



Scientist Role Models

INTRODUCTION

Scientists do a wide variety of research to answer many different types of questions. They also come from many different places and backgrounds. This activity gives you a chance to find a scientist you can relate to in some way. Maybe you'll relate to the work they are doing, some part of their identity, or the environment where they work. The choice is yours!

Why are you doing this activity?

Biology is a very broad subject, so it can be hard to cover everyone's interests in class. This activity lets you pick a scientist, and the part of biology they study, to explore on your own.

What will you, as a student, get out of it?

By doing this activity, you may discover a part of biology that interests you in some way. You may also be inspired by your scientist and become more aware of the natural world.

What are you supposed to do?

Follow the steps in the procedure below to choose a scientist and learn about their work. At the end, you will need to write a short essay about your scientist.

How will you know if you did the activity successfully?

To complete this activity successfully, review and revise your essay using the rubric at the end of this handout. When used well, it can give you a sense of how well you completed the activity. It also gives you an opportunity to revise and improve your work, which are important scientific habits.

MATERIALS

- "Scientist Profiles" document
- Internet access for watching videos and doing research

PROCEDURE

1. Go through the "Scientist Profiles" document and choose a scientist to explore. Pick someone whose work interests you and/or whom you can relate to in some way.
 - a. If none of those scientists captures your attention, you can find scientists from other resources such as BioInteractive's [Scientists at Work](#) videos, the [HHMI Investigator list](#), or local college or university websites.
2. Do the following to learn more about your scientist and their work:
 - a. If you picked a scientist from the "Scientist Profiles" document, watch the BioInteractive video listed for that scientist.
 - b. Find and explore your scientist's website by searching online.
 - c. Read other articles or resources that mention your scientist.
3. Find a scientific paper written by your scientist, either as an author or co-author. (You can use [Google Scholar](#) or the databases available through your school/library to search for papers.) Go through the paper as follows:
 - a. Read the abstract and introduction.
 - b. Examine the figures in the results.
 - c. Read the discussion section.

4. Write a 400- to 500- word essay that summarizes your scientist's work and why you relate to it. Your paper must include the following components. Place a check next to each component once it is included:
- an overview of your scientist's research interests, including the questions they are investigating
 - a summary of the scientific paper you read, written so that a high school student could understand it
 - a description of why the scientist's work is relevant to you, your career interests, and/or society in general
 - citations for any references you used, including the scientific paper you read
5. Review your essay using the rubric at the end of this handout. Revise your essay as needed to fulfill the criteria for high performance.

Rubric for Essay

Task	High performance	Medium performance	Low performance
An overview of the scientist's research interests, including the questions they are investigating	The overview and the questions are included, well-explained, and accurate.	The overview and the questions are included, but some of the writing is unclear or inaccurate.	The overview and the questions are incomplete or mostly inaccurate.
A summary of the scientific paper you read, written so that a high school student could understand it	The summary is clear, accurate, and well-written, with limited use of jargon. It is at the right level of complexity for a high school student.	A summary is included but is somewhat confusing/inaccurate, contains a lot of jargon, or is too complex for high school students.	The summary is incomplete, unclear, or mostly inaccurate.
A description of why the scientist's work is relevant to you, your career interests, and/or society in general	The description is clear and complete.	A description is included, but some of the connections are unclear.	The description is incomplete or unclear.
Correct length (400–500 words) and grammar	The essay is the correct length and has very few (0–3) grammatical errors.	The essay is the correct length but has a moderate number (4–8) of grammatical errors.	The essay is not the correct length and/or has many grammatical errors.
Correct citations	All citations are included and correct.	Citations are included but are incomplete or incorrect.	No citations were included.