

Career Information Sheets



AGRICULTURE, FOOD, AND NATURAL RESOURCES

Are you interested in growing, harvesting, and selling food? Do you like to work with animals? Are you passionate about protecting the environment?

Career Cluster Description

People who work in this cluster produce or sell agricultural goods such as food, crops, wood, or fabrics. You might work directly with animals on a farm, ranch, or dairy; or you might work with plants in a greenhouse. You might also work as a scientist or engineer to conserve natural resources or protect the environment.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Agriculture, Food, and Natural Resources Careers

Career	Description	Education
Agricultural Equipment Operator	Operate farm equipment, such as tractors, balers, or tillers	High School
Agricultural Inspector	Inspect agriculture or equipment for safety	Bachelor's
Animal Breeder 	Breed animals according to specific traits	High School
Animal Scientist 	Perform experiments on farm animals	Doctorate
Animal Trainer	Train animals for service, performance, riding, or obedience	High School
Commercial Fisher	Catch fish or other aquatic animals	High School
Conservation Scientist 	Manage natural resources, such as soil, forests, and water	Bachelor's
Environmental Engineer 	Design ways to control and prevent pollution	Bachelor's
Farmer and Rancher	Coordinate the operations on a farm, ranch, or greenhouse	High School
Food Scientist 	Use science to analyze food	Bachelor's
Forest and Conservation Worker	Work to protect forests, woodlands, or wetlands	High School
Park Naturalist	Educate the public about local, state, or national parks	Bachelor's
Pest Control Worker	Use chemicals to control pests	High School
Recycling Worker	Prepare materials for recycling	High School
Soil and Plant Scientist 	Research how to breed, produce, and manage crops	Bachelor's
Veterinarian 	Provide medical care of animals	Doctorate
Veterinary Technician 	Perform medical tests on animals	Associate's
Water Resource Specialist 	Test water and improve its quality	Bachelor's
Wind Turbine Technician 	Install, maintain, and repair wind turbines	College
Zoologist and Wildlife Biologist 	Study animals, wildlife, and their habitats	Bachelor's

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Career Information Sheets



ARCHITECTURE AND CONSTRUCTION

Do you like to design and build things that people use every day? Do you enjoy working with your hands?


Career Cluster Description

People who work in this cluster design and build roads, highways, bridges, houses, and buildings. You might create the designs, draw up plans, manage the workers on the project, or do the actual construction.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Architecture and Construction Careers

Career		Description	Education
Architect		Design buildings and create building plans	Bachelor's
Architectural and Civil Drafter		Prepare detailed drawings for architectural projects	Associate's
Carpenter		Build, install, and repair wooden frameworks and structures	High School
Civil Engineer		Design, plan, and supervise construction projects	Bachelor's
Construction Laborer		Perform manual labor at a construction site	High School
Construction Inspector		Review plans and inspect construction projects	High School
Electrician		Install, repair, and inspect electrical wiring	High School
Explosives Worker		Work with explosives to demolish buildings	High School
Hazardous Materials Worker		Identify, remove, and dispose of hazardous materials	High School
Interior Designer		Plan, design, and furnish the inside of a building	Bachelor's
Iron and Steel Worker		Work with iron and steel pieces to build structures	High School
Landscape Architect		Plan and design outdoor spaces and land	Bachelor's
Masonry Worker		Build walls, walkways, and other structures	Bachelor's
Painter		Prepare and paint walls, buildings, and bridges	High School
Plumber		Install and repair pipes that carry liquids or gases	High School
Rofer		Install and repair roofs with shingles and other materials	High School
Solar Panel Installer		Install and maintain solar panels	High School
Surveyor		Take measurements to determine boundaries	Bachelor's
Tile and Marble Setter		Apply tile and marble to walls, floors, and roofs	High School
Weatherization Technician		Perform tasks to make buildings energy efficient	High School

Source: Adapted from Minnesota Department of Education and MnCareers <http://education.state.mn.us/mde/index.html> (©2017).

Career Information Sheets



ARTS, AUDIO-VIDEO TECHNOLOGY, AND COMMUNICATIONS

Are you creative or visual? Do you enjoy performing in front of an audience? Do you like to use technology to communicate or create movies and music?






