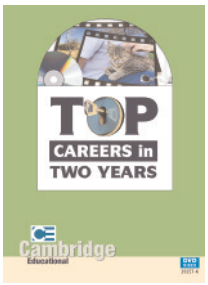

Instructor's Guide

Top Careers in Two Years

MANUFACTURING AND TRANSPORTATION

Introduction

This Instructor's Guide provides information to help you get the most out of *Top Careers in Two Years: Manufacturing and Transportation*. The contents in this guide will allow you to prepare your students before they use the program, assist them as they navigate through the program, and present follow-up activities to reinforce the program's key learning points.

This program is targeted to students in grades 9-12. Its content is appropriate to such curriculum areas as Career and Technical Education, Trade and Industrial Education, and Career Development and Occupational Studies. In addition, the information presented in the program could also be presented in vocational/technical schools or adult education courses.

Learning Objectives

After watching this video program, students will be able to:

- Understand important concepts and skills related to careers in the fields of manufacturing and transportation.
- Describe the particular personal skills, talents, and interests that are the keys to success in various jobs in the fields of manufacturing and transportation.
- Describe what a typical work week encompasses for various jobs in these fields.
- List the duties, functions, and responsibilities of various jobs in these fields.
- Understand how two years or less of appropriate education or experience can aid in job placement and career advancement, and explain what a typical career path is for various jobs in these fields.

Educational Standards

This program correlates to all applicable National and State Educational Standards including the NCLB Act. Its content correlates to the National Career Development Standards from the National Occupational Information Coordinating Committee, the National Standards for Life Work, and the National Communication Association's Speaking, Listening, and Media Literacy Standards. The content has also been aligned with the U.S. Department of Education's Manufacturing and Transportation Career Clusters. On the state standards level, the program correlates to, among others, the Texas Essential Knowledge and Skills (TEKS) for Career Orientation Standards, and the North Dakota Career Development Content Standards.

National Career Standards from the National Occupational Information Coordinating Committee

COMPETENCY IV: Understanding the relationship between educational achievement and career planning. The student will be able to demonstrate how to apply academic and vocational skills to achieve personal goals; describe the relationship of academic and vocational skills to personal interests; describe how education relates to the selection of college majors, further training, and/or entry into the job market; demonstrate transferable skills that can apply to a variety of occupations and changing occupational requirements; and describe how learning skills are required in the workplace.

COMPETENCY VI: Skills to locate, evaluate and interpret career information. The student will be able to describe the educational requirements of various occupations; demonstrate use of a range of resources (e.g. handbooks, career materials, labor market information, and computerized career information delivery systems); demonstrate knowledge of various classification systems that categorize occupations and industries (e.g. Dictionary of Occupational Titles); describe the concept of career ladders; describe the advantages and disadvantages of self employment as a career option; identify individuals in selected occupations as possible information resources, role models, or mentors; and describe the impact of population, climate, and geographic location on occupational opportunities.

COMPETENCY VII: Skills to prepare to seek, obtain, maintain, and change jobs. The student will be able to demonstrate skills to locate, interpret, and use information about job openings and opportunities; demonstrate academic or vocational skills required for a full- or part-time job; demonstrate skills and behaviors necessary for a successful job interview; demonstrate skills in preparing a resume and completing job applications; identify specific job openings; demonstrate employability skills necessary to obtain and maintain jobs; demonstrate skills to assess occupational opportunities (e.g., working conditions, benefits, and opportunities for change); describe placement services available to make the transition from high school to civilian employment, the armed services, or post-secondary education/training; demonstrate an understanding that job opportunities often require relocation; and demonstrate skills necessary to function as a consumer and manager of financial resources.

National Career Development Standards

1. Students will acquire the attitudes, knowledge, and skills that contribute to effective learning in school and across the life span.
2. Students will complete school with the academic preparation that is essential to choose from a wide variety of substantial postsecondary options, including college.
3. Students will understand the relationship of academics to the world of work, and to life at home and in the community.
4. Students will acquire the skills to investigate the world of work in relation to knowledge of self and to make informed decisions.
5. Students will employ strategies to achieve future career success and satisfaction.
6. Students will understand the relationship between personal qualities, education and training, and the world of work.

