**STEM: Possible Global Health Assignments**

If you have corrections, suggestions, and/or ideas for additional assignments, please contact Kelsey Maki (kmaki@brookdalecc.edu). For an extensive repository of curricular resources, refer to our LibGuide (Global Citizenship Project, World Health Topics: libguides.brookdalecc.edu/GCPGlobalHealth).

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| **COURSE(S)** | **POSSIBLE ASSIGNMENTS** |
| * BIOL 105
 | GMO Report: Discuss the global implications of the use of genetically modified foods. Consider scientists’ views on the safety of GMO foods.  |
| * BIOL 208
 | Resource Distribution in Developing Countries: Select a developing country in Asia or Africa and analyze the presence and absence of key resources (e.g., water, shelter, nutrient-rich food, etc.). Create a report describing how human populations have been impacted by the depletion of key resources. Dangers of Species Over-Abundance and/or Under-Abundance: List the human-health consequences of having too much or not enough of a specific species.  |
| * CHEM 101
* CHEM 102
* CHEM 203
 | Chemicals and Food Safety: Examine the make-up of common pesticides used on crops. Determine the health effects that these chemicals may have when consumed by humans. Strategize safer pesticide options.  |
| * CHEM 116
 | Investigating the Health Effects of Power Sources: Choose one of the following question sets to answer. 1) Describe the impact of nuclear power-plant meltdowns on human health. Explain what is to be done with “spent” waste materials from reactors? Are these materials safe? 2) Consider the possibility of nuclear fusion. Is this a feasible power source? Is it a “green” technology? 3) Assess the risks of greenhouse gasses. Explain why methane is more dangerous than carbon dioxide. Explain the impact that both gasses have on Earth. |
| * ENGI 101
* ENGI 102
* ENGI 206
 | Water Wells: Design a new water well and/or devise ways to repair broken or dry water wells (see WaTER: Water Technologies for Emerging Regions).Flouride Filtration: A common problem with drinking water is the existence of too much fluoride. Select a country in Africa and find possible filtration materials available in that country. Design a filtration system to remove excess fluoride in the selected country.  |
| * MATH 015
 | Global Health Data: Refer to a WHO Factsheet on water, food safety, infant mortality, etc. Use the data to calculate additional numerical information (e.g., ratios, percentages, fractions, etc.). |
| * MATH 145
 | Mitigation Project: Use concepts from class to propose a measure to mitigate a global health issue. Issues could include access to clean water, distribution of health centers, physician-to-population ratios, etc.  |
| * PHYS 106
 | Astronomy and Health: Create a multimedia project that address one of the following questions: What influence has astronomy had on traditional/ancient medicine? What influence has astronomy had on our beliefs about health and well-being? Why are some cultures more influenced by astronomy in planning and implementing health choices? |

This handout was created by Ashley Zampogna-Krug with the help of the GCP committee.