Exploring the Destinations

This module is designed to teach students about the 16 clusters of occupations described on the Kuder® assessment reports. This classification system is the result of a U.S. Department of Education initiative to represent career opportunities for the 21st century. This system supports logical exploration by industry. The same system can be used to organize high school curriculum so that students can make educational plans related to their tentative occupational choices.

Objectives

At the end of this module, students will be able to:

- Describe how occupations can be grouped into clusters.
- Sort occupations and jobs into these clusters.
- Select two of these 16 clusters as favorites based on present knowledge.
Module 5: Overview

Components

- **Introduction and Mini-Lecture: Exploring the Destinations**
  15 minutes
- **Activity: Sorting Occupational Profiles into the 16 Clusters**
  15 minutes
- **Activity: Placing Yourself in a Destination**
  15 minutes
- **Preparation for Next Session**
  10 minutes

Facilitator Preparation

- Read the lesson plan and resource material.
- Bring the Occupational Profile Cards (used in Module 1) to class.
- Print a copy of the career cluster signs.
- Duplicate materials for Handout 3: Taking the Kuder Career Search with Person Match and Kuder Skills Assessment.
- Arrange for a computer and display device to show the PowerPoint® presentation. This presentation can be accessed online from the Kuder® Administrative Database Management System.
- Additional materials that describe the 16 clusters – such as posters, sample educational plans, and brochures – are available at www.careerclusters.org.

Homework Assignment

Students are asked to take the *Kuder Career Search with Person Match* and the *Kuder Skills Assessment* online, following the instructions on Handout 3, and to print out the full report for each and bring them to the next class session.

National Career Development Guidelines Addressed

- Indicator CM3.A2: Demonstrate the ability to use different types of career information resources (i.e., occupational, educational, economic, and employment) to support career planning.
- Indicator CM3.K5: Identify occupations that you might consider without regard to your gender, race, culture, or ability.
- Indicator CM3.K4: Identify several ways to classify occupations.
- Indicator CM3.A5: Demonstrate openness to considering occupations that you might view as nontraditional.

ASCA National Standards for School Counseling Programs Addressed

- Indicator C:A1.1: Develop skills to locate, evaluate, and interpret career information.
- Indicator C:A1.3: Learn about the variety of traditional and nontraditional occupations.
- Indicator C:B1.4: Know the various ways in which occupations can be classified.
- Indicator C:B1.6: Learn to use the Internet to access career planning information.
Introduction and Mini-Lecture: Exploring the Destinations
(15 minutes)

In the last lesson, the emphasis was on you. In this lesson, we learn how the world of work is organized. Even though occupations change, this system is flexible enough that you can use it throughout your lifetime. If you learn it today, it will help you choose high school courses, a major for vocational-technical school or college, your first occupation, and the multiple jobs that you will consider throughout your lifetime.

Based on more than 40 years of research by several organizations, we know that jobs can be organized into clusters. You might think of them as different places or destinations. In 2001, the U.S. Department of Education undertook the task of identifying 16 career clusters representing career opportunities for the 21st century economy. These 16 clusters are groups of occupations that relate to six career fields: Environmental and Agricultural Systems; Business, Marketing, and Management; Communications and Information Systems; Health Science; Human Services and Resources; and Industrial, Manufacturing, and Engineering Systems.

Please note from the graphic on the following page how the 16 clusters relate to the six career fields.

Agriculture, Food, and Natural Resources

This part of the work world includes occupations related to farming, ranching, forestry, and saving natural resources. Workers may work outdoors, indoors, or some combination of both. They may be processing a plant or animal product of some kind, or designing environmental or natural resource systems. They may be interested in agribusiness, which involves growing food and preparing it for sale or taking care of animals.

If you have an interest in this area of the world of work, you may be doing some of the following:

- Participating in Earth Day.
- Recycling household goods.
- Taking care of pets or farm animals.
- Growing your own garden.
CAREER EXPLORATION
It is easier to choose from many options when they are organized in some way. So, occupations in our system are first divided into six very large groups. Then, each of those groups is divided into smaller groups.

6 CAREER FIELDS
The career fields are the six large groups. They include all of the occupations in the United States, and their titles tell you something about the focus of work in that group of occupations.

