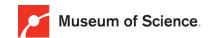


EiE® for Kindergarten Alignment to Alabama Course of Study, Science, 2015



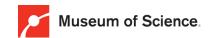
Unit	Science Concept Connections	Alabama Science Standards
		Kindergarten
Raise the Roof: Designing Shelters	light and shadowthe warming effect of the Sunanimals and animal needs	SCI.K.7.2 SCI.K.8.1 SCI.K.8.2 SCI.K.8.3
Here's the Scoop: Designing Trash Collectors	 the basic needs of living things animal habitats and ecosystems human impact on the environment recycling and environmental stewardship 	SCI.K.5.1 SCI.K.5.2 SCI.K.6.2 SCI.K.6.3





Units with Life Science Topics

Unit	Engineering and		Alaba	ma Science (Content Stand	dards	
Oilit	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
The Best of Bugs: Designing Hand Pollinators	Agricultural Engineering Insects and Plants	SCI.K.3.2	SCI.1.5.1 SCI.1.5.3	SCI.2.2.2 SCI.2.6.1 SCI.2.6.2	SCI.3.6.1 SCI.3.6.2 SCI.3.7.4 SCI.3.12.1 SCI.3.12.3	SCI.4.9.1 SCI.4.9.2	
Just Passing Through: Designing Model Membranes	Bioengineering Needs of Organisms	SCI.K.3.2 SCI.K.5.2	SCI.1.5.1 SCI.1.5.3	SCI.2.7.1 SCI.2.7.3	SCI.3.5.2 SCI.3.11.2 SCI.3.11.3	SCI.4.9.2	SCI.5.8.7
No Bones About It: Designing Knee Braces	Biomedical Engineering Skeletal and Muscular Systems			SCI.2.2.2	SCI.3.2.3	SCI.4.10.2 SCI.4.10.3	
A Slick Solution: Cleaning an Oil Spill Also listed with Earth Science	Environmental Engineering Ecosystems			SCI.2.2.2 SCI.2.7.1 SCI.2.7.2	SCI.3.10.1 SCI.3.11 SCI.3.12.1 SCI.3.12.2 SCI.3.12.3		SCI.5.8.2 SCI.5.8.4 SCI.5.8.6 SCI.5.8.7 SCI.5.11.1 SCI.5.11.2 SCI.5.14.1 SCI.5.14.2 SCI.5.15.1 SCI.5.15.1
Thinking Inside the Box: Designing Plant Packages	Package Engineering Plants	SCI.K.3.2		SCI.2.5.2 SCI.2.5.3	SCI.3.5.1 SCI.3.5.2	SCI.4.9.1	SCI.5.8.3 SCI.5.8.6 SCI.5.8.7 SCI.5.12.2 SCI.5.13.3

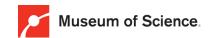




Units with Earth Science Topics

Unit	Engineering and		Alabama Science Content Standards						
Onit	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5		
Catching the Wind: Designing Windmills Also listed with Physical Science	Mechanical Engineering Weather	SCI.K.1.1 SCI.K.1.2 SCI.K.1.4 SCI.K.1.5 SCI.K.2.4		SCI.2.2.2	SCI.3.1.1 SCI.3.1.2 SCI.3.1.3 SCI.3.2.3 SCI.3.13.1	SCI.4.4.1 SCI.4.4.2			
Now You're Cooking: Designing Solar Ovens Also listed with Physical Science	Green Engineering Energy and Energy Resources	SCI.K.6.1 SCI.K.7.1 SCI.K.7.2				SCI.4.2.1 SCI.4.2.2 SCI.4.4.1 SCI.4.4.2 SCI.4.5.1 SCI.4.5.2 SCI.4.5.3 SCI.4.5.4	SCI.5.3.1 SCI.5.3.2 SCI.5.3.3 SCI.5.10.1 SCI.5.10.2		
A Slick Solution: Cleaning an Oil Spill Also listed with Life Science	Environmental Engineering Ecosystems			SCI.2.2.2 SCI.2.7.1 SCI.2.7.2	SCI.3.10.1 SCI.3.11 SCI.3.12.1 SCI.3.12.2 SCI.3.12.3		SCI.5.8.2 SCI.5.8.4 SCI.5.8.6 SCI.5.8.7 SCI.5.11.1 SCI.5.11.2 SCI.5.14.1 SCI.5.14.2 SCI.5.15.1 SCI.5.15.1		
Solid as a Rock: Replicating an Artifact	Materials Engineering Rocks and Minerals			SCI.2.2.2 SCI.2.8.1 SCI.2.8.2		SCI.4.12 SCI.4.14.1 SCI.4.14.3	SCI.5.3.2		

Earth Science continues on next page.





