

Introduction to Career **Databases Series**

Students practice using several career databases, including CareerZone, Career Cruising, the Bureau of Labor Statistics and Mynextmove. They learn how to assess their interests, locate entries on individual careers, interpret what they read, paraphrase and present their findings.

ACTIVITIES IN THIS SERIES:

3.1 • CareerZone

- A. Introduction to New York's CareerZone and Example Career: Machinist
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Overview of Career Databases

CareerZone is a free website focused on careers in New York State. It includes job descriptions, required education and certifications, and also includes information specific to New York, such as New York salaries, job outlooks and educational programs in New York. It also has an "Assess Yourself" tool, which recommends various careers to users based on the responses to questions about their interests.

WEBSITE: careerzone.ny.gov

The Bureau of Labor Statistics is the national Department of Labor's website. Like CareerZone, it has descriptions of careers through the Occupational Handbook, including salaries, duties, education and job outook. It also has an area for students and an area for teachers including lessons, articles, activities, graphs and data.

WEBSITE: bls.gov

CareerCruising is a fee-based website that many college campuses subscribe to. It is ideal for students who have some or little idea of the careers they are interested in because careers can be searched by industry as well as by keywords. Careers within one industry are grouped together, so that users can learn about several related careers. It has employment graphs showing data about emerging careers and salaries, video interviews with employees speaking about their careers. It is not intended solely for New York State users, but much of the information can be filtered for New York State results.

WEBSITE: careercruising.com

Mynextmove is similar to Careercruising, but is free to all users. Careers can be searched by industry, by career name or by using the self assessment tool. It also includes real-time job listings and educational programs, salaries by geographical location, and career outlooks.

WEBSITE: mynextmove.org





Introduction to New York's CareerZone and Example Career: Machinist

Students learn how to navigate the comprehensive CareerZone website, then read the **Machinist** profile as a sample.

After reading, they paraphrase the main points of the profile. The Machinist example is used to help students learn to navigate the CareerZone website and practice paraphrasing. This activity may be adapted using a different career example.



PREP

Go to **CareerZone.ny.gov** and explore the website using the search bar. Explore the *Machinist* entry and the *Assess Yourself* tool.

MATERIALS

- Machinist worksheet
- This lesson requires use of a computer lab. One with an overhead projector is best.

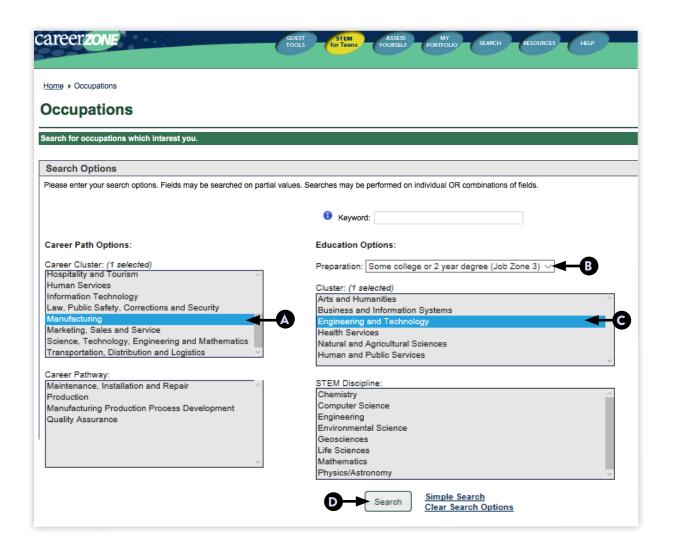
- CareerZone contains information on careers in New York State. It can be used to learn about hundreds of careers.
- 2 Write the website **CareerZone.ny.gov** on the board, and ask students to navigate there. Circulate to make sure all students can see the page. Ask students what kind of information they think a career search website might contain.
 - **→** Job description, salaries, settings or types of facilities workers work in, typical working hours, required education.
- 3 Once students are all on the front page, ask students what they see. > Six industry groups.
- 4 Scroll over each of the six icons, identifying each industry group. Ask students for examples of Manufacturing careers they might find in the Engineering and Technology group.
 - > Welder, Machinist, Automotive Master Technician, Inspector, etc.



