

# Living Environment Grade 8 Pacing Guide

Month	Topic	Textbook Chapter	# of Days	Labs/Activities * Labs and Activities where taken from the McDougal Littell Biology Lab binder	NYS Standards
September (Instruction to start on 2 <sup>nd</sup> day of classes)	* Biology in the 21 <sup>st</sup> Century * Chemistry of Life * Cell Structure and Function	1 2 3	4 5 12	NYS Lab – Diffusion through a Membrane Life Under the Microscope – Quick Lab Measuring Microscopic Objects Comparing Cells Modeling the Cell	<u>Ch: 1</u> 1:1.1a,c/ 1:1.2a/ 1:1.3a/ 1:1.4a/ 1:2.3a,b,c/ 1:2.4/ 1:3.4a,c/ 1:3.5b 4:1.1b/ 4:1.2a/ 4:2.2/ 4:3.1a,g,k/ 4:5.2a,b,i/ 4:7.1c/ 4:7.3a <u>Ch: 2</u> 1:1.1c/ 1:1.2a/ 1:3.3 4:2.1i/ 4:5.1c,f,g/ 4:5.2j/ 4:7.3a <u>Ch: 3</u> 1:1.1b/ 1:1.3a,b/ 1:1.4a/ 1:2.1/ 1:2.4/ 1:3.3/ 1:3.4a/ 1:3.5a,b 4:1.2a,c,f,g,i
October	* Cells and Energy * Cell Growth and Division * Meiosis and Mendel	4 5 6	8 5 11	Fermentation – Quick Lab Mitosis in Onion root Cells Animating Mitosis Allele combinations and Punnett Squares Modeling Meiosis	<u>Ch: 4</u> 4:1.2b,c,d,f,h,i/ 4:5.1a,b,c,d,e/ 4:5.2a/ 4:6.1a <u>Ch: 5</u> 1:1.2a/1:2.1 4:1.2a,b,c,d/ 4:2.1/ 4:2.2d/ 4:3.1d/ 4:4.1b/ 4:5.2a,h,I,j/ 4:5.3b <u>Ch: 6</u> 1:1.1a,b/ 1:1.3a/ 1:2.3a/ 1:3.2 4:2.1b,c,d,e/ 4:3.1c/ 4:4.1b,c
November	* Extending Mendelian Genetics * From DNA to Proteins	7 8	6 12	Probability Practice Using a test cross to determine Genotype Codominance Pedigree Analysis Incomplete Dominance Sex Linked Inheritance Human Heredity Extracting DNA Modeling Transcription Replication – Quick Lab	<u>Ch:7</u> 1:1.1b/ 1:1.3b 4:2.1a,b,c,e/ 4:2.2e/ 4:5.2h <u>Ch:8</u> 1:1.1b/ 1:1.3a,b/ 1:3.5a 4:1.2i/ 4:2.1f,g,h/ 4:2.2d,e/ 4:3.1b,c,d/ 4:5.2h,I,j
December	* Frontiers of Biotechnology	9	8	NYS Lab – Relationships in Biodiversity Modeling Genetic Engineering Genetic Screening Modeling Plasmids and Restriction Enzymes	<u>Ch:9</u> 1:1.1b,c/ 1:2.1 4:2.1j/ 4:2.2b,c,d,e/ 4:3.1b,c/ 4:4.1b/ 4:5.1f,g/ 4:5.2j

January	* Human Systems and Homeostasis	28	5	NYS Lab – Making Connections Homeostasis and Exercise Examining Human Cells Negative Feedback Loop Negative and Positive Feedback Smell and Olfactory Fatigue Blood Cells – Quick Lab Modeling T Cell Activation	<b>Ch 28:</b> 1:2.1 4:1.2a,b,d,e,f,j/4:5.1d/ 4:5.2h/ 4:5.3b
	* Nervous and Endocrine Systems	29	5		<b>Ch 29:</b> 1:1.2a,b 4:1.2b,c,d,f,j/ 4:5.2g,h,j/ 4:5.3b
	* Respiratory and Circulatory Systems	30	6		<b>Ch 30:</b> 1:1.3a 4:1.2b,e/ 4:5.2c,h/ 4:5.3b
	* Immune System and Disease	31	6		<b>Ch 31:</b> 1:1.1b/ 1:1.2a,b/ 1:2.1/ 1:2.3c/ 1:3.4b 4:1.2c,d/ 4:5.1g/ 4:5.2a,b,c,f,g,h,j
February	* Digestive and Excretory Systems	32 (skip 32.1)	6	Muscle Fatigue Bone and Muscle Cells Chicken Wing Dissection Human Sex Cells	<b>Ch 32:</b> 1:1.2b 4:1.2b,c,d,e/ 4:5.1f/ 4:5.2g/ 4:5.3b/ 4:6.1g
	* Protection, Support, and Movement	33	5		<b>Ch 33:</b> 4:1.2b,c,d,j/ 4:5.3a,b
	* Reproduction and Development	34 (34.1 and pgs 1034-1035)	6		<b>Ch 34:</b> 4:1.2b,c,d,j/ 4:2.1b/ 4:4.1a,d,e,f,g,h
March	* Principles of Evolution	10	9	NYS Lab – Beaks of Finches Predator-Prey Pursuit Genetic Drift	<b>Ch 10:</b> 1:1.1a,b/ 1:1.3a,b/ 1:1.4a/ 1:3.4c/ 1:3.5a,b 4:2.1b/ 4:3.1e,f,g,h,k,l/
	* The Evolution of Populations	11	6		<b>Ch 11:</b> 4:3.1b,c,d,f,g,h,I,k,l/
	* Principles of Ecology	13	6		<b>Ch 13:</b> 1:1.1a/ 1:1.2a 4:1.1a,b,c,d,e,f/ 4:5.1a/ 4:6.1a,b,c/ 4:6.3a
April	* ILST Review		2 wks	NYS Performance Sampler Kit Creating a Dichotomous Key for Limpet Shells	
	* Administration of ILST		1 wk		
May	* Interactions in Ecosystems	14	5	Construct a Cladogram – Quick Lab Construction a Phylogenetic Tree Investigating Motion in Protists – Quick Lab Density of Stomata Connecting Form to Function Closer Look at Flowers – Quick Lab	<b>Ch 14:</b> 4:1.1c,f/ 4:3.1g,i/ 4:6.1d,f/ 4:6.3a,b,c/ 4:7.1b,c/ 4:7.2a
	* Human Impact on Ecosystems	16 (16.1 & 16.4)	3		<b>Ch 16:</b> 4:6.2a,b/ 4:7.1a,b,c/ 4:7.2a,b,c
	* The Tree of Life	17 (17.1 & 17.2)	3		<b>Ch 17:</b> 1:1.1b 4:3.1a,e
	* Protists and Fungi	19	2		<b>Ch 19:</b> 4:1.3a/ 4:3.1j/ 4:4.1b/ 4:5.2b/ 4:6.2a
	* Plant Structure and Function	21 (21.1)	2		<b>Ch 21:</b> 4:1.2a,f/ 4:5.1b/ 4:5.3b/ 4:6.1g/ 4:6.3a
	* Plant Growth, Reproduction and Response	22 (22.2 & 22.5)	5		<b>Ch 22:</b> 4:1.2j/ 4:4.1a/ 4:5.3a,b/ 4:6.1e

June	* Review and Practice Exams *Review the 4 NYS Labs and Skills				
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