CUMBERLAND COUNTY SCHOOL DISTRICT			
School: Cumberland County Elementary School		Subject:	Grade:
		Science	4th
Benchmark Assess	ment 1 (Week of)		
Instructional Timeline: 1st Nine Weeks			
Topic(s): Engineering/Technology and Energy			
KCAS Standards	Learning Target (I Can Statement)	Key Vocab.	
3-5 ETS 1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost	I can think up an engineering "problem" that needs to be fixed; I can list rules for possible solutions.	constraint criteria engineering failure analys	sic
3-5 ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem	problem; I can compare ideas to find which ones best fit the solution.	fair test optimize	
 3-5 ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved 4-PS3-1 Use evidence to construct an explanation relating the speed of an object t the energy of that object 	I can test different solutions for an engineering problem; I can tell you if an idea will work, fail, or just needs improvement. I can use evidence from two moving objects to determine which has the most energy based on their position or speed	collision electric curre energy energy transf energy transf heat vibrate	nt fer formation
4-PS3-2 Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents	I can describe and give examples of how energy is transferred by motion, electrical, light, thermal, or sound energy		
 4- PS3-3- Ask questions and predict outcomes about the changes in energy that occur when objects collide 4- PS3-4 Apply scientific ideas to design, test, and refine a device that converts energy from one form to another 	I can give an object more or less energy based on certain criteria I can model and create a device that converts one form of energy to another		

Benchmark Assessment 2 (Week of)		
Instructional Timeline: Weeks 10-18 (2 nd 9 Weeks)		
Topic(s): Waves and Information Transfer- Plant Structure and Function		
KCAS Standards	Learning Target (I Can Statement)	Key Vocab.
4-PS4-1 Develop a model of waves to describe patterns in terms	4-PS4-1- I can build a model of a wave that	amplitude
of amplitude and wavelength and that waves can cause objects	shows its height and width; I can prove that it	crest
to move.	makes things move.	opaque
 4-PS4-2 Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen. 4-PS4-3 Generate and compare multiple solutions that use patterns to transfer information 	 4-PS4-2- I can build a model showing how eyes can see things: light bounces off an object and enters the pupil of the eye. 4-PS4-3- I can think up and compare several ways to send information using patterned "codes". 	reflection translucent



Benchmark Assessment 3 (Week of)		
Instructional Timeline: 3rd 9 Weeks		
Topic(s): Animal Structure and Function- Changes to Earth's Surface		
KCAS Standards	Learning Target (I Can Statement)	Key Vocab.
4-LS1-1 Construct an argument that plants and animals have	4-LS1-1- I can make a convincing argument	external structures
internal and external structures that function to support	explaining how both inside parts and outside	internal structures
survival, growth, behavior, and reproduction	parts help plants and animals survive.	organ
		organ system
4-LS1-2 Use a model to describe that animals receive different	4-LS2-1- I can build a model showing animals	receptors
types of information through their senses, process the	Using their five senses to absorb information,	
information in their brain, and respond to the information in	think through it, and then act in the best way.	continent
different ways	A ESS2 1. Lean observe measure and analyze	denosition
	4-ESS2-1-1 Call Observe, measure, and analyze	deposition
4-ESS2-1 Make observations and/or measurements to provide	nlants	elevation
avidence of the effects of weathering or the rate of crossion by		erosion
evidence of the effects of weathering of the rate of erosion by	4-ESS2-2-1 can look at a man and figure out	
water, ice, wind, or vegetation	geological natterns	
	geological patterns.	
4-ESS2-2 Analyze and interpret data from maps to describe		
patterns of Earth's features		
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Benchmark Assessment 4 (Week of)			
Instructional Timeline: 4th 9 Weeks			
Topic(s): Rocks and Fossils- Natural Resources and Hazards			
KCAS Standards	Learning Target (I Can Statement)	Key Vocab.	
	4-ESS1-1- I can compare the types of fossils in		
4-ESS1-1 Identify evidence from patterns in rock formations and	different layers of rock, and explain how the	aquatic fossil	
fossils in rock layers to support an explanation for changes in a	variation in species could mean landscape	extinct	
landscape over time	changed over time.	fossil	
		relative age	
4-ESS3-1 Obtain and combine information to describe that	4-ESS3-1- I can research how all fuel energy is	terrestrial fossil	
energy and fuels are derived from natural resources and their	derived from natural sources; I can show the		
uses affect the environment	effects harvesting energy has on the		
	environment.	drawback	
4- ESS3-2 Generate and compare multiple solutions to reduce		natural hazard	
the impacts of natural Earth processes on humans	4-ESS3-2- I can come up with different ways to	natural resource	
	protect humans from natural events.	nonrenewable resource	
		pollution	
		renewable resource	
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