SAGE 2YC Leadership Extension – Clark College Team
Summary of Environmental Justice and Science Identity Progress in our Classes

Course	Summary of Activity	Next Steps
ENVS 101 Intro to environmental science	I currently have a unit looking at the worldwide wealth gap while looking at countries' ecological footprints and considering the ideas of consumption and its planetary impact.	In Fall 2021, I plan on featuring at least five ecological scientists and environmental scientists from underrepresented groups in a science spotlight activity. I also plan to highlight our new leaders in the federal government from Deb Haaland (Native American Secretary of the Interior) to Michael Regen (African American head of the EPA) as I routinely talk about federal agencies and their roles.
ENVS 109 Integrated environmental science	This year, five scientist spotlights profiling scientists from underrepresented groups were added to the lab activities in the course. A one week discussion activity looking at social justice concerns with pollution and waste was expanded to a two week module. Students can research an environmental scientist or activist as an extra credit assignment.	Next year, we will explore our understanding of science through several cultural lenses.
ENVS 218 Ecological restoration	This course has not been offered due to COVID	In Fall 2021, I will be including at least two webinars from the *Inclusion in Ecological Restoration* series through the Society of Ecological Restoration Northwest. Students will be asked to write reflection papers and we will have discussions about them during our field days. I will also be incorporating many of the ideas and discussion from the book, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* by Robin Wall Kimmerer. I'm considering using it as one of my course textbooks to expose students to a different type of relationship with the land - one that is not often stressed in western science.

GEOL 101 Intro to Physical Geology I	Students research a geoscientist and report on what they do. While studying minerals, students learn about mining impacts including a case study of DuPont mining a sedimentary deposit. In a lab exercise, students examine which regions are projected to be impacted by earthquakes in our regions. They are asked to propose ways to mitigate this hazard and to consider how this is done in an equitable manner. Volcanoes & Hazards activities: -Students watch a video about Mt. Pinatubo's eruption in 1991 and we discuss the impact it had on the region, particularly the indigenous population (this is a handout) -Students discuss and vote on which volcano they would choose to monitor if there was a budget cut. They can potentially describe which communities are affected more.	I would like to incorporate sections from related INTEGRATE modules and add several case studies.
GEOL 102 Intro to Physical Geology II	Students are exposed to how communities are impacted by landslides, flooding and shoreline changes. Students also select an area at high risk of desertification and research how that area could mitigate the risk.	There are multiple INTEGRATE modules that are relevant to these subjects if we want to expand the curriculum.
GEOL 103 Historical Geology	What does a Geoscientist Do? This activity is a part of a lab exercise in which students choose from a selection of current and younger geoscientists and read & report about what they do. Students tend to choose those focusing on environmental issues.	I could expand the geoscientist activity to include a definition of environmental justice. I would also like to incorporate the 6th extinction and climate somehow.
METR 101 Atmosphere and the environment	We discuss various scientists from all backgrounds, focusing on those who made groundbreaking contributions each week.	The course is being re-vamped right now and will include many elements of Metr 201 in our climate modules.
METR 201 Global climate change	We have a unit looking at impacts from climate change: water shortages, increased wildfire risk, food shortages, climate refugees, emerging disease and	

	armed conflict as a result of these things and the disproportionate impact on developing countries and those of lower socioeconomic status. Another unit focuses on the United States military's impact on climate change and the destruction left behind when our military leaves a country we occupy or moved base location, once again impacting those in the third world disproportionally. We have another unit of environmental racism and the historic policies that have led to pollution and health impacts on communities of color and of lower socio-economic status. We have another unit looking at policy proposals and how policies can be implemented now to mitigate these disparities. We also discuss various scientists from all background who study climate change or a related field each week.	
OCEA 101 Intro to Oceanography	For Spring 2021, in the module on climate change, I am incorporating a section on the disproportional effect of climate change on developing countries and disadvantaged groups.	In my fall 2021 term I have added two sections involving social justice issues. In the module on marine pollution, I am incorporating sections on the disproportionate impact of industrial pollution on people of color and people with low income, either in lecture or a graphing activity in the lab.