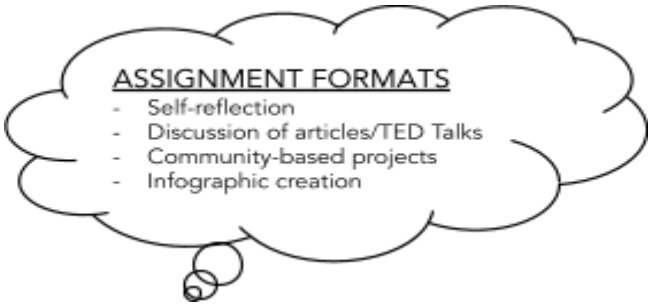
SAMPLE SOCIAL JUSTICE TOPICS THAT ALIGN WITH STEM CONTENT

<u>GENERAL SOCIAL JUSTICE TOPICS THROUGHOUT STEM</u>

- Biases in data collection and citations
- Ethics of human and animal research
- Access to healthcare/scientific advances
- Food justice and other topics in public health
- Who has access to doing science/becoming a scientist



BIOLOGY	CHEMISTRY
- Epigenetics & social determinants of health - Eugenics, genetic screening ethics, and disability - Genetic identity, cultural identity, & DNA testing - Gendering of breast cancer - Gender-bending animals (*e.g.,* cuttlefish) - Power hierarchies in nature - Reproductive strategies - Historical missteps (*e.g.,* Henrietta Lacks, Tuskegee, social Darwinism, etc.) - And more…	- Green chemistry and sustainable catalysis - Disposing of hazardous substances - Climate change - Alternate fuels - Genetic engineering - Lead poisoning - Pharmacological effects on different racial groups - Chemistry of processed food (more available in food deserts) vs. chemistry of whole foods - And more…
ENVIRONMENTAL SCIENCE	**MATH & COMPUTER SCIENCE**
- Effects of globalization vs. local ethnic identity - Sustainability of resources - Landfill location - Effects of industrial land pollution - Displacement of individuals by natural disasters - Spread of diseases - Crop failures & food insecurity - Drought & water shortages - Divestment from fossil fuels - And more…	- Differential wages by demographic groups - Access to digital advances - Manipulating statistics for political motives - "Adversity score" for SAT; achievement gaps - Math and immigration detention - Algorithms to reduce human bias in hiring, etc. - Phone applications for social justice - Math and universal design - Math literacy - And more…
PHYSICS	**PSYCHOLOGY**
- Building portable, lower-cost machines & devices to increase access (e.g., paper microscopes) - Laws of physics that explain social concepts (*e.g.,* thermodynamics describes formation of socioeconomics) - Energy efficiencies - Physics of ramps and universal design - Physics, medical imaging, and access - Physics, forensic testing, and biases - And more…	- Social determinants of health - Ethics and biases of intelligence testing - Stereotyping, implicit bias, and reducing societal stigma - Cultural competence - Gender & culture in identity formation - Power dynamics & persuasion - Psychotherapy & psychotropic medication access - Humane approaches to treating addictions - And more…