16 CAREER CLUSTERS
Each of the six career fields is divided into 1-4 sub-groups, called clusters. Each cluster is made up of a number of occupations and post-secondary majors related to the specialty of that cluster. The results of your interest and skills inventories are linked to these same clusters.
Architecture and Construction

People who work in this part of the work world like to use their creativity and problem-solving abilities to design, build, and maintain buildings. They may work outdoors or indoors. They may draw the plans for a new building and help build the structure, or they may help restore or repair an existing house or building.

If you have interest in this part of the world of work, you might be doing some of the following:

- Building model airplanes.
- Working on your computer a lot.
- Designing and building playhouses or forts.
- Helping your parents with repairs around the house.

Arts, A/V Technology, and Communications

People who work here express themselves through writing, singing, dancing, acting, or doing drawings or graphic designs. They typically work inside in studios, offices, or on the stage. They may perform directly for others, or they may produce work that is enjoyed by others. They may report events or opinions through newspaper writing or making films.

If you are interested in this part of the world of work, you may be doing some of the following:

- Taking lessons in music, dance, or art.
- Using your computer to create graphic art.
- Attending musical performances or art shows.
- Writing a detailed diary.

Business, Management, and Administration

People who work here enjoy planning, organizing, and directing business operations. These people are very important because they keep good track of details, keep things operating smoothly, and account for money carefully. Almost without exception, they work indoors with computers, printed reports, and files. They may plan or manage the day-to-day operation of a business and supervise the work of others.
If you are interested in this part of the world of work, you may be doing some of the following:

- Organizing a campaign to increase volunteerism in your school.
- Serving as secretary of a group you belong to.
- Helping a friend get elected to a class office.
- Getting good at word-processing and other computer skills.

**Education and Training**

People who work in this area are interested in planning, managing, and providing education and training services. They typically work indoors and teach children and adults new knowledge or skills. They may develop curriculum, supervise teachers, or manage large school districts or training programs.

If you are interested in this part of the world of work, you may be doing some of the following:

- Volunteering to tutor younger students in your school.
- Helping classmates with homework.
- Teaching others a special skill you have.

**Finance**

People who work in this cluster are interested in managing and keeping track of money. They typically work indoors. They may invest money for people, keep track of money for businesses or banks, or put together insurance plans for people and companies.

If you are interested in this part of the world of work, you may be doing some of the following:

- Serving as treasurer of a school club.
- Observing stock market reports.
- Having a savings account to which you contribute regularly.
Government and Public Administration

This cluster includes occupations related to government and public service. Work is typically indoors. Individuals may work in a state or agency or hold a public office. This cluster also includes workers that represent the United States in another country. This work area includes everything from the U.S. Foreign Service to revenue and taxation.

If you are interested in this part of the world of work, you may be doing some of the following:

- Learning a foreign language.
- Serving as an officer in a school club.
- Planning how to make your school a better place.

Health Science

This cluster includes occupations dedicated to making or keeping people well. Workers typically work indoors. They work in all aspects of medicine, but also include those who develop the tests to diagnose your problem or research cures for diseases. They may provide direct services or supervise facilities that address people’s mental, and physical needs.

If you are interested in this part of the world of work, you may be doing some of the following:

- Learning CPR or taking a Red Cross safety course.
- Creating science fair projects.
- Watching medical shows on TV.

Hospitality and Tourism

Occupations in this cluster relate to restaurants, hotels/motels, travel plans, and entertainment. These occupations are typically indoors. Workers may manage restaurants, hotels, or amusement parks. They may also sell or plan travel for other people.

If you are interested in this part of the world of work, you may be doing some of the following:

- Traveling and staying in new places.
- Acting as a greeter at your school for new students.
- Planning special events.
Human Services

People who work in this area serve the personal needs of others to help improve their lives in some way. They may work as mental health counselors, provide personal care services, or provide spiritual care.

If you are interested in this part of the world of work, you may be doing some of the following:

- Listening to friends’ problems.
- Babysitting and watching young children play.
- Volunteering at a food bank or other community agency.

