

The NGSS (Next Generation Science Standards) includes the science and engineering practices [1] and the nature of science [2]. This is your first groupwork assignment [3] and its purpose [9]:

“In this introductory unit, ... students are re(introduced) to actively collaborating, discussing, and engaging with others ... will use throughout the year ... identify and discuss discrepancies between US population demographics and demographics of the science community; ... address possible causes of the discrepancies.” .

1. Review / write a summary about groupwork in the yellow high-lighted links. (4 points)

course pedagogy = [group work](#) and PBL (problem based learning); e.g. high school [math](#) (see: [textbook](#)), high school [chemistry](#) (read first five paragraphs; follow links in "[textbook](#)"), and medical school; e.g. [harvard](#) & [hawaii](#). Also, develop students' (science) information [literacy](#).

to prepare you for groupwork, a major component of the course, and discuss the issue about a [free-rider](#).

2. Explore /write about the information regarding various science fields [4, 5, 6, 7] and the economic / income outcome of people based on their racial, gender, and initial economic / income levels [8]. (4 points)

3. Explore / write about numerous potential “explanations” [9] of the preceding observations; e.g. (4 points)

- [Meritocracy](#): *Exploring how people come to believe certain things about how and why people succeed.*
- [Implicit Bias](#): *How can we know the impact our subconscious bias has on our actions? Do implicit biases matter?*
- [Multiple IDs](#): *We all have multiple identities: race, gender, and more. How do these identities impact us?*
- [Racial Privilege / Affirmative Action](#): *How do our racial identities affect us as individuals?*
- [Stereotype Threat](#): *How stereotypes can unconsciously manifest in a person’s own work.*
- [Systemic Racism](#): *How do we define racism? How do the definitions we use shape the way we see science, society and action?*
- [Systemic Sexism](#): *How might sexism be embedded into our interactions, products, and expectations?*

4. explore / write about “additional explanation” [10, 11] (1 point}

Assume that your reader / audience is a middle school student, so you’ll have to appropriately define your terms and describe what is shown in any data table / figures. The below rubric will be used with a middle school student as the reader in mind in regards to the clarity of your group’s report.

Rubric [15 points]: “refer to . . . in the various citations in the brackets and the content’s clarity is ‘good’ ”

	0 points	1 point	2 points	3 points	4 points
1.Group work	none	1 high-lighted item in [syllabus]	2 high-lighted items ...	3 high-lighted items ...	4 high-lighted items ...
2. data	none	1 content in [4 - 7] or 1 content in [8]	1 content in [4 - 7] and 1 content in [8]	1 content in [4 - 7] and 2 content in [8]	≥ 2 content in [4 - 7] and ≥ 2 content in [8]
3. explanation	none	1 factor in [9]	2 factors in [9]	3 factors in [9]	4 factors in [9]
4. additional “explanation”	none	1 content in [10 or 11]			
citations	none		done		

Any disrespectful content may be (i) shown to your counselor and / or (ii) be the basis of a referral to the Dean’s office.

Bibliography [websites accessed aug 2021]

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2. NSTA. Connections to the nature of science. 2014. <https://ngss.nsta.org/NSConnectionsFull.aspx>
3. Groupwork. <http://chem-is-try.us/class/chem/group%20work.html>
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10. Fryer, RG. An Empirical Analysis of 'Acting White'. 2009.
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11. Sander RH and Traylor S. Mismatch: How Affirmative Action Hurts Students It's Intended to Help, and Why Universities Won't Admit It. 2012.