

## Lesson 2 - Systemic Racism

*How do we define racism? How do the definitions we use shape the way we see science, society and action?*

NGSS connections: **Practices:** Asking Questions and Defining Problems; Developing and Using Models; Analyzing and Interpreting Data; Obtaining, Evaluating and Communicating Information; Engaging in Argument from Evidence; **CCCs:** Patterns; Cause and Effect; Systems and System Models.

### Starting point for instructors

- Do [Unit 0 - Setting the Stage](#) before this, and review norms if needed
- In this lesson, students consider how they and others define “racism”, and how different definitions have different implications. This might seem semantic, but a shared definition of racism supports conversations about racial justice. Definitions matter in science - think of how an expert’s definition of ‘acceleration’ might differ from a novice’s - and defining ‘racism’ is no exception.
- This lesson typically builds on the concepts developed in [Unit 2 - Meritocracy](#), in which students explore how Americans are taught to consider people as individuals and not part of a broader system.

### Pre-Lesson Student Exploration / Bell-Ringer

*Before coming to class/at the start of class, students need to:*

Read [this article about James Sherley](#), a science professor who was denied tenure. He claimed this was the result of racism; the university said it was not. *Optional: ask students to write a few sentences about whether they think the described incident was an example of racism.*

#### **Instructor Note:**

There are other articles that you can use to introduce this topic. See the [Lesson Plan Resources](#) for other pieces you might use with your students.



### In-Class Investigations

*[Write-Pair-Share](#): ideas around the homework article. [10-25 minutes]*

For last night’s homework, students should have read an article on accusations of racism in scientific fields. One group says that a racist act occurred, the other side says it did not.

- *Write (may have already happened as homework):* Students write a few sentences about whether they think the described incident was an example of racism.
- *Pair:* What would help you decide? What evidence would help you know for sure?
- *Share:* What definitions of “racism” do we hear people using as they answer this question?



*Which fit your definition of racism? [10-15 minutes]*

*Pre-Poll: Vote:* Use [Stand Up Slips](#) or an [Anonymous Polls](#) to assess how students judge specific situations. To promote rich discussion, we suggest using examples that students might disagree about. Ask students: “which of these are included in the way you define racism/racist?”

Situations might include:

- Someone saying “I don’t see race”
- A college making admissions decisions based, in part, on race-based affirmative action
- A city in which [People of Color live predominantly in less valuable houses](#)
- A white person not speaking up when they hear a joke that relies on stereotypes about People of Color
- A science lab hiring someone based only on their standardized test scores
- A company deciding which applicants to interview for a position based solely on their resumes.

The facilitator can then point out which examples the class did or did not reach consensus on without commenting on “right” or “wrong” answers. (*Note - you will do a post-poll and discussion later!*)

*[Write/Pair/Share](#): Create a working definition of racism. [20-30 minutes]*

- *Write:* Students each write a definition of the word “racism” in 2-3 sentences.
- *Share:* Have all students quickly share their definitions (via a Google Doc, whiteboards, or orally if others are not possible). Ask for volunteers to identify/share definitions that differ significantly from what has been said.
- *Discuss:* Do we seem to be defining racism based on *intent* or *outcome*? What might be the advantages and disadvantages of using either type of definition?  
(**If you have done the lesson on [Unit 2 - Meritocracy](#)**, you can also ask: do our answers seem to reflect individual or systemic definitions?)
- *Reflect & Write:*
  - Since conversations about racism can bring up powerful emotions, it may be useful to use the [Emotional Check-In](#) writing prompts to help students stay aware and open to change.
  - Students should feel free to modify their definitions if they hear something that influences them.
- *Discuss:* Is the underrepresentation we saw in [Unit 1 - Data Analysis, Underrepresentation](#) evidence of racism? Why/why not?

**Instructor Note:**

Students (and adults) tend to start with a definition of racism that requires individual actors, and bad intent by those actors. And yet expert definitions of racism go beyond this to include systems and policies that routinely harm People of Color or benefit white people.



We get less pushback by asking students to *broaden* their definitions instead of *changing* them. For example:

- Rather than getting caught up in disagreements about individual situations (anecdotes), we ask students, “Can you consider that this be an example of racism”.
- Rather than debating whether Black people can be racist or white people face racism too, we ask students, “Can you see how there are systems that benefit all white people and harm all people of color?”

*Which fit your definition of racism? Applying and revising working definitions. [10-15 minutes]*

*Post-Poll:* At the end of class, ask students to complete the same [Anonymous Poll](#) as above (see Pre-Poll situations). You can compare the results to see how student views have shifted. Be sure to leave time to discuss the results: we often choose at least one example that received ~50% of the votes and ask students from both sides to explain why they voted as they did.

*Optional Extension:* You can ask students to suggest an additional complex example for discussion!

So far in this lesson, we have not explicitly told students what the “right” definition of racism is. **If your students have not yet arrived at a definition that considers systemic factors, it is essential that you bring it up for consideration.** As an example, you could highlight how a lab hiring only based on resume (which doesn’t reflect racial animus) might combine with the relative lack of academic opportunities for Students of Color to create an outcome in which fewer Students of Color are hired, which then perpetuates the system.

*Optional: Further Prompts to Deepen Discussion. [5+ minutes each]*

- Now that we’ve discussed definitions of racism, do you think differently about the article you read for homework?
- Does our city fit your definition of racist? Our school community? Our class? Why/why not?
- When [different people disagree](#) as to whether race is involved or a problem, who gets to decide?

## Post-Lesson Homework

*Reflective Debrief about the discussion*

Students can write in response to the following prompts. Instructors can decide whether to collect this writing or not, and whether to ask students to put their names on it or not, understanding that students may write differently depending on these choices.

- How did today’s discussion change your definition of racism? Was there something someone said that particularly shifted your views?
- Actions can be racist. Do you think inaction can be racist?
- What other examples do you wish we had discussed?
- In what ways does systemic racism harm science? In what ways does it harm your life?



### ***If you plan to do Unit 2 - Racial Privilege next...***

Having discussed systems of racial disadvantage naturally raises the question of racial advantage. As a result, [Unit 2 - Racial Privilege/Affirmative Action](#) follows this lesson nicely. If you plan to do that lesson next, consider assigning the White Privilege Reading as homework.

### **Resources**

- [Lesson Plan Resources](#)
- [The Parable of the Polygons website](#) is a tremendous resource, and we incorporate it into this lesson when we have time: let students explore for 5-15 minutes, and then discuss. It can help students to see, in a relatively approachable way, how reasonable individual actors can create segregated outcomes, and that solutions to segregation don't come simply.

### **Notes from the Authors**

When this lesson goes well, students often ask what to *do* about systemic racism. That is a very good question, and the answer will vary from student to student and context to context. You can explore this question extensively in [Unit 3 - Taking Action](#).



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