

LONG BRANCH PUBLIC SCHOOLS

Pacing Guide - 6th Grade

Marking Period 1			ELA Common Core Standards															
Day	Unit	Topic	Desired Outcome	NGSS	Reading	Writing	S & L	Math	21st Century	Technology								
Opening Day 1			Rules, Procedures, Syllabus															
Opening Day 2			Safety															
1	Unit 1	Ecosystems	Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem	LS2-1	RST. 6-8.1, RST. 6-8.7, RST. 6-8.8, RI 8.9	WHST.6-8.1, WHST.6-8.2, WHST.6-8.9	SL.8.1, SL 8.4, SL 8.5	MP.4, 6.RP.A.3, 6.EE.C.9, 6.SP.B.5	9.1	8.1 & 8.2								
2			Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems	LS2-2														
3			Develop a model to describe the cycling of matter a flow of energy among living and nonliving parts of the ecosystem	L2-3														
4			Summative Unit Assessment & Introduction to Green School Project 1								LS2-1, LS2-2, L2-3							
5			Unit 2	Biodiversity and Populations							Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations	LS2-4	RST. 6-8.1, RST. 6-8.7, RST. 6-8.8, RI 8.9	WHST.6-8.1, WHST.6-8.2, WHST.6-8.9	SL.8.1, SL 8.4, SL 8.5	MP.4, 6.RP.A.3, 6.EE.C.9, 6.SP.B.5	9.1	8.1 & 8.2
6											Evaluate completing design solutions for maintaining biodiversity and ecosystem services	LS2-5						
7	Summative Unit Assessment				LS2-4, LS2-5													
8	Unit 3	Biological Evolution			Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws	LS4-1	RST. 6-8.1, RST. 6-8.7, RST. 6-8.9	WHST.6-8.1, WHST.6-8.2, WHST.6-8.9	SL.8.4	MP.4, 6.RP.A.1, 6SP.8.5, 6.EE.B.6, 7.RP.A.2	9.1	8.1 & 8.2						
9			Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships	LS4-2														
10			Analyze displays of pictorial data to compare patterns of similarities in the embryological developments across multiple species to identify relationships not evident in the fully formed anatomy	LS4-3														
11			Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment	LS4-4														
12			Summative Unit Assessment & Completion of Green School Project 1			LS4-1, LS4-3, LS4-2, LS4-4												

Marking Period 2			ELA Common Core Standards									
Day	Unit	Topic	Desired Outcome	NGSS	Reading	Writing	S & L	Math	21st Century	Technology		
1	Unit 4	Earth and the solar system	Develop and use a model of the Earth-Sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons	ESS1-1,	RST.6-8.1, RST.6-8.7	WHST.6-8.2	SL.8.5	MP.2, MP.4, 6.RP.A.1, 7.RP.A.2, 6.EE.B.6, 7.EE.B.4	9.1	8.1 & 8.2		
2			Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system	ESS1-2								
3			Summative Unit Assessment & Introduction to Green School Project 2								ESS1-1, ESS1-2	
4			Unit 5	Scale and dimensions							Analyze and interpret data to determine scale properties of objects in the solar system	ESS1-3
5	Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history	ESS1-4										
6	Summative Unit Assessment				ESS1-3, ESS1-4							
7	Unit 6	Earth's resources			Construct a scientific explanation based on evidence for how the uneven distribution of Earth's mineral, energy and ground water resources are the result of past and current geoscience processes	ESS3-1	RST.6-8.1, RST.6-8.7	WHST.6-8.1, WHST.6-8.2, WHST.6-8.7, WHST.6-8.8, WHST.6-8.9	SL.8.5	MP.2, MP.4, 6.RP.A.1, 7.RP.A.2, 6.EE.B.6, 7.EE.B.4	9.1	8.1 & 8.2
8			Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects	ESS3-2								
9			Summative Unit Assessment & Completion of Green School Project 2			ESS3-1, ESS3-2						
10			Review for Midpoint Assessment									
11	Midpoint Assessment											
12	Midpoint Assessment											

Marking Period 3			ELA Common Core Standards							
Day	Unit	Topic	Desired Outcome	NGSS	Reading	Writing	S & L	Math	21st Century	Technology
1	Unit 7	Sound and Light	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, RST.6-8.7	WHST 6-8.1, WHST 6-8.7	SL.8.5	MP. 2, 6. RP.A.1, 6 RP. A. 2, 7.RP. A.2, 8.EE.A.1, 8.EE.A.2, 8.F.A.3, 6.SP.B.5	9.1	8.1 & 8.2
2			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						
3										
4			Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy	PS3-3						
5										
6			Summative Unit Assessment & Introduction to Green School Project 3							
7	Unit 8	Electricity and Magnetism	Ask questions about data to determine the factors that affect the strength of electric and magnetic forces	PS2-3	RST.6-8.1, RST.6-8.3, RST.6-8.7	WHST 6-8.1, WHST 6-8.7	SL.8.5	MP. 2, 6. RP.A.1, 6 RP. A. 2, 7.RP. A.2, 8.EE.A.1, 8.EE.A.2, 8.F.A.3, 6.SP.B.5	9.1	8.1 & 8.2
8			Plan an investigation to determine the relationship among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of three particles as measured by the temperature of the sample:	PS3-4						
9										
10										
11			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						
12										
13	Summative Unit Assessment			PS3-4, PS3-5						
14	Unit 9	Electricity and Magnetism and Space	Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a	PS4-1	RST.6-8.1, RST.6-8.2, RST.6-8.9	WHST 6-8.9	SL.8.5	MP.2, MP.4, 6.RP.A.1, 6.RP.A.3, 7.RP.A.2, 8.F.A.3	9.1	8.1 & 8.2
15			Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials	PS4-2						
16			Ask questions about data to determine the factors that affect the strength of electric and magnetic forces	PS2-3						
17										
18			Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.	PS2-5						
19	Summative Unit Assessment & Completion of Green School Project 3			PS4-1, PS4-2, PS2-3, PS4-5						
20	Various State Testing on Various Day in Marking Period 3									
21										
22										

Marking Period 4			ELA Common Core Standards							
Day	Unit	Topic	Desired Outcome	NGSS	Reading	Writing	S & L	Math	21st Century	Technology
1	Unit 10	Changing Earth	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, WHST.6-8.8	SL.8.5	MP.2, 6.NS.C.5, 6.EE.B.6, 7.EEB.4	9.1	8.1 & 8.2
2										
3			Construct explanation based on evidence for how geosciences processes have changed Earth's surface at varying time and spatial scales.	ESS2-2						
4										
5										
6			Summative Unit Assessment & Introduction to Green School Project 4							
7	Unit 11	Water on Earth	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	SL.8.5	MP.2, 6.NS.C.5, 6.EE.B.6, 7.EEB.4	9.1	8.1 & 8.2
8										
9			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						
10										
11										
12	Summative Unit Assessment			ESS2-3, ESS2-4						
13	Unit 12	Weather Patterns	Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions	ESS2-5	RST.6-8.1, RST.6-8.7, RST.6-8.9	WHST.6-8.2, WHST.6-8.8	SL.8.5	MP.2, 6.NS.C.5, 6.EE.B.6, 7.EEB.4	9.1	8.1 & 8.2
14										
15			Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation and determine regional climates.	ESS2-6						
16										
17										
18	Summative Unit Assessment & Completion of Green School Project 4			ESS-5, ESS2-6						
19	Review for Final			PS 4, PS 3, ESS 2						
20										
21										
22	Final									
23										