Information Technology

This cluster includes occupations related to providing computer or web-based services. Workers typically work indoors and may design and develop computer hardware, software, and systems to collect and use information. They may also manage database systems or operate computer networks.

If you are interested in this part of the world of work, you may be doing some of the following:

- Fixing problems others have with computers.
- Surfing the Internet to get information.
- Helping others to access information on the computer.

Law, Public Safety, Corrections, and Security

Workers in this area are interested in the enforcement of laws and the protection of the public. Work may be indoors or outdoors. Workers may work in emergency services such as police and firefighters, or they may deal with people who need legal services or possibly work in the corrections field.

If you are interested in this part of the world of work, you may be doing some of the following:

- Acting as a school crossing guard.
- Helping to control crowds at school events.
- Participating on the debate team.
Manufacturing

People in this area take raw materials and turn them into finished products. Workers typically work indoors. Along with making a product, workers may plan how to make a product, manage the production of a product, or check product quality.

If you are interested in this part of the world of work, you may be doing some of the following:

- Carving things out of wood.
- Making products to sell.
- Creating scenery for the school play.

Marketing, Sales, and Service

These occupations relate to promoting and selling goods and services. Work is typically indoors and workers may create the plan to market a product or directly sell a product or service to others. This cluster also includes those who manage the sale of products or services.

If you are interested in this part of the world of work, you may be doing one or more of the following:

- Volunteering to sell tickets, candy, cookies, or something else to raise money.
- Leading a group at school, a place of worship, or in a club.

Science, Technology, Engineering, and Mathematics

Occupations in this cluster relate to design, research, and development. People in this area are the problem solvers of our world. They typically work indoors and may do research in a laboratory setting. They may design and build new things, such as bridges or roads, or assist those who do.

If you are interested in this part of the world of work, you may be doing one or more of the following:

- Figuring out how things work.
- Reading a lot of science fiction.
- Enjoying the process of solving problems.
Transportation, Distribution, and Logistics

This cluster involves the planning, management, and movement of people, materials, and products by road, air, rail, and water. Work may be indoors or outdoors. Workers may drive or pilot trucks, ships, planes, or other forms of transportation or manage the people that do.

If you are interested in this part of the world of work, you may be doing one or more of the following:

- Volunteering to figure out schedules for sports teams.
- Knowing how to read a train or airline timetable.
- Looking at the specs for cars to help your parents decide which to buy.

One thing that is very important to know is that our school, town/city, country, or world could not function without having good workers in all 16 of these areas. No one area is more important than another; all are needed to make our society function well.

You may have noticed that in four clusters—Education and Training; Human Services; Hospitality and Tourism; and Marketing, Sales, and Service—you work directly with people. In the first two groups—Education and Training and Human Services—the purpose would be to help them through physical care, spiritual care, teaching, counseling, or providing needed services through agencies. In the remaining groups—Hospitality and Tourism, and Marketing, Sales, and Service—the purpose would be to sell a product or service or to manage a group of employees toward a common goal.

In all of these groups, it is very important to have good skills in relating to people and in communicating clearly through the spoken and written word.

In five other groups—Agriculture, Food, and Natural Resources; Architecture and Construction; Information Technology; Science, Technology, Engineering and Mathematics; and Transportation, Distribution, and Logistics—there is emphasis on working with equipment, tools, and technology. Knowledge of how to use computers is important, and many jobs in science require advanced work in science and math and the ability to work with concepts and ideas.

While the clusters mentioned above have similarities, the remaining groups are unique. For example, the group called Arts, A/V Technology, and Communications requires creative thinking, imagination, willingness to do things in a different way, and the ability to create something of beauty for the enjoyment of others. The Business, Management,
and Administration group requires doing things in predetermined, standard ways, following procedures that are provided by others.

Invite questions about the 16 clusters and then continue with the following discussion questions:

- **How do you think the amount of education to enter these different clusters varies?**
  There is a range of educational levels in all groups; however, many occupations in Science, Technology, Engineering, and Mathematics and Health Science tend to require more education than occupations in other groups. It is projected by the U.S. Department of Labor that about 65 percent of the jobs in this century will require up to two years of education or training beyond high school. Only about 20 percent of jobs require a four-year college degree, and a very small percentage (about 15 percent) can be entered with high school education or less.