Career Cluster Description

People who work in this cluster use their artistic and creative talent in their jobs. You might draw, paint, sculpt, dance, act, or sing. You might perform on stage, or work behind the scenes to help with a production. Or you might use technology to film, edit, broadcast, or communicate.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Arts, Audio-Video Technology, and Communications Careers

Career	Description	Education
Actor	Act out parts in TV, radio, or stage productions	High School
Agent	Promote artists, performers, and athletes	Bachelor's
Art Director	Create the visual design in print, broadcast, and advertising	Bachelor's
Audio/Video Technician 	Set up and operate audio and video equipment	College
Camera Operator	Operate TV, movie, or video cameras	Bachelor's
Choreographer	Create dance performances and routines to express ideas	High School
Fashion Designer	Design clothes, accessories, and footwear	Bachelor's
Film/Video Editor 	Edit video footage into a final production	Bachelor's
Fine Artist	Use a variety of materials to create original artwork	High School
Graphic Designer 	Create visual designs to promote products or services	Bachelor's
Multimedia Artist/Animator 	Create art and animations using film, video, or computer	Bachelor's
Music Director	Lead musical groups during performances	Bachelor's
Photographer	Take photos for a variety of purposes	High School
Print Bindery Worker	Bind books and publications by hand or machine	High School
Producer or Director	Produce or direct shows, movies, or theater	Bachelor's
Radio/TV Announcer	Present music, news, or sports on radio or television	Bachelor's
Set/Exhibit Designer	Design sets for movies, TV, theater, or special exhibits	Bachelor's
Sound Engineering Technician 	Record or mix sounds using technology	College
Writer	Write books, articles, songs, blogs, or scripts	Bachelor's

Source: Adapted from Minnesota Department of Education and MnCareers <http://education.state.mn.us/mde/index.html> (©2017).

Career Information Sheets



BUSINESS, MANAGEMENT, AND ADMINISTRATION

Are you an organizer and planner? Do you enjoy working with people? Have you ever wanted to run a company?








Career Cluster Description

People who work in this cluster do a variety of jobs to help run a business. You might manage a group of people or monitor the company's finances. You might promote and sell goods and services. Or you might work behind the scenes, keeping track of a company's employees.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Business, Management, and Administration Careers

Career	Description	Education
Accountant and Auditor 	Examine and prepare financial records	Bachelor's
Advertising Sales Agent	Sell advertising space in print, TV, radio, or the web	High School
Bookkeeping/Accounting Clerk	Record numerical information for financial records	High School
Budget Analyst 	Prepare and monitor company budgets	Bachelor's
Chief Executive	Provide the overall direction for a company	Bachelor's
Benefits Manager	Coordinate the benefits offered to employees	Bachelor's
Customer Service Representative	Respond to customer feedback, questions, and complaints	High School
Database Administrator 	Use software to design and manage databases	Bachelor's
Economist 	Study economic issues by collecting data	Master's
Financial Analyst 	Examine and analyze financial data	Bachelor's
General Manager	Plan and coordinate the operations of an organization	Bachelor's
Human Resources Specialist	Recruit, screen, and interview potential workers	Bachelor's
Information Systems Manager 	Plan and implement computer systems in an organization	Bachelor's
Market Research Analyst 	Study market conditions to examine potential sales	Bachelor's
Payroll Clerk	Record employee time and payroll data	High School
Purchasing Manager	Coordinate the purchasing of products for an organization	Bachelor's
Receptionist	Greet customers and answer questions	High School
Sales Manager	Set sales goals, analyze data, and direct sales teams	Bachelor's
Secretary	Perform clerical and administrative tasks	High School

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Career Information Sheets



EDUCATION AND TRAINING

Do you enjoy teaching other people new things? Do you like to help people reach their goals?




Career Cluster Description

People who work in this cluster educate and train others in a variety of settings. You might teach at a school or college or deliver training at a company. You might coach sports teams or lead community groups.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Education and Training Careers

Career	Description	Education
Adult Education	Instruct adults in basic skills or literacy	Bachelor's
Athlete/Sports Competitor	Participate and compete in sporting events	High School
Coach	Instruct amateur or professional athletes	Bachelor's
College Teacher	Teach college level courses in a specific subject	Doctorate
Dietitian/Nutritionist 	Give advice about healthy eating and lifestyle	Bachelor's
Education Administrator	Oversee all the activities of a school	Master's
Fitness Trainer/Instructor	Lead groups or individuals in exercise activities	High School
Guidance Counselor	Help students make academic and career plans	Master's
Instructional Coordinator	Develop educational materials in various areas of study	Master's
Interpreter/Translator	Translate information into a different language	Bachelor's
Librarian	Manage libraries, select materials, and help customers	Master's
Preschool Teacher	Teach young children and prepare them for kindergarten	Associate's
Recreation Worker	Organize recreational activities in different settings	Bachelor's
School Psychologist 	Work with others to identify educational problems	Doctorate
Special Education Teacher	Teach students with physical or educational disabilities	Bachelor's
Teacher	Teach elementary, middle, or high school students	Bachelor's
Teacher Assistant	Work with teachers to instruct students	College
Technical Education Teacher 	Help students prepare to enter a technical career	Bachelor's
Tutor	Provide additional instruction outside the classroom	Bachelor's

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Career Information Sheets



FINANCE

Do you like math? Are you good with numbers? Are you interested in helping a business make a profit?












