



BIOLOGY PACING GUIDE

FIRST QUARTER				
UNIT	PACING	TOPICS / CHAPTERS	STANDARDS	UNIT STORYLINE
Nature of Life	7 days	1. The Science of Biology 2. The Chemistry of Life	<ul style="list-style-type: none"> LS4.1 LS1.1 LS1.5 	<ul style="list-style-type: none"> STORYLINE: How does climate change affect the water levels in Tennessee's river system? PROBLEM BASED LEARNING: Can you design a device to purify contaminated water? OVERVIEW: Design and Build a Solar Still
Ecology	15-18 days	3. The Biosphere 4. Ecosystems 5. Populations 6. Communities and Ecosystem Dynamics 7. Humans and Global Change	<ul style="list-style-type: none"> LS2.1 LS2.2 LS2.3 LS2.4 	<ul style="list-style-type: none"> STORYLINE: How are wild hogs threatening local species in Tennessee? PROBLEM BASED LEARNING: How can you reduce the impact of an invasive species on your local ecosystem? OVERVIEW: Invasives in Your Neighborhood
Cells	16-20 days	8. Cell Structure & Function 9. Photosynthesis	<ul style="list-style-type: none"> LS1.2 LS1.4 LS1.5 LS1.6 	<ul style="list-style-type: none"> STORYLINE: How do green algae power turbines? PROBLEM BASED LEARNING: What is the best way to grow algae for biofuel? OVERVIEW: Power from Pond Scum
SECOND QUARTER				
UNIT	PACING	TOPICS / CHAPTERS	STANDARDS	UNIT STORYLINE
Cells	18-23 days	10. Cellular Respiration 11. Cell Growth & Division	<ul style="list-style-type: none"> LS1.3 LS1.5 LS1.6 LS3.1 	<ul style="list-style-type: none"> STORYLINE: How do green algae power turbines? PROBLEM BASED LEARNING: What is the best way to grow algae for biofuel? OVERVIEW: Power from Pond Scum
Genetics	15-22 days	12. Intro to Genetics 13. DNA	<ul style="list-style-type: none"> LS1.1 LS3.1 LS3.2 LS3.3 	<ul style="list-style-type: none"> STORYLINE: How can disease resistance genes be used to save Tennessee trees from blight? PROBLEM BASED LEARNING: How can you identify and use disease resistance genes to help populations recover from an epidemic? OVERVIEW: Battling Blights with Disease Resistant Genes

			<ul style="list-style-type: none"> LS3.4 	
THIRD QUARTER				
UNIT	PACING	TOPICS / CHAPTERS	STANDARDS	UNIT STORYLINE
Genetics	20-25 days	14. RNA & Protein Synthesis 15. Human Genome 16. Biotechnology	<ul style="list-style-type: none"> LS1.1 LS1.3 LS3.3 LS3.4 	<ul style="list-style-type: none"> STORYLINE: How can disease resistance genes be used to save Tennessee trees from blight? PROBLEM BASED LEARNING: How can you identify and use disease resistance genes to help populations recover from an epidemic? OVERVIEW: Battling Blights with Disease Resistant Genes
Evolution	16 -20 days	17. Darwin's Theory of Evolution 18. Evolution of Populations 19. Biodiversity & Classification 20. History of Life	<ul style="list-style-type: none"> LS3.2 LS3.4 LS4.1 LS4.2 LS4.3 LS4.4 LS4.5 	<ul style="list-style-type: none"> STORYLINE: How do we know about the life and extinction of woolly mammoths? PROBLEM BASED LEARNING: What can a fossil tell you about life long ago? OVERVIEW: Fossilized Evidence of How Life Evolves
FOURTH QUARTER				
UNIT	PACING	TOPICS / CHAPTERS	STANDARDS	UNIT STORYLINE
Diversity of Life	21-23 days	21. Viruses, Prokaryotes, Protists, & Fungi 22. Plants 23. Human Body Systems	<ul style="list-style-type: none"> LS1.2 LS1.3 LS1.5 LS1.7 LS4.1 	<ul style="list-style-type: none"> STORYLINE: Can we prevent animals from going extinct? PROBLEM BASED LEARNING: How can you develop a species recovery plan? OVERVIEW: Recovery Plans for Endangered Species
End of Year Review	20-22 days	<ul style="list-style-type: none"> Ecology Cells Genetics Evolution Diversity of Life 	<ul style="list-style-type: none"> LS1.1-7 LS2.1-5 LS3.1-4 LS4.1-5 	<ul style="list-style-type: none"> Review previously completed problem based learning topics