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TEACHER RESOURCES

Rethinking Nontraditional: Navigating a Biology Career While Black

by Morgan Halane, PhD. (National Parks Service)

These educational materials were designed to accompany the video seminar “Rethinking Nontraditional: Navigating a Biology Career While Black” by Dr. Morgan Halane (National Parks Service), presented on November 11, 2020 as part of a virtual Holden Forests & Gardens Scientist Lecture Series, Growing Black Roots: the Black Botanical Legacy. Learn more about the lecture series [here](#). Access the talk [here](#).

COMPREHEND & CONNECT – Consider your own ideas about scientists.

1. Listen to the talk to find out: What is considered the “traditional career path” for a scientist? How did Dr. Halane’s path differ from this traditional path?
2. Brainstorm features you associate with a scientist, then collect images online to show your idea of what a scientist looks like. Make sure to include both personal features and artifacts (an object made by a human being, typically an item of cultural or historical interest).
 - a. Reflect on your image collection. What aspects that you depicted are related to a person’s ability to DO science (i.e. conduct experiments)? Are there features that are irrelevant to doing science? What aspects are attained by education and training
 - b. Read the following description of traits that make a good scientist written by a scientist canr.msu.edu/news/what_makes_a_good_scientist. Pick one trait on the list that surprised you and was not included in your original conceptualization of a scientist. Revise your image collection to reflect that trait by adding an artifact, or a personal feature.
3. Imagine yourself as a scientist and plan to investigate something. Think of a problem or challenge in your life that you want to solve. Imagine yourself conducting an experiment to solve this problem. Note that this can be any problem in your life, e.g. How can I hit more home runs in baseball? For this you could plan an experiment where you try different types of baseball bats or try getting different amounts of rest before a game. Present your plan to your teacher and classmates, use artifacts and features to show what traits you have that would make you good at solving the problem, and what experiment you would do.

TO-DO – Find resources and tools to define your own path.

1. Listen to the talk to find out: were there particular people, organizations or experiences that helped Dr. Halane define his own career path in science.
2. Investigate careers, people, organizations, and experiences that can help you define and reach your own career goals. calcareercenter.org
 - a. Note this is based on a website for California schools, which is a well-made site and open to anyone. Many states/countries have similar resources that could have information more pertinent to your situation, so you may consider visiting those in addition.
 - b. Explore the website. What services are offered?
 - c. Click on the link to “Career Options”. Then Click on “Creating a Career Action Plan”. Follow the step-by-step plan to investigate careers, including:

- i. Explore careers that fit your interests – take an interest inventory, then read about careers that match your interests
- ii. Explore careers that fit your lifestyle goals – write a budget for the life you want to have, then read about careers that match your lifestyle goals
- iii. Research an occupation in depth – can include web research, conducting interviews, volunteering, or doing an internship
- iv. Determine what education and training you will need for this career, then find out about the entry requirements and costs of appropriate programs
- v. Build a list of your related experiences – make an inventory of the things you have already done or the personal qualities you have that would make you successful in the career you have chosen to study.
- vi. Build a list of future experiences – make an inventory of things you will need to do, and/or skills that you will need to train in, in order to be successful in this job.
- vii. Identify your support network – determine two or three people in your life who can help you reach your career goals.
- viii. Make an action plan – based on your findings in steps i-vii, write down the steps you will take and where you hope to be: in the next three months, the next six months, the next year and the next five years.
- ix. Plan B – describe obstacles that you might encounter in your action plan, describe ways that you might be able to overcome obstacles to reach your original career goal, and some alternative careers that you would be happy doing.
- x. Build your resource list – Make a detailed account of all of the resources you used and the plans you made, so that you can return to your plan and keep re-envisioning your goals as you move forward.

FOLLOW UP WORK – Explore the roles of artifacts and media in stereotypes.

1. Listen to the talk to find out: What stereotypical ideas about African Americans did Dr. Halane encounter in his career? What harms did Dr. Halane experience because of stereotypical thinking towards African Americans?
2. Listen to the TED talk “The danger of a single story” by Chimamanda Ngozi Adichie.
 - a. Determine what themes, messages and facts are being communicated – what is the “danger” of the single story?
 - b. Discuss how the talk uses examples of how a “single story” can be formed through observation of everyday artifacts and personal items
 - c. Discuss a situation where the author’s perceptions of someone else’s story were changed by an artifact.
3. Identify where stereotypes are present in your own life. Find an artifact/item in your own life that has in the past, or which you think could potentially relay a single story to someone else. Use written or verbal communication to share the following about your artifact:
 - a. What single story was/could be associated with your artifact?
 - b. What harms did/could you experience from the assumption of a single story?
 - c. What is the whole story of your artifact?
 - i. What is the purpose or use?