Career Cluster Description

People who work in this cluster help businesses or individuals keep track of their money. You might produce financial reports or records. Or you might offer advice or other financial services to clients.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Finance Careers

Career		Description	Education
Accountant		Help people and businesses manage their money	Bachelor's
Actuary		Analyze data to determine risk and uncertainty	Bachelor's
Bill/Account Collector		Collect payments from people who have overdue bills	High School
Brokerage Clerk		Perform clerical duties related to buying or selling stocks	High School
Budget Analyst		Review budgets to make sure they are accurate	Bachelor's
Claims Adjuster		Review insurance claims to ensure proper payment	High School
Controller		Direct all the financial activities for an organization	Bachelor's
Financial Analyst		Advise businesses and keep track of their investments	Bachelor's
Financial Manager		Manage the financial activities of an organization	Bachelor's
Financial Services Sales Agent		Buy and sell stocks and bonds in investment firms	Bachelor's
Fraud Investigator		Research reports of fraud, help companies prevent fraud	Bachelor's
Insurance Claims Clerk		Process or update insurance policies	High School
Insurance Sales Agent		Sell life, health, property, or other insurance	Bachelor's
Investment Fund Manager		Help people invest money to increase their assets	Bachelor's
Loan Officer		Make decisions about who gets approved for a loan	Bachelor's
Personal Financial Advisor		Advise people about their financial plans	Bachelor's
Risk Management Specialist		Identify and advise about risks to an organization	Bachelor's
Tax Preparer		Prepare taxes for businesses or individuals	High School
Telemarketer		Sell goods or services over the phone	High School
Title Examiner		Examine real estate property titles, mortgages, and deeds	High School

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Career Information Sheets



GOVERNMENT AND PUBLIC ADMINISTRATION

Do you like politics? Are you interested in the laws and regulations that govern our nation?

Career Cluster Description

People who work in this cluster help pass and enforce the law or work in public service. You might run for a public office or help your town plan for growth. Or you might work in a local post office or in court.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Government and Public Administration Careers

Career		Description	Education
Accountant/Auditor		Prepare and examine financial records	Bachelor's
Architect/Engineering Manager		Manage the work of architects and engineers	Bachelor's
Court Clerk		Perform clerical work in courts of law	High School
Criminal Investigator		Investigate and solve crimes	High School
Economist		Study economic issues by collecting data	Master's
Emergency Management		Create plans and make decisions during emergencies	Bachelor's
Operations Manager		Coordinate the day-to-day operations of an organization	Bachelor's
Legislator		Develop and introduce new laws	Bachelor's
Mail Carrier		Sort and deliver mail on a regular route	High School
Political Scientist		Research policies, politics, and analyze governments	Master's
Postal Service Clerk		Perform clerical tasks in a post office	High School
Public Relations Specialist		Create positive public images for organizations	Bachelor's
Real Estate Appraiser		Determine the market value of houses and properties	Bachelor's
Reporter		Write and report news stories	Bachelor's
Social Service Manager		Coordinate the activities of social service programs	Bachelor's
Surveying/Mapping Technician		Help determine boundary lines in construction projects	High School
Tax Collector		Collect taxes from companies or individuals	Bachelor's
Transportation Inspector		Inspect transportation equipment to ensure safety	High School
Urban/Regional Planner		Develop plans for how land should be best used	Master's
Utility Meter Reader		Read and record use of electricity, water, and gas meters	High School

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Career Information Sheets



HEALTH SCIENCE

Do you enjoy caring for others? Are you interested in keeping people healthy and well?

















Career Cluster Description

People who work in this cluster treat people who are sick or injured. You might run tests to determine the cause of an illness, perform surgery, or fill a cavity in a tooth. You might provide physical therapy or mental health services for a patient.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Health Science Careers

