

## What Is the Career Clusters Appendix?

The Career Clusters Appendix provides you with additional information about career clusters. On this page and the next you'll find a basic introduction to the career clusters concepts of pathways, knowledge, and skills. Pages 370–377 provide a more detailed look at each of the 16 career clusters and at each individual cluster's pathways.

For more information about the 16 career clusters visit the career clusters series Web site at [careerclusters.glencoe.com](http://careerclusters.glencoe.com).

## What Are Career Clusters?

Career clusters are groups of similar occupations and industries. By studying career clusters, you can learn about the exciting range of careers available in today's world of work. Career clusters were developed by the U.S. Department of Education as a way to help you identify your career interests and plan your career.

What interests you—art, veterinary science, counseling, space exploration, finance, teaching? Pick two or three career clusters that appeal to you and explore the various careers available within each. Once you start learning about a career cluster, you're sure to discover all kinds of exciting jobs that you didn't know existed. Studying career clusters will also help you to discover your interests and decide where you want your future to take you.

## What Are Career Pathways?

Every career cluster is divided into a number of career pathways. A career pathway is an area of occupational interest within a career cluster. Each pathway contains a group of careers requiring similar academic and technical skills, as well as similar education, training, or certification.

Let's say you are interested in the Arts, Audio/Video Technology, and Communications

career cluster. This cluster gives you six career pathways to choose from. You might choose the performing arts career pathway, perhaps becoming a dancer, musician, or actor; or you might be more drawn to a career in the journalism and broadcasting career pathway, perhaps becoming a television correspondent, newspaper reporter, or broadcast technician. There are many interesting jobs to explore within each career pathway. So go ahead and start exploring! There's a big world of work out there, and it's waiting for you!

## Knowledge and Skills for Success

What skills do you need in order to succeed in the career you choose? The exact skills and knowledge you'll need will vary depending on the career cluster and the career pathway you choose.

There are three separate but interdependent types of skills essential to your career success: academic skills, employability skills, and occupational skills. Academic skills describe the knowledge of core subjects, such as English, math, and science, that provides the foundation for further learning. Employability skills describe the skills, such as teamwork and problem solving, necessary to be a successful employee in any industry. Occupational skills describe the skills and knowledge necessary to succeed in a particular industry and a particular occupation.

Jobs in each career pathway require a similar foundation of knowledge and skills. If you want to go into health science, for example, you'll need different knowledge and skills for a career in the diagnostic services pathway than you would for a career in the support services pathway.

No matter what career interests you, however, you'll need to develop a foundation knowledge and skills. These skills will help you prosper in any job, any career, and any industry. Make sure to develop your knowledge and skills in the areas listed on the next page.

## Foundation Knowledge and Skills

### Academic Foundations

- math
- science
- social studies (history, social science)
- language arts (English, foreign languages)
- learning skills
- research skills
- knowledge of career paths

### Communication

- speaking skills
- active listening skills
- writing skills
- adapting communication to medium, context, and recipient
- knowledge of relevant terminology

### Problem Solving and Critical Thinking

- thinking skills
- analytical skills
- decision-making skills
- logical reasoning skills
- distinguishing between fact and opinion
- creativity

### Information Technology Applications

- computer hardware
- computer software
- Internet research methods
- electronic communication

### Understanding Systems

- systems theory
- understanding organizational structures
- understanding team structures

### Safety, Health, and Environmental Knowledge

- identifying safety and health hazards
- safety laws and regulations
- health laws and regulations
- environmental laws and regulations
- environmental awareness

### Leadership and Teamwork

- understanding leadership styles
- developing attributes of leadership
- being an effective team member
- enthusiasm and self-motivation

### Ethics and Legal Responsibilities

- professional conduct
- workplace ethics
- workers' rights
- workers' responsibilities

### Employability and Career Development

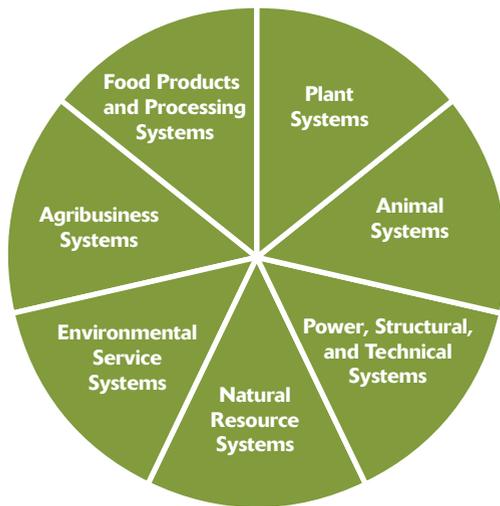
- positive work habits
- self-knowledge
- career awareness
- career objectives
- personal qualities
- self-improvement

### Technical Skills

- job-specific skills such as computer programming, budget analysis, journalistic writing, etc.