5 Lead students through the following navigation toward a listing of Manufacturing Careers.

Searching for Manufacturing Careers

- A. Select Career Path: Click on the Engineering and Technology icon. Then select Manufacturing in the Career Cluster.
- B. Select Education Level: Then select Some College or 2-year Degree-Job **Zone 3** in the Preparation drop-down list.
- **C.** Select Career Cluster: Select Engineering and Technology from the Cluster drop-down menu.
- **D.** Then click **Search.** See screen shot below. The results contain a list of careers in the Engineering and Technology field for career searchers with a minimum of some college or an Associate's degree.





6 Point out to students that they can change the education requirement to obtain different results in their search. Ask students to change the education field to HS plus training-Job Zone 2.

What does "plus training" mean?

> Probably a short-term training program, but not college coursework or a degree.

Click search.

Which careers in Manufacturing in Job Zone 2 does CareerZone recommend?

Adhesive Bonding Machine Operators and Tenders, Biomass Plant Technicians, Coil Winders, Tapers, and Finishers, Chemical Plant and System Operators. NOTE: These careers may change as the CareerZone website continues to evolve.

Why do you think there are so many jobs that don't require degrees?

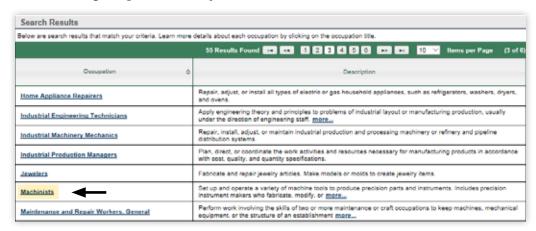
> Unlike some other industries, there are quite a few entry-level jobs in Manufacturing that people without college degrees can get. It is a great industry to work your way up, adding certifications and additional education along the way. It is critical that entry-level employees have excellent reading and math skills in order to read manuals, instructions and machines, but often the machines and procedures are so specialized that employers value workplace skills such as willingness to learn and asking questions, cooperation and taking initiative, as much as they do having college degrees, for entry level positions.

People who are interested in working in the Manufacturing field should research which entry-level jobs can lead to the careers they desire.

EXPLAIN

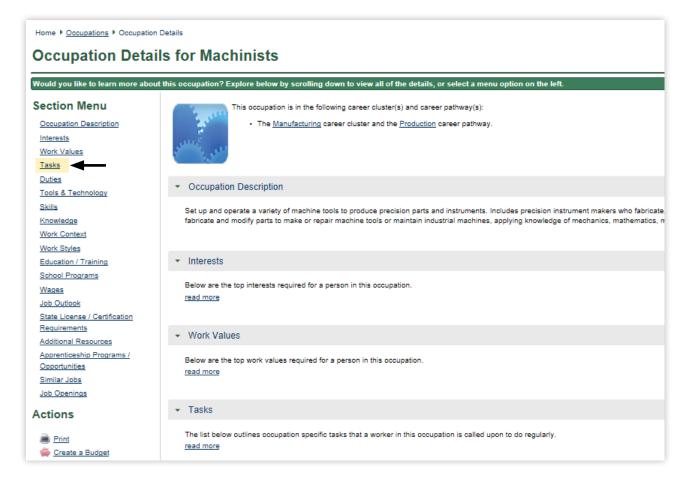


7 Click on Machinist and instruct students to do the same. (You will need to adjust the Education preparation to Job Zone 3 in order for this job to show up in your search.)





- Ask students to read through the list of categories on the left and select 3-5 categories that would be especially useful to read.
 - Tasks, Duties, Education/Training, Wages, Job Outlook, Licenses
- 9) Ask students to click on **Tasks** and read the required tasks of a Machinist, according to the website.



10 Ask students to paraphrase the tasks of *Machinists*. Review or explain how to paraphrase if necessary:

What is paraphrasing? Why is it important? How is it done?

- 11 Distribute the *Machinists* worksheet, asking students which CareerZone sections they will need to read in order to complete it.
- 12 In pairs, students complete the worksheet, based on the information they are reading. Make sure that all responses are paraphrased. Circulate and assist students as needed.



Machinist

Complete the information below, using the CareerZone entry on Machinists. Make sure to paraphrase your answer, and include which section you found the information in.