Career		Description	Education
Allergist/Immunologist		Diagnose and treat patients with allergies	Doctorate
Ambulance Attendant		Transport injured people and provide rescue assistance	High School
Athletic Trainer		Work with athletes to develop safe exercise routines	Bachelor's
Dental Assistant		Set up equipment and assist dentist during procedures	Associate's
Dentist		Diagnose and treat diseases, injuries, teeth, and gums	Doctorate
Dietitian/Nutritionist		Give advice about healthy eating and lifestyle	Bachelor's
EMT/Paramedic		Care for injured people in emergency situations	Associate's
General Practitioner		Diagnose and treat common injuries, sickness, and disease	Doctorate
Home Health Aide		Provide health care to people in their homes	High School
Medical Lab Technician		Perform laboratory tests to diagnose diseases	Associate's
Mental Health Counselor		Counsel patients to improve their mental health	Master's
Optometrist		Examine eyes to prevent and determine problems	Bachelor's
Orthodontist		Straighten teeth, realign jaws, and treat dental problems	Doctorate
Pharmacist		Fill prescriptions and dispense medications	Doctorate
Physical Therapist		Help patients improve movement from illness or injury	Doctorate
Physician Assistant		Provide health care to patients, under a doctor's supervision	Master's
Registered Nurse		Coordinate patient care and provide family support	Associate's
Surgeon		Operate on people to treat diseases and injuries	Doctorate
Veterinarian		Provide medical care of animals	Doctorate

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Career Information Sheets



HOSPITALITY AND TOURISM

Do you enjoy helping people or serving others? Do you like to make travel and entertainment plans?

Career Cluster Description

People who work in this cluster provide entertainment services. You might work in a recreation department, museum, or hotel. You might cook meals in a restaurant, or travel across the country as a flight attendant.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Hospitality and Tourism Careers

Career	Description	Education
Animal Trainer	Train animals for service, performance, riding, or obedience	High School
Baker	Bake breads, cakes, cookies, and other baked goods	High School
Head Chef 	Research food science to create and prepare food	High School
Concierge	Help guests make dining or entertainment plans at hotels	High School
Event Planner	Plan events such as receptions, conventions, or meetings	Bachelor's
Fast Food Cook	Cook and prepare food in a fast food restaurant	High School
Flight Attendant	Serve airline passengers during flights	High School
Food Services Manager	Coordinate food and drink services for an organization	High School
Hotel Clerk	Check guests into a hotel and assign them rooms	High School
Institution/Cafeteria Cook	Prepare food for schools, hospitals, and cafeterias	High School
Interpreter/Translator	Translate information into a different language	Bachelor's
Lodging Manager	Manage the operations at a hotel, motel, or other lodging	High School
Museum Conservator	Restore objects or artifacts in a museum's collection	Bachelor's
Recreation Worker	Organize recreational activities in a variety of settings	Bachelor's
Residential Advisor	Coordinate activities in college dorms or group homes	High School
Set/Exhibit Designer	Design sets for movies, TV, or theater	Bachelor's
Supervisor of Food Preparation	Supervise and train workers in food preparation	High School
Tour Guide	Lead groups on sightseeing tours	High School
Transportation Attendant	Provide services to passengers on ships, buses, or trains	High School
Umpire/Referee	Oversee sporting events to make sure rules are followed	High School

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Career Information Sheets



HUMAN SERVICES

Do you care about people and enjoy helping them? Do you want to improve the lives of others?






Career Cluster Description

People who work in this cluster help individuals and families with their personal needs. You might work in a childcare center or provide mental health counseling. You might become a manicurist, hairdresser, or fitness trainer.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Human Services Careers

Career	Description	Education
Barber	Use scissors, clippers, and shavers to cut and trim hair	College
Childcare Worker	Take care of children in a daycare center	High School
Clergy	Lead religious services and provide spiritual guidance	Master's
Clinical Psychologist 	Treat patient's emotional or mental problems	Doctorate
Epidemiologist 	Investigate causes of diseases in communities	Master's
Fashion Designer	Design clothes, accessories, and footwear	Bachelor's
Fitness Trainer/Instructor	Lead groups or individuals in exercise activities	High School
Hairdresser/Cosmetologist	Cut, color, or style customer's hair; apply makeup	College
Health Educator 	Teach people about wellness and healthy lifestyles	Bachelor's
Manicurist/Pedicurist	Clean, shape, and polish finger and toenails	College
Massage Therapist	Relieve pain, injury, and stress by massaging muscles	College
Mental Health Counselor	Help patients overcome emotional and mental problems	Master's
Preschool Teacher	Teach young children and prepare them for kindergarten	Associate's
Property Manager	Manage and maintain residential or commercial properties	High School
School Psychologist 	Identify and help children with educational problems	Doctorate
Social Service Manager	Coordinate the activities of social service programs	Bachelor's
Sociologist 	Study the behavior of groups and society	Bachelor's
Social Worker	Provide social services to adults, children, or families	Bachelor's
Supervisor of Retail Sales	Supervise sales workers in retail businesses	High School
Theatrical Make Up Artist	Prepare performers by applying makeup and styling hair	High School

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Career Information Sheets



INFORMATION TECHNOLOGY

Are you interested in technology? Do you like to work with computers?


















