

## Agricultural Research and Development Next Generation Science Standards Alignment

	Unit 1 Defining Agricultural Research and Development	Unit 2 Problems and Solutions	Unit 3 Methodology	Unit 4 Reporting Data	Unit 5 Communication
<b>Disciplinary Core Ideas</b>					
<b>Engineering, Technology, and the Application of Science</b>					
<b>ETS1: Engineering Design</b>					
• ETS1.A: Defining and Delimiting Engineering Problems	X	X	X	X	
• ETS1.B: Developing Possible Solutions		X	X	X	
• ETS1.C: Optimizing the Design Solution		X	X	X	
<b>Science and Engineering Practices</b>					
• Asking Questions and Defining Problems		X	X		
• Developing and Using Models		X	X		
• Planning and Carrying Out Investigations		X	X		
• Analyzing and Interpreting Data				X	
• Using Mathematics and Computational Thinking				X	
• Constructing Explanations and Designing Solutions		X		X	
• Engaging in Argument from Evidence		X		X	X
• Obtaining, Evaluating, and Communicating Information		X		X	X
<b>Crosscutting Concepts</b>					
• Patterns				X	
• Cause and Effect: Mechanism and Prediction			X	X	

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• Scale, Proportion, and Quantity					
• Systems and System Models			X		
• Energy and Matter: Flows, Cycles, and Conservation					
• Structure and Function					
• Stability and Change					

<b>Understandings about the Nature of Science</b>					
• Scientific Investigations Use a Variety of Methods	X	X	X	X	
• Scientific Knowledge is Based on Empirical Evidence		X		X	
• Scientific Knowledge is Open to Revision in Light of New Evidence			X	X	
• Science Models, Laws, Mechanisms, & Theories Explain Natural Phenomena		X	X	X	
• Science is a Way of Knowing		X	X		
• Scientific Knowledge Assumes Order & Consistency in Natural Systems					
• Science is a Human Endeavor	X	X	X	X	
• Science Addresses Questions About the Natural and Material World.		X			