

Career Exploration

Marketplace
for



Igniting the Spirit of Innovation!

**Help Your Students Explore
Their Future Careers Today!**

Pages 1-9

www.MarketplaceForKids.org

Career Exploration

(Information in this section was provided by ND Department of Career and Technical Education.)
www.nd.gov/cte/crn and careertech.org/career-clusters

The **Career Exploration** section of the **Project Learning Guide** using the **Career Clusters** is a very important component of **Marketplace for Kids** in the classroom, educational displays and other hands-on education activities. The 16 Career Clusters recognized by North Dakota, enable learners to successfully transition from school to careers. By providing academic and career education, business education, and development of entrepreneurial ideas in combination with the **16 Career Clusters**, **students will be able to explore their innovative ideas while being able to associate these ideas with** possible future careers.

Marketplace for Kids uses **16 Career Clusters**. The **Career Clusters** provide a way to organize instruction and student experiences. The 16 categories encompass virtually all occupations starting from entry and continuing through the professional level.

The Sixteen Career Clusters are:



Career Exploration, Continued...



Agriculture, Food & Natural Resources:

This career cluster is for people who enjoy working out ways to discover new sources of food, discover ways to package food, or care for farm crops or forests.

A person interested in this cluster may also manage a greenhouse, or some other center where they grow food or decorative plants. The cluster also involves the care of animals as a rancher, veterinarian, or people who work as rangers or in other occupations that directly involve wildlife. You might be involved in pollution prevention or do work for the sanitation program in your city.

Over the next ten years, jobs in this cluster are expected to increase faster than for all other occupations. People want to prevent problems before they get started and the jobs that fall into this category can help us accomplish that! Many of the skills required for these jobs can be learned while you work!

There are seven pathways to guide students to their future occupation based on their interests. They are:

- Food Products & Processing Systems
- Animal Systems
- Natural Resources Systems
- Agribusiness Systems
- Plant Systems
- Power, Structural & Technical Systems
- Environmental Service Systems

Occupations for Agriculture, Food & Natural Resources include, but are not limited to:

- Farm Worker
- Farmer & Rancher
- Farm & Ranch Manager
- Conservation Scientist
- Welder
- Equipment Operator
- Power Plant Operator
- Food Scientist
- Soil & Life Scientist
- Forest & Conservation Worker
- Derrick Operator
- Fish & Game Officer
- Environmental Engineer
- Natural History Interpreter



Architecture & Construction: If you enjoy math and science and like seeing how things are put together, or even putting them together yourself, then this may be the career cluster you want to explore! Many of the skills of this career cluster can be learned on the job, in high schools, technical colleges, apprenticeship programs and other educational resources.

Architecture and Construction together make up one of the largest industries in the United States. There are currently about 13.8 million jobs in this market right now! You can be a builder of the future in this career cluster as you turn concepts into plans and plans into physical structures.

There are three pathways to guide students to their future occupation based on their interests. They are:

- Design/Pre-Construction
- Construction
- Maintenance/Operations

Occupations for Architecture & Construction include, but are not limited to:

- Loading Machine & Dragline Operator
- Heating, Air Conditioning & Refrigeration Mechanic
- Brick & Block Mason
- Cement Mason
- Carpenter
- Surveyor
- Architect
- Structural Iron & Steel Worker
- Plumber, Pipefitter & Steamfitter
- Construction Manager
- Roofer
- Crane & Tower Operator
- Landscape Architect
- Construction Manager

Career Exploration, Continued...



Arts, A/V, Technology & Communications:

A person who opens themselves to this area of study has opened several doors to different careers. There are careers in the Performing Arts, Visual Arts, or even Journalism. There are also positions in the Audio/Video Communications Technology or Printing Technologies.

All of these require strong backgrounds in computer and electronic-based technologies. Communication in oral and written form is extremely important. This path lends itself to people who enjoy being creative.