National Communication Association's Speaking, Listening, and Media Literacy Standards

Fundamentals of Effective Communication

- Effective communicators can demonstrate knowledge and understanding of the relationships among the components of the communication process; the variables influencing the effectiveness of the components of the communication process; the various levels of the meanings of messages; the role of personal knowledge and the knowledge of others in the nature and quality of communication; the influence of the individual, the relationship, and the situation on communication choices; the role of communication in the development and maintenance of personal relationships; the role of communication in creating meaning, influencing thought, and making decisions; the role of communication in the democratic process; and the role of personal responsibility in making ethical communication decisions.
- Effective communicators can demonstrate the ability to identify and use communication strategies by taking into consideration individual differences; identify and use communication strategies to enhance relationships and resolve conflict; evaluate the aesthetic and functional value of all types of communication; and show sensitivity to the ethical issues associated with competent and effective communication in society.

Speaking

- The effective speaker can demonstrate knowledge and understanding of the relationships among the components of the speaking process across a variety of contexts; the ability to identify and use effective strategies for formal and informal speaking situations in public, group, work, and personal settings; the ability to use language that clarifies, persuades, and/or inspires while respecting the listeners' backgrounds, including their culture, gender, and individual differences; and the ability to identify and use methods to manage or overcome communication anxiety and apprehension.

Listening
- The effective listener can demonstrate knowledge and understanding of relationships among the components of the listening process across a variety of contexts; the ability to identify and manage barriers to listening; the ability to identify and use different listening skills appropriate for diverse types and purposes of listening; and the ability to receive, interpret, and respond to messages.

Media Literacy
- The effective media participant can demonstrate the effects of the various types of electronic audio and visual media, including television, radio, the telephone, the Internet, computers, electronic conferencing, and film, on media consumers; and the ability to identify and use skills necessary for competent participation in communication across various types of electronic audio and visual media.

Career Clusters from the U.S. Department of Education

The Manufacturing Career Cluster prepares learners for careers that involve 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.

The Transportation Career Cluster prepares learners for careers that involve 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.

Texas Essential Knowledge and Skills for Career Orientation

Standard 127.12. Analyzes the effect of personal interests and aptitudes upon educational and career planning. Knows how to locate, analyze, and apply career information. Knows that many skills are common to a variety of careers and that these skills can be transferred from one career opportunity to another. Knows the process used to locate and secure employment. Knows the process of career planning. Knows the importance of productive work habits and attitudes.

North Dakota Career Development Content Standards

1.0 PERSONAL SOCIAL DEVELOPMENT

Acquire the knowledge, attitudes, and interpersonal skills that encourage the understanding and respect of self and others, including: developing understanding of self to build and maintain a positive self concept; developing positive interpersonal skills including respect for diversity; integrating personal growth and change into one's career development; and balancing personal, leisure, community, learner, family, and work roles.

2.0 EDUCATIONAL ACHIEVEMENT AND LIFE-LONG LEARNING

Acquire the attitudes, knowledge, and skills that contribute to effective learning in school and across the life span, including: attaining educational achievement and performance levels needed to reach personal and career goals; and participating in ongoing, life-long learning experiences to enhance one's ability to function effectively in a diverse and changing economy.

3.0 CAREER MANAGEMENT
Acquire the skills to investigate the world of work in relation to knowledge of self to make informed career decisions, including: creating and managing a plan that focuses on career goals; using a process of decision-making as one component of career development; using accurate, current, and unbiased career information during career planning and management; and mastering academic, occupational, and general employability skills in order to obtain, create, maintain, and / or advance in employment.

Program Overview

Living in a world of cutting-edge technology hasn't eliminated the need for turning out-of-this-world concepts into real-world products and delivering them to people who want them exactly when they want them. This program spotlights three professionals in manufacturing — a robotics technician, a machinist, and a chemical technician — and three professionals who help get products from point A to point Z: a quality manager, a distribution manager, and a dock supervisor.

Main Topics

Topic 1: Introduction
The program sets out towards the destination of a successful career in manufacturing and transportation.

Topic 2: Top Careers in Manufacturing
In this section, viewers see how robotics technicians, machinists, and chemical technicians turn technical ideas into physical products as part of their daily duties.

Topic 3: Top Careers in Transportation
The program continues with the fastest-growing sector of the transportation industry — distribution. A quality manager, a distribution manager, and a dock supervisor shed light on what careers are like along the various points of the supply chain.

