STEM EDUCATION

Georgia Standards Alignment

GenerateTech, Inc.

Game Developer

Software Engineer

Web Developer

Network Architect

IT Specialist

Database Designer

Data Scientist

Mechanical Engineer
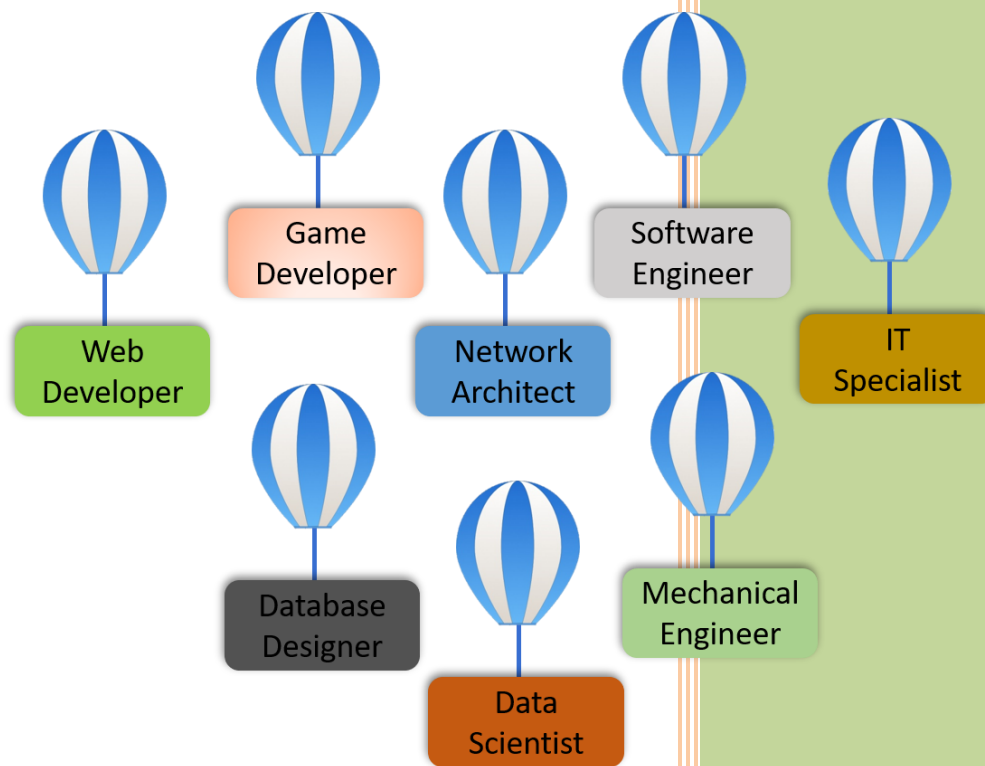
Our Program

Channels Students' Interests

Toward Rewarding Careers.

About GenerateTech, Inc.:

GenerateTech is a non-profit organization in Rockdale County, Georgia where every student learns and grows regardless of class, race, nationality, background, interests, and intelligence. The company designed its facility to be academically-charged, bully-free, technology-driven, and success-speaking to benefit students from the traditional, private and homeschool systems. GenerateTech's program is hands-on and the company provides a space and training that foster creativity, critical thinking, and collaboration amongst students of all grade levels.

Mission Statement:

As a nonprofit, GenerateTech will commit to providing scalable, real-world and hands-on innovative STEM education training and services to all its patrons at a low cost so that anyone who seeks to take part cannot because of the cost factor. For students, we will maximize learning experiences by bridging skills in **S**cience, **T**echnology, **E**ngineering, and **M**ath.

Instructors:

At GenerateTech, we hire teachers and IT professionals from the community to serve as leading instructors. Often, instructors would use high school students or students they have trained to serve as teachers' aides. Currently, Mr. Mark Fraser develops the organization's training curriculum, and he holds a myriad of IT certifications including security+, Network+, A+, Certified Internet Webmaster, Microsoft Certified IT Professional (MCITP), Microsoft Certified Solutions Associate (MCSA), Linux Certified Professional (LCP) and Certified Associate Project Manager (CAPM). Additionally, Mr. Fraser has a Bachelor's degree in Information Technology and a Master's degree in Information Technology Management.

Method of Alignment:

- GenerateTech's all-inclusive program incorporates training features and outcomes that align with Georgia's standards: Career Preparation: -

    1. Training experiences focus on a number of computer literacy skills, technical career preparation and college readiness IT skills.
    2. Sustainable computing is a prevailing technology trend, which we educate students about via our regularly hosted up-cycling program.
    3. Our training sessions boast several approaches to learning such as peer-to-peer interactions, instructor-led activities and discussions, multimedia

presentations, videography, show and tell, role play, and simulations.

- The company's STEM program is based on grade level groupings--second through fifth, sixth through ninth and tenth through twelfth--to maximize learning.
- We set specific learning objectives for each training session. For example, explain and show how electricity flows through a circuit and discuss the differences between series and parallel circuits, and demonstrate how to build either circuits using the provided hardware and tools (electrical engineering). Likewise, how Functions make programming less stressful and why using variables make sense regardless of the language (software engineering).
- We ensure that every learning experience involves hands-on activities so that students do not only learn by listening and observing but by doing.
- We focus on all aspects of STEM education and not just a single component, and we take pride in the fact that we guide students in making learning connections.
- Generally, students will learn to troubleshoot, identify, describe, use, discuss, solve, build, fix, analyze, research, and demonstrate proficiencies in a myriad of STEM areas, including but not limited to computer science, algorithms, multimedia design, programming, website design, robotics, electrical circuits, cyber threats and safety issues, structural engineering, PC and board games design, science and engineering experiments, 3D modeling and printing, prototyping, artificial intelligence, hardware and peripherals, Windows Operating Systems, Internet technologies, and Microsoft Office.

Field Trip Scenario:

Our facility features three settings which, when combined, provide a comprehensive and immersive STEM learning experience. Students can stop taking a field trip and begin <u>doing</u> it. For most students, the fun part of the field trip is the bus ride. Even some teachers and chaperones remember more about their time on the bus than they remember about the program and its purpose. Students who take part in field trips to GenerateTech will always remember what they did and why. In fact, most field trips are structured to allow students to build and take away their projects. Students who participate in field trips will benefit from training that connects at least two STEM areas. Typically, students will spend forty-five minutes to one hour on each project building, creating, designing, coding, interacting, and learning.

Testimonials:

"This place is fantastic! My son has participated in two field trips and a week-long summer camp and not only learned, but has been inspired! I have loved seeing everything he has created! These STEM activities are many times out of my wheelhouse so I am thrilled to have such a place and such people to help guide him in this interest!"

Homeschool Administrator

"The staff is excellent! Mr. Fraser is kind, patient, and encouraging. My son loved hearing Mr. Fraser's advice and encouragement, and asked if he could go to school full-time there! That's definitely a great sign. We look forward to the upcoming programs at GenerateTech."

Homeschool Parent

"Love this!!! Project-based, hands-on, real-world application learning at its best. Well done GenerateTech for providing such an amazing, relevant and engaging experience for these students."

Parent of 4th grade student

"My son attended a summer camp and absolutely loved it. You have really lit a fire for creativity and fostered a love of technology that he will not soon forget. He is begging to go back. Thank you so much for all that you do."

Parent of 7th grade student