How Do Our Children Choose Careers?

MICHIGAN Department of Education

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From Aerospace Engineer to Zoologist, the sky is the limit in choosing a career. According to the U. S. Bureau of Labor Statistics, there are more than 12,000 career options for our children to consider!

How can we give our children opportunities to learn about many different careers? How can they see the connection between what they learn in school and the world of work? How will they find a career they will love?

One of the most effective ways to help our children navigate among the thousands of different occupations is Career Clusters. These are 16 groupings of careers that share similar characteristics and whose employment requirements call for many common interests, strengths, and competencies. The groupings encompass the entire spectrum of career options-providing opportunities for all students and all ability levels.

The Career Clusters information in this brochure presents a general description and sample careers in each pathway.

This information helps students examine their interests, talents, and goals—and how these can relate to a chosen career.

Schools across Michigan are being encouraged to integrate Career Clusters into their curricula, and many are doing so! They are finding that blending Career Clusters into classroom instruction improves student attendance, retention, achievement, career decision-making, and career goal attainment.

This brochure recommends specific steps that can be taken by parents, as well as educators, to help our children get an early start on career planning. There are steps that employers can take, too, to invest in their future workforce. Working together, we can build the framework essential to our children's success in careers of their choice.

Career Clusters and Programs of Study

The 16 career clusters are occupational categories with industry-validated knowledge and skills statements that define what students need to know and be able to do in order to realize success in a chosen field.

Within each of the clusters, programs of study (also called "career pathways") have been developed, which outline sequences of academic, career, and technical courses and training that begin as early as ninth grade and lead to progressively higher levels of education and higher-skilled positions in specific industries or occupations.

It is envisioned that all students will achieve challenging academic and technical standards and be prepared for high-skill, high-wage, or high-demand occupations in current or emerging professions in the 21st century global economy.

What Are the 16 Career Clusters?

The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.
Sample careers in this pathway: Agricultural Economist ▪ Greenhouse Manager ▪ Wildlife Biologist ▪ Forester ▪ Veterinarian ▪ Soil and Water Conservationist ▪ Fish and Game Officer ▪ Agriculture Communications Specialist ▪ Meat Processor ▪ Food Inspector

Careers in designing, planning, managing, building, and maintaining the built environment.
Sample careers in this pathway: Architect ▪ Civil Engineer ▪ Interior Designer ▪ Landscape Architect ▪ Survey Technician ▪ Construction Engineer ▪ Electrician ▪ Drywall Installer ▪ General Contractor ▪ Plumber ▪ Building Code Official

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.
Sample careers in this pathway: Audio-Visual Technician ▪ Choreographer ▪ Musician ▪ Artist ▪ Camera Operator ▪ Graphic Designer ▪ Radio-TV Producer ▪ Costumer Designer ▪ Set Designer ▪ Author ▪ Broadcast Technician ▪ Reporter ▪ Scriptwriter

Business Management and Administration careers encompass 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.
Sample careers in this pathway: Human Resource Manager ▪ Food and Beverage Manager ▪ Information Systems Manager ▪ Accounting Supervisor ▪ Auditor ▪ Finance Director ▪ Meeting and Convention Planner ▪ Sales Manager ▪ Executive Assistant

Planning, managing and providing education and training services, and related learning support services.
Sample careers in this pathway: School Superintendent ▪ College Dean ▪ Education Researcher ▪ Curriculum Developer ▪ Financial Aid Advisor ▪ Career Counselor ▪ Placement Counselor ▪ Teacher ▪ Professional Coach ▪ Librarian ▪ Preschool Director

Planning, services for financial and investment planning, banking, insurance, and business financial management.
Sample careers in this pathway: Investment Advisor ▪ Stock Broker ▪ Tax Preparation Specialist ▪ Economist ▪ Loan Officer ▪ Accountant ▪ Customer Service Representative ▪ Banker ▪ Insurance Underwriter ▪ Insurance Appraiser ▪ Actuary

