

Contents

SFUSD Acknowledgments	iii
SFUSD Biology Core Curriculum Course Description	v
BSCS Acknowledgements	ix
Program Overview	xiii

Unit 0 Launch into Biology 2

Chapter 1	The Human Animal	4
	Engage: How Different Are We?	8
	Explore: Primates Exploring Primates	12
	Explain: More Evidence	22
	Elaborate: How Similar Are We?	35
	Evaluate: First Encounter with the Critter.	41

Unit 1 Ecology: Interdependent Relationships 44

Chapter 2	Interdependence among Organisms.	46
	Engage/Explore: Hidden Interactions?	50
	Explore: Interactions in the World Around Us	51
	Explain: The Pasture Story	55
	Elaborate: Mystery on Easter Island	58
	Elaborate: Islands in the Sky	68
	Evaluate: Critters and Interdependence.	78



Chapter 3	The Cycling of Matter and the Flow of Energy in Ecosystems.	84
	Engage/Explore: A Matter of Trash	88
	Explore: Matter Goes Round and Round	94
	Explain: Spinning the Web of Life	105
	Elaborate: Generating Some Heat	117
	Evaluate: Energy, Matter, and Disaster.	122
Chapter 4	Matter and Energy for Organisms.	126
	Engage: Releasing Energy	130
	Explore/Explain: Energy in Matter.	132
	Explain: Keep a Body Running!	144
	Explain/Elaborate: Using Light Energy to Build Matter . . .	153
	Elaborate: Modeling Photosynthesis and Cellular Respiration	168
	Elaborate/Evaluate: Coevolution of Earth's Systems and Life on Earth.	172

Chapter 5	Evolution: Change Across Time	180
	Engage: Lucy	184
	Explore: Exploring Change	187
	Explain: Explaining Adaptation	199
	Elaborate: Evidence for Evolution	214
	Elaborate: Modeling Earth's History	231
	Evaluate: Evolution in Action	237
Chapter 6	Products of Evolution: Unity and Diversity.	242
	Engage: How Many Kinds of Zebras?	246
	Explore: Using Unity to Explore Diversity.	249
	Explain: Evolutionary Trees—the Pattern of Evolution . . .	252
	Explain: Descent with Modification.	268
	Elaborate: Evidence for Common Ancestry	275
	Evaluate: Your Critter's Adaptations and Ancestry	296