## The Agriculture, Food, and Natural Resources Career Cluster



### What Is the Agriculture, Food, and Natural Resources Career Cluster?

This career cluster prepares learners for careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services, including food, fiber, wood products, natural resources, and other plant and animal products. It also includes professional, technical, and educational services.

### Career Pathways in the Agriculture, Food, and Natural Resources Career Cluster

There are seven pathways in the Agriculture, Food, and Natural Resources career cluster, as shown in the diagram at left.



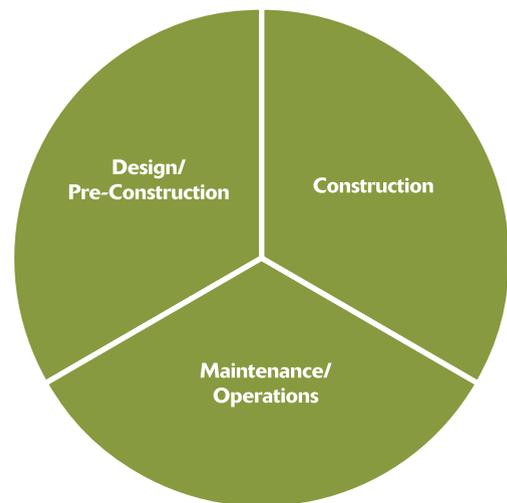
## The Architecture and Construction Career Cluster

### What Is the Architecture and Construction Career Cluster?

This career cluster prepares learners for careers in designing, planning, managing, building, and maintaining the built environment. People employed in this cluster work on new structures, restorations, additions, alterations, and repairs.

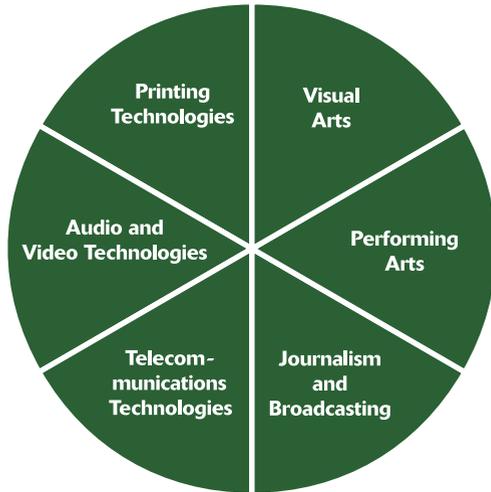
### Career Pathways in the Architecture and Construction Career Cluster

There are three pathways in the Architecture and Construction career cluster, as shown in the diagram at right.





## The Arts, Audio/Video Technology, and Communications Career Cluster



### What Is the Arts, A/V Technology, and Communications Career Cluster?

This career cluster prepares learners for careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in this cluster extend across nearly every discipline.

### Career Pathways in the Arts, A/V Technology, and Communications Career Cluster

There are six pathways in the Arts, A/V Technology, and Communications career cluster, as shown in the diagram at left.



## The Business, Management, and Administration Career Cluster

### What Is the Business, Management, and Administration Career Cluster?

This career cluster prepares learners for careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business, management, and administration career opportunities are available in every sector of the economy.

### Career Pathways in the Business, Management, and Administration Career Cluster

There are six pathways in the Business, Management, and Administration career cluster, as shown in the diagram at right.





## The Education and Training Career Cluster



### What Is the Education and Training Career Cluster?

This career cluster prepares learners for careers in planning, managing and providing education and training services, as well as related learning support services. Millions of learners each year train for careers in education and training in a variety of settings that offer academic instruction, vocational and technical instruction, and other education and training services.

### Career Pathways in the Education and Training Career Cluster

There are three pathways in the Education and Training career cluster, as shown in the diagram at left.