This is a continually growing career cluster as people become more dependent on needing information quickly. Other careers need fast, accurate information from multiple sources on a daily basis, and this career cluster provides them those resources.

There are six pathways to guide students to their future occupation based on their interests. They are:

- Performing Arts
- Visual Arts
- Printing Technology
- Audio & Video Technology & Film
- Journalism & Broadcasting
- Telecommunications

Occupations for Arts, A/V Technology & Communications include, but are not limited to:

- Printing Machine Operator
- Artist & Animator
- Actor/Actress
- Graphic Designer
- Radio & Television Announcer
- Audio & Video Equipment Technician
- Broadcast Technician
- Photographer
- Editor
- Dance Instructor
- Reporter & Correspondent
- Musician
- Art Director
- Writer & Author
- Librarian



Education & Training: People in this career cluster help people become more knowledgeable in what they do, so the teacher or trainer must have the ability to communicate, inspire trust and confidence, motivate learners and to understand their educational needs. The teacher must be able to recognize and respond to individual differences in diverse learners and to use different training methods that help learners achieve their best.

A career in this field is looking excellent for the future. Every student, worker and even the general public likes to know that they have people to turn to if they want to be taught how to do something or better understand how things work.

There are three pathways to guide students to their future occupation based on their interests. They are:

- Administration & Administrative Support
- Teaching & Training
- Professional Support Services

Occupations for Education & Training include, but are not limited to:

- Teacher Assistant
- Principal
- Nursing Instructor
- Fitness Trainer & Aerobics Instructor
- Supervisor
- Counselor
- Community Health Educator
- Elementary/Secondary Teacher
- Preschool Teacher
- Social Worker
- Kindergarten Teacher
- Coach

Career Exploration, Continued...



Finance: The Finance Cluster prepares learners for careers in financial and investment planning, banking, insurance and business financial management. Opportunities for careers are available in every part of the community and require skills in organization, time management, customer service and communication.

Over the next few years many jobs will be added and many openings will result as we replace experienced workers who retire or move on to other positions.

There are four pathways to guide students to their future occupation based on their interests. They are:

- Financial & Investment Planning
- Insurance Services
- Business Financial Management
- Banking & Related Services

Occupations for Finance include, but are not limited to:

- Bank Teller
- Loan Interviewer & Clerk
- Insurance Appraiser
- Loan Officer
- Economist
- Payroll & Timekeeping Clerk
- Claims Adjustor
- Personal Financial Advisor
- Financial Analyst
- Market Research Analyst



Health Science: The Health Science Cluster is for students interested in careers that promote health, wellness, and diagnosis as well as treating injuries and diseases. Some of the careers involve working directly with people, while others involve research into diseases or collecting and formatting data and information. Work locations are varied and may be in hospitals, medical or dental offices or laboratories, cruise ships, medivac units, sports arenas, space centers, or within the community.

This is a rapidly growing career cluster with many options. A learner of this career cluster can expect to move up in their career very quickly.

There are five pathways to guide students to their future occupation based on their interests. They are:

- Therapeutic Services
- Support Services
- Health Informatics
- Diagnostic Services
- Biotechnology Research & Development

Occupations for Health Science include, but are not limited to:

- Home Health Aid
- Surgical Technologist
- Veterinarian
- Optometrist
- Medical & Clinical Laboratory Technician
- Medical Records & Health Information Technician
- Dental Assistant
- Dental Hygienist
- Pharmacist
- Physician & Surgeon
- Nursing Aid, Orderly, & Attendant

Career Exploration, Continued...



Hospitality & Tourism: This career cluster prepares learners for careers in the management, marketing and operation of restaurants and other food services like catering. They provide vacation packages and attractions like musicals and theater. They also let people know about recreational events and travel-related services for family vacations. Hospitality operations are located in communities throughout the world.

This type of career enables many people to travel around the world and explore many different places!

