



# Scientific Racism and Scientific Bias



# Lesson title: Scientific Racism and Scientific Bias

Subject and topic:  
History and Science

Grade level:  
10th-12th

Duration:  
2 hours

Lesson summary:  
Students will learn about the history of how science has been used to enforce racism. Students will think critically about scientific bias.

Standards:  
**CC.3.1.B.B4.** Explain how genetic technologies have impacted the fields of medicine, forensics, and agriculture  
**CC.3.1.B-1C4:** Science As Inquiry  
**CC.8.3.U.A.** Compare the role groups and individuals played in the social, political, cultural, and economic development of the U.S.  
**CC.8.4.W.A.** Evaluate the role groups and individuals played in the social, political, cultural, and economic development throughout world history.

Objectives:  
SWBAT

- Think critically about scientific bias by questioning/reflecting on their own bias

Essential Questions:

- How can Science promote racism?
- How can Science promote ableism?

Vocabulary:

- Scientific Bias



- Scientific Racism Eugenics
- History
- Science
- Phrenology

### Lesson procedures

1. Welcome the students to class. Explain that we will be starting with an activity.
2. **“I will be reading a series of statements. If you agree with the statement, move towards the sign that says “I agree.” If you do not agree with the statement, move towards the sign that says “I disagree.” You will then be asked to defend your statement.”**
3. Read each statement. After the students move to each side of the room, ask a volunteer from each side to explain their reasoning. Do not comment on what the students say; allow them to express their opinions freely to each other.

### *Statements:*

- ❖ Science is an unbiased fact.
  - ❖ Science is value-neutral.
  - ❖ Scientists often let their personal biases affect their work.
  - ❖ Racism is a result of someone being uneducated.
  - ❖ It is impossible for science to be racist/ableist/homophobic/etc because science is objective.
4. After the activity, ask students to return to their seats.
  5. Introduce the lecture topic to the students. Use the slideshow (**Appendix A**) to guide your lecture. This lecture will likely be given over several class periods, depending on the length of your class.



## 6. Concluding Activity:

- a. Ask the students to turn and talk to their neighbor. What surprised them about this history? What did they learn?
- b. Bring the students back to center and ask them to reflect on the activity they did at the beginning of class. How might their answers be different now?
- c. Finally, lead the class in a discussion about scientific bias. What did we learn about scientific bias from the history of scientific racism? What can we do as scientists to prevent bias in our own work?

### Related materials:

Slideshow: [Scientific Racism Slideshow](#) and Access to a Projector,

**Classroom Set-Up:** On one side of the classroom, place a sign that says “I agree”. On the other side of the classroom, place a sign that says “I disagree.”

### Evaluation:

Students will be evaluated based upon discussion and the activity.

Ask your students this question related to this lesson to gauge how much they learned.

**Did this lesson show you how science can be used to support racism and ableism?**

Thank you for bringing the conversation about disability into your classroom.

Help us evaluate this lesson plan by visiting [our evaluation page to assess this lesson](#). You will find an evaluation both for you and your students to complete there.