Career Cluster Description

People who work in this cluster set up communications using computer hardware, software, and network systems. You might develop computer software or you might manage a network that links people within a company. You might develop websites or the graphics, animations, or multimedia that appear on the sites.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Information Technology Careers

Career	Description	Education
Computer Hardware Engineer 	Design and test computer-related components	Bachelor's
Computer Network Architect 	Plan and design computer and information networks	Bachelor's
Computer Programmer 	Code information to develop computer programs	Bachelor's
Computer Systems Analyst 	Test computer systems and solve problems	Bachelor's
Computer Systems Manager 	Plan and install computer systems in an organization	Bachelor's
Computer Research Scientist 	Invent new ways to use computer technology	Bachelor's
Data Warehousing Specialist	Design and create computer data warehouse systems	Bachelor's
Database Administrator 	Design and manage computer databases to store data	Bachelor's
Graphic Designer 	Create visual designs to promote products or services	Bachelor's
Information Security Analyst 	Ensure computer networks are secure and safe	Bachelor's
IT Project Manager	Plan and manage information technology projects	Bachelor's
Multimedia Artist/Animator 	Create art and animations using film, video, or computer	Bachelor's
Network Administrator 	Install and maintain computer networks for businesses	Bachelor's
Quality Assurance Engineer 	Test, monitor, and track problems in software	Bachelor's
Software Developer 	Develop applications to do tasks on the computer	Bachelor's
User Support Specialist 	Provide technical assistance to people using computers	College
Video Game Designer 	Plan, design, and create video games	Bachelor's
Web Administrator 	Maintain and update webpages and websites	Bachelor's
Web Developer 	Design and create websites	Associate's

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Career Information Sheets



LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY

Are you interested in making the world a safer place to live? Would you like to serve or protect the lives of others?




Career Cluster Description

People who work in this cluster enforce the law and provide safety services to others. You might be a police officer, firefighter, or security guard. You might provide legal services or investigate crimes.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Law, Public Safety, Corrections, and Security Careers

Career	Description	Education
Arbitrator/Mediator	Work to resolve conflicts outside of court	Bachelor's
Correctional Officer	Guard inmates in prisons and jails	High School
Criminal Investigator 	Investigate crimes, analyze evidence, prepare reports	Bachelor's
Dispatcher	Receive calls and send out emergency vehicles	High School
Emergency Management	Create plans and make decisions during emergencies	Bachelor's
Fire Investigator 	Investigate fires and explosions to determine their cause	High School
Firefighter	Put out or control fires and conduct rescue efforts	College
Forensic Science Technician 	Collect and examine evidence at crime scenes	Bachelor's
Forest Fire Prevention Specialist	Protect and recommend ways to prevent forest fires	High School
Judge/Magistrate	Decide cases and administer justice in a court of law	Doctorate
Judicial Law Clerk	Perform legal research to assist judges or lawyers	Bachelor's
Lawyer	Represent clients and prepare legal documents	Doctorate
Legal Secretary	Perform clerical tasks and prepare legal papers	High School
Lifeguard and Ski Patrol	Monitor recreational areas and rescue injured people	High School
Paralegal/Legal Assistant	Assist lawyers by researching or preparing documents	Associate's
Police/Sheriff Patrol Officer	Enforce the law, maintain order, and protect	High School
Security Guard	Guard and patrol properties to prevent theft or crimes	High School
Security Specialist	Design and implement security systems for businesses	Bachelor's
Transportation Security Screener	Inspect baggage for dangerous objects	High School

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Career Information Sheets



MANUFACTURING

Do you like working with your hands? Do you enjoy fixing things or figuring out how machines work?




Career Cluster Description

People who work in this cluster design, make, and repair products using machinery. You might work on an assembly line that produces computer parts. Or you might install or repair wires and cables for telecommunications.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Manufacturing Careers

Career	Description	Education
Aircraft System Assemblers	Fit, put together, and install parts of an aircraft	High School
Automotive Engineering Tech 	Work on cars and engines; test cars and new parts	Associate's
Cabinetmaker/Bench Carpenter	Build wooden cabinets or furniture	High School
Chemical Technician 	Assist scientists with chemical testing and experiments	Associate's
Civil Engineering Technician 	Help civil engineers design buildings, bridges, and roads	Associate's
Electronic Equipment Assembler	Inspect, test, and put together electronics	High School
Gem/Diamond Worker	Examine, cut, and shape precious stones; determine quality	Associate's
Hydroelectric Technician	Monitor activities and fix problems in a hydroelectric plant	High School
Industrial Machinery Mechanic	Install and repair manufacturing equipment	High School
Industrial Production Manager	Coordinate all parts of the manufacturing process	Bachelor's
Inspector/Tester/Sorter/Sampler	Look for defects in materials or manufactured products	High School
Jeweler	Design, make, repair, and polish jewelry	Bachelor's
Locksmith/Safe Repairer	Install, repair, and open locks and safes	High School
Machine Operator	Operate one or more machines in a manufacturing plant	High School
Manufacturing Engineer 	Find new ways to manufacture products	Bachelor's
Mechanical Engineering Tech 	Help develop new machinery and equipment	Associate's
Power Plant Operator	Operate machines that generate electrical power	High School
Quality Control Analyst 	Test finished products to ensure quality; analyze test data	Associate's
Team Assembler	Work as a member of a team to put together a product	High School
Telecommunications Installer	Install or repair telephone, Internet, or cable equipment	College

