

Professional Technical Studies

PATHWAY: Engineering & Technology

CLUSTER: Science, Technology, Engineering & Math

Academics

- Applies core concepts of technology and recognizes their relationships with engineering, science, and math, and other subjects

Information Technology Application

- Uses computer applications to solve problems
- Selects and uses different forms of communications technology

Technical Skills

- Operates and uses a variety of tools, machines, equipment, and materials

Design

- Uses analytical tools and techniques to solve problems, construct tests, and evaluate data

Safety, Health & Environment

- Uses safety equipment in the laboratory

History of Electricity & Electronics

- Researches history of invention in electronics

Mathematics for Electronics

- Solves direct current (DC) circuit analysis problems using Ohm's Law
- Calculates fundamental alternating current (AC) parameters
- Uses Boolean algebra for design and analysis of digital circuits

Testing Digital Circuits

- Analyzes and applies observed logic states

Digital Applications

- Investigates integrated circuits, electronic logic circuits, clocks, timers, digital counting circuits, advanced timers, and computer circuits