



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2014 Volume IV: Engineering in Biology, Health and Medicine

Generation GMO: The Good, the Bad and the Genetically Modified

Guide for Curriculum Unit 14.04.08
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This interdisciplinary unit will combine science and language arts curricula focusing on genetically modified organisms, or "GMOs," and their effects on human health and the environment. This unit is designed to help students understand how simple daily decisions like what they eat or decisions to read food labels can impact their health and future in unpredictable ways. Students will understand the pros and cons of genetically engineered foods. First, they will learn about what it means to genetically modify a plant or animal. Specifically, students investigate genetically modified seeds and non-genetically modified seeds, observe their growth and test the water and soil quality of each type prior to and after planting. Students will focus on the dangers that genetically modified organisms could pose to our health, particularly on human body systems and disease as they research the impact that antibiotics and pesticides have on the immune system and how altering nature's cycle can change an ecosystem permanently. The students will recognize themselves as consumers and take responsibility for making informed decisions such as whether to buy foods that contain genetically modified ingredients or not. Field trips to a grocery store, a farm and inviting scientists to come to the class to discuss environmental and water safety in places with GM crops are just a few of the engaging opportunities that students will be awarded as they recognize through food tastings that GM food may not look or taste different, but it's what they can't see that counts. The unit will particularly focus on the dangers that genetically modified organisms could pose to our health, particularly regarding human body systems and disease. Students will observe, measure and distinguish facts based on research to make conclusions about the possible impact of genetically engineered foods on human health. Students will then be expected to extend their understandings and make informed decisions, knowing that every choice counts when it comes to the health and sustainability of all living things.

(Recommended for Science, grades 2-5)

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