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Career Information Sheets



MARKETING, SALES, AND SERVICE

Are you good at persuading others? Do you enjoy public speaking? Are you a natural salesperson?



Career Cluster Description

People who work in this cluster help businesses promote and sell their products or services. You might create an advertising campaign or try to sell a product over the phone. You might work in a retail store or behind the scenes in the stockroom.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Marketing, Sales, and Service Careers

Career	Description	Education
Advertising/Promotion Manager	Plan and develop advertising materials to increase sales	Bachelor's
Cashier	Take payment from customers for items purchased	High School
Counter/Rental Clerk	Take orders for repairs, rentals, and other services	High School
Customer Service Rep	Answer questions and provide information to customers	High School
Demonstrator/Promoter	Demonstrate and show product features to promote sales	High School
Market Research Analyst 	Collect and analyze data about consumers and products	Bachelor's
Marketing Manager	Determine the demand for products and services	Bachelor's
Meeting or Event Planner	Plan and make arrangements for meetings and events	Bachelor's
Merchandise Displayer	Put together product displays in stores or windows	High School
Model	Model clothes and accessories at fashion shows or in photos	High School
Online Merchant	Promote and sell products and services online	Bachelor's
Purchasing Agent	Purchase the machines and tools needed to run a business	High School
Real Estate Agent	Help clients rent, buy, or sell property	High School
Retail Salesperson	Greet customers, answer questions, and sell merchandise	High School
Sales Representative	Sell manufactured goods to businesses or individuals	Bachelor's
Stock Clerk	Fill shelves, racks, and tables with merchandise	High School
Survey Researcher 	Design and conduct surveys; analyze results	Bachelor's
Telemarketer	Sell goods or services over the phone	High School
Wholesale/Retail Buyer	Select and buy merchandise for resale to customers	High School

Source: Adapted from Minnesota Department of Education and MnCareers <http://education.state.mn.us/mde/index.html> (©2017).

Career Information Sheets



SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS

Are you good at solving problems? Do you like to figure out how things work?
Are you detail-oriented?




















Career Cluster Description

People who work in this cluster research, collect data, and solve problems using science and math. You might design new medical devices to help patients with health problems, or you might study weather patterns to predict the hurricane season.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Science, Technology, Engineering, and Mathematics Careers

Career	Description	Education
Aerospace Engineer 	Design aircraft, spacecraft, satellites, and missiles	Bachelor's
Anthropologist/Archeologist 	Study human cultures and behavior using artifacts	Master's
Architectural/Civil Drafter 	Use computers to create architectural plans for projects	Associate's
Atmospheric/Space Scientist 	Study, report, and predict weather patterns	Bachelor's
Biomedical Engineer 	Design and create medical equipment and devices	Bachelor's
Cartographer 	Study and create maps using geographic information	Bachelor's
Chemical Technician 	Set up and conduct chemical experiments; assist chemists	Bachelor's
Civil Engineer 	Design and supervise city construction projects	Bachelor's
Electrical Engineering Tech 	Design, build, and repair electrical equipment and machines	Associate's
Environmental Scientist 	Lead experiments and collect data about the environment	Bachelor's
Geneticist 	Research how traits are inherited between generations	Bachelor's
Mathematician 	Research and solve problems using math	Bachelor's
Microbiologist 	Study the growth and behavior of microscopic organisms	Bachelor's
Museum Technician 	Clean, prepare, and display items for museum exhibits	Bachelor's
Physicist 	Study, observe, and experiment with matter and energy	Doctoral
Robotics Engineer 	Research, design, develop, and test new robot systems	Bachelor's
Software Developer 	Develop software to be used on the computer	Bachelor's
Statistician 	Analyze data and numbers to inform and predict	Master's
Zoologist/Wildlife Biologist 	Study animals, wildlife, and their habitats	Bachelor's

Source: Adapted from Minnesota Department of Education and MnCareers <http://education.state.mn.us/mde/index.html> (©2017).