- **How might the availability of jobs vary in these 16 clusters?**
  Probably the group with the lowest job demand is Arts, A/V Technology, and Communications.

- **How do you think salaries vary in the 16 clusters?**
  In general, people with a four-year college education in any group make more money than those without that degree. As a group, salaries are probably highest in Marketing, Sales, and Service and Science, Technology, Engineering, and Mathematics.

- **How do you think the interests of workers vary in the 16 clusters?**
  Some people enjoy working with their hands and have mechanical skills; some like to work with their minds and have scientific and mathematical skills; some like to create new things and perform to entertain others; some like to work with people to help them in some way; others like to work with people to manage, persuade, or convince them; and some like to work with numbers and information to organize it.

**Activity: Sorting Occupational Profiles into the 16 Clusters**

(15 minutes)

You have learned a lot about the 16 sections of the world of work. I am going to read a few descriptions from the set of the Occupational Profile Cards that we used in an earlier activity. Try to figure out which cluster each of these occupations belongs in.

Now, choose occupations from the list on the following page and read the description (from the Occupational Profile Cards accessed in Module 1) to the class. After each description, students are asked to name the appropriate cluster. (Note: If time is short, choose three or four occupations from the list.)
• Landscape Architect (Agriculture, Food, and Natural Resources)
• Electrician or Electrical Engineer (Architecture and Construction)
• Radio and Television Announcers or Graphic Designer (Arts, A/V Technology, and Communications)
• Public Relations Specialist (Business, Management, and Administration)
• School Principal or Recreation Worker or Librarian (Education and Training)
• Accountant (Finance)
• Army Electronic Equipment Repair Specialist (Government and Public Administration)
• Physical Therapist or Dental Assistant or Radiologic Technologist (Health Science)
• Travel Agent (Hospitality and Tourism)
• Human Services Worker (Human Services)
• Computer Scientist or Data Entry Worker (Information Technology)
• Paralegal or Court Reporter (Law, Public Safety, Corrections, and Security)
• Assembler or Jeweler or Diesel Mechanic (Manufacturing)
• Real Estate Agent or Retail Salesperson (Marketing, Sales, and Service)
• Petroleum Engineer (Science, Technology, Engineering, and Mathematics)
• Flight Attendant or Air Traffic Controller (Transportation, Distribution, and Logistics)

Ask students to find Activity 4: Pairing Occupations, and ask two or three students to tell the class how they paired the occupations. There are no right or wrong answers, though there are two occupations from each cluster.

**Activity: Placing Yourself in a Destination**
(15 minutes)

Place the 16 signs (with the names of the 16 clusters) provided with this lesson on the walls of the classroom. Ask students to stand by the sign of one of the 16 clusters that they think they might like most. Students are asked to tell someone else who is there why that particular group appealed to them.

After about three minutes, ask students to move and stand near the sign of the second cluster that appealed to them. Again, they are asked to tell someone there why they have chosen this cluster.
**Agriculture, Food, and Natural Resources**
- Dietician
- Animal Caretaker

**Architecture and Construction**
- Land Surveyor
- Carpenter

**Arts, A/V Technology, and Communications**
- Rock Star
- Actor/Actress

**Business, Management, and Administration**
- Office Manager
- Operations Manager

**Education and Training**
- Teacher
- Librarian

**Finance**
- Accounting Clerk
- Chief Financial Officer

**Government and Public Administration**
- City Mayor
- FBI Agent

**Health Science**
- Doctor
- X-Ray Technician

**Hospitality and Tourism**
- Travel Agent
- Hotel Manager

**Human Services**
- Psychologist
- Child care Worker

**Information Technology**
- Web Master
- Network Administrator

**Law, Public Safety, Corrections, and Security**
- Firefighter
- Lawyer

**Manufacturing**
- Production Assembler
- Product Engineer

**Marketing, Sales, and Service**
- Auto Salesperson
- Sales Manager

**Science, Technology, Engineering, and Mathematics**
- Astronaut
- Chemist

**Transportation, Distribution, and Logistics**
- Airport Manager
- Flight Attendant
When all students have selected two of the 16 areas, ask students to return to their seats and then ask questions such as the following:

- **Have you taken any courses that relate to one or both of the clusters you chose? If so, did your reactions to these courses confirm interest in the cluster?**

- **Have you participated in extracurricular activities or volunteer activities that relate to the first or second cluster of your choice? Did these experiences confirm your interest in these clusters?**

- **What do you need to do academically (high school courses you need to take or kind of future education needed) in order to explore these clusters further or to acquire the skills that you need?** (The sample four-year high school plans for the 16 clusters, available at www.careercluster.org, would be very helpful to show in connection with this question.)