Fast Facts

- Three strikes and an umpire might be out! Baseball's strike zone illustrates the role of machinery in quality control. Since 2001, Major League Baseball has employed cameras and three-dimensional imaging to evaluate how often umpires judge the zone "correctly."

- The average miles an item is shipped has increased to more than 530 — 100 more than a decade ago. Meanwhile, big shippers such as Dell, Home Depot, and J.C. Penney are working on fleets that use less fuel and give off fewer pollutants. Wal-Mart has pledged to double fuel efficiency in the next decade.

- Ever notice truck scales along an interstate? The weight of goods that U.S. trucks carry grows 2.6% annually. By 2015, it will equal 12 billion tons, says the American Trucking Association.

- You can see planes fly into airports and follow air traffic control communications online. An audience of fascinated listeners scans airbands and feeds what they capture into online aviation networks and blogs, creating a rundown of current flights. Search on the phrase "air traffic control" to find one, or visit www.thetracon.com or www.liveatc.net.

- Hollywood has a take on machinists: the movie *The Machinist* is about a man who stops sleeping and the horror he endures. The movie's protagonist is a machinist named Trevor Reznik, after Trent Reznor of the industrial music band Nine Inch Nails.

- Saturday morning cartoons are coming to life, but not in the way we previously imagined them. PARC (Palo Alto Research Center, Inc.) is working on robots that change their shape to adapt to each job they perform. Household servant robots, working like Rosie in *The Jetsons*, will look one way when they wash dishes and another when they garden.

- Chemical technicians working in Louisiana and Texas usually receive higher wages than those working in other states. This is because the Gulf Coast is home to many chemical and petroleum companies, and jobs on offshore oil rigs and 24-hour refineries pay better than other jobs for chemical technicians.

- Talk about a power pack! The Nova laser at the Lawrence Livermore National Laboratory is three stories tall. Built to reproduce conditions at the center of the sun, it can target something the size of a grain of sand with 100 trillion watts of energy.

- Back in 1965, Intel Corporation's cofounder Gordon Moore noticed a trend in technology: that each new memory integrated circuit contained roughly twice as much capacity as its predecessor, and that this doubling occurred roughly every two years. This trend has become known as Moore's law, and over the years has been interpreted to mean that computer power will double every two years.

- The manufacture of plastics can be traced back to the 19th century, when a billiards company offered $10,000 to anyone who could come up with a ball *not* made of ivory (the elephant tusks in use were becoming rare). That's when John Wesley Hyatt came up with a replacement made of a composite substance soon to be marketed as Celluloid.

Vocabulary Terms

associate degree: An academic degree awarded by community colleges, junior colleges, business colleges, and some bachelor's degree-granting colleges and universities upon completion of a course of study usually lasting two years.

auto-cad software: 3D modeling and visualization software that allows the design, visualization, and documentation of ideas.

autonomous: Existing as an independent entity.

bachelor's degree: An undergraduate academic degree awarded for a course or major that generally lasts for three, four, or in some cases and countries, five or six years.

communication: The conveying of a message or idea from one person to another.

community college: A two-year traditional school, offering programs leading to an associate degree and, typically, many noncredit courses in arts, crafts, and vocational fields for community members not seeking a degree. Also called junior college.

computer science: The branch of engineering science that studies (with the aid of computers) computable processes and structures.

co-op program: A college-sponsored work/internship program.

intern: One who works in a temporary position within an organization, in order to gain on-the-job training and experience, help determine interest in a particular career, create a network of contacts, and/or gain school credit. Interns are usually college or university students, but can also be other adults seeking skills for a new career.

mentor: Someone who guides, counsels, or teaches another, most often in an occupational setting.

multitasking: The simultaneous execution of multiple tasks.

quality control: Maintenance of standards of quality of manufactured goods.

redundancy: In manufacturing, a system design that duplicates components to provide alternatives in case one component fails.

United States Department of Labor (US DOL): A Cabinet department of the United States government responsible for occupational safety, wage and hour standards, unemployment insurance benefits, re-employment services, and some economic statistics. Many U.S. states also have such departments.

Pre-Program Discussion Questions

1. What evidence do you see of manufacturing and transportation in action in your everyday life?

2. Are all aircraft mechanics employed by major airlines? If not, where else do you think they could find employment?

3. What is distribution? Why is it a key sector of transportation?

4. Do you believe the fields of manufacturing and transportation will experience growth in the next few years, or could either or both experience a decline? What determining factors do you think have the most impact on the two fields?

