



PROGRAMMING

PATHWAY



PATHWAY OVERVIEW

The Programming pathway helps students build knowledge and hands-on skills in computing, digital systems, problem solving, and technology innovation.

Through Introduction to Software Technology, Computer Science Principles OR AP Computer Science Principles, and Programming, students prepare for postsecondary education, industry credentials, and work-based learning experiences connected to the field.



CAREER CLUSTER

Digital Technology

COURSE SEQUENCE + WORK-BASED LEARNING

1

Introduction to Software Technology

Builds computational thinking and programming skills through algorithms, application design, debugging, and collaborative software projects.



2

Computer Science Principles OR AP Computer Science Principles

Explores computing systems, algorithms, data, networks, cybersecurity, programming, and the social impacts of technology.



3

Programming, Games, Apps, and Society

Develops software with modern languages, object-oriented programming, testing, debugging, and application deployment.



Work-Based Learning (Capstone Experience)

Apply technical skills through internships, client projects, coding challenges, and workplace learning with technology partners.

LEADERSHIP + INDUSTRY CONNECTIONS

CAREER & TECHNICAL STUDENT ORGANIZATION



COMPETITION OPPORTUNITIES

- Coding & Programming
- Computer Applications
- Computer Problem Solving
- Website Coding & Development
- Introduction to Programming
- Mobile Application Development



CHAPTER ACTIVITIES

- App or website challenge
- Coding sprint
- Chapter of the Year
- Digital portfolio
- Community service project
- Leadership conferences

CO-CURRICULAR / INDUSTRY EXPERIENCES



- Certiport IT Specialist Software Development
- Industry tours
- Industry panel
- Client projects and workplace learning
- Job shadowing
- FCS IT summer internship

POSTSECONDARY OPPORTUNITIES



LOCAL / REGIONAL INSTITUTIONS

- Georgia Institute of Technology
- Kennesaw State University
- Atlanta Technical College
- Gwinnett Technical College



DUAL ENROLLMENT

Metro-area dual enrollment options may include computer science, cybersecurity, programming, cloud computing, networking, web development, game design, artificial intelligence, or related technology coursework; verify through Georgia Futures.



SCHOOLS OFFERING THIS PATHWAY

Cambridge | Centennial | Innovation Academy | Langston Hughes

CAREER OPPORTUNITIES

CAREERS

Application Programmer

Software Developer

Full Stack Developer

ATLANTA-AREA EMPLOYERS

