



School Year/Semester 2020-2021

Course Name	Exploring Technology	Course Code	21.0210000-1
School Name	Peachtree Charter Middle School	Teacher Name	A Campbell
School Phone Number	678-676-7709	Teacher Email	aaron_campbell@dekalbschoolsga.org
School Website	http://peachtreems.dekalb.k12.ga.us/Default.aspx	Teacher Website	http://peachtreems.dekalb.k12.ga.us/AaronCampbell.aspx

Course Description

This course is designed for students to utilize the universal systems model including input, process, output and feedback. Students will examine various systems, such as; electrical, magnetic, mechanical, fluid, structural, natural, thermal, chemical, and information. Students will learn how various systems work together. Technological Systems reinforces the areas of math, science, social studies, and language arts through practical application and/or hands on activities.

At the end of this course, students will be able to utilize the universal systems model to design and produce a technological product.

Curriculum Overview

The following academic concepts will be covered. **THIS IS ONLY A GUIDE AND IS SUBJECT TO CHANGE.**

CURRICULUM OVERVIEW	
Unit 1. Meeting Engineering and Technology	This KSB explores different types of technology. Students come to understand their roles in developing technology individually and collectively by modeling best teaming practices. Students also create, innovating existing technologies by analyzing societal impacts and needs.
Unit 2. Design and Engineering	This unit analyzes the steps involved in problem solving to find alternatives that would develop the best design solutions. Students actively generate solutions to real-world problem scenarios using the Engineering design Process. Documenting ideas is essential to ensuring the solutions are produced to generate the desired outcomes and to ensure proper recognition of original ideas.
Unit 3. Project Revive	This unit explores real-world problems have both historically and currently been addressed through careful problem solving and engineering design technology from solutions generated from a problem solving process. Often using reversed engineering principles help prevent innovators from repeating design solutions that ultimately have not been effective. By examining existing exemplars, students design products to generate solutions to both nature made and human-made environmental problems and disasters that impact societies over months and years. Ultimately, students will become more socially-responsible technologically literate consumers and producers.
Unit 4. Manufacturing the Masses	This unit delves deep into the history of manufacturing and allows students to not only explore the history of manufacturing but to also understand modern day manufacturing processes. Students will explore both custom and mass production to understand consumer demands. The unit will also allow students to explore marketing as a part of the manufacturing process.

BOARD-APPROVED INSTRUCTIONAL MATERIALS

Online book and/or resources	Engineering By Design (EbD)
Online student access code (school specific)	N/A (Teacher provides resources to students)

GRADING SYSTEM: The DeKalb County School District believes that the most important assessment of student learning shall be conducted by the teachers as they observe and evaluate students in the context of ongoing classroom instruction. A variety of approaches, methodologies, and resources shall be used to deliver educational services and to maximize each student's opportunity to succeed. Teachers shall evaluate student progress, report grades that represent the student's academic achievement, and communicate official

academic progress to students and parents in a timely manner through the electronic grading portal. **See Board Policy IHA.**

GRADING CATEGORIES	*GRADE PROTOCOL		
Formative and Diagnostic Assessments – 0% Assessment Tasks (Skills & Homework) – 25% Classwork (Guided, Independent, and Group Practice) – 45% Quizzes, Tests, and Projects – 30%	A	90 – 100	~ P (pass)
	B	80 – 89	~ F (fail)
	C	71 – 79	
	D	70	
	F	Below 70	

Notes:

*English Learners (ELs) must not receive numerical or letter grades for the core content areas in elementary and middle school during their first year of language development. A grade of CS or CU must be assigned. This rule may be extended beyond the first year with approval from the EL Studies Program. English Learners must receive a grade for ESOL courses.

~Elementary schools will utilize P (pass) and F (fail) in Health/Physical Education, Music, World Languages, Visual Arts and Performing Arts.

DISTRICT EXPECTATIONS FOR SUCCESS	
STUDENT PROGRESS	Semester progress reports shall be issued four and a half, nine and thirteen and a half weeks into each semester. The progress of students shall be evaluated frequently and plans shall be generated to remediate deficiencies as they are discovered. Plans shall include appropriate interventions designed to meet the needs of the students. See Board Policy IH.
ACADEMIC INTEGRITY	Students will not engage in an act of academic dishonesty including, but not limited to, cheating, providing false information, falsifying school records, forging signatures, or using an unauthorized computer user ID or password. See the Code of Student Conduct - Student Rights and Responsibilities and Character Development Handbook.
HOMEWORK	Homework assignments should be meaningful and should be an application or adaptation of a classroom experience. Homework is at all times an extension of the teaching/learning experience. It should be considered the possession of the student and should be collected, evaluated and returned to the students. See Board Policy IHB.
MAKE-UP WORK DUE TO ABSENCES	When a student is absent because of a legal reason as defined by Georgia law or when the absence is apparently beyond the control of the student, the student shall be given an opportunity to earn grade(s) for those days absent. Make-up work must be completed within the designated time allotted. See Board Policy IHEA.
SCHOOL EXPECTATIONS FOR SUCCESS	
CLASSROOM EXPECTATIONS	<ol style="list-style-type: none"> 1 Be on time and prepared for online classes every day. 2 Follow expectations and protocols of engagement for online meetings 3 Turn in work on time. 4 Follow procedures for submitting assignments electronically. 5 Follow all safety rules in for completing project related assignments.
MATERIALS AND SUPPLIES	USB drive 1T or cloud-based storage method, Composition Notebooks to be used as the Engineering Design Notebook. One mechanical pencil with lead (does not have to be fancy). Basic supplies for some projects as needed.
EXTRA HELP	Virtual tutoring help scheduled by appointment
PARENTS AS PARTNERS	TBD

PLEASE SIGN BELOW AND RETURN.

I have read the syllabus.

Student Signature_____

Parent/Guardian Signature_____

Date_____

Additional information to support continued contact:

Information	Parent/Guardian
Day Time Phone Number	
Cellular Phone Number	
Home Phone Number	
Email Address	