What they do at work	CareerZone section:
What technology they use	CareerZone section:
Where they work	CareerZone section:
When they work	CareerZone section:
How much they earn	CareerZone section:
Which qualities they should have	CareerZone section:

Group Research on a Manufacturing Career



In groups, students will first brainstorm, then research one of six careers using the CareerZone website, and present their findings to the class.



PREP

- Go to the CareerZone website, research Packer and Packager, Welder, Inspector, Manufacturing Production Technician, CNC Machine Tool **Programmer,** and **Automotive Master Mechanic,** and complete the *Teacher's* Version of Researching Six Careers worksheet.
- A computer lab is necessary for this class. If not available, print the career descriptions from CareerZone for use with students.

MATERIALS

- Researching Six Manufacturing Careers handout
- Teacher's Version Researching Six Manufacturing Careers worksheet

EXPLAIN

- In the last lesson, we looked at a sample Manufacturing career together. What was it?
 - **>** Machinist
- Now you are going to use CareerZone to research a different Manufacturing career in a group, paraphrasing the information you find. Then you will present this career to the class. But before you begin your research, you are going to write what you already know about the careers.
- 3 Divide the class into six groups and distribute Researching Six Manufacturing Careers worksheet.
- With your group you are going to write what you already know (or what you think you know!) about six different Manufacturing careers.

Each of these careers is at a different career level. What does this mean?

They require different levels of education and preparation.

What is an example of an entry-level career in Manufacturing?

> Packagers

What is an example of a mid-level or high-level career in Manufacturing?

- > Automotive Master Mechanic, Machinist, etc.
- 5 Have groups brainstorm what they know about each of the six careers and write their responses on the worksheet.
- 6) When groups are finished, have them discuss their responses as a class.
- 7) This is what you think you know about these careers. Now you will research one of the careers to find out the reality of the profession. Your group will be assigned one of them to research using CareerZone. How will you find the entry using CareerZone?
 - > Select Engineering and Technology from the front page of CareerZone, then enter the name of the career in the keyword search, and press Search.
- 8 Do you have to select the level of preparation?
 - > No, that is not necessary when using a keyword search.
- Assign each group one career to research. Explain: Once you have found the entry, you will read all about the career. You do not have to read every part of the description. Read the parts that you think will be most relevant to completing the worksheet.
- Once you finish reading, as a group you will paraphrase what you read, adding to what you have already written on the worksheet, or you can write on a clean sheet if you prefer. As a group, make sure that you are paraphrasing and not copying from the website. Ultimately, you will present this career to the class.

Section 3.1b Teacher Resource

Teacher's Version: Researching Six Manufacturing Careers

FOR THE TEACHER: Complete this key based on CareerZone readings in order to support students in their research.

Profession	Specific Duties (What)	Setting (Where)	Education (How)	Salary (How Much)
Packer & Packager				
Welder				
Manufacturing Production Technician				
Inspector				
CNC Machine Tool Programmer				
Automotive Master Mechanic				



Researching Six Manufacturing Careers

In your group, discuss and write what you think and know about the careers below. Make some guesses if you're not sure.

Profession	Specific Duties (What)	Setting (Where)	Education (How)	Salary (How Much)
Packer & Packager				
Welder				
Manufacturing Production Technician				
Inspector				
CNC Machine Tool Programmer				
Automotive Master Mechanic				

Preparing a Research Presentation



Once students have a basic understanding of the career, they will clarify and organize the information into presentations.

PREP

Write the following questions on the board to help guide students' organization of their findings:

- What makes an effective presentation?
 - > It's well organized, with clear logic from one point to the next, clear, loud speaking, personal connection to audience.
- In what order will you present the information?
- How will you introduce the topic?
- What questions do you anticipate? Can you answer those questions, or do you need to research the answers?
- Is all of your information paraphrased?

Also include:

 What personal characteristics are a good match for someone who wants to enter this field?

DISCUSS

- 1 Discuss the questions on the board as a class.
- 2 Students work in groups to prepare their presentations. Let them know that their presentations should be 5 minutes long and will be followed by a 5-minute Q&A with their classmates.



Presenting CareerZone Research

Students and teacher will make presentations during this activity.

PREP

Prepare a five minute presentation on Commercial and Industrial Designer using information from Career Zone.