There are four pathways to guide students to their future occupation based on their interests. They are:

- Restaurant & Food & Beverage Services
- Travel & Tourism
- Lodging
- Recreation, Amusement & Attractions

Occupations for Hospitality & Tourism include, but are not limited to:

- Waiter & Waitress
- Gaming Dealer
- Lodging Manager
- Manager of Housekeeping
- Hotel, Motel, & Information Clerk
- Chef & Head Cook
- Meeting & Convention Planner
- Recreation Worker
- Travel Agent
- Janitorial Worker



Human Services: This career cluster prepares individuals for employment in career pathways related to families and human needs. They can provide services in childcare centers, nursery schools, pre-schools, public schools, private households, family daycare homes and before-and after-school programs.

There are five pathways to guide students to their future occupation based on their interests. They are:

- Consumer Services
- Counseling & Mental Health Services
- Personal Care Services
- Early Childhood Development & Services
- Family & Community Services

Occupations for Human Services include, but are not limited to:

- Child Care Worker
- Social & Human Service Assistant
- Hairdresser, Hairstylist, & Cosmetologist
- Embalmer
- Medical & Public Health Social Worker
- Director for Religious Activities & Education
- Psychologist, including Clinical, Counseling & School
- Personal & Home Care Aide
- Fitness Trainer & Aerobics Instructor
- Manicurist & Pedicurist
- Massage Therapist
- Child, Family, & School Social Worker
- Mental Health & Substance Abuse Social Worker

Career Exploration, Continued...



Information Technology: Careers in Information Technology involve network analysis, planning and implementation, including design, installation, maintenance and management of network systems. Maintaining information technology infrastructure is critical to the success of every 21st century organization.

There are four pathways to guide students to their future occupation based on their interests. They are:

- Programming/Software Engineering
- Information Support & Services
- Network Systems
- Interactive Media

Occupations for Information Technology include, but are not limited to:

- Computer Operator
 - Computer/Office Machine Repair
 - Database Administrator
 - Web Designer
 - Telecommunications Equipment Installer
 - Computer Support Specialist
 - Computer Programmer
 - Computer Software Engineer
 - 3-D Animator
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Law, Public Safety, Corrections & Security: The Law, Public Safety and Security Cluster helps prepare students for careers in planning, managing and providing legal, public safety, protective services and homeland security, including professional and technical support services.

There are five pathways to guide students to their future occupation based on their interests. They are:

- Correction Services
- Security & Protective Services
- Legal Services
- Emergency & Fire Management
- Law Enforcement Services

Occupations for Law, Public Safety, Corrections & Security include, but are not limited to:

- Security Guard
- Correctional Officer & Jailer
- Police & Sheriff's Patrol Officer
- Manager of Correctional Officers
- Fish & Game Warden
- Law Clerk
- Lawyer
- Lifeguard, Ski Patrol, & Recreational Protective Service
- Court, Municipal, & License Clerk
- Police, Fire, & Ambulance Dispatcher
- Paralegal & Legal Assistant
- Fire Fighter
- Court Reporter
- Law Teacher
- Judge, Magistrate Judge, & Magistrate

Career Exploration, Continued...



Business Management & Administration: The Business Management and Administration Career Cluster prepares learners for careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Career opportunities are available in every sector of the economy and require specific skills in organization, time management, customer service and communication.

There are six pathways to guide students to their future occupation based on their interests. They are:

- Business Financial Management & Accounting
- Business Analysis
- Administration & Information Support
- Human Resources
- Marketing
- Management

Occupations for Business Management & Administration include, but are not limited to:

- Receptionist & Information Clerk
- Medical Secretary
- Interpreter & Translator
- Accountant & Auditor
- Desktop Publisher
- Manager of Office & Administrative Support Workers
- Customer Service Representative
- Legal Secretary
- Training & Development Specialist
- Public Relations Manager
- Chief Executive
- Executive Secretary & Administrative Assistant



Manufacturing: This career cluster involves the planning, managing and performing the processing of materials into intermediate or final products. Careers also include related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

