

## Biology PACING GUIDE 9<sup>th</sup> & 10<sup>th</sup> Grade

FIRST QUARTER				
SAVVAS Lesson(s)	Pacing	Topics		
Chapter 1.3 Chapter 8.1-Microscopes A.1-A.7 Lab Info/Safety	1.5 weeks	<ul> <li>Patterns of Life</li> <li>Explain how microscopes work</li> <li>Lab Handbook- learning to make a wet-mount slide</li> </ul>		
Chapter 2 Chemistry of Life Lessons 1-4	2.5 weeks	<ul> <li>Nature of Matter</li> <li>Properties of Water</li> <li>Carbon Compounds</li> <li>Chemical Reactions &amp; Enzymes</li> </ul>		
Chapter 8 Cell Structure & Function Lessons 1-4	2.5 weeks	<ul> <li>Life is Cellular</li> <li>Cell Structure</li> <li>Cell Transport</li> <li>Homeostasis &amp; Cells</li> </ul>		
Chapter 11 Cell Growth & Division Lessons 1-4	2.5 weeks	<ul> <li>Cell Growth, Division &amp;         Reproduction</li> <li>The Process of Cell Division</li> <li>Regulating the Cell Cycle</li> <li>Cell Differentiation</li> </ul>		



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SECOND QUARTER				
SAVVAS Lesson(s)	Pacing	Topics		
Chapter 9 Photosynthesis Lessons 1-3	2.5 weeks	<ul> <li>Energy &amp; Life</li> <li>Photosynthesis: An Overview</li> <li>The Process of Photosynthesis</li> </ul>		
Chapter 10 Cellular Respiration Lessons 1-3	2.5 weeks	<ul> <li>Cellular Respiration: An         Overview</li> <li>The Process of Cellular         Respiration</li> <li>Fermentation</li> </ul>		
Chapter 12 Introduction of Genetics Lessons 1-4	3 weeks	<ul> <li>The Work of Gregor Mendel</li> <li>Applying Mendel's         Principles     </li> <li>Other Patterns of         Inheritance     </li> <li>Meiosis</li> </ul>		
Review & Exams	1 week	Q1 & Q2 material		



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THIRD QUARTER				
SAVVAS Lesson(s)	Pacing	Topics		
Chapter 13 DNA Lessons 1-3	2.5 weeks	<ul> <li>Identifying the Substances of Genes</li> <li>Structure of DNA</li> <li>DNA Replication</li> </ul>		
Chapter 14 RNA & Protein Synthesis Lessons 1-4	2.5 weeks	<ul> <li>RNA</li> <li>Ribosomes &amp; Protein Synthesis</li> <li>Gene Regulation &amp; Expression</li> <li>Mutations</li> </ul>		
Chapter 15 Human Genome Lessons 1-3 Honors- Ch 16	2.5 weeks	<ul> <li>Human Chromosomes</li> <li>Human Genetic Disorders</li> <li>Studying the Human Genome</li> <li>Genetic Engineering</li> </ul>		
Biotechnology		<ul> <li>Applications, Ethics &amp; Impacts of Biotechnology</li> </ul>		
Chapter 4- Ecology Lesson 1-3 Chapter 5- Populations Lessons 1-3	1.5 weeks	<ul> <li>Energy, Producers &amp;         Consumers</li> <li>Energy Flow in Ecosystems</li> <li>Cycles of Matter</li> </ul>		
		<ul><li>How Populations Grow</li><li>Limits to Growth</li><li>Human population Growth</li></ul>		
Chapter 6 Communities and Ecosystem Dynamics	1 week	<ul> <li>Habitats, Niches Species         <ul> <li>Interactions</li> </ul> </li> <li>Succession</li> <li>Biodiversity, Ecosystems &amp; Resilience</li> </ul>		



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FOURTH QUARTER				
SAVVAS Lesson(s)	Pacing	Topics		
Chapter 19 Biodiversity & Classification Lessons 1-2	1.5 weeks	<ul> <li>Finding Order in         Biodiversity</li> <li>Modern Evolutionary         Classification</li> </ul>		
Review & Testing	1.5 week	End of Course Review		
Chapter 17 Darwin's Theory of Evolution Lessons 1-4	2.5 weeks	<ul> <li>Voyage of Discovery</li> <li>Ideas That Influenced         Darwin     </li> <li>Darwin's Theory: Natural         Selection     </li> <li>Evidence of Evolution</li> </ul>		
Chapter 18 Evolutions of Populations Lessons 1-4	2.5 weeks	<ul> <li>Genes &amp; Variation</li> <li>Evolution as Genetic Change</li> <li>Process of Speciation</li> <li>Molecular Evolution</li> </ul>		