Units with Earth Science Topics, continued

Unit	Engineering and		Alaba	ama Science	Content Stan	dards	
Onit	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
A Stick in the Mud: Evaluating a Landscape	Geotechnical Engineering Landforms and Maps	SCI.K.9.1		SCI.2.2.2 SCI.2.8.1 SCI.2.8.2 SCI.2.11.1 SCI.2.11.2 SCI.2.11.3	SCI.3.12.1 SCI.3.12.2 SCI.3.12.3	SCI.4.13.2 SCI.4.13.3 SCI.4.14.1 SCI.4.14.3 SCI.4.15.1 SCI.4.15.5 SCI.4.17.1 SCI.4.17.2	
Taking the Plunge: Designing Submersibles Also listed with Physical Science	Ocean Engineering Sinking and Floating			SCI.2.1.2 SCI.2.9.1 SCI.2.9.2		SCI.4.16.1	SCI.5.3.1 SCI.5.3.2 SCI.5.5.1 SCI.5.5.2 SCI.5.5.4
Water, Water Everywhere: Designing Water Filters	Environmental Engineering Water	SCI.K.4.3		SCI.2.1.1 SCI.2.1.3 SCI.2.2.2 SCI.2.7.1 SCI.2.7.2 SCI.2.10.1 SCI.2.10.2 SCI.2.10.3			SCI.5.1.1 SCI.5.1.3 SCI.5.8.6 SCI.5.11.1 SCI.5.11.2

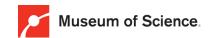




Units with Physical Science Topics

Unit	Engineering and		Alaba	ama Science (Content Stan	dards	
Offic	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
An Alarming Idea: Designing Alarm Circuits	Electrical Engineering Electricity		SCI.1.4.1 SCI.1.4.3 SCI.1.4.4		SCI.3.3.1	SCI.4.2.1 SCI.4.4.1 SCI.4.4.2	SCI.5.3.1 SCI.5.3.2 SCI.5.3.3
The Attraction Is Obvious: Designing Maglev Systems	Transportation Engineering Magnets				SCI.3.1.1 SCI.3.1.3 SCI.3.2.3 SCI.3.3.1 SCI.3.3.2 SCI.3.3.5 SCI.3.4.1 SCI.3.4.2 SCI.3.4.3 SCI.3.4.4 SCI.3.4.6		
Catching the Wind: Designing Windmills Also listed with Earth Science	Mechanical Engineering Weather	SCI.K.1.1 SCI.K.1.2 SCI.K.1.4 SCI.K.1.5 SCI.K.2.4		SCI.2.2.2	SCI.3.1.1 SCI.3.1.2 SCI.3.1.3 SCI.3.2.3 SCI.3.13.1	SCI.4.4.1 SCI.4.4.2	
To Get to the Other Side: Designing Bridges	Civil Engineering Forces	SCI.K.1.1 SCI.K.1.2 SCI.K.1.4		SCI.2.2.2	SCI.3.1.1 SCI.3.1.2 SCI.3.1.3 SCI.3.1.5		
Lighten Up: Designing Lighting Systems	Optical Engineering Light		SCI.1.2.1 SCI.1.2.2 SCI.1.2.4 SCI.1.3.1 SCI.1.3.2 SCI.1.3.3 SCI.1.4.2			SCI.4.2.1 SCI.4.8.1 SCI.4.8.3	SCI.5.3.1 SCI.5.3.2

Physical Science continues on next page.