### Preparation for Next Session:

(10 minutes)

As homework for the next class session, you will have the opportunity to take an interest inventory, the Kuder Career Search with Person Match, and the Kuder Skills Assessment, which will give you additional information about yourself. The results will give you some ideas about your current interests and skills and about others that you may want to explore or expand.

Provide the students with Handout 3: Taking the Kuder Career Search with Person Match and Kuder Skills Assessment. Students are asked to be sure to print out the reports and bring them to the next class session.

In preparing students to take the inventory, be sure to include the following concepts:

- **Just as the kinds of trips you want to take change as you get older, so may your interests.**
- **There are no right or wrong answers.**
- **When you select your preferences on the interest inventory, you will be asked to put the three activities in order – marking (1) the most preferred, (2) the next most preferred, and (3) the least preferred. You will find some things that you do not want to do at all, and you will need to rank them based on what you dislike most or least.**
- **Review the results of your assessments, and be sure to explore the occupations that belong to the top five clusters of your interest and skill. Jot down the titles of at least five occupations that you want to explore in depth later on.**
• **Be sure to print out the full version of the results and bring the reports to the next class session.**

• **During the next class, I will help you understand what this information means.**

• **The results of your assessments belong to you. You will have a copy to keep for yourself and to show to your counselor and parent(s)/guardian. Your parents can also view them by entering the Parent section of Kuder® Navigator and looking at your portfolio.**

• **The results of your assessment have been automatically entered into your personal career portfolio (described in Module 10). You may add information to the portfolio as you continue in school, have work experience, and make career plans.**

**Homework Assignment**

Take the Kuder Career Search with Person Match (interest inventory) and the Kuder Skills Assessment online, following the instructions provided on *Handout 3: Take the Kuder Career Search with Person Match and Kuder Skills Assessment*. Print out the full version of your score reports and bring them to the next class session.

**Optional Activities**

• Invite speakers from each of the occupational clusters to the class.

• If available, show videos representing the clusters. (These are available in Kuder Navigator and www.acinet.org/videos.)

• Take students on a field trip to observe occupations in the clusters.

• If your school has a job shadowing program, arrange one or more job shadowing experiences for students in clusters of their choice.

• Organize the various jobs at the school (teachers, counselors, maintenance staff, cafeteria staff, bus drivers, administrators, security personnel, etc.) into the 16 clusters. Provide these lists to students; perhaps assign them to interview some of these people about their work.
Module 5: Resource Material

The latest edition of The Dictionary of Occupational Titles (1991) listed 12,741 occupational titles. Its replacement, O*NET, reduced this vast number of options by describing over 1,000 groups of occupations. Regardless of which of these two numbers students face when exploring occupations, it is a daunting task to attempt to explore so many options to make career choices. Without some system of organization, it would be like going to a large grocery store to shop without any aisle signs. The purpose of this lesson is to teach students how occupations are organized so that they can narrow their exploration to one or two clusters.

There are different ways to organize occupations – by industry, level and type of work, or by characteristics. For the purposes of exploration, it is effective to use an occupational classification system that:

- Is simple enough to explain to students from the middle school years on through adulthood.
- Is research- and theory-based.
- Can be used to organize other information relevant to career planning – that is, the interests and skills of persons doing the exploration, school courses and postsecondary majors, non-school activities, and jobs.
- Can be used to organize occupational information and activities such as job shadowing and career days.