Career Information Sheets



TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

Are you interested in planes, trains, boat, or cars? Would you enjoy driving them or fixing them?






Career Cluster Description

People who work in this cluster help move people and products from one location to another. You might fly an airplane to transport passengers across the country. You might monitor traffic patterns in town, or you might diagnose and fix cars or motorcycles.

Careers in the Cluster

Here's a partial list of careers in this cluster and a short description of each one. STEM careers are indicated with the  icon.

Transportation, Distribution, and Logistics Careers

Career	Description	Education
Aerospace Engineering Tech 	Check, test, and repair air and space equipment	Bachelor's
Air Traffic Controller	Monitor airspace; oversee take off and landing of planes	Associate's
Airline Pilot	Use instruments to fly planes, jets, and helicopters	Bachelor's
Automotive Master Mechanic 	Examine, test drive, and repair automotive vehicles	Associate's
Avionics Technician 	Test and fix radio and navigation instruments in aircrafts	Associate's
Bridge/Lock Tender	Operate bridges and canals; manage bridge traffic	High School
Cargo/Freight Agent	Inspect, document, and route cargo	High School
Commercial Diver	Install, inspect, and repair underwater structures	College
Delivery Services Driver	Drive trucks, unload, and deliver packages	High School
Dispatcher	Schedule and send out workers, equipment, or services	High School
Locomotive Engineer	Drive trains to transport passengers or freight	High School
Railroad Conductor	Keep records and coordinate activities at a train yard	High School
Ship/Boat Captain	Use equipment to navigate and command ships and boats	Associate's
Ship Engineer 	Operate and repair engines and equipment aboard ships	Bachelor's
Shipping/Receiving Clerk	Record incoming and outgoing shipments; resolve problems	High School
Subway/Streetcar Operator	Monitor, drive, and operate subway cars or streetcars	High School
Traffic Technician 	Study traffic patterns; predict how they will change	High School
Transit/Intercity Bus Driver	Drive buses or vans on regular routes to transport people	High School

Source: Adapted from Minnesota Department of Education and MnCareers <http://education.state.mn.us/mde/index.html> (©2017).

Name _____

Paycheck Calculations

Using the following information, calculate each worker's net monthly income (NMI). GAI is gross annual income, and GMI is gross monthly income.

Jamal works at the recreation center 15 hours a week during the school year. He earns \$8.75 an hour. In a typical month, he works 63 hours. Calculate his monthly taxes on the following lines.

Gross Monthly Income	\$ _____
Monthly Federal Income Tax (10%)	\$ _____
Monthly Social Security (FICA) (6.2%)	\$ _____
Monthly Medicare (1.45%)	\$ _____
Monthly State Tax (4%)	\$ _____
Monthly Local Tax (0.1%)	\$ _____
Total Monthly Deductions	\$ _____
Jamal's NMI =	\$ _____

A college student, Trey works part time for an annual salary of \$13,500 a year.

Gross Monthly Income	\$ _____
Monthly Federal Income Tax (11.6%)	\$ _____
Monthly Social Security (FICA) (6.2%)	\$ _____
Monthly Medicare (1.45%)	\$ _____
Monthly State Tax (4%)	\$ _____
Monthly Local Tax (0.1%)	\$ _____
Total Monthly Deductions	\$ _____
Trey's NMI =	\$ _____

Marie is a college professor. Her annual salary is \$66,000.

Gross Monthly Income	\$ _____
Monthly Federal Income Tax (18.7%)	\$ _____
Monthly Social Security (FICA) (6.2%)	\$ _____
Monthly Medicare (1.45%)	\$ _____
Monthly State Tax (4%)	\$ _____
Monthly Local Tax (0.1%)	\$ _____
Total Monthly Deductions	\$ _____
Marie's NMI =	\$ _____

Devon Harrison
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907-555-8342
dharrison@blenville.com

Work and Volunteer Experience

- **Cal's Coffee, 2021–Present:** Cashier and barista, 15 hours a week. Take and fill orders, handle money.
- **Blenville Homeless Services, 2019–Present:** Volunteer. Gather blankets, towels, and toiletries for distribution at homeless shelters. Raise money for additional supplies for the shelter.
- **Blenville Public Library, 2018–2019:** Helped transition card catalog to computer database. Entered hundreds of books and additional materials into database. Maintained database, including solving technical issues and reviewing entries for errors.

Extracurricular Activities and Achievements

- **2020 Volunteer of the Year** for work with Blenville Homeless Services.
- **Cross Country, 2017–Present:** 2nd place in national tournament.

