



Biotechnology WebQuest



Directions: Use the websites identified in each question to explore the science of biotechnology and the careers available in agricultural biotechnology.

Go to the Biotechnology Industry Organization website at <https://www.bio.org/articles/what-biotechnology> and answer the following questions:

1. What is the definition of biotechnology?

2. Biotechnology has the potential to address the world's most pressing challenges. List three ways that biotechnology may be able to help in each of the following areas:

Medicine:

- a)
- b)
- c)

Energy:

- a)
- b)
- c)

Food:

- a)
- b)
- c)

Go to University of Nebraska-Lincoln's website at http://agbiosafety.unl.edu/basic_genetics.shtml; carefully read the steps in *How is genetic engineering done?* and answer the following question:

3. Briefly describe each of the six steps in genetic engineering—also called transformation. You may use pictures.

Step 1:

Step 2:

Step 3:

Step 4:

Step 5:

Step 6:

Go to the Biotech Careers website at <http://www.biotech-careers.org/job/agricultural-and-food-science-technician> and answer the following questions:

4. Choose two careers from this page and complete the requested information below:

Career Title #1:

Career Responsibilities:

Education Required:

Starting Wage (hourly):

Starting Wage (yearly):

Career Title #2:

Career Responsibilities:

Education Required:

Starting Wage (hourly):

Starting Wage (yearly):

5. Choose one of the careers on this website, and explain how it may fit in with your personal interests or skills and what goals you need to achieve to be successful in this career. (Remember, this is simply exploration—you may or may not actually choose this career in the future.)

Career Title:

How it fits with your personal interests or skills:

Goals you need to achieve to be successful in this career: