Brookwood 167: 2014-2015 Pacing Guide

Grade: ___5__ Subject Area: ___STEM_____ Quarter: 1st 2nd **3rd** 4th

Dates	Alignment	Content and Skills	Resources	Assessments	Vocabulary	Big Idea
Time allotted	*Common Core Standard*	*Objectives/Strategies/Literacy*	*Texts, Supplements, Technology*	*Type/Date*	*Content/Assessment*	*Essential Questions*
January 26-April 17th	NGS: 3-5-ETS1-1 NGS: 3-5-ETS1-2 NGS: 3-5-ETS1-3	SWBAT: evaluate a problem in a new and novel situation. SWBAT: apply a step-by-step design process to solve a problem. SWBAT: justify the use of autonomous robots to solve problems. SWBAT: define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. SWBAT: 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. SWBAT: 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.	Laptop iPads Launch log Student kits	Mod 2: Pre/Post Test per section Interim Assessments Launch log Completion of design using "Five Steps of the Design Process"	Simple design problem Design process Step-by-step Time Cost Autonomous robots Tests Variables Controls Possible solutions Constraints Failure points Prototypes Model Investigation Criteria AGV Output Input Closed-loop control Automation Sensors Software Hardware Invention Innovation Decision matrix Basic commands Control System	1) How can autonomous robots be used to help people? 2) How can the engineering design process be applied in daily life?

	ELA: RI.5.1 ELA: RI.RI.5.7 ELA: RI.5.9 W.5.7 W.5.8 W.5.9	SWBAT: quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. SWBAT: draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. SWBAT: integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. SWBAT: conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. SWBAT: recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources. SWBAT: draw evidence from literary or informational texts to support analysis, reflection, and research.			Evaluate Justify Quote Inference Sources Integrate Topic Research Summarize Paraphrase Relevant information Evidence Literary Text Informational text Analysis Reflection	
	MATH: MP.2 MATH: MP.4 MATH: MP.5 MATH: 5.G.A.1	SWBAT: reason abstractly and quantitatively. SWBAT: model with mathematics. SWBAT: use appropriate tools strategically.			Perpendicular lines Axes x-axis y-axis Coordinates x-coordinate y-coordinate Intersection Coordinate system	

		SWBAT: Graph points on the coordinate plane to solve real-world problems.			Origin Point Plane Ordered pair	