

# NGSS Standards & Distance Learning from the Missoula Butterfly House & Insectarium



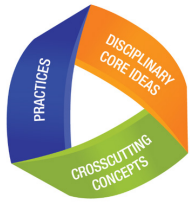
**Distance learning programs from the Missoula Butterfly House & Insectarium are designed to accommodate a range of ages and grade levels. With that age range in mind we have identified the *Crosscutting Concepts, Science and Engineering Practices and Disciplinary Core Ideas* that each program supports.**

Creative Creatures and Bug Biomimicry however, have grade level specific NGSS standards that they address.

**Creative Creatures** addresses K-LS1-1: “Use observations to describe patterns of what plants and animals, including humans, need to survive.”

**Bug Biomimicry** addresses 1-LS1-1: “Use materials to design a solution to a human problem by mimicking plant and animal structures and functions that help them survive, grow and meet their needs”

	Creative Creatures	Bug Biomimicry
<b>Crosscutting Concepts</b>		
Patterns		
Cause & Effect	X	X
Scale Proportion and Quantity		
Systems and Systems Models	X	X
Energy and Matter		
Structure and Function	X	X
Stability and Change		
<b>Science and Engineering Practices</b>		
Asking Questions and Defining Problems	X	X
Developing and Using Models		X
Planning and Carrying out Investigations		X
Analyzing and Interpreting Data	X	X
Using Mathematics and Computational Thinking		
Constructing Explanations and Designing Solutions	X	X
Engaging in Argument from Evidence		
Obtaining, Evaluating, and Communicating Information		
<b>Disciplinary Core Ideas</b>		
LS1: From Molecules to Organisms: Structures and Processes	X	X
LS2: Ecosystems: Interactions, Energy, and Dynamics	X	
LS3: Heredity: Inheritance and Variation of Traits		
LS4: Biological Evolution: Unity and Diversity		



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	Super Spiders	Millipedes vs Centipedes	Beetlemania	Little Things, Big Jobs
<b>Crosscutting Concepts</b>				
Patterns	X	X	X	X
Cause & Effect				
Scale Proportion and Quantity				
Systems and Systems Models	X	X		
Energy and Matter		X		
Structure and Function	X	X	X	X
Stability and Change				
<b>Science and Engineering Practices</b>				
Asking Questions and Defining Problems	X	X	X	X
Developing and Using Models	X			
Planning and Carrying out Investigations				
Analyzing and Interpreting Data				
Using Mathematics and Computational Thinking				
Constructing Explanations and Designing Solutions				
Engaging in Argument from Evidence				
Obtaining, Evaluating, and Communicating Information				
<b>Disciplinary Core Ideas</b>				
LS1: From Molecules to Organisms: Structures and Processes	X	X	X	X
LS2: Ecosystems: Interactions, Energy, and Dynamics	X	X	X	X
LS3: Heredity: Inheritance and Variation of Traits	X			
LS4: Biological Evolution: Unity and Diversity	X		X	