Executing governmental functions to include Governance; National Security; Foreign Service; Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state, and federal levels.
Sample careers in this pathway: President ▪ Governor ▪ Lobbyist ▪ Legislative Aide ▪ Military Intelligence Officer ▪ Combat Engineer ▪ National Security Officer ▪ Ambassador ▪ Chief of Vital Statistics ▪ Tax Assessor ▪ Immigration Officer ▪ City Manager

Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.
Sample careers in this pathway: Chiropractor ▪ Dental Hygienist ▪ Medical Assistant ▪ Registered Nurse ▪ Pharmacist ▪ Dentist ▪ Optician ▪ Pathologist ▪ Radiologist ▪ Hospital Admitting Clerk ▪ Dietician ▪ Funeral Director ▪ Forensic Pathologist

Hospitality & Tourism encompasses the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events, and travel related services.
Sample careers in this pathway: Restaurant Owner ▪ Caterer ▪ Executive Chef ▪ Hotel Manager ▪ Valet Attendant ▪ Concierge ▪ Reservationist ▪ Tourism Director ▪ Convention Bureau Director ▪ Meeting Planner ▪ Resort Manager ▪ Theme Park Manager

Preparing individuals for employment in career pathways that relate to families and human needs.
Sample careers in this pathway: Childcare Director ▪ Preschool Teacher ▪ Sociologist ▪ Substance Abuse Counselor ▪ Adult Day Care Worker ▪ Activities Director ▪ Social Services Worker ▪ Cosmetologist ▪ Home Care Aide ▪ Consumer Credit Counselor

Building Linkages in IT Occupations Framework: For Entry Level, Technical, and Professional Careers Related to the Design, Development, Support, and Management of Hardware, Software, Multimedia, and Systems Integration Services.
Sample careers in this pathway: Network Administrator ▪ Database Developer ▪ Computer Technician ▪ Web Designer ▪ Media Specialist ▪ Animator ▪ Social Networking Specialist Computer Programmer ▪ Software Engineer ▪ Systems Analyst

Planning, managing, and providing legal, public safety, protective services, and homeland security, including professional and technical support services.
Sample careers in this pathway: Corrections Officer ▪ Warden ▪ Parole Officer ▪ Paramedic ▪ Firefighter ▪ Police Officer ▪ Security Guard ▪ Transportation Security Officer ▪ Detective ▪ Bomb Technician ▪ Fingerprint Identification Technician ▪ Judge

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.
Sample careers in this pathway: Machine Operator ▪ Tool and Die Maker ▪ Welder ▪ Design Engineer ▪ Manufacturing Engineer ▪ Production Manager ▪ Equipment Installer and Repairer

Planning, managing, and performing marketing activities to reach organizational objectives.
Sample careers in this pathway: Business Owner ▪ Sales Executive ▪ Account Manager ▪ Marketing Services Manager ▪ Merchandising Manager ▪ Sales Associate ▪ Customer Service Representative ▪ Sales Promotion Manager ▪ Buyer ▪ Advertising Manager

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.
Sample careers in this pathway: Aerospace Engineer ▪ Chemical Engineer ▪ Drafter ▪ Electronics Technician ▪ Industrial Engineer ▪ Manufacturing Technician ▪ Plastics Engineer ▪ Safety Engineer ▪ Chemist ▪ Geophysicist ▪ Meteorologist ▪ Metallurgist

Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment, and facility maintenance.
Sample careers in this pathway: Pilot Flight Attendant ▪ Air Traffic Controller ▪ Locomotive Engineer ▪ Ship Engineer ▪ Chauffeur ▪ Bus Driver ▪ Traffic Manager ▪ Warehouse Manager ▪ Material Handler ▪ Mobile Equipment Repairer ▪ Mechanic ▪ Urban Planner

The Career Cluster icons are used with permission of the States' Career Cluster Initiative, 2009

What Can Parents Do?