Write the following sentence stems for critique/feedback on board.

OFFERING FEEDBACK:

"I thought it was effective when you said..."

"You really caught/held my attention when you..."

"I was confused when you said..."

"I wanted to hear more about..."

"One suggestion I have is..."

DISCUSS

Today you are going to present the career you researched.

What are the benefits to students of making presentations?

> Practice for later presentations in college or other courses. Students practice collaboration—working together. Students practice organizing their ideas, similar to what they do when they write essays.

How might making presentations help prepare people who intend to work in manufacturing?

- > Practice communicating ideas clearly to those who may be unfamiliar with the topic or details. Practice public speaking, similar to how one might have to give presentations to colleagues.
- > Practice working on a team, similar to how individuals work on a team in different manufacturing settings.

DISCUSSING CRITIQUES

Students learn about professional and academic critiques, in preparation for being an audience member to their peers during presentations of careers researched on CareerZone.

What is a critique? (If students are stuck, direct their attention to the sentence stems on the board)

> Offering feedback on a project. A critique can include praise as well as suggestions, for example, it can identify which parts were particularly effective and which parts need improvement.

Who does them?

Many college students and workers do them. Many architecture and design students are required to do them, but other students do them too, when they ask their classmates to read their work and offer suggestions.

Why is critiquing done?

> To get better! When you've made something the best you think it can be, it's helpful to hear how others have experienced it, and what ideas they have for improving it. Even the most famous and accomplished writers have editors. These are people who offer feedback in order to help the writer improve.

PRESENTATIONS

- 1 The teacher leads a discussion of what makes an effective presentation.
 - > Organization that guides the listener from one topic to the next, clear visuals that contribute to the spoken presentation, clear loud speaking, eye contact with audience.
- 2 Teacher explains that each student in the group will be involved in the presentation and asks the groups to decide which student will present which parts of the presentation.

Each group presents the career they researched. The presentation should include each of the major categories of information research: **Duties, Setting, Salary** and **Education**, plus personal characteristics and personal motivation. Audience members should jot down questions they will ask at the end. Presentations should last 5 minutes, with 5 minutes for Q&A.

OFFERING FEEDBACK

After each presentation, once the Q&A has ended, students are invited to offer their critiques.

Ask students to use the sentence stems you've written on the board to offer helpful and respectful feedback to each group. If helpful, model a critique for the class using a sentence stem after the first group completes its Q&A.

TEACHER'S PRESENTATION

- 1 The teacher presents on **Commercial and Industrial Designer** using the information from Career Zone.
- 2 Students critique the teacher's presentation using the sentence stems on the board. What did they learn about this career? What did they notice about the teacher's presentation style? How could it be improved?

DEBRIEFING RESEARCH PROJECT

The class discusses their experience of the research project. For example,

- What steps did they take to conduct the research?
- What did they learn as a career explorer?
- What did they learn about themselves, as a learner or as a worker?
- What was easy, difficult or interesting about this process?
- What skills did they use in order to complete this project?
- Have their ideas for their own career changed in any way? Explain.

TRANSFERABLE SKILLS

Some students in this group may not be interested in Manufacturing. They may have other career plans in mind, or they may not know what field to pursue—just not Manufacturing! Discuss how the skills acquired in this unit can be transferred to learning about other careers.

- Use of CareerZone, reading and paraphrasing information about careers, analyzing graphs
- Preparing and giving presentations
- Research
- Working in groups
- Brainstorming/drawing from previous knowledge
- Predicting



Introduction to Career Cruising

As an alternative to CareerZone, Career Cruising is a website that can be used to research careers. In Career Cruising, similar careers are grouped together, enabling students to navigate easily between similar careers. Career Cruising features include:

• Searchable by industry

It is organized by "career cluster," so that students can find related careers within one career family.

• Graphs and charts

It contains graphs and charts of local salaries and emerging careers.

• Videos

Each career contains video and audio files from workers speaking about their experiences in their careers.

• Self-assessments and recommended careers that can be saved for future use, when students create individual accounts.



Your Unique Qualities

As a pre-cursor to conducting an online self-assessment, students consider their own knowledge of themselves as workers and future workers. What are their strengths? What might make them well suited for work with machines, as an inspector, or as a commercial designer?