5. What is the importance of quality control in manufacturing and transportation? What would happen without it?

Post-Program Discussion Questions

1. Which careers in manufacturing or transportation do you believe will see the most opportunities, and which the least, in the next year? What about in the next 50 years?

2. What courses should someone take who strives for a career as a chemical technician?

3. What does a machinist do? What kinds of problems must a machinist solve?

4. What impact does technological innovation have on careers in manufacturing and transportation?

5. For which careers in manufacturing and transportation is time management key? For which careers would being a people-person be of the utmost importance?

Individual Student Projects

- Why is the job of a quality manager so important to today's marketplace and economy? What purpose do standards serve, and what incidents have happened as a result of a failure to meet those standards? Cite specific examples and present your theories in a well-organized paper.

- What innovations are on the horizon for robotics, aeronautics, and aerospace products and parts manufacturing? How do you think the innovations will affect the creation of jobs in these areas? Write a paper or create a multimedia presentation that details your findings and opinions.

- Consider your strengths, weaknesses, and interests and list them all in a grid. For which specific profession(s) in this career cluster would each characteristic be ideal? Which professions would be a poor match for the characteristic, and why? Be specific with detailed examples of each characteristic, presenting your opinions in a paper, multimedia presentation, or video. Then, assess which profession stands out as being the best match for your personality and personal characteristics.

Group Activities

- As a class, create and staff a company devoted to the manufacturing of a product of your choice. Divide the class into two groups and assign each group either manufacturing or transportation. Ask each group to staff its department and specify roles, duties, and daily activities. Then, as a class, discuss the ways in which the two groups will work together to get the product from initial concept into the hands of paying customers.

- Divide the class into small groups and ask each to create a poster of five careers in manufacturing and five in transportation which are not discussed in the program. Ensure that the responsibilities, personality traits, salary ranges, and job outlook are highlighted for each. How do the ten careers interrelate?

- Research various positions available for machinists, including becoming a CNC programmer, a tool-and-die-maker, a mold maker, or pursuing a job in maintenance and service. What are the responsibilities, job outlook, and salary ranges for each position? Discuss as a class.

Internet Activities

- What are the responsibilities of plastics technicians? With what kinds of materials do they work, and what are the latest trends in the field? What personality traits and skills would be beneficial to have for a successful career? Present your findings in a multimedia presentation or video, or as a paper with supporting graphics.

- Write a research paper on the subject of microelectronics. Is this an area expected to see growth in the next few years? What technologies will impact the job outlook for microelectronics technicians? Will jobs in navigational, measuring, and electromedical manufacturing have more or fewer opportunities in the next few years than would have occurred 20 years ago? Why or why not?

- Investigate various areas in which chemical technicians work — including biotechnology, computers, energy fields, environmental concerns, and quality control. Explain in a paper, presentation, or video what opportunities there are in these or related areas.

Assessment Questions

Q1. True or False? Computer science and engineering courses are recommended for someone interested in pursuing a career as a machinist.

Q2. According to the program, which of the following types of problem-solving does a machinist perform on-the-job? (Select all that apply.)
- a) Application problem-solving
- b) General problem-solving
- c) Masonry problem-solving
- d) Mechanical problem-solving
- e) Software problem-solving

Q3. According to the robotics technician featured in the program, what are three general duties a robotics technician would perform?

Q4. True or False? A chemical technician works under the direction of a chemist.

Q5. Which courses should an individual interested in becoming a chemical technician take in school? (Select all that apply.)
- a) Advanced chemistry
- b) Algebra
- c) Basic chemistry
- d) Biological sciences
- e) Geometry
- f) Geology

Q6. What is the fastest-growing sector of transportation?

Q7. True or False? A quality manager spends roughly 6 to 8 hours per day doing desk work.

Q8. Place the following items in the order that corresponds to the flow of goods in and out of a building.
- a) Prep items in deluxe
- b) Put items into the racks for storage
- c) Load items onto trucks for home delivery
- d) Pull items from the racks
- e) Scan items into the building

Q9. According to the dock supervisor interviewed in the program, which of the following are kinds of trucks that are unloaded on the job? (Select all that apply.)

a) Container freights
b) Mini trucks
c) Smartcars
d) Straight trucks
e) Trailers

Q10. (Choose the correct term.) A machinist may encounter new or expanded **[requirements / standards]** over time, while a quality manager ensures that certain **[requirements / standards]** of quality are established for every product.

