

ROOT OF THE PROBLEM

H T M C V A L C H E M Y 2 0 1 8

R E D U C I N G O U R
C A R B O N F O O T P R I N T
B Y T R A N S F O R M I N G
O U R F O O D S Y S T E M

H O W ?

The way our food is grown contributes to the release of greenhouse gases more than you might think. You are exploring changes that could be made to the food system to help reverse climate change by reducing greenhouse gas emissions.

"THE NATION THAT DESTROYS ITS SOIL
DESTROYS ITSELF." - FDR

OUR PROCESS

- *Part One: Explore (Global Warming Vermiculture)*

Our project began with an exploration of the life of a box of strawberries purchased at a grocery store only to be forgotten in a refrigerator and thrown out weeks later. Enter: worms. Through hands-on experiences, we discovered that our food waste can be transformed into rich fertilizer for our community garden by using worms as composting machines. As a team, you have collected over 75 pounds of waste to be used for compost! That is 75 pounds of trash diverted from the landfill where it might have decayed without the presence of oxygen to create methane, a powerful greenhouse gas that contributes to global warming. In addition to your worm work, you will work in groups of four to become expert climate change researchers who search for solutions to reduce our impact on the world and educate others about your findings.

- *Part Two: Experiment*

You will work with a partner to set up an experiment in our community garden to explore this essential question: "How much does compost affect a plant's ability to absorb carbon dioxide?"

- *Part Three: Communicate*

Scientists have not one but two difficult and important jobs: first, they conduct research to understand and improve our world. Second, they have to communicate that (often very complicated, specialized) research to other scientists and to laypeople (people who aren't scientists). If they don't communicate their findings, other scientists can't use them to do more research and create solutions to the world's problems. Communication is one of the most important soft skills for scientists to develop. So how do they communicate their findings? They write journal articles, give talks, and – one of the most elegant ways they communicate – they present scientific posters! Scientific posters are a one-stop-shop where scientists can communicate an entire experiment and its important findings at conferences. In Humanities, you're going to learn how to write, design, and present a real professional scientific poster – skills most people don't get to try until college, if then!