- 1 Think back to the research you conducted using CareerZone. What are some of the interests and personality traits that would make a worker well suited to work in the career you researched?
 - > Example:

 Inspector—enjoys finding practical and hands-on solutions to problems, does well with structure and solid procedures, and works well on their own.
- Now, on a piece of paper list qualities you have that will impact your career choices. Include personality traits, things you like to do and things people say about you. For example, do you like working with other people or do you prefer working alone? Do you like helping others, or does it frustrate you? Does using computers come naturally for you? Do people say you get impatient? List as many characteristics as possible. Be specific. List positive traits as well as things that are difficult for you.
- Once you have written these qualities down, share them with a partner and hear about their qualities and interests. Now, recommend careers for one another based on these lists. Don't forget to write them down.

Navigating Career Cruising

40 MINUTES

Students practice navigating Career Cruising, read a sector profile, discuss the organization of the page, including the type of information they see, then read graphs and paragraphs, noting the main ideas.

Paraphrasing



 Interpret graphs
 Determine central idea

VOCABULARY

navigate
cluster
emerge
self assessment

PREP

- Practice logging on and creating a Career Cruising account using your program's username and password.
- Be prepared to explain vocabulary: navigate, cluster, emerge, and self assessment.

MATERIALS

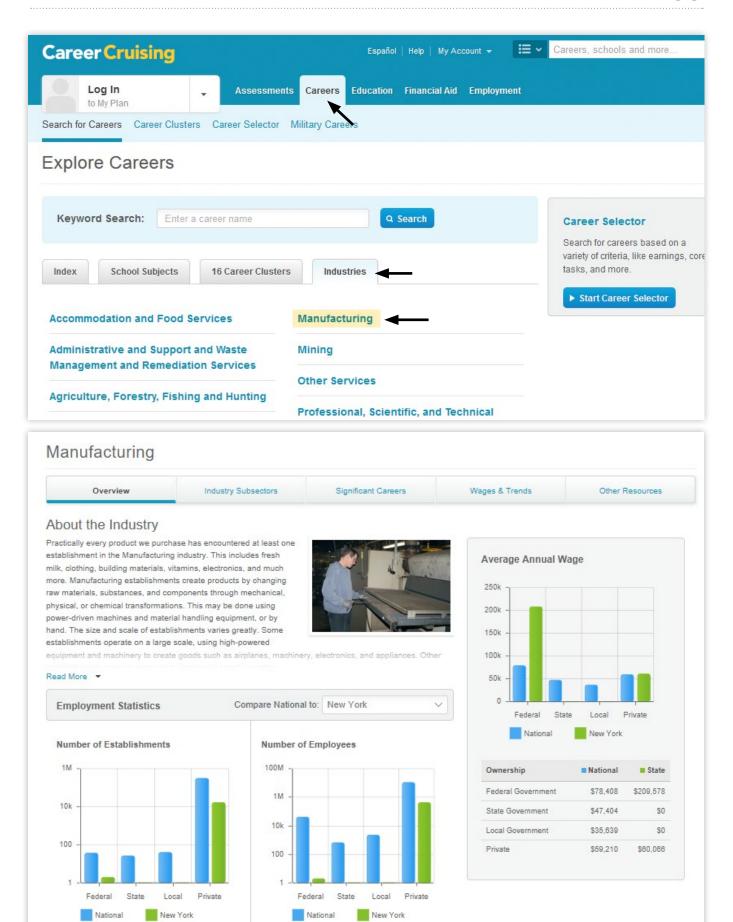
• Computers are required for this session. An overhead projector is best.

EXPLAIN

Career Cruising is a career website with lots of features and various ways to learn about careers. We're going to look at the website and see what it has to offer.

- 1 The teacher navigates to careercruising.com, logs in, and writes username and password on the board and circulates to make sure everyone is logged in. Teacher also logs in on the overhead computer.
- 2 Ask students to click on the **Career** tab near the top of the page. Before students click on the **Industries** tab ask them to recall what an industry is and give a few examples, such as Healthcare, Education, and Manufacturing.
- 3 Ask students to click on the **Industries** tab, then from the list, **Manufacturing**.





DISCUSSION OF EXAMPLE INDUSTRY ON CAREER CRUISING

What do you see on this page?