Assessment Questions Answer Key

Q1. True or False? Computer science and engineering courses are recommended for someone interested in pursuing a career as a machinist.
A1. *This statement is true.*

Q2. According to the program, which of the following types of problem-solving does a machinist perform on-the-job? (Select all that apply.)
a) Application problem-solving
b) General problem-solving
c) Masonry problem-solving
d) Mechanical problem-solving
e) Software problem-solving
A2. *The correct answers are a, b, d, and e.*

Q3. According to the robotics technician featured in the program, what are three general duties a robotics technician would perform?
A3. *Answers include building robots, testing robots, and repairing robots.*

Q4. True or False? A chemical technician works under the direction of a chemist.
A4. *This statement is true.*

Q5. Which courses should an individual interested in becoming a chemical technician take in school? (Select all that apply.)
a) Advanced chemistry
b) Algebra
c) Basic chemistry
d) Biological sciences
e) Geometry
f) Geology
A5. *The correct answers are a, b, c, d, and e.*

Q6. What is the fastest-growing sector of transportation?
A6. *The correct answer is distribution.*

Q7. True or False? A quality manager spends roughly 6 to 8 hours per day doing desk work.
A7. *This statement is false.*

Q8. Place the following items in the order that corresponds to the flow of goods in and out of a building.
a) Prep items in deluxe
b) Put items into the racks for storage
c) Load items onto trucks for home delivery
d) Pull items from the racks
e) Scan items into the building
A8. *The correct order is: 1e; 2b; 3d; 4a; 5c.*

Q9. According to the dock supervisor interviewed in the program, which of the following are kinds of trucks that are unloaded on the job? (Select all that apply.)
a) Container freights
b) Mini trucks
c) Smartcars
d) Straight trucks
e) Trailers
A9. *The correct answers are a, d, and e.*

Q10. (Choose the correct term.) A machinist may encounter new or expanded **[requirements / standards]** over time, while a quality manager ensures that certain **[requirements / standards]** of quality are established for every product.
A10. *A machinist may encounter new or expanded **requirements** over time, while a quality manager ensures that certain **standards** of quality are established for every product.*

Web Sites

General
- www.bls.gov: U.S. Department of Labor, Bureau of Labor Statistics
- www.careeroverview.com: Career Overview and Research Guide
- www.dol.gov: U.S. Department of Labor
- www.salary.com: Salary.com
- www.nationalbusiness.org: National Business Association
- www.talentzoo.com: Talent Zoo

Quality Manager
- www.asq.org: American Society for Quality
- www.bmpcoe.org: Best Manufacturing Practices
- www.cqm.org: Center for Quality Management

Dock Supervisor
- www.astl.org: American Society of Transportation and Logistics, Inc.
- www.truckline.com: American Trucking Association
- www.werc.org: Warehousing Education and Research Council

Distribution Manager
- www.astl.org: American Society of Transportation and Logistics, Inc.
- www.apics.org: The Association for Operations Management
- http://cscmp.org: Council of Supply Chain Management Professionals

Aerospace Technician
- www.aiaa.org: American Institute of Aeronautics and Astronautics
- www.faa.gov: Federal Aviation Administration

Air Traffic Controller
- www.atca.org: Air Traffic Control Association
- www.faa.gov: Federal Aviation Administration
- www.natca.org: National Air Traffic Controllers Association
- www.patco81.com: Professional Air Traffic Controllers Organization

Aircraft Mechanic
- www.pama.org: Professional Aviation Maintenance Association
- www.usajobs.opm.gov: USAJOBS — The Federal Government's Official Jobs Site
- www.faa.gov: Federal Aviation Administration

Machinist
- www.ntma.org: National Tooling & Machining Association
- www.pmpa.org: Precision Machined Products Association
- www.tmanet.com: Tooling & Manufacturing Association

Robotics Technician
- www.machinevisiononline.org: Machine Vision Online (Automated Imaging Association)
- www.nicet.org: National Institute for Certification in Engineering Technologies
- www.robotics.org: Robotic Industries Association

