

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

**7**

## **Spotlight** On My Career



**My Career is:** \_\_\_\_\_

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Often in bioinformatics, we refer to ***Tool Makers*** and ***Tool Users***.

***Tool Makers*** ask: What kinds of new bioinformatics tools can I make? How can I make the existing tools better?

***Tool Users*** ask: What new questions can I answer using bioinformatics tools?

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Use the information found in your *Career Interview* and the links found in the *Resources* section of the *Career Interview* to answer the questions below. If you need additional sources of information, use your search engine and the keywords in bold below to find out more about your career.

1. All career paths require **education and training**. What are the common requirements for your chosen career?
  
  
  
  
  
  
  
2. What are the **employment projections** in your field for the next five to ten years (i.e., after ***you*** would graduate from college or professional training)?
  
  
  
  
  
  
  
3. List three **colleges or universities** that offer programs in your field of study:
  - A.
  
  
  
  
  - B.
  
  
  
  
  - C.

# LESSON 7

## HANDOUT

4. Many researchers and professionals join **organizations or associations** with others in their field to set guidelines for career paths and to provide mentorship and guidance to people new to the field. These organizations are also reliable sources of information about that particular career. **List at least one professional organization or association with members in your chosen career.**

5. Based on the information you have read so far about your career, complete the following sentences:

a. I was surprised to learn that \_\_\_\_\_  
\_\_\_\_\_.

b. I was confused by \_\_\_\_\_  
\_\_\_\_\_.

c. I would like to learn more about \_\_\_\_\_  
\_\_\_\_\_.

6. Given what you have learned about your career and the field of bioinformatics, **formulate at least one question that you could answer using the tools of bioinformatics in the career you chose.**

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

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## Making a Resume

You are now ready to develop a resume based on your knowledge about bioinformatics and the skills you have used while learning about genetic testing. Use the following format to create your resume. Create headings, and put examples below each heading in bullets. Resumes are often customized to meet the requirements of the job for which you are applying. Be sure to note any special qualifications you have that your potential employer is looking for.

**Name**  
**Address**  
**Contact Information**

**Job Objective/Career Interest:** Describe the career you are most interested in that relates to bioinformatics. You should choose from the careers you learned about during the *Genetic Testing* unit.

**Knowledge/Understanding:** Review each of the lessons you studied about genetic testing, as well as other lessons you have studied in class that may relate to this career, and use those skills to fill out this section. For example:

- Understanding of the genes involved in breast cancer (*BRCA1* and *BRCA2*), and why mutations in those genes can cause cancer
- Understanding of the type of information gained from family trees and Punnett squares

**Skills:** Review the skills you have learned and practiced from the *Genetic Testing* lessons and other exercises and lessons from your class(es). For example:

→ **Laboratory Skills:** List any “wet lab” skills you have acquired. For example:

- DNA purification
- Polymerase Chain Reaction (PCR)

→ **Bioinformatics Skills:** List each general **type** of bioinformatics program that you have used, the specific program(s) in parentheses, and then what you can use those programs to do. For example:

- Molecular Structure Visualization Software (Cn3D): Use Cn3D to identify sites of mutations in proteins, and relate those mutations to impacts on protein function.

→ **Professional Skills:** List any additional skills you have acquired that are beneficial for this career. For example:

- Writing a research report
- Creating scientific posters
- Teamwork
- Microsoft Office (Word®, Excel®, Powerpoint®)

**Research Experience:** Describe your experience designing an experiment to answer a testable question. Describe your research project(s).

- Designed a research experiment to test....

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## Resume Peer-Editing Form

When submitting a resume for a job, it is always a good idea to ask someone else to review it before you show it to your potential new boss. You will be grading your classmate's resume, and using this as an opportunity to offer valuable feedback. Follow the instructions below to review and assign points to your peer's resume. You can circle or check off below each item that is correct in the resume, and enter the point total on the lines provided. This sheet and your classmate's resume will be returned to your classmate after your teacher reviews them both.

[**Note:** You will be graded on the quality of your review and comments (*up to five points possible*).]



**Name of the person whose resume you are reviewing:** \_\_\_\_\_

### Instructions and Grading:

- Did the resume contain all of the required sections found on Student Handout—*Making a Resume*?
  - + 0.5 points for Name and Contact Information at the top of page 1
  - + 0.5 points for Job Objective/Career Interest
  - + 0.5 points for a list of Knowledge/Understanding
  - + 0.5 points for a list of Skills
  - + 1.0 points if the skills listed are subdivided into separate categories, such as Laboratory Skills, Bioinformatics Skills, Professional Skills, or as appropriate for the job (such as Artistic Skills, Animal Care Skills, Research Experience, etc.)

**(3.0 points possible) Total for #1:** \_\_\_\_\_

- Using the summer internship job postings found in the career handout or online, circle each key word, skill, or knowledge required on the resume that also appears in the job posting.

**(5 points possible, +0.5 points for each key word included) Total for #2:** \_\_\_\_\_

- Note and correct any misspelled words or grammatical errors.

[**Note:** Your final draft of your resume should not have any of these errors.]

- +2 points if there were no grammatical errors, misspelled words, or other typos
- +1 point if there were 1–4 grammatical errors, misspelled words, or other typos
- +0 points if there were 5 or more grammatical errors, misspelled words, or other typos

**(Up to 2.0 points possible) Total for #3:** \_\_\_\_\_

- List below any other comments you wish to make about your classmate's resume. Be positive and helpful, noting things that they did well, or things you think they could improve:

**Total Points for Resume:** \_\_\_\_\_