- ii. For people familiar with the whole story of the artifact, what emotions or thoughts does this artifact recall?
 - iii. Describe an event or memory of the artifact that relates aspects of the complexity of the story.
 - iv. What is the personal significance of the artifact to your life?
4. Explore the role of current-day media in perpetuating racial stereotypes
- a. Read the article “Media Portrayals and Black Male Outcomes” <https://www.opportunityagenda.org/explore/resources-publications/media-representations-impact-black-men/media-portrayals>
 - b. Define two or more visual media venues that you have available to you (e.g. local newspaper, magazines, Facebook, TV shows).
 - i. For each media venue, determine: who is ultimately responsible for the content you are viewing? Who are the writers, editors, CEO and/or persons representing the primary leadership positions?
 - ii. For three items per media venue summarize the topic of the item (e.g. it's about homelessness).
 - iii. Make a list of all the individuals that are shown/discussed and for each person determine the following:
 - 1. What is the person's physical appearance, including skin color, gender, clothing, facial expressions?
 - 2. What artifacts is the person associated with?
 - 3. What is the person doing? Note if the role is explicitly subjected to a value judgment, i.e. is the person shown in a light that is pointedly positive or negative, for example hugging a child would have a positive judgment association, robbing a store has a negative value judgment association. Or, does the depiction take a more neutral stance, for example the person is just sitting in a chair.
 - 4. What do the person's surroundings look like? Note any feelings that are incited by the surroundings, e.g. comfort, fear, loneliness.
 - c. Pool the results from everyone in your learning group. Compare and contrast the different media venues, consider the following:
 - i. For each media venue, how did the frequency of portrayal of Black men and women compare to the frequency of White men and women, and to the overall representation in the population? In the US in 2020 13.4% of the population identifies as Black and 76.3% identify as White. If more than 13.4% of the people you observed in the media were Black, this group is “over-represented”. If less than 13.4% of the people were Black, this group is “under-represented”.
 - ii. Are there other patterns that you observed that were not described in the article about media portrayals of Black men?
 - iii. What role did artifacts play in presenting a “Single story” about the people you observed? Were there particular artifacts that appeared more than once?
 - iv. For each media venue, thinking about how people of different races were portrayed with either negative or positive value judgments. Were people of different races portrayed more, or less positively? Thinking about the negative stereotypes about Black men discussed in the article you read and in the talk by Dr. Halane, did you see these in your study? What about positive

stereotypes? Make a list of all the stereotypes you observed about Black men and count the number of times each was encountered. Calculate the ratio of positive depictions versus negative depictions. Assuming that people of all races are equally likely to have positive and negative qualities, a ratio less than one indicates that negative depictions are over-represented, a ratio of more than one means that positive depictions are over-represented, a ratio of close to one means that positive and negative are equally depicted.

- v. Did you encounter any media venues or articles that included representations of Black individuals in a more nuanced way, i.e. any articles portray different aspects of Black culture, or show Black people who were different from each other? Why might these articles have taken a more balanced approach?
 - vi. Thinking back on the leadership of each media venue, consider how the perspective of the person(s) who are ultimately responsible for the media content may have shaped the portrayals of Black men and women you observed.
- d. Visit this list of Black Professional Organizations jobstars.com/black-professional-associations-organizations/ Pick one organization to learn about, and write a short news article. Who do they support? What initiatives is the organization undertaking? Where are the members of the organization located? How might the organization have a positive impact on the problem of negative stereotypes? Why do/would people join or support this organization? Then, get together and read your news articles aloud to your classmates to share what you learned.
5. Visit the website for Brooklyn McTavish's portrait project "The sum of the some of us". brooklynmctavish.com/sum-of-us
 - a. Watch the short introductory video, describe the goal of the project.
 - b. Choose one or more of the individual videos to watch, which allow you to discover the "whole story" of people with different ancestries. Discuss similarities and differences between yourself and the people in the videos.
 - c. Create a self-portrait that shows the full story of your own identity. Draw yourself in the center of the portrait, then add puzzle pieces and decorations surrounding your picture that show different aspects of your identity. Make sure to include both personal attributes and artifacts that tell your unique story. Include aspects that other people see such as ethnicity or language, but also aspects that are less well-known about you like favorite foods, the flag from your country of origin, your favorite music, your hobbies, and even style and the way you chose to dress.
 - d. Share your self-portraits with your learning group. For each person, look for ways that you are similar, share your similar experiences.
 6. To conduct more in-depth work on challenging stereotypes as part of teaching tolerance, please visit the Teaching Tolerance website www.tolerance.org/