MEADOWBROOK ELEMENTARY SCHOOL
3630 Goldfinch Drive
Augusta, Georgia 30906
Phone: 706-796-4915
Fax: 706-796-4681

Greetings! My name is Thomas Gonzales, Mr. G, and I am Meadowbrook Elementary School's Computer Science/Computer Technology Teacher and WMES News Crew Advisor. I have worked in the Information Technology and Cybersecurity domains for over twenty years with the majority of my experience stemming from my twenty-year career in the US Army. I have a Bachelor of Science in Information Technology and Master of Science in Cybersecurity and look forward to broadening our students future career prospects as a Career Technical Agricultural and Engineering (CTAE) teacher. Our goal is to expose our students to the vast array of opportunities that are inherent within the Computer Science domain. I am excited and honored to work with you and your child this coming school year and inspiring them to pursue further education and certification in the various fields of technology.

Course Description:
In Georgia, Computer Science is understood as the study of computers and algorithmic processes, including their principles, their hardware and software designs, their implementation, and their impact on society. The standards blend the core concepts of computer science (i.e., what students should know) and computer science practices (i.e., what students should do). These core concepts and practices are taught in an integrated way to provide authentic learning experiences for all students. Computer Science is taught in four 9-week modules indicated as follows:

- **Impacts of Computing (1st 9-Weeks)**
  - Discuss real-world cybersecurity problems (e.g. viruses, phishing attacks, click bait, etc.) and how personal information can be protected.
  - Understand, demonstrate, and encourage respect for intellectual property of print and digital media.
  - Create and manage digital identity through positive, safe, and ethical online interactions.
  - Discuss computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.
  - Identify and propose ways to improve usability of technology for diverse user.
- **Computing Systems (2nd 9-Weeks)**
  - Describe how internal and external parts of computing devices function to form a system.
  - Model how computer hardware and software work together as a system to accomplish tasks.
  - Determine potential solutions to solve simple hardware and software problems using common troubleshooting strategies.
  - Develop and apply keyboarding skills, utilizing current technology.
  - Compare and contrast prior knowledge on current technologies with that of new or emerging technologies.
  - Curate (analyze and evaluate) information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.
  - Build knowledge by actively exploring real-world issues.
  - Explain why a real-world issue exists or was created and develop a possible solution.
  - Organize and present collected data visually to highlight relationships and support a claim.
  - Create original works or responsibly repurpose or remix digital resources into new creations.
  - Communicate complex ideas clearly and effectively by creating or using a variety of digital objects.
  - Publish or present content that customizes the message and medium for their intended audiences.
- **Algorithms and Programming (3rd 9-Weeks)**
  - Compare and refine multiple algorithms for the same task and determine which is the most appropriate.
  - Decompose (break down) problems into smaller, manageable subproblems to facilitate the program development process.
  - Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended.
  - Create programs that include sequences, events, loops, conditionals, and variables.
  - Explore local and global issues using digital tools to connect with learners from a variety of backgrounds and cultures.
  - Plan the development of a program by including others' viewpoints and considering user preferences.

MEADOWBROOK ELEMENTARY SCHOOL
3630 Goldfinch Drive
Augusta, Georgia 30906
Phone: 706-796-4915
Fax: 706-796-4681

- Take on varying roles, with teacher guidance, when collaborating with peers during the design, implementation, and review stages of program development.
- Describe choices made during program development using code comments, presentations, and demonstrations.
- Seek diverse perspectives for the purpose of improving computational artifact.

- **Data and Analysis (4th 9-Weeks)**
  - Explore and practice a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic
  - problems.
  - Select, evaluate, and use appropriate digital tools to plan and manage a design process.
  - Modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.
  - Understand and use effective research strategies to locate information and other resources.
  - Evaluate the accuracy, perspective, credibility and relevance of information, media, data, or other resources.
  - Use information from multiple sources to identify real-world issues and create solutions.

Course Assessment Plan:
Students will be assessed via practical application of the skills taught in both virtual and physical environments.

Classroom Expectations:
Students are expected to adhere to the student code of conduct policy, as well as the following classroom expectations at all times:

1. Believe in yourself.
2. Follow directions of all adults within the school building.
3. Keep hands and feet to yourself at all times.
4. Arrive on time and ready to learn.
5. Respect people and property.
6. Share and work together.

If you have any questions or concerns, you can reach me via email at gonzath@boe.richmond.k12.ga.us.

THOMAS M. GONZALES, MSCIA
Computer Science/Technology Teacher
Meadowbrook Elementary School