> Graphs and paragraphs.

About what?

> Graphs: number of businesses, employees and earnings.

What do the different bars represent?

> Government and private jobs.

What do you notice about the numbers?

There are a lot more private than federal, state or local government jobs in this industry.

What does the term *wages* mean?

> The same as earnings, money earned from an employer for work done.

What do you notice from this graph about the wages?

> The highest are in federal—civil service—jobs.

Take 10 minutes to read the paragraphs, just for the main ideas.

What do the paragraphs say about this industry?

It describes careers in which workers use various types of machines to transform raw materials into finished products or parts of finished products.

Click on the **Industry Subsector** tab.

What do you notice?

> There are many jobs in Food Manufacturing—probably because everyone needs to eat! There are also a lot of jobs in Transportation Equipment Manufacturing and Fabricated Metal Product Manufacturing. There are fewer jobs in Computer and Electronic Product Manufacturing, but they still number in the millions.

Click on Significant Careers.

What does this graph show?

> The numbers of people employed in the given career nationwide.

Click on Wages and Trends.

What do you notice?

Wages are higher in New York than in the rest of the country.

Click on Other Resources.

How could this section be useful to you?

If you want to do more research or look for a job in this industry, these resources can help you.





Creating a MyPlan Account

Students create a MyPlan account and save their usernames and passwords.

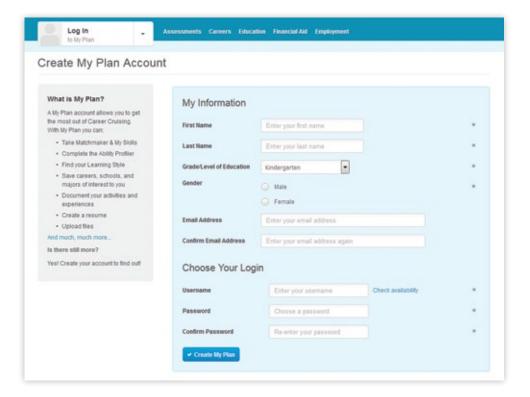
PREP

• Cut *Password Saver* sheets in quarters.

MATERIALS

• This lesson requires a computer lab. One with an overhead projector is best.

- 1 There are a lot of resources on Career Cruising, including a series of questions whose answers guide the website in recommending various careers for you based on your responses. There is so much on this site, it's important to create an individual account so that you can keep track of it all.
- 2 Ask students to look at the overhead as you demonstrate, or follow along on their own computers. Navigate to the **MyPlan** tab to create a username and password. Then click on **Create My Plan** and complete the registration.
- 3 Students should use the *Career Cruising Password Saver* worksheet to record their usernames and passwords and keep them in their binders. Cut the password saver on the next page in quarters and give one quarter to each student to keep in his/her binder.





MyPlan Account Login Information www.careercruising.com **CHOOSE YOUR LOGIN:** Username __ Password ___ MyPlan Account Login Information www.careercruising.com **CHOOSE YOUR LOGIN:** Username ___ Password _____ MyPlan Account Login Information www.careercruising.com **CHOOSE YOUR LOGIN:** Username _____ Password _____ MyPlan Account Login Information www.careercruising.com **CHOOSE YOUR LOGIN:**

Username _____

Password _____





Exploring Career Cluster

Using "Career Clusters" on the Career Cruising website, students will practice reading about one or more careers in the "career cluster" they are interested in.

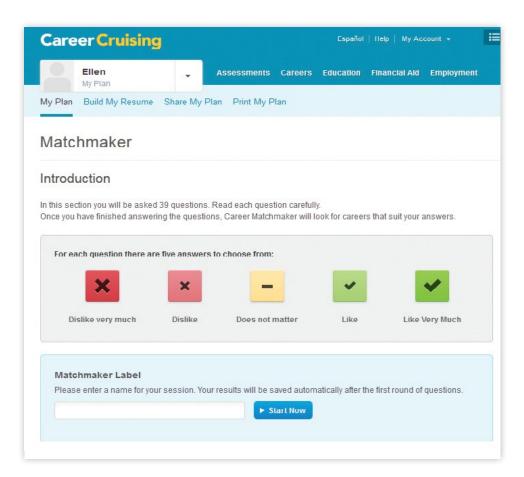
- 1 Navigate to Careers then Career Clusters and click on one cluster that sounds interesting to you. Read about it in the cluster profile. Then examine some careers under the **Related Careers** tab.
- 2 Choose one of the related careers and write three points that are interesting to you about it. What about this career captures your attention? It doesn't matter if it requires a lot of education—you're just starting to investigate. Then list three questions you have about this career. If you were to pursue this career path, what would you want to know?

