Challenge	Electrical Engineering Electric Circuits, Light		4.2.3 4.2.4	5.2.2
Music to My Ears: An Acoustical Engineering Challenge	Acoustical Engineering Sound		4.2.3 4.3.1	

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EiE[®] Engineering Adventures Alignment to Museum of Science. Utah Science with Engineering Education (SEEd) Standards



Unit	Engineering Fields and		Utah SEEd Standards	
Onit	Science Connections	Grade 3	Grade 4	Grade 5
The Sky's the Limit: Engineering Flying Technologies	Aeronautical Engineering Forces and Interactions	3.1.2 3.3.1 3.3.2 3.3.3		
Shake Things Up: Engineering Earthquake-Resistant Buildings	Earthquake Engineering Earthquakes	3.3.1		5.1.5
A Slippery Slope: Engineering an Avalanche Protection System	Avalanche Engineering Forces and Interactions	3.3.1 3.3.2	4.2.3 4.3.1	5.1.5
Hop to It: Safe Removal of Invasive Species	Mechanical Engineering Environmental Science	3.2.4 3.2.5 3.2.6 3.3.1		
To the Rescue: Engineering Aid Drop Packages	Package Engineering Energy, Forces		4.2.2	

EiE[®] Engineering Everywhere Alignment to Museum of Science. Utah Science with Engineering Education (SEEd) Standards



Unit	Engineering Field	Solonoo Tonioo	Uta	h SEEd Standa	ards
Onit	Engineering Field	Science Topics	Grade 6	Grade 7	Grade 8
Don't Runoff: Engineering an Urban Landscape	Environmental Engineering	Natural Resources Earth and Human Activity	6.4.1 6.4.4 6.4.5		8.4.2 8.4.3
Food for Thought: Engineering Ice Cream	Process Engineering	Matter Energy Transfer	6.2.2		8.1.7 8.2.5
Go Fish: Engineering Prosthetic Tails	Biomechanical Engineering	Structures and Function in Animals		7.4.2	
Growing Up: Engineering Vertical Farms	Agricultural Engineering	Light Photosynthesis Natural Resources	6.4.5	7.4.2	8.2.5 8.3.1
It's in the Bag: Engineering Bioinspired Gear	Materials Engineering Bioinspired Engineering	Structures and Function in Animals		7.4.2	
Outbreak Alert!: Engineering a Pandemic Response	Biomedical Engineering	Cells, Viruses Public Health		7.3.1 7.4.3 7.5.1	
Testing the Waters: Engineering a Water Reuse Process	Process Engineering Water Resource Engineering	Natural Resources	6.4.5		8.4.2 8.4.3
Worlds Apart: Engineering Remote Sensing Devices	Remote Sensing Engineering	Light Solar System	6.1.3	7.2.5	8.2.5
Plants to Plastics: Engineering Bioplastics	Chemical Engineering	Properties of Matter Chemical Reactions	6.2.2		8.1.4 8.4.3
It's About Time: Engineering Timers	Mechanical Engineering	Physical Science			
Put a Lid on It: Engineering Safety Helmets	Biomechanical Engineering	Forces and Motion Nervous System		7.1.2	
Here Comes the Sun: Engineering Insulated Homes	Green Engineering	Thermal Energy Transfer Properties of Matter Natural Resources Earth and Human Activity	6.2.4		8.1.5 8.2.3 8.2.5 8.4.2 8.4.3