

Fresno Unified School District – Biology Pacing Guide –March 2006

	Topic	CA Standard	Book References	Suggested Hours	COS Page
<u>Introduction</u> The Nature of Science How do we know what we know?	Lab Safety		Pg. 1066-1068	3	
	What is Biology?	Class Intro, I&E 1.f	Ch 1-1, 1-2		
	Science as Inquiry – Lab Invest.	I&E 1.a, 1.d, 1.g, 1.j		6	
	Quantification & tools in Science	I&E 1.a	Ch 1-4		
	Error and the Scientific Method	I&E 1.b, 1.c	Ch 1-2		
<u>The Chemical Basis of Life.</u> Where does it all begin?	The Nature of Composition of Matter	1.b, 1.c	Ch 2-1, 2-2	10	
	Macromolecules form simple precursors	1.h	Ch 2-3		
	Enzymes catalyze chemical reactions	1.b	Ch 2-4		
	Cell Diversity – Structures/Organelles	1.b, 1.c	Ch 7-1,2	25	
	Osmosis and Diffusion Properties of Membranes	1.a	Ch 7-3		
Benchmark 1	Week of Oct 16				
	Topic	CA Standard	Book References	Suggested Hours	COS Page
<u>Cellular processes</u>	Photosynthesis	1.f	Ch 8-2,3	6	
	Respiration	1.g	Ch 9-1,2		
<u>Molecular genetics</u>	Molecular Genetics	1.d,	Ch 12-3	14	
	Structure and function of Nucleic Acids	5.a,5.b,	Ch 12-1,2,3		
	DNA Rep	5.a, 5.b	Ch 12-1,2,3		
	Protein Synthesis	4.a –d 1.d, 5.c	Ch 12-3,4 Ch 13 all	14	
	Protein Structure	5.a	Ch 12-3 Ch 2-3		
Benchmark 2	Week of Dec 11				
	Topic	CA Standard	Book References	Suggested Hours	COS Page
<u>Physiology</u> Human systems	Systems Structures and Functions	9.a	Ch 35-1	18	
	Coordination of systems <i>Nervous and endocrine</i>	9.b 9.c	Ch 35-1,2 Ch 39-1		
	Maintaining balance, Homeostasis	9.b	Ch 35-1,2		
	A faster way of responding, Reflex arc	9.e 9.d	Ch 35-2		
	Immunity and Disease	10 a-e	Ch 19 Ch 40-2,3		

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<u>Genetics</u>	Fertilization produces new allele combinations	2d	Ch 11-1	24	6
	Laws of Segregation and Independent Assortment	3b	Ch 11-1		6
	Random segregation and probability	2c, 3a	Ch 11-2, 11-4		6
	Half of DNA comes from each parent through Meiosis and fertilization	2a, 2b, 2e	Ch 11-4		6
Benchmark 3	Week of March 12				
	Topic	CA Standard	Book References	Suggested Hours	COS Page
<u>Evolution</u>	Natural selection acts on phenotype, not genotype	7a	Ch 15-3	13	9
	Natural selection determines survival	8a	Ch. 15-3		9
	Mutations generated in gene pool	7c	Ch. 16		9
	Variations improve survival of species	7d	Ch. 16		9
	Diversity increases survival of species	8b	Ch. 16-3		9
	Genetic drift affects diversity in population	8c	Ch. 16-3		9
	Isolation yields speciation	8d	Ch. 16-3		9
	Fossil evidence for diversity and extinction	8e	Ch. 17-1, 17-4		9
<u>Ecology</u> Life on Earth What is here and how does it interact?	Biodiversity and the Environment	6a	Ch. 6-3, 3-1	10	2
	Stability of producers, decomposers	6e	Ch. 3-2		2
	Food webs, Energy pyramids	6f	Ch. 3-2		2
	Cycles of nutrients in the environment	6d	Ch. 3-3		2
	Ecosystem changes	6b	Ch. 4-1		2
	Populations	6c	5-1		2
CST	April 23 - May 4			Hours	
Remainder of Semester	Special Topics / Research			30	