Career Cruising Matchmaker



Students will use the Matchmaker feature to answer questions about their interests and Career Cruising will recommend careers based on their responses. Students will be able to save the results for future use.

- Career Cruising not only has descriptions of careers, but also can suggest careers based on what you tell it about yourself. You already did a self assessment based on what you know about yourself. This is another way of doing a selfassessment. The website may recommend careers you had not considered, or it may recommend the exact career you have been thinking about.
- 2 Click on the **Myplan** tab with your name in the top left corner. Then click on Career Matchmaker to receive suggestions for careers. Then click Start New Matchmaker. Create a name for the session, such as the month and year and click Start Now. This self-assessment focuses on your interests, so don't worry about what you do or don't know how to do already. That's what education is for!







Reading about Recommended Careers



Students will now read about one or more of the careers recommended by Career Cruising, and paraphrase what they have read.

MATERIALS

- Career Cruising Recommendations worksheet
- This lesson requires a computer lab. One with an overhead projector is best.

- Now that Matchmaker has recommended a list of careers for you, read through that list. Do any sound interesting? Surprising? Terrible? Choose one that sounds interesting to you, regardless of where on the list it is. Under the Careers tab, conduct a keyword search with the career you choose. Your search may return a career that has a slightly different name than the one on your list. Some careers go by a variety of different names.
- Click on the **Job Description** tab and read all about it.
- You'll now paraphrase what you read. What is paraphrasing and how is it done? Why is it important to paraphrase?
- Take what's written in the Job Description and put it in your own words on the Career Cruising Careers worksheet. You will have to paraphrase, since you can't copy what someone else wrote. Then read the Working Conditions, **Earning and Education** tabs, and paraphrase what you learned about this career on the worksheet. Make sure the information you write is in your own words, and that you are comfortable explaining to the class what you wrote. If you read any unfamiliar words, try to understand the meaning of the sentence without knowing every word.

Career Cruising Recommendations

Complete this worksheet by paraphrasing the information you found on Career Cruising. Make sure to use your own words and make sure you understand everything you have written.

CAREER:				
	Responsibilities			
	Salary			
	Where they work			
	When they work			
	Education			



Video, Audio and Written Worker **Narratives**

Career Cruising has collected hundreds of interviews from workers. For every career, there are individual workers speaking about their experiences. The interviews have some portions in writing, some in audio and some in video. Hear from a worker first-hand about his/her own experience.

PREP

Write the following questions on the board:

- What does the worker like about his/her career?
- 15 that something you think you would like? Why or why not?
- According to the worker, are there any disadvantages of working in this field?
- If the worker were in class today, what would you ask him/her?

- 1 Every career description on CareerCruising contains video, audio and written interviews with employees speaking about their jobs.
- 2) Ask students to select three interviews, either audio, video, written, or a combination thereof, and watch, listen, or read them. Students then write responses to the questions on the board and should include the name of the employee in their response. The interviews can be from people in the same or different careers. The careers should be ones that are of interest.
- 3 When students are finished writing, ask them to discuss their findings with a partner.

Section 3.2h Teacher Resource

Additional Career Search Resources

In addition to Career Zone and Career Cruising, Mynextmove and the Bureau of Labor Statistics are very useful websites.

Mynextmove

www.mynextmove.org is similar to Career Cruising. It is very user-friendly, contains a self-assessment tool, and is searchable by industry or through keyword searches. It organizes recommended careers according to their education requirements /levels. The job outlook can be searched by location, and it contains a database of job openings by location.

Bureau of Labor Statistics

The Bureau of Labor Statistics is the national Department of Labor's website. It contains very readable job descriptions and also contains lots of employment data. It can be found at www.bls.gov. It has a student section (tab on the front page) which contains a career exploration tool. There is also a Teacher's section that contains lessons and support materials.



