



ByDesign

A Journey to Excellence through Science

Engineering Units

Correlation to By Design Science and VictoryVR, a virtual reality supplemental resource.

Kendall Hunt
publishing company



Unit	Engineering Design: Optimization	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Exp 1	Field Trip 1: Quad Cities Skate Park		C11L5, C13L1-3		C12L1-4, C13L2-3	
Exp 2	Interactive: Word Search					
Exp 3	Journey Exp: Optimization	EPU4	EPU1, EPU2, EPU4	EPU2	EPU2, EPU4	EPU1, EPU2, EPU3
Exp 4	Theater 2: Good Better Best	EPU4	EPU1, EPU2, EPU4	EPU2	EPU2, EPU4	EPU1, EPU2, EPU3
Exp 5	Teacher Demo: Cooking with Wendy	EPU2				
Unit	Engineering Design: Solutions					
Exp 1	Field Trip: Solar Farm in Albuquerque, NM		C11L2	EPU1, C13L2-3	C14L1-4	
Exp 2	Interactive Game: "Racing for Answers"					
Exp 3	Theater 1: George Washington Carver	EPU4	EPU2	EPU2		EPU1, EPU3
Exp 4	Theatre 2: Finding Solutions	EPU4	EPU4	EPU1, EPU2, EPU3	EPU2, EPU4	EPU1, EPU2, EPU3
Exp 5	Teacher Demo: Drag Racing with Wendy	EPU4	C13L1-3		EPU4, C12L1-4	
Unit	Engineering Design: Delimiting					
Exp 1	Field Trip: Kitty Hawk, NC		EPU4, C13L1, C13L3		EPU4, C12L1-4	
Exp 2	Interactive: [Escape Room]					
Exp 3	Movie Theater 1: Where to Begin		EPU4, C13L1, C13L3		EPU4, C12L1-4	
Exp 4	Movie Theatre 2: The Importance of Failure	EPU4	EPU1, EPU2, EPU4	EPU2, EPU3	EPU2, EPU4	EPU1, EPU3
Exp 5	Teacher Demo: Spinning With Wendy	EPU4	EPU4, C13L1, C13L3	EPU2	EPU4, C12L1-L4	



By Design

A Journey to Excellence through Science

Engineering Units

Correlation to By Design Science and VictoryVR, a virtual reality supplemental resource.

Kendall Hunt
publishing company



Unit	Engineering Design: Process	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Exp 1	Field Trip: Roswell, NM	EPU4/SS	EPU1, EPU2, EPU4	EPU1, EPU2, EPU3/SS	EPU2, EPU4/SS	
Exp 2	Interactive Experience: Sort the Scientific Process					
Exp 3	Theater 1: Cultures	EPU4	EPU1, EPU2, EPU4	EPU1, EPU2, EPU3	EPU2, EPU4	EPU1, EPU2, EPU3
Exp 4	Theatre 2: Way of Knowing	EPU4	EPU1, EPU2, EPU4	EPU1, EPU2, EPU3	EPU2, EPU4	EPU1, EPU2, EPU3
Exp 5	Teacher Demo: Wendy Martin: Egg Drop Experiment	EPU4	EPU1, EPU2, EPU4, C11L1, C13L1	EPU1, EPU2, EPU3	EPU2, EPU4, C12L2-4	EPU1, EPU2, EPU3
HS Unit	Aerospace Engineering					
Exp 1	The Future With Drones	C9CS	C13L3	C13CS	C8CS	
Exp 2	Siya, Sathvik, & Satellites		C4CS		C3ST	C4ST, C10ST
Exp 3	Fail Better	U1EP, U3EP, U4EP	U1EP, U2EP, U3EP, U4EP, C14PS	U1EP, U2EP, U3EP, U4EP	U2EP, U3EP, C10CS, U4EP	U1EP, U2EP, U3EP, U43PS
Exp 4	Aerodynamics With Wendy	C9L1	C11L1, C13L1-L3, C12L1-L3		U3EP, C12L1-L4	U4EP
HS Unit	Robotics					
Exp 1	Building a Robot	U1EP, U3EP, U4EP	U1EP, U2EP, U3EP, U4EP, C14PS	U1EP, U2EP, U3EP, U4EP	U2EP, U3EP, C10CS, U4EP, C13L1-L3, C14L1-L2	U1EP, U2EP, U3EP, U43PS
Exp 2	Helmets are Cool Kids	C4CS	C6L2-L3, C13L1-L3		C12L1-L4, C12CS, C14L1-L2	
Exp 3	Biodiversity*	C3L1-L2, C3L4, C3CS, C4CS	C4L1-L3, C4PS, C9CS	C1L2-L3		C3CS, C4L1, C4L3, C13PS
Exp 4	Prosthetics With Wendy	C10ST		C5L1-L2, C5ST		

KEY: FM-Front Matter, U-Unit, C-Chapter, L-Lesson, OI-Open Inquiry, EP-Engineering Practice, PS-People In Science, CS-Careers In Science, ST-Science & Technology



ByDesign

A Journey to Excellence through Science

Engineering Units

Correlation to By Design Science and VictoryVR, a virtual reality supplemental resource.

Kendall Hunt
publishing company



HS Unit	Engineering Design	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Exp 1	The Great Wall of China	U1EP, U3EP, U4EP	U1EP, U2EP, U3EP, U4EP	U1EP, U2EP, U3EP, U4EP	U2EP, U3EP, C10CS , U4EP	U1EP, U2EP, U3EP, U43PS
Exp 2	How Power Plants Got Sparked*	C11L2-L3		C13L1-L5, C14L2-L4	C13L1-L2	C9L1-L3, C12L3, C14ST
Exp 3	Solar Cars	C8L3		C14L4		
Exp 4	Snowmaking With Wendy		C8L1-L3			C8L1-L4
HS Unit Engineering & Technology: Animals and Plants Biotechnology						
Exp 1	Field Trip: Agriculture Solutions	C1L4		C1L2-3	C4L1-4	
Exp 2	Interactive: GMO Café					
Exp 3	Story 1: Save the Bees	C1L4, C3L2-4	C4L3	C3L1	C4L1-4	C2L3-4, C3L1-3, C4L3-5
Exp 4	Story 2: Sustainable Farming & the Super Weed	C3L4	C4L3	C3L1	C4L1-4	C2L3-4, C3L1-3, C4L3-5
Exp 5	Teacher Demo: Genetic Engineering with Wendy	C1L2		C3L1	C4L1-4	

KEY: FM-Front Matter, U-Unit, C-Chapter, L-Lesson, OI-Open Inquiry, EP-Engineering Practice, **PS-People In Science, CS-Careers In Science, ST-Science & Technology**