# Middle School Career Investigations: Information Technology in a Typical Business

## Menu

Within the Information Technology Career Cluster, there are four pathways: Information Support and Services, Network Systems, Programming and Software Development, and Web and Digital Communications. Click on each of the icons to learn more about these pathways. Make sure to visit each one.

## Information Support and Services Description

Professionals in the Information Support and Services Pathway are involved with IT deployment, including implementing computer systems and software, providing technical assistance, and managing information systems.

## Information Support and Services Sample Careers

Sample careers in the Information Support and Services Pathway include Applications Integrator, Communications Equipment Operator, Computer Support Specialist, Computer Systems Engineer, Data Modeler, Database Administrator, Database Analyst, Geographic Information Systems Technician, Information Systems Analyst, Information Systems Security Developer, and Software Test Engineer.

## Information Support and Services Education and Salaries

Most careers in the Information Support and Services Pathway require some level of higher education. A System Analyst requires a Bachelor’s Degree, as well as a certification in his or her field, on-the-job training, and technical training. They have an average salary of $100,090. A Database Administrator requires a Bachelor’s Degree, as well as a certification in his or her field, on-the-job training, and technical training. They have an average salary of $97,050.

## Network Systems Description

Professionals in the Network Systems Pathway are involved with network analysis, planning, and implementation, including design, installation, maintenance, and management of network systems.

## Network Systems Sample Careers

Sample careers in the Network Systems Pathway include Computer and Information Systems Administrator, Computer Operator, Computer Security Specialist, Computer Software Engineer, Computer Support Specialist, Information Security Analyst, Network Systems Administrator, Network Architect, Network Systems and Data Communication Analyst, and Telecommunications Equipment Installer.

## Network Systems Education and Salaries

There is a range in educational requirements and salaries in the Network Systems Pathway. A Network Systems Administrator requires a Bachelor’s Degree and has an average salary of $94,380. A Network Architect requires an Associate Degree and has an average salary of $117,700.

## Programming and Software Development Description

Professionals in the Programming and Software Development are involved with the design, development, implementation, and maintenance of computer systems and software, requiring knowledge of computer operating systems, programming languages and software development.

## Programming and Software Development Sample Careers

Sample careers in the Programming and Software Development Pathway include Applications Integrator, Computer Software Engineer, Game Designer or Programmer, Information Security Analyst, Network Systems and Data Communication Analyst, Programmer, Software Applications Engineer, and Software Test Engineer.

## Programming and Software Development Education and Salaries

There is a range in educational requirements and salaries in the Programming and Software Development Pathway. A Programmer requires a High School Diploma, as well as on-the-job training and technical training. They have an average salary of $95,520. An Information Security Engineer requires a Bachelor’s Degree and has an average salary of $110,450.

## Web Design and Digital Communications Description

Professionals in the Web and Digital Communications Pathway are involved with creating, designing, and producing multimedia like video, audio, and other digital content. They develop multimedia products for business, training, entertainment, communications, and marketing.

## Web Design and Digital Communications Sample Careers

Sample careers in the Web Design and Digital Communications Pathway include Graphic Designer, Multimedia Artist, Web Developer, and Webmaster.

## Web Design and Digital Communications Education and Salaries

There is a range in educational requirements and salaries in the Web Design and Digital Communications Pathway. A Web Designer requires an Associate Degree, as well as on-the-job training. They have an average salary of $85,870. A Multimedia Artist requires a High School Diploma and Technical Training and has an average salary of $69,210.