These criteria are met by a commonly known classification system that has six groups, or clusters, of occupations. It is difficult to assign ownership of this system to any one source. Dr. Anne Roe, a theorist of the late 1950s, first proposed such a system. Her plan proposed eight clusters of occupations (Technology, Outdoor, Science, General Cultural, Arts and Entertainment, Service, Business Contact, and Organization) organized within six different educational entry levels (unskilled, semi-skilled, skilled, semi-professional, professional/managerial II, and professional/managerial I). This organizational scheme offered a matrix of 48 boxes into which occupations could be classified. Roe’s research
also led her to propose that the arrangement of these eight clusters should be circular rather than linear – that is, that the Technology cluster should be linked with the Organization cluster.

Following Roe’s work, Dr. John Holland began research to develop and document his six-cluster (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional) arrangement. As did Roe, he proposed that these six clusters should be arranged in a specific order and in a circular configuration that he arranged as points on a hexagon. Further, he identified specific personality traits of individuals who relate best to each of the six clusters of occupations and proposed that persons who can make a close match between personality characteristics and a similarly coded work environment are likely to be satisfied.

Dr. Holland’s work was followed by that of Dr. Dale Prediger, who further documented the existence of these six distinct clusters, their relationship to each other, and the characteristics of occupations that should be assigned to each of them. Using different names for these same six clusters, Dr. Prediger arranged them in the same order around a circle, which is called the World-of-Work Map (ACT, 2001).

In addition, he identified the basic dimensions that underlie the Holland hexagon, or in other words, that occupations can be viewed on two different axes: those that offer work with People versus those that offer work with Things (equipment, machines) and those that offer work with Data (facts, files, figures) versus those that offer work with Ideas (abstract thinking). Finally, he specified sub-clusters of occupations within each of the six larger clusters, called job families, to allow students to explore at a more detailed level.

References are listed at the end of this material for those who wish to study this sequence of research in detail. Suffice it to say that three significant streams of study have occurred since the late 1950s that lay a basis for arranging occupations into six clusters, arranged in a specified circular fashion. The chart on the next page shows the relationship of titles of these clusters by these three different sources.
Since the initial statement of this classification system and the theory behind it, many researchers have designed and carried out studies to further document the existence and relationship of these six clusters. This organizational scheme is now commonly accepted in the field of career guidance, though the cluster names vary when used by different publishers.

In 2001, the U.S. Department of Education Office of Vocational and Adult Education (OVAE) initiated a career clusters project. Sixteen career clusters representing career opportunities for the 21st century economy were identified. Broad-based national advisory committees of experts in each of the industry clusters were formed for the purpose of framing opportunities for students as they pursue postsecondary education and a wide range of career opportunities from frontline to professional and managerial careers. Your state has adopted this approach as the basis for career planning.

The 16 industry clusters can be roughly grouped within the six Holland clusters as follows:

<table>
<thead>
<tr>
<th>ROE</th>
<th>HOLLAND</th>
<th>PREDIGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Outdoor</td>
<td>Realistic (R)</td>
<td>Technical</td>
</tr>
<tr>
<td>Science</td>
<td>Investigative (I)</td>
<td>Science &amp; Technology</td>
</tr>
<tr>
<td>General Cultural</td>
<td>Artistic (A)</td>
<td>Arts</td>
</tr>
<tr>
<td>Arts &amp;</td>
<td>Social (S)</td>
<td>Social Service</td>
</tr>
<tr>
<td>Entertainment</td>
<td>Enterprising (E)</td>
<td>Administration &amp; Sales</td>
</tr>
<tr>
<td>Business Contact</td>
<td>Conventional (C)</td>
<td>Business Operations</td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Realistic**: Agriculture, Food, and Natural Resources
  - Architecture and Construction
  - Manufacturing
  - Transportation, Distribution, and Logistics

- **Investigative**: Health Science
  - Science, Technology, Engineering, and Mathematics
This listing relates the industry clusters to the more commonly used six-cluster arrangement. We have included this information for your knowledge as facilitator. However, for the purpose of this lesson plan, we have used the 16 clusters adopted by your state. The names and definitions of the 16 clusters are listed below. These correspond to the names of the 16 clusters on the report provided for the Kuder® Career Search with Person Match and the Kuder® Skills Assessment. The information on clusters is gathered from the States’ Career Clusters (www.careerclusters.org). In this system, all occupations in O*NET, high school courses, and postsecondary majors are related to 16 industry-based clusters, as follows:

- **Agriculture, Food, and Natural Resources:** Careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services including food, fiber, wood products, natural resources, horticulture and other plant and animal products; this includes related professional, technical, and educational services.