Units with Physical Science Topics, continued

Unit	Engineering and		Alaba	ama Science	Content Stan	dards	
Offic	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
A Long Way Down: Designing Parachutes	Aerospace Engineering Solar System	SCI.K.1.1 SCI.K.1.2 SCI.K.1.4 SCI.K.1.5 SCI.K.2.4	SCI.1.8.4	SCI.2.2.2	SCI.3.1.1 SCI.3.1.2 SCI.3.1.3		SCI.5.6.1 SCI.5.6.4 SCI.5.7.1 SCI.5.7.2 SCI.5.7.3 SCI.5.7.4 SCI.5.7.5 SCI.5.16.4
Marvelous Machines: Making Work Easier	Industrial Engineering Simple Machines	SCI.K.1.1 SCI.K.1.2 SCI.K.1.3 SCI.K.1.4 SCI.K.1.5 SCI.K.2.2 SCI.K.2.3 SCI.K.2.4 SCI.K.2.5			SCI.3.1.1 SCI.3.1.2 SCI.3.1.3 SCI.3.1.5 SCI.3.2.1 SCI.3.2.3		
Now You're Cooking: Designing Solar Ovens Also listed with Earth Science	Green Engineering Energy	SCI.K.6.1 SCI.K.7.1 SCI.K.7.2				SCI.4.2.1 SCI.4.2.2 SCI.4.4.1 SCI.4.4.2 SCI.4.5.1 SCI.4.5.2 SCI.4.5.3 SCI.4.5.4	SCI.5.3.1 SCI.5.3.2 SCI.5.3.3 SCI.5.10.1 SCI.5.10.2
Sounds Like Fun: Seeing Animal Sounds	Acoustical Engineering Sound		SCI.1.1.1 SCI.1.1.2			SCI.4.6.1 SCI.4.6.2 SCI.4.6.3 SCI.4.7.1 SCI.4.7.2	

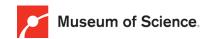
Physical Science continues on next page.





Units with Physical Science Topics, continued

Unit	Engineering and		Alabama Science Content Standards						
S.III	Science Fields	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5		
A Sticky Situation: Designing	Materials Engineering			SCI 2 2 2	SCI 2 2 2	SCI 2 2 2		SCI.4.13	
Walls	Earth Materials			-					
Taking the Plunge: Designing Submersibles	Ocean Engineering			SCI.2.1.2 SCI.2.9.1		SCI.4.16.1	SCI.5.3.1 SCI.5.3.2 SCI.5.5.1		
Also listed with Earth Science	Sinking and Floating			SCI.2.9.2			SCI.5.5.2 SCI.5.5.4		
A Work in Process: Improving a Play Dough Process	Chemical Engineering Process Engineering Solids and Liquids			SCI.2.1.1 SCI.2.1.2			SCI.5.2.4 SCI.5.3.1 SCI.5.4.1 SCI.5.4.3		



EiE® Engineering Essentials Alignment to Alabama Course of Study, Science, 2015



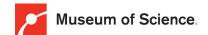
Unit / Engineering Field	Suggested Grade	Alabama Content Standards, Science
Designing Lighting Systems Optical Engineering	1st	SCI.1.2.1 SCI.1.3.2 SCI.1.2.2 SCI.1.3.3 SCI.1.2.4 SCI.1.4.2 SCI.1.3.1
Designing Hand Pollinators Agricultural Engineering	2nd	SCI.2.2.2 SCI.2.6.1 SCI.2.6.2
Designing Maglev Systems Transportation Engineering	3rd	SCI.3.1.1 SCI.3.3.5 SCI.3.1.3 SCI.3.4.1 SCI.3.2.3 SCI.3.4.2 SCI.3.3.1 SCI.3.4.3 SCI.3.3.2 SCI.3.4.4 SCI.3.3.3 SCI.3.4.6
Designing Solar Ovens Green Engineering	4th	SCI.4.2.1SCI.4.5.1SCI.4.2.2SCI.4.5.2SCI.4.4.1SCI.4.5.3SCI.4.4.2SCI.4.5.4
Cleaning an Oil Spill Environmental Engineering	5th	SCI.5.8.2SCI.5.14.1SCI.5.8.4SCI.5.14.2SCI.5.8.6SCI.5.15.1SCI.5.8.7SCI.5.15.2SCI.5.11.1SCI.5.15.3SCI.5.11.2SCI.5.15.3



EiE® Computer Science Essentials Alignment to Alabama Course of Study, Digital Literacy and Computer Science, 2017–2018



