Engineering & Technology Syllabus **Cartersville Middle School** **School Year 2024-25**

Student Name: _____ Class Period: _____ Computer #: _____

COURSE DESCRIPTION:

Course Name	**Exploring Engineering & Technology, Grade 6**	**Teacher Name**	**Mrs. Michelle Cottongim**
School Name	**Cartersville Middle School**	**Teacher Email**	**mcottongim@cartersvilleschools.org**
School Phone Number	**770-382-3666**	**School Website**	***https://www.cartersvilleschools.org/CMS***

The Exploring Engineering and Technology course will provide all students with an introduction to the principles of Engineering & Technology and its place in the modern world. Students will be educated on the daily impact of engineering, and the nature of technology. Exploring Engineering and Technology students will use the Engineering Design Process and experimentation to solve a variety of technological problems. Students will participate in engineering design challenges to understand how criteria, constraints, and processes affect designs. Students will participate in activities that will allow them to gain experience in brainstorming, visualization, modeling, construction, testing, experimentation, and refining designs. Students also develop skills in researching information and communicating design information. Exploring Engineering and Technology reinforces the areas of math, science, social studies, and language arts through practical application and hands-on design challenges. Exposure to Engineering and Technology related careers, work ethics and leadership skills will be important components in this course.

6th Grade Standards – Exploring Engineering and Technology

https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/Exploring-Engineering-and-Technology-Grade-6.pdf

Instructional Resources:

This course utilizes a variety of web-based applications and software. The two primary resources are:

- ITEEA's Engineering by Design Web based Course: Exploring Technology
- Technology: Engineering Our World Eighth Edition ITEEA Textbook

Class Goal:

To prepare students to become 21st Century learners while enhancing achievements in STEAM subjects (Science, Technology, Engineering, Arts, and Math) through hands on engineering/technology lab experiences.

Instructional Philosophy:

The class will be taught in an experiential manner where the students are encouraged to actively participate in class discussions, readings, individual, and group projects. It is important for students to take ownership of their learning and be responsible for all assignments.

Class Specifics:

- We will use an online learning environment. Home internet is useful, but not required. Assignments, resources and pertinent information will be posted in the Learning Management System (LMS), Schoology.
- Digital citizenship and appropriate digital use are always expected as most of our work is online.
- Assignments that are not completed in class are due the next day and should be completed for homework.
- Students are required to take and pass a Procedures and Safety test.

Supplies:

1 composition notebook graph paper, 1 2-pocket folder with prongs, Notebook Paper
Supplies to keep with you in a pencil pouch: wired ear buds, pens & pencils, highlighters, blunt tip scissors, colored pencils, markers, glue sticks, and scotch tape

Attendance:

Attendance is critical to the success of this course. The class attendance policy will follow the same guidelines set forth in the student handbook. Being tardy for the class will result in an infraction.

Safety:

Because of the nature of this course, students will work with and learn to use a variety of tools and equipment. Each student will be orientated and assessed on basic workplace safety procedures. While working in the classroom or in the lab, all safety procedures must be followed. If a student does not follow the correct safety procedures, the student will not be permitted to complete the activity. If a student places himself/herself or others in danger, the student will be removed, and the proper disciplinary actions will follow. No food, drink, candy, or gum is allowed in the lab except for a water bottle with water only.

Digital Citizenship:

As this course is primarily online, it is imperative that appropriate online behavior is maintained to ensure a productive and safe learning environment for all. Students may be provided alternative assignments if unable to abide by proper protocol.

Grading:

All assignments are expected on the due date. There will be a 30% penalty for any assignment not turned in on time. Utilize Infinite Campus to view your student's progress. If you need the log-in information, please check with the front office. Grades will be based on a combination of daily work, quizzes, tests, projects, tasks, etc. The grades will be weighted as follows:

- **60%** Summative (Including, but not limited to; tests, projects, Engineering Design Notebooks and exams.)
- **40%** Formative (Including, but not limited to; quizzes, classwork, and Engineering Journal)

Classroom Expectations:

1. Be on time and prepared for class every day.
2. Listen carefully to instructions.
3. Turn in work on time.
4. DO NOT tamper with computer settings.
5. Follow all Student Handbook Rules.
6. Clean computer area and log off prior to leaving class.
7. Clean Engineering Workshop as assigned prior to leaving lab.
8. Follow all safety rules in the lab or classroom.
9. Return tools and supplies to proper storage area.
10. Do not eat food in the classroom and or lab area! Water bottles must be placed on the floor by chair.

Actions Taken for Problem Behavior or Failure to Follow Procedures

· When a student does not follow procedures or demonstrates problem behavior a discipline infraction will be issued. Consequences for infractions will be as follows:

Infraction 1: Parent Contact
Infraction 2: Silent Lunch/Parent Contact
Infraction 3: In-Team Suspension/Parent Contact
Infraction 4: Office Pre-referral
Infraction 5: Office Referral

· Additional infractions will result in an office referral.

· Severe behavior problems as outlined in the Cartersville Middle School Student Handbook will be referred directly to the office.

PLEASE SIGN BELOW AND RETURN

I have read the syllabus.

Print Student Name: _____ Grade: _____ Class Period: _____

Student Signature_____

Parent/Guardian Signature_____ Date_____

Additional information to support continued contact:

Information	Parent/Guardian	
Print Parent Name		
Cellular /Home Phone No.		
Email Address		