- Talk with your children about their interests, abilities, and talents
- Make sure your children go to school every day, on time, with a good attitude...as they will need to do on a job
- Give your children responsibility for jobs around the house
- Find out what your children are learning in school
- Encourage your children to participate in service-oriented activities in the community
- Talk about how your children's interests can be applied to careers that they might enjoy
- Explore with your children as many of these careers as possible
- Look at postsecondary education and training options with your children
- Talk about your own job and career in a positive manner
- Encourage your children's school district to offer Career Clusters

What Is The Role of Educators?

- Help students see the connection between the skills and knowledge they are developing in school and future careers by using real-world examples in instruction
- Help students discover their talents, strengths, and career interests
- Collaborate with local businesses to provide work-based experiences, such as tours, mentoring, and job shadowing
- Develop class projects where students research and learn about different careers
- Implement Career Clusters
- Help students understand the need for advanced skills and education for future work
- Involve business people in curriculum design to make courses more relevant to the world of work
- Implement the Michigan Comprehensive Guidance and Counseling Program
- Have students develop an Education Development Plan beginning in middle school
- Offer instruction in workplace readiness, such as teamwork and problem solving

How Can Employers Help?

- Collaborate with educators to develop an integrated curriculum based on academic standards and real work experiences
- Offer schools and students as many work-based learning opportunities as possible, such as mentoring, job shadowing, and non-paid work experiences
- Serve on a school improvement team
- Visit a school as a speaker or mock interviewer
- Recruit other businesses to work closely with schools
- When interviewing your people, ask to see their school portfolio, attendance record, and transcript
- Be a partner with a school by donating equipment and sharing training
- Serve on a committee to evaluate curricula
- Offer teacher/counselor internships

States' Career Clusters Initiative: www.careerclusters.org/
Michigan Jobs and Career Portal: www.michigan.gov/careers
Michigan Department of Education: www.michigan.gov/mde
Career and Technical Education Standards:
www.michigan.gov/documents/mde/CTE_Content_Standards_290484_7.pdf
Career and Employability Skills Standards:
www.michigan.gov/documents/Career&Employ_Standards_12_01_13760_7.pdf
EDP Fundamentals:
www.michigan.gov/documents/mde/MDE_EDP_10-2-09_296459_7.pdf
Office of Career and Technical Education: www.michigan.gov/octe
Bureau of Labor Statistics: www.bls.gov/
Michigan Labor Market Information: www.milmi.org/
Registered Apprenticeship: www.doleta.gov/oa/eta_default.cfm#wel

Resources

Michigan Comprehensive Guidance and Counseling Program

A program designed to address the needs of all students by helping them acquire and apply knowledge of self and others, develop competencies in career and life planning, and achieve educational success. The program offers sequentially planned activities to meet the needs of children and adolescents as they grow and progress from one grade level to the next. www.michigan.gov/documents/mde/Section_1_274236_7.pdf

Education Development Plan (EDP)

A personal document in which a student identifies career goals, lists interests and skills in line with meeting those goals, and records the experiences, education, and accomplishments he or she wants to pursue to successfully attain them. The purpose of the EDP is to provide every student with an ongoing and periodically updated record of career planning that will serve as a guide for entering a career of choice. Students in Michigan are required to develop an EDP in the seventh grade. EDP Fundamentals: www.michigan.gov/documents/mde/MDE_EDP_10-2-09_296459_7.pdf

School To Registered Apprenticeship (STRA)

A program that gives employers an opportunity to train school students through a formal registered apprenticeship program. Students in the STRA program participate in paid summer and school year on-the-job training. At graduation, they are guaranteed full-time employment and paid tuition to a community college.
www.doleta.gov/oa/eta_default.cfm#wel

It is the policy of the Michigan Department of Education that no person on the basis of race, color, religion, national origin or ancestry, age, gender, height, weight, marital status, or disability shall be subjected to discrimination in any program, service, or activity for which it is responsible, or for which it receives financial assistance from the U. S. Department of Education. For further information, contact the Civil Rights Coordinator, Office of Career and Technical Education, P.O. Box 30712, Lansing, MI 48909 (517) 241-0260.

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