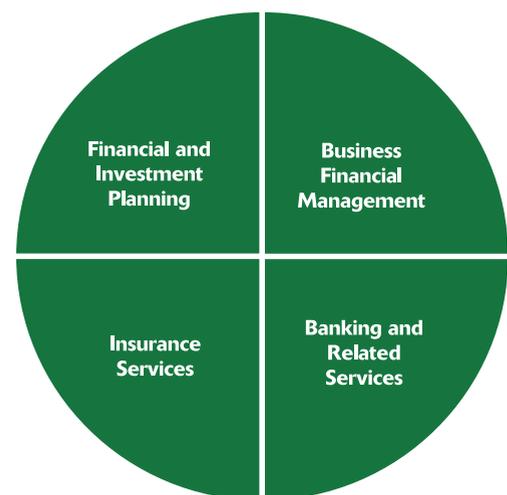
## The Finance Career Cluster

### What Is the Finance Career Cluster?

This career cluster prepares learners for careers in financial and investment planning, banking, insurance, and business financial management. Career opportunities are available in every sector of the economy and require specific skills in organization, time management, customer service, and communication.

### Career Pathways in the Finance Career Cluster

There are four pathways in the Finance career cluster, as shown in the diagram at right.





## The Government and Public Administration Career Cluster



### What Is the Government and Public Administration Career Cluster?

There are many opportunities in government in every career area. The Government and Public Administration career cluster focuses on those careers that are unique to government and not contained in another career cluster. There are some activities which are unique to the federal government. It defends us from foreign aggression; represents American interests abroad; deliberates, passes, and enforces laws; and administers many different programs. State and local governments pass laws or ordinances and provide vital services to constituents.

### Career Pathways in the Government and Public Administration Career Cluster

There are seven pathways in the Government and Public Administration career cluster, as shown in the diagram at left.



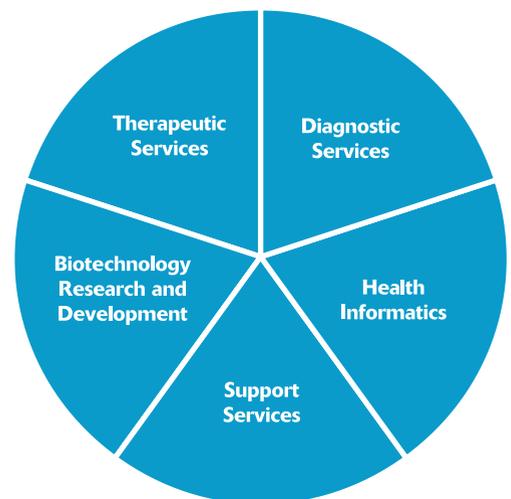
## The Health Science Career Cluster

### What Is the Health Science Career Cluster?

This career cluster prepares learners for careers in planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development. Jobs in this career cluster can require specific academic, technical, and communication skills.

### Career Pathways in the Health Science Career Cluster

There are five pathways in the Health Science career cluster, as shown in the diagram at right.





## The Hospitality and Tourism Career Cluster



### What Is the Hospitality and Tourism Career Cluster?

This career cluster prepares learners for careers in the marketing, management, and operations of restaurants and other food services, lodging, attractions, recreation events, and travel-related services. Hospitality operations are located in communities throughout the world.

### Career Pathways in the Hospitality and Tourism Career Cluster

There are four pathways in the Hospitality and Tourism career cluster, as shown in the diagram at left.



## The Human Services Career Cluster

### What Is the Human Services Career Cluster?

This career cluster prepares learners for employment in career pathways related to families and human needs. Workers in this cluster are skilled in dealing with human behavior and relationships. Their knowledge helps individuals function in their communities.

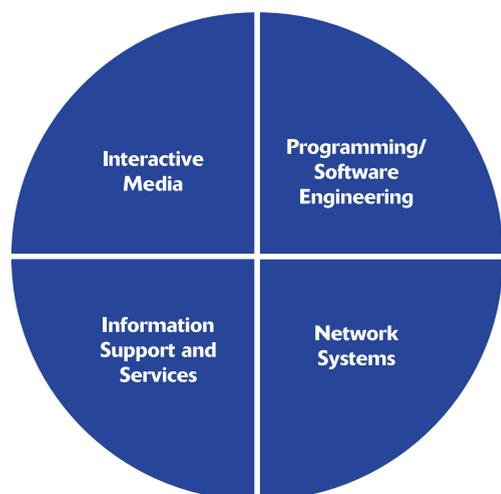
### Career Pathways in the Human Services Career Cluster

There are five pathways in the Human Services career cluster, as shown in the diagram at right.