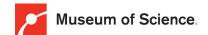
Unit Title	Suggested		Digital Li	teracy and Co	mputer Science	Standards	
Concept / Tool Type	Grades	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Programming Robots Computing Systems / Robotics	K-2	DLCS.K.1 DLCS.K.5 DLCS.K.6 DLCS.K.13	DLCS.1.2 DLCS.1.3 DLCS.1.19	DLCS.2.2 DLCS.2.3 DLCS.2.4 DLCS.2.18			
Creating Animations Algorithms & Programming / Visual Programming	K–3	DLCS.K.1 DLCS.K.2 DLCS.K.5 DLCS.K.6 DLCS.K.7 DLCS.K.13	DLCS.1.2 DLCS.1.3 DLCS.1.16 DLCS.1.18 DLCS.1.19	DLCS.2.2 DLCS.2.3 DLCS.2.4 DLCS.2.15 DLCS.2.17 DLCS.2.18	DLCS.3.2 DLCS.3.3 DLCS.3.4 DLCS.3.5 DLCS.3.7 DLCS.3.20 DLCS.3.22 DLCS.3.23		
Building Automated Systems Computing Systems / Visual Computing	2–4			DLCS.2.2 DLCS.2.3 DLCS.2.4 DLCS.2.15 DLCS.2.17 DLCS.2.18	DLCS.3.2 DLCS.3.3 DLCS.3.4 DLCS.3.5 DLCS.3.7 DLCS.3.20 DLCS.3.22 DLCS.3.22	DLCS.4.2 DLCS.4.3 DLCS.4.4 DLCS.4.7 DLCS.4.12 DLCS.4.21	
Designing Computer Games Impacts of Computing / Visual Programming	3–5				DLCS.3.2 DLCS.3.3 DLCS.3.4 DLCS.3.5 DLCS.3.7 DLCS.3.20 DLCS.3.22 DLCS.3.23	DLCS.4.2 DLCS.4.3 DLCS.4.4 DLCS.4.7 DLCS.4.12 DLCS.4.21	DLCS.5.2 DLCS.5.6 DLCS.5.7 DLCS.5.8 DLCS.5.28
Analyzing Digital Images Data & Analysis / Visual Programming	4–5					DLCS.4.1 DLCS.4.2 DLCS.4.3 DLCS.4.4 DLCS.4.7 DLCS.4.12 DLCS.4.16 DLCS.4.18 DLCS.4.21	DLCS.5.1 DLCS.5.2 DLCS.5.6 DLCS.5.7 DLCS.5.8 DLCS.5.21 DLCS.5.25 DLCS.5.25 DLCS.5.26



EiE® Engineering Adventures Alignment to Alabama Course of Study, Science, 2015



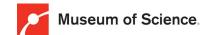
Unit	Engineering Fields and	Alaba	ma Science Content St	andards
Unit	Science Connections	Grade 3	Grade 4	Grade 5
Bubble Bonanza: Engineering Bubble Wands	Materials Engineering Matter and Its Interactions			SCI.5.4
Go Green: Engineering Recycled Racers	Green Engineering Energy, Forces	SCI.3.1 SCI.3.2 SCI.3.3.4	SCI.4.1.1 SCI.4.1.2 SCI.4.3	SCI.5.7.1
In Good Hands: Engineering Space Gloves	Materials Engineering Properties of Materials, Energy Transfer		SCI.4.2.1 SCI.4.3.2 SCI.4.3.3	SCI.5.3.2
Liftoff: Engineering Rockets and Rovers	Aerospace Engineering Forces and Interactions	SCI.3.1.1 SCI.3.1.2 SCI.3.1.5 SCI.3.2.1 SCI.3.2.2	SCI.4.1.1 SCI.4.1.2	SCI.5.6.4 SCI.5.7.1
Light Up the Night: An Electrical Engineering Challenge	Electrical Engineering Electric Circuits, Light	SCI.3.3.1	SCI.4.2.1 SCI.4.4 SCI.4.8	
Music to My Ears: An Acoustical Engineering Challenge	Acoustical Engineering Sound		SCI.4.2 SCI.4.4 SCI.4.6	
The Sky's the Limit: Engineering Flying Technologies	Aeronautical Engineering Forces and Interactions	SCI.3.1	SCI.4.1	SCI.5.6.1 SCI.5.6.2 SCI.5.6.3 SCI.5.6.4 SCI.5.7.1 SCI.5.7.2 SCI.5.7.4 SCI.5.7.5



