



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2000 Volume VII: Bioethics

Genetic Engineering of Crop Plants

Guide for Curriculum Unit 00.07.02

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This unit is designed to acquaint students with the concept of genetic engineering and the biological and ethical implications involved. It will also help students understand the interplay between science, government, and the citizen, and the ethical problems involved in trying to feed the entire world population. The students will learn what genetic engineering is, how it is accomplished, and the biological problems involved. The students will also learn why there is such an ethical protest against genetic engineering and the resulting political and social consequences. The unit discusses both the biological and political aspects of genetic engineering. The process of genetic engineering is explained and the associated problems are discussed. The justification for genetic engineering is also considered. The political aspects include both the nature and methods of the large number of protests against genetic engineering. The validity of these protests is also discussed. The technology is considered in light of its impact on humans and their cultures, both in the developed and third world countries. Finally there are several simple laboratory exercises to illustrate the phenomenon of genetically engineered crops.

(Recommended for Biology, Genetics and Evolution, and Bioethics, grades 9-12.)

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