- **Architecture and Construction:** Careers in designing, planning, managing, building, and maintaining the built environment. People employed in this cluster work on new structures, restorations, additions, alterations, and repairs.

- **Arts, A/V Technology, and Communications:** Careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Many people enjoy hobbies and avocations in this cluster rather than full-time employment.

- **Business, Management, and Administration:** Careers encompass planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.
Education and Training: Careers in planning, managing, and providing education and training services, and related learning support services.

Finance: Careers in financial and investment planning, banking, insurance, and business financial management.

Government and Public Administration: Careers in executing governmental functions to include governance, national security, foreign service, planning, revenue and taxation, regulation, and management and administration at the local, state, and levels.

Health Science: Careers in planning, managing, and providing diagnostic, therapeutic, and information and environmental services in health care.

Hospitality and Tourism: Careers in the management, marketing, and operations of restaurants and other food services, lodging, attractions, recreation events, and travel-related services.

Human Services: Careers in which people help others with a variety of kinds of needs. Some work with children in day care centers, others counsel young people and adults who have career, emotional, and mental health needs. Still others provide a variety of personal and consumer services to the general public.

Information Technology: Careers in design, development, support and management of hardware, software, multimedia, and systems integration services.

Law, Public Safety, Corrections, and Security: Careers in planning, managing, and providing legal, public safety, protective services, and homeland security, including professional and technical support services.

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

Marketing, Sales, and Service: Careers in planning, managing, and performing marketing activities to reach organizational objectives.

Science, Technology, Engineering, and Mathematics: Careers in planning, managing, and providing scientific research and professional and technical services (including physical science, social science, and engineering) including laboratory and testing services, and research and development services.

Transportation, Distribution, and Logistics: Careers in the 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.
As shown in Handout 3: Occupational Cluster Examples, each of these clusters is subdivided into specialties, called pathways.

In this lesson, you are asked to teach these 16 clusters to students, using the PowerPoint presentations provided. Given the body of research that supports the existence and differentiation of these clusters, you will also want to convey the following concepts to students:

- It is possible for students to identify one or two clusters of their highest preference by self-selecting (based on some knowledge of the kinds of work activities performed in each) or by taking inventories such as the Kuder Career Search with Person Match.
- High school courses and postsecondary majors can be classified in the same 16 clusters and pathways so that students can identify courses or majors that can help with further exploration of the occupational cluster or for preparation for occupations included in it.

References


Handout 3: Taking the Kuder® Career Search with Person Match and Kuder® Skills Assessment

- Log on to www.kudernavigator.com (or to the URL of your state-specific site).
- If you are a new user, register by selecting New Users in the Login Area. Then complete the registration form and click Create New Account. You will need the code number that your teacher has given you.
  
  Write it here: _______________________________________________________

- Create a unique user name and password. Be sure to remember your user name and password, because you will need them every time you return.
- If you are a Returning User, enter the same user name and password you entered last time.
- Select Learn About Myself, then choose Take an Assessment.
- In order to take the interest assessment, select Kuder Career Search with Person Match. In order to take the skills assessment, select Kuder Skills Assessment.
- Choose the educational level that you desire to attain to find occupations related to your interests or skills, and click on Start Assessment. You may now begin taking the Kuder Career Search with Person Match assessment.
- When you complete the interest assessment, look at all sections of your score report online and print out the full report.
- Go back and take the Kuder Skills Assessment.
- When you have completed the skills assessment, look at all sections of your score report online and print out its full score report.
- Bring both of these reports to your next class session.
- You may review the results of these two assessments at any time by selecting My Portfolio from the main Kuder® Navigator menu and moving to the Assessment Results section.
- When you have finished the interest assessment and skills assessment, choose My Portfolio, Assessment Results, and Kuder Interests and Skills Composite Report to see the results of the two assessments combined. Print out this report, as well.
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