There are six pathways to guide students to their future occupation based on their interests. They are:

- Production
- Maintenance, Installation & Repair
- Logistics & Inventory Control
- Manufacturing Production Process Development
- Quality Assurance
- Health, Safety & Environmental Assurance

Occupations for Manufacturing include, but are not limited to:

- Structural Metal Fabricator Fitter
- Baker
- Welder, Cutter, Solderer, & Brazier
- Electrical & Electronic Engineering Technician
- Industrial Production Manager
- Maintenance & Repair Worker (General)
- Cabinetmaker & Bench Carpenter
- Machinist
- Power Plant Operator

Career Exploration, Continued...



Marketing, Sales & Service: This is a diverse cluster which includes advertising, marketing promotions, public relations and sales.

There are seven pathways to guide students to their future occupation based on their interests. They are:

- Management & Entrepreneurship
- Buying & Merchandising
- Marketing Information Management & Research
- E-Marketing
- Professional Sales & Marketing
- Marketing Communications & Promotion
- Distribution & Logistics

Occupations for Marketing, Sales & Service include, but are not limited to:

- Cashier
- Advertising Sales Agent
- Fashion Designer
- Appraiser & Assessor of Real Estate
- Funeral Director
- Sales Manager
- Marketing Manager
- Driver & Sales Worker
- Sales Representative
- Interior Designer
- Manager & Wholesale Worker
- Advertising & Promotions Manager
- Purchasing Manager



Science, Technology, Engineering, & Mathematics (STEM): 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 and technical services including laboratory, testing, research and development services.

There are two pathways to guide students to their future occupation based on their interests. They are:

- Science & Mathematics
- Engineering & Technology

Occupations for Science, Technology, Engineering & Mathematics (STEM) include, but are not limited to:

- Surveying & Mapping Technician
- Biological Technician
- Medical Scientist
- Conservation Scientist
- Chemist
- Agricultural Engineer
- Natural Science Manager
- Physicist
- Chemical Technician
- Microbiologist
- Environmental Scientist
- Civil Engineer
- Petroleum Engineer
- Atmospheric & Space Scientist
- Electrical Engineer

Career Exploration, Continued...



Transportation, Distribution & Logistics: 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 services such as infrastructure planning and management, logistic services, and the maintenance of mobile equipment and facilities.

There are seven pathways to guide students to their future occupation based on their interests. They are:

- Transportation Operations
- Health, Safety & Environmental Management
- Sales & Services
- Logistics Planning & Management Services
- Transportation System Infrastructure
- Facility & Mobile Equipment Maintenance
- Warehousing & Distribution Center Operations

Occupations for Transportation, Distribution & Logistics include, but are not limited to:

- Truck Driver
- Postal Service Mail Sorter & Processor
- Automotive Body & Related Repairer
- Aircraft Mechanic & Service Technician
- Commercial Pilot
- Management Analyst
- Bus & Truck Mechanic
- Industrial Truck & Tractor Operator
- Postal Service Mail Carrier
- Farm Equipment Mechanic
- Postmaster & Mail Superintendent
- Air Traffic Controller
- Airline Pilot, Co-Pilot, & Flight Engineer
- Diesel Engine Specialist



Government & Public Administration: This career cluster leads students to careers within local, state, and national government. Virtually every occupation can be found within government. To succeed, students need a solid background in social studies, political science, foreign languages and history.

There are seven pathways to guide students to their future occupation based on their interests. They are:

- National Security
- Planning
- Regulation
- Governance
- Foreign Service
- Revenue & Taxation
- Public Management & Administration

Occupations for Government & Public Administration include, but are not limited to:

- Mayor
- President
- Combat Control Officer
- Missile & Space Systems Officer
- Economic Development Coordinator
- Tax Examiner
- Bank Examiner
- Airport Security
- Court Clerk
- Governor
- Lobbyist
- Submarine Officer
- Ambassador
- Census Clerk
- Auditor
- Border Patrol
- City Manager