Chemical Technician
- www.aacc.org: American Association for Clinical Chemistry
- www.acs.org: American Chemical Society
- www.aiche.org: American Institute of Chemical Engineers

Laser Technician
- www.photonics.com: Optical, Laser and Fiber Optics Resource
- www.ieee.org: Institute of Electrical and Electronics Engineers
- www.laserinstitute.org: Laser Institute of America

Microelectronics Technician
- www.aeanet.org: American Electronics Association
- www.eia.org: Electronic Industries Alliance
- www.iscet.org: International Society of Certified Electronics Technicians
- www.smta.org: Surface Mount Technology Association

Plastics Technician
- www.plastics.org: American Chemistry: Plastics Division
- www.4spe.org: Society of Plastics Engineers
- www.socplas.org: Society of the Plastics Industry

Additional Resources from www.films.com

A Second Look at Careers

- **VHS/DVD/Digital On-Demand**
- **Viewable/printable instructor's guide online**
- **Preview clip online at www.filmsmediagroup.com**
- **Order #: 24604**

We've taken 40 occupations from the *Children's Dictionary of Occupations* and brought them to life using real people at work. Students learn about the tools of the trade and the tasks performed on the job. They hear from workers who will tell them how to prepare for each job, including the education and training needed. Best of all, this fast-paced video set encourages students to begin thinking about the future world of work and is an excellent introduction to career days, job fairs, or classroom units on careers. *Careers include* • Aircraft Mechanic • Accountant • Broadcast Technician • Butcher • Carpenter • Chemist • Chiropractor • Dancer • Dentist • EMT • Economist • Farmer • Flight Attendant • Glazier • Home Appliance Repairer • Home Health Aide • Industrial Designer • Information Clerk • Janitor • Judge • Kitchen Worker • Landscape Architect • Lawyer • Mail Carrier • Manicurist • Musician • Nuclear Medicine Technologist • Optometrist • Physical Therapist • Quality Assurance Inspector • Real Estate Agent • Respiratory Therapist • Secretary • Telephone Line Installer • Urban Planner • Vehicle Washer/ Equipment Cleaner • Writer • X-Ray Technologist • Yeoman (Armed Services) • Zoologist. (Two videos, 33 minutes total) © 2000

The Complete Career Clusters

- **VHS/DVD/Digital On-Demand**
- **Closed captioned**
- **Preview clip online at www.filmsmediagroup.com**
- **Correlates to all applicable standards**
- **Order #: 36947**

Covering 16 broad occupational categories, the Career Clusters system offers information on practically every job there is! Each and every Cluster is represented in this outstanding 16-part series-a perfect companion to the Career Clusters Poster Set. Correlates to all applicable standards. A Cambridge Educational Production. The 16-part series includes *Education & Training; Health Services; Information Technology Services; Scientific, Engineering & Technical Services; Transportation, Distribution & Logistics; Law, Public Safety & Security; Agriculture, Food & Natural Resources; Manufacturing; The Arts, Audio Visual Technology & Communications; Hospitality & Tourism; Architecture & Construction; Human Services; Marketing, Sales & Service; Government & Public Administration; Business, Management & Administration; Finance*. (16-24 minutes each) © 2007

Career Clusters Poster Set

- **Sixteen 17" x 22" posters**
- **Correlates to the National Career Development Standards from the National Occupational Information Coordinating Committee**
- **Order #: 36989**

Set includes: Agriculture, Food & Natural Resources; Arts, A/V Technology & Communications; Business, Management & Administration; Architecture & Construction; Education & Training; Finance; Health Science; Hospitality & Tourism; Human Services; Information Technology; Law, Public Safety & Security; Manufacturing; Government & Public Administration; Marketing, Sales & Service; Science, Technology, Engineering & Mathematics; Transportation, Distribution & Logistics. © 2003

Cambridge Career Center

- **CD-ROM (Windows and Macintosh)**
- **Preview clip online at www.filmsmediagroup.com**
- **Correlates to the Life Work standards published in "What Work Requires of Schools" from the Secretary's Commission on Achieving Necessary Skills (SCANS) and The National Career Development Standards.**
- **Order #: 32736**

From aerospace engineer to umpire, the Cambridge Career Center introduces students to more than 1,100 different careers and helps them discover which ones might be right for them. This interactive CD-ROM uses version 5.0 of the U.S. Department of Labor's Occupational Information Network (successor to the time-honored *Dictionary of Occupational Titles*) — America's primary source of career information. © 2004

