Health Science: Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Biotechnology Research and Development Pathway: Scientists may study diseases to discover new treatments or invent medical devices through bioscience research and development. These methods may be used to directly assist patients or to improve the accuracy of diagnostic tests.

Diagnostic Services Pathway: Tests and evaluations are used to aid in the detection, diagnosis and treatment of diseases, injuries or other physical conditions.

Health Informatics Pathway: This pathway includes health care administrators who manage health care agencies as well as those individuals who are responsible for managing all of the patient data and information, financial information, and computer applications related to health care procedures.

Support Services Pathway: Careers in this pathway provide a therapeutic environment for the delivery of health care. A full range of career opportunities from entry level to management, including technical and professional careers are available.

Therapeutic Services Pathway: The focus of this pathway is primarily on changing the health status of the patient over time. Health professionals in this pathway work directly with patients; they may provide care, treatment, counseling and health education information.

Information Technology: Careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.

Information Support and Services: Successful IT deployment — implementation of computer systems and software, provision of technical assistance, creation of technical documentation and management of information systems — is critical to the success of most 21st century organizations.

Network Systems: Network analysis, planning and implementation, design, installation, maintenance and management of network systems are included in this pathway. Individuals with expertise in network systems are in high demand for a variety of positions in organizations of all sizes and types.

Programming and Software Development: Knowledge of computer operating systems, programming languages and software development is required to design and develop computer systems and software. People with expertise in programming and software development work with cutting-edge technologies to develop tomorrow’s products for use by businesses and consumers.

Web and Digital Communications: Organizations use digital media for creating, designing and producing interactive multimedia products and services, including development of digitally-generated or computer-enhanced media used in business, training, entertainment, communications and marketing.

Find more Career Cluster Information at https://careertech.org
**Manufacturing:** Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

**Health, Safety and Environmental Assurance:** Ensuring that equipment is being used safely in the workplace; planning for safety in new production processes; conducting health, safety and/or environmental incident and hazard investigations.

**Logistics and Inventory Control:** People with careers in Logistics and Inventory Control work with an inventory of raw materials and finished parts. They move raw materials to the production line, unload trucks with raw materials, wrap pallets of finished products for shipment, and communicate with traffic managers.

**Maintenance, Installation and Repair:** Employees troubleshoot and repair electrical, electronic and mechanical systems. This includes computer-based inventory control systems, retrieving information histories on each machine from computer records, and recording repair activities on the system to keep accurate records of repairs.

**Manufacturing Production Process Development:** Employees are responsible for product design and design of the manufacturing process. They work with customers to ensure the product meets or exceeds customer expectations. They also monitor the manufacturing process and the materials used to manufacture the product.

**Production:** People with careers in production work on the shop floor making parts or assembling them. They work with machines, making or assembling electronic parts, constructing or assembling modular housing, performing welding jobs, or printing various materials.

**Quality Assurance:** Employees ensure that standards and procedures are adhered to and products or services meet performance requirements. This could include identifying the raw product to ensure it meets specifications, as well as measuring or otherwise testing products and parts to ensure they meet required customer specifications.

**Science, Technology, Engineering & Mathematics:** Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

**Engineering and Technology:** For a future in this pathway, students should study and apply principles from advanced mathematics, life sciences, physical science, earth and space science, and technology.

**Science and Mathematics:** Those who choose careers in this pathway apply essential mathematics and science content and skills in a real-world context. Science and mathematics occupations include those in physical, environmental and human endeavors.