EiE® Engineering Adventures Alignment to Alabama Course of Study, Science, 2015



Unit	Engineering Fields and	Al	Alabama Science Standards				
Offit	Science Connections	Grade 3	Grade 4	Grade 5			
Shake Things Up: Engineering Earthquake-Resistant Buildings	Earthquake Engineering Earthquakes	SCI.3.1.1 SCI.3.1.2 SCI.3.1.5 SCI.3.2.1 SCI.3.2.2 SCI.3.2.3	SCI.4.6 SCI.4.17.1 SCI.4.17.2 SCI.4.17.3				
A Slippery Slope: Engineering an Avalanche Protection System	Avalanche Engineering Forces and Interactions	SCI.3.1.1 SCI.3.1.2 SCI.3.1.5 SCI.3.2.1 SCI.3.2.2 SCI.3.2.3 SCI.3.15	SCI.4.17.1 SCI.4.17.2 SCI.4.17.3	SCI.5.6 SCI.5.7.1 SCI.5.7.2 SCI.5.7.4 SCI.5.7.5			
Hop to It: Safe Removal of Invasive Species	Mechanical Engineering Environmental Science	SCI.3.5.2 SCI.3.7.3 SCI.3.7.4 SCI.3.10 SCI.3.11 SCI.3.12	SCI.4.9.2	SCI.5.14.1 SCI.5.14.2 SCI.5.15.2			
To the Rescue: Engineering Aid Drop Packages	Package Engineering Energy, Forces		SCI.4.1 SCI.4.3.1 SCI.4.3.2 SCI.4.3.3 SCI.4.17	SCI.5.6.1 SCI.5.6.2 SCI.5.6.3 SCI.5.6.4 SCI.5.7.1 SCI.5.7.2 SCI.5.7.3 SCI.5.7.4 SCI.5.7.5			



EiE® Engineering Everywhere Alignment to Alabama Course of Study, Science, 2015



Unit	Engineering Field	Science Topics	Alaban	na Science Conter	nt Standards
J	g		Grade 6	Grade 7	Grade 8
Don't Runoff: Engineering an Urban Landscape	Environmental Engineering	Natural Resources Earth and Human Activity	SCI.6.7.3 SCI.6.15.1 SCI.6.15.2 SCI.6.15.3 SCI.6.15.4 SCI.6.16	SCI.7.7 SCI.7.9.3	
Food for Thought: Engineering Ice Cream	Process Engineering	Matter Energy Transfer			SCI.8.3.1 SCI.8.3.6 SCI.8.5 SCI.8.15.2 SCI.8.15.3 SCI.8.15.5
Go Fish: Engineering Prosthetic Tails	Biomechanical Engineering	Structures and Function in Animals		SCI.7.4.1 SCI.7.4.2	
Growing Up: Engineering Vertical Farms	Agricultural Engineering	Light Photosynthesis Natural Resources	SCI.6.15.1 SCI.6.15.4	SCI.7.5.1 SCI.7.5.2 SCI.7.5.3 SCI.7.5.5 SCI.7.9	
It's in the Bag: Engineering Bioinspired Gear	Materials Engineering Bioinspired Engineering	Structures and Function in Animals		SCI.7.6.3	
Outbreak Alert!: Engineering a Pandemic Response	Biomedical Engineering	Cells, Viruses Public Health		SCI.7.2.1 SCI.7.2.2 SCI.7.2.3 SCI.7.2.4 SCI.7.2.5	



EiE® Engineering Everywhere Alignment to Alabama Course of Study, Science, 2015



Unit	Engineering Field	Science Topics	Alabama Science Content Standards		
			Grade 6	Grade 7	Grade 8
Testing the Waters: Engineering a Water Reuse Process	Process Engineering Water Resource Engineering	Natural Resources	SCI.6.7.3 SCI.6.15 SCI.6.16.2 SCI.6.16.3 SCI.6.16.6	SCI.7.9	
Worlds Apart: Engineering Remote Sensing Devices	Remote Sensing Engineering	Light Solar System	SCI.6.3		SCI.8.17 SCI.8.18 SCI.8.19
Plants to Plastics: Engineering Bioplastics	Chemical Engineering	Properties of Matter Chemical Reactions			SCI.8.3.1 SCI.8.3.2 SCI.8.3.3 SCI.8.3.4 SCI.8.3.5 SCI.8.3.6
It's About Time: Engineering Timers	Mechanical Engineering	Physical Science			SCI.8.14.3
Put a Lid on It: Engineering Safety Helmets	Biomechanical Engineering	Forces and Motion Nervous System		SCI.7.4.1 SCI.7.4.2 SCI.7.4.3 SCI.7.4.4	SCI.8.10.1
Here Comes the Sun: Engineering Insulated Homes	Green Engineering	Thermal Energy Transfer Properties of Matter Natural Resources Earth and Human Activity	SCI.6.12.1 SCI.6.12.7 SCI.6.13		SCI.8.15.2 SCI.8.15.3 SCI.8.15.5