Spotlight on Careers in Travel and Hospitality

- **DVD/VHS**
- **Closed captioned**
- **Preview clip online**
- **Order #: 36913**

One of Fortune's Most Admired Companies, jetBlue is dedicated to bringing humanity back to air travel. And HK Hotels, family-owned and -operated accommodations infused with charm and Old World service, has been featured in Condé Nast Traveler and Travel + Leisure. In section one of this program, Eric Brinker tells how he overcame severe dyslexia to become jetBlue's Director of Brand Management and Customer Experience, while in section two, Henry Kallan, President and owner of HK Hotels in New York City, recalls how he emigrated from the former Czechoslovakia at the age of 21 and got his humble start in the hotel industry as a busboy. A Meridian Education Production. (20 minutes) © 2007.

Career Options for Women: Aviation

- **VHS/DVD/Digital On-Demand**
- **Closed captioned**
- **Preview clip online at www.filmsmediagroup.com**
- **Correlates to educational standards and is aligned with textbook data**
- **Order #: 37653**

Students will gain inspiration from three courageous women who have entered the aviation field. This program profiles Capt. Tanya Sprathoff, pilot and crew commander of an Aurora CP-140; Isabelle Marsan, an aircraft mechanic who maintains and repairs internal systems on airliners; and Dawn Patterson, an aircraft structures mechanic responsible for aircraft inspection and repair. Interviews with co-workers and supervisors help to create well-rounded descriptions of each job. (24 minutes) © 2006

Career Options for Women: Marine Transportation

- **VHS/DVD/Digital On-Demand**
- **Closed captioned**
- **Preview clip online at www.filmsmediagroup.com**
- **Correlates to educational standards and is aligned with textbook data**
- **Order #: 37669**

Students have plenty to gain from hearing the stories of women in the marine transportation field. This program profiles Manon Turcotte, a boat pilot accustomed to busy shipping lanes and port harbors; Gina Gray, a ferry deckhand working her way up to Second Officer; and Louise McGowan, a Canadian naval engineer who maintains shipboard mechanical equipment. Interviews with fellow crewmembers and supervisors help to create well-rounded descriptions of each job. (24 minutes) © 2006

Career Options for Women: Manufacturing

- **VHS/DVD/Digital On-Demand**
- **Closed captioned**
- **Preview clip online at www.filmsmediagroup.com**
- **Correlates to educational standards and is aligned with textbook data**
- **Order #: 37659**

In this program, three women with rewarding careers in manufacturing describe their work. Marnie Zimmerman is an instrumentation technician who repairs circuit boards for air conditioning systems; Kristina Bouchard is a machine operator for an aerospace company; and Darlene Fitzgerald is a horticulturalist who manages a large production staff. Conversations with co-workers and supervisors add to the descriptions of each job. (24 minutes) © 2006

Career Options for Women: Rail Transportation

- **VHS/DVD/Digital On-Demand**
- **Closed captioned**
- **Preview clip online at www.filmsmediagroup.com**
- **Correlates to educational standards and is aligned with textbook data**
- **Order #: 37683**

Meet three women who have embarked on successful careers in railway transportation. This program profiles Brenda Cox, a yard foreman who loads and organizes rail cars for train assembly; Rebecca Mann, a technical officer who tests the structural and mechanical limits of rail cars; and France Robert, an electronics systems technician who performs safety tests on passenger trains. Remarks from co-workers and supervisors provide additional layers to the descriptions of each job. (24 minutes) © 2006

Career Options for Women: Robotics and Automation

- **VHS/DVD/Digital On-Demand**
- **Closed captioned**
- **Preview clip online at www.filmsmediagroup.com**
- **Correlates to educational standards and is aligned with textbook data**
- **Order #: 37672**

Introduce viewers to three women who have found gainful employment in the field of robotics and automation. This program profiles Isabelle Tremblay, an engineer specializing in the use of robotics for space exploration; Jessica Amsden, a robotics technician who works in automated manufacturing; and Cheryl Hyrnkiw, owner-operator of Solarbotics, which produces educational robot kits. Commentary from co-workers and supervisors rounds out the descriptions of each job. (24 minutes) © 2006