## The Information Technology Career Cluster



### What Is the Information Technology Career Cluster?

This career cluster prepares learners for employment involving the design, development, support, and management of hardware, software, multimedia and systems integration services. Information technology, or *IT*, careers are available in every sector of the economy—from financial services to environmental services.

### Career Pathways in the Information Technology Career Cluster

There are four pathways in the Information Technology career cluster, as shown in the diagram at left.



## The Law, Public Safety, and Security Career Cluster

### What Is the Law, Public Safety, and Security Career Cluster?

This career cluster helps prepare students for careers in planning, managing, and providing legal, public safety, and protective services, as well as homeland security. This includes professional and technical support services for these specialized occupations.

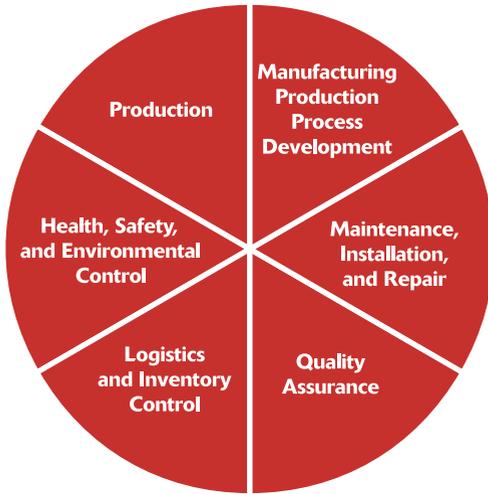
### Career Pathways in the Law, Public Safety, and Security Career Cluster

There are five pathways in the Law, Public Safety, and Security career cluster, as shown in the diagram at right.





### The Manufacturing Career Cluster



#### What Is the Manufacturing Career Cluster?

This career cluster helps prepare students for careers in 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.

#### Career Pathways in the Manufacturing Career Cluster

There are six pathways in the Manufacturing career cluster, as shown in the diagram at left.



### The Marketing, Sales, and Service Career Cluster

#### What Is the Marketing, Sales, and Service Career Cluster?

This career cluster prepares learners for careers in planning, managing, and performing marketing activities to reach organizational objectives. Workers in this cluster are usually excellent communicators who enjoy working with a wide variety of people.

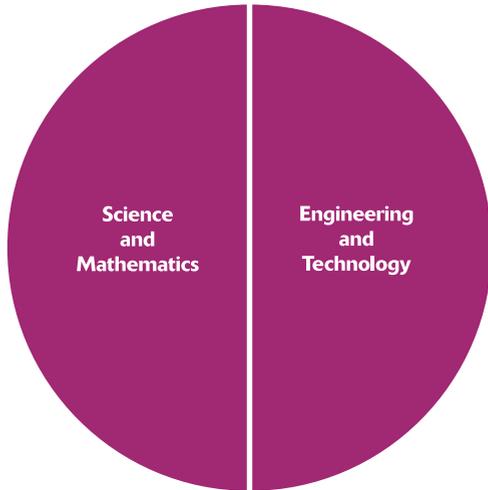
#### Career Pathways in the Marketing, Sales, and Service Career Cluster

There are seven pathways in the Marketing, Sales, and Service career cluster, as shown in the diagram at right.





## The Science, Technology, Engineering, and Mathematics Career Cluster



### What Is the Science, Technology, Engineering, and Mathematics Career Cluster?

A career in science, technology, engineering, or mathematics is exciting, challenging, and ever-changing. Learners who pursue one of these career fields will be involved in planning, managing, and providing scientific research. Professional and technical services for this cluster include laboratory and testing services, and research and development services.

### Career Pathways in the Science, Technology, Engineering, and Mathematics Career Cluster

There are two pathways in the Science, Technology, Engineering, and Mathematics career cluster, as shown in the diagram at left.



## The Transportation, Distribution, and Logistics Career Cluster

### What Is the Transportation, Distribution, and Logistics Career Cluster?

This career cluster exposes students to careers and businesses involved in the planning, management, and movement of people, materials, and products by road, air, rail, and water. It also includes related professional and technical support services such as infrastructure planning and management, logistic services, and the maintenance of mobile equipment and facilities.

### Career Pathways in the Transportation, Distribution, and Logistics Career Cluster

There are seven pathways in the Transportation, Distribution, and Logistics career cluster, as shown in the diagram at right.

