## **LONG BRANCH PUBLIC SCHOOLS**

## Pacing Guide - 7th Grade

М	larking	Period 1			514.0	• •				
	J					mmon Core Stan				
Day	Unit	Topic	Desired Outcomes	NGSS	Reading	Writing	S&L	Math	21st Century	Technology
•	ng Day 1 ng Day 2		Rules, Procedures, Syllabus Safety							
1 2 3	Unit 1	Formation of	Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.	ESS2-1	RST.6-8.1, RST.6-8.7, RST.6-8.9	WHST.6.8.2.		MP.2, 6.NS.C.5, 6.EE.B.6, 7.EE.B.4	9.1	
5 6	the earth	the earth	Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.	ESS2-2		WHST.6-8.8	SL.8.5			8.1 & 8.2
7		•	Summative Unit Assesment & Introduction to Green School Project 1	ESS2						
8 9 10	Unit 2	Plate Tech	Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.	ESS2-3	RST.6-8.1, RST.6-8.7, RST.6-8.9	WHST.6.8.2, WHST.6-8.8		MP.2, 6.NS.C.5, 6.EE.B.6, 7.EE.B.4	9.1	8.1 & 8.2
11 12 13	Offic 2	riate recii	Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.	ESS2-4			SL.8.5			
14			Summative Unit Assesment	ESS2	7					
15 16 17	Unit 3	Weather and 3 Rotation of Earth	Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.	ESS2-5	RST.6-8.1, RST.6-8.7, RST.6-8.9	1 WHST 6 8 7	SL.8.5	MP.2, 6.NS.C.5, 6.EE.B.6.	9.1	8.1 & 8.2
18 19 20			Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.	ESS-6				7.EE.B.4		
21			Summative Unit Assesment & Completion of Green School Project 1	ESS2						

N	1arking	Period 2			ELA Cor	nmon Core Stan	dards			
Day	Unit	Topic	Desired Outcome	NGSS	Reading	Writing	S&L	Math	21st Century	Technology
1 2		Motion	Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.*	PS2-1	RST.6-8.1, RST.6-8.3	WHST.6.8.2, WHST.6-8.7		MP.2,		
3	Unit 4		Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.	PS2-2			SL.8.5	6.NS.C.5, 6.EE.A.2, 7.EE.B.3, 7.EE.B.4	9.1	8.1 & 8.2
5			Contruct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects	PS2-4						
6			Summative Unit Assesment & Introduction to Green School Project 2	PS2						
7 8 9		Speed and	Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.	PS3-1	— RST.6-8.1, RST.6-8.3	WHST.6.8.2, WHST.6-8.7		6.RP.A.1, 6.RP.A.2, 7.RP.A.2, 8.EE.A.1, 8.EE.A.2, 8.F.A.3,	9.1	
10 11 12	Unit 5	Energy	Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.	PS3-2			SL.8.5			8.1 & 8.2
13			Summative Unit Assesment	PS3						
14 15			Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.	PS3-3	RST.6-8.1, RST.6-8.3	WHST.6.8.2, WHST.6-8.7		6.RP.A.1, 6.RP.A.2, 7.RP.A.2, 8.EE.A.1, 8.EE.A.2, 8.F.A.3,	9.1	8.1 & 8.2
16 17	Unit 6	Heat Transfer	Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the	PS3-4			SL.8.5			
18			Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.	PS3-5						
19			Summative Unit Assesment & Completion of Green School Project 2	PS3						
20			Review for Midpoint Assesment						·	

Midpoint Assesment Midpoint Assesment

M	arking	Period 3			ELA Cor	ELA Common Core Standards				
Day	Unit	Topic	Desired Outcomes	NGSS	Reading	Writing	S & L	Math	21st Century	Technology
2		Elements, Compounds, Mixtures and Solutions	Develop models to describe the atomic composition of simple molecules and extended structures.	PS1-1	- RST.6-8.1, RST.6-8.3, RST.6-8.7	WHST.6.8.7, WHST.6-8.8		MP.2, MP.4, 6.RP.A.3, 6.NS.C.5, 8.EE.A.3,	9.1	8.1 & 8.2
3 4 5	Unit 7		Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.	PS1-2			SL.8.5			
6			Summative Unit Assesment & Introduction to Green School Project 3	PS1				6.SP.B.5		
7		States of	Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.	PS1-3	RST.6-8.1, RST.6-8.3, RST.6-8.7	WHST.6.8.7, WHST.6-8.8	SL.8.5	MP.2, MP.4, 6.RP.A.3, 6.NS.C.5, 8.EE.A.3, 6.SP.B.5	9.1	8.1 & 8.2
9 10 11 12	Unit 8	matter and energy	Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.	PS1-4						
13			Summative Unit Assesment	PS1						
14 15 16	Unit 9	Molecules vs	Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.	LS1-1	RST.6-8.1, RST.6-8.2, RI 6.8	WHST.6.8.1, WHST.6-8.2, WHST.6.8.7, WHST.6-8.8, WHST.6.8.9	SL.8.5	6.EE.C.9, 6.SP.A.2, 6.SP.B.4	9.1	8.1 & 8.2
17 18 19	Onit 3	Cells	Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function	LS1-2						
20			Summative Unit Assesment & Completion of Green School Project 3	LS1						
21 22			Various State Testing on Various Day in Marking Period	13						<u> </u>

М	arking	Period 4								
	ui kii ig	i ciiou +			ELA Common Core Standards					
Day	Unit	Topic	Desired Outcomes	NGSS	Reading	Writing	S&L	Math	21st Century	Technology
1 2		Jnit 10 Body systems	Use argument supported by evidence for how the body is a system of interacting subsystems composed of	LS1-3	RST.6-8.1, RST.6-8.2, RI 6.8	WHST.6.8.1, WHST.6-8.2, WHST.6.8.7, WHST.6-8.8, WHST.6.8.9	SL.8.5	6.EE.C.9, 6.SP.A.2, 6.SP.B.4	9.1	
3 4	Unit 10		Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of	LS1-4						8.1 & 8.2
5			Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.	LS1-5						
6			Summative Unit Assesment & Introduction to Green School Project 4	LS1						
7 8			Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.	LS1-8	RST.6-8.1, RST.6-8.4, RST.6-8.7	WHST.6.8.1, WHST.6-8.4, WHST.6.8.7	SL.8.5	MP.4, 6.SP.8.5	9.1	8.1 & 8.2
9 10 11	Unit 11	11 Genetics 1	Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism	LS3-1						
12			Summative Unit Assesment	LS3						
13 14			Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.	LS3-2	RST.6-8.1, RST.6-8.7,	WHST.6.8.2, WHST.6-8.8, WHST.6.8.9		MP.4, 6.RP.A.a, 6.SP.B.5, 6.EE.B.6, 7.RP.A.2	9.1	8.1 & 8.2
15 16	Unit 12	Genetics 2	Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.	LS4-5			SL. 8.1, SL.8.4			
17 18			Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.	LS4-6	RST.6-8.9		3L.0.4			
19			Summative Unit Assesment & Completion of Green School Project 4	LS4						
20			Review for Final							
21 22 23			Final							