Education and Academic Achievements

- **Blenville High School Honor Roll** every semester in high school; anticipate graduating with high honors. Currently a junior with 3.8 GPA.
- **Computer Programming Certificate** for coding in SQL, Java, and Javascript.
- **Blenville High School Science Fair**
- 2021: 1st place for developing a computer program to analyze written text and determine the author from among 15 choices.
- 2020: Honorable mention for developing a computer program to randomly generate passwords.
- **National Merit Award** for Spanish language achievement.

Personal Qualities

Highly organized with attention to detail.

Dependable and responsible, with a strong work ethic and a desire to learn new things.

References

Anne Cruikshank, Head Librarian, Blenville Public Library: 907-555-4391

Daniel Evans, Executive Director, Blenville Homeless Services: 907-555-8833

Renaldo Garcia, Computer Programming teacher, Blenville High School: renaldo@blenville.com

NAME _____

MY RESUME

Name _____

Address _____

Phone _____

Email _____

Make sure you have working voicemail and an appropriate outgoing message in case potential employers call. Never text a potential employer. Always return a phone call. Be sure to check the email address that you have listed.

Work and Volunteer Experience

List paid jobs and unpaid work, such as internships and volunteer jobs. Start each experience with an active verb. Use bullet points to punctuate your experiences.

Extracurricular Activities and Achievements

List relevant activities and any recognition received, such as certifications and awards.

Education and Academic Achievements

List your highest grade completed, GPA if above 3.0, honors and academic awards, and relevant courses completed.

Personal Qualities

List relevant traits.

References

Provide the names and titles of people who can vouch for your skills and dependability.



The Dos and Don'ts for Job Interviews

1. Research the company and interviewers

Understanding important information about the company you are interviewing with can help you go into your interview with confidence. The company's website, and social media posts will provide an understanding of the company's goals.

2. Turn off smartphones and electronic devices before entering the interview session.

3. Practice your answers.

Practicing answering common questions out loud is a good way to prepare for an interview.

4. Be prepared with examples of your work.

It is a good idea to bring samples of work you have done in the past.

5. Prepare questions for your interviewers.

Employers may expect you to ask questions about the job. Example Question: Can you explain some of the day-to-day responsibilities of this job?

6. Plan the clothes you will wear for the interview the night before the interview.

7. Bring resume' copies, a notebook and a pen.

Take at least 5 copies of your resume' on clean paper in case of multiple interviewers. Bring a pen and small notebook to take notes. **Do not take notes on your smartphone or another electronic device.**

8. Arrive early for the interview.

Plan to arrive 10-15 minutes before the scheduled interview time.

9. Ask about the next steps.

After the interview, ask the interviewer about what you should expect next. It will likely be a follow up email or phone call with the results from your interview.

10. Send a Thank You letter.

It is a good practice after your interview to send a thank you note or email.

NAME

25 JOB-HUNTING TIPS

Networking

1. Friends and family might know of job opportunities or connections. Ask them!
2. Visit local businesses and ask the managers about open positions.
3. Apply for jobs that are convenient. Long commutes increase stress and lateness.
4. Look for a job that works for your schedule.
5. Consider what work you can do now to help you reach the goal on your Career Map.
6. Seasonal jobs (summers and holidays) sometimes can turn into permanent positions.

Applying

7. Read the job description thoroughly to make sure you have the right skills and interests.
8. Complete all parts of the application to show you can follow directions.
9. If you're applying for a job in person, ask if you can take the application home and return it the next day. This will give you more time to complete it correctly.
10. Ask family and friends to proofread. Spelling and grammatical errors are unacceptable!
11. Be honest. List your experiences without exaggerating.
12. Be patient. You might not hear back from a potential employer for a week or more.

Providing References

13. Ask coaches, teachers, counselors, group leaders, or principals for references, not friends or family.
14. Ask people for whom you've done informal jobs or volunteer work, such as babysitting, dog walking, or phone calling. They can talk about how reliable and responsible you are.
15. Prepare a list of up to three references, with names, titles, and contact information.
16. Ask your references for permission to use them as such, and confirm their contact information.
17. Tell your references what qualities the employer seeks that they've seen you exhibit.

Interviewing

18. Research the company before your interview to show you're interested and serious.
19. Prepare questions to ask about the job, work environment, and company.
20. Dress nicely. You don't need to wear a suit, but you should be neat, clean, and professional.
21. Arrive 10 to 15 minutes early to give yourself time to check in and calm your nerves.
22. Answer questions directly and avoid slang. Try not to use "um" and "like" in your responses.
23. Be positive and enthusiastic. Show that you're interested in the job and the company.
24. Body language is important. Sit up straight, maintain good eye contact, and smile.
25. Within 24 hours of your interview, send a thank you email and restate your interest in the job.