



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
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Heredity and Environment

Guide for Curriculum Unit 90.06.04
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An organism is the product of its heredity and the environment in which it develops. The genes you are born with influence your behavior. But which factor, heredity or environment, is more influential? It is often difficult to sort out the effects of genetic inheritance from effects of the environment, especially in human genetics. Studies of identical twins provide geneticists with an opportunity to examine the influence of (nature) and environment (nurture).

The purpose of designing a unit on “Heredity and Environment,” is to help students learn more about themselves. They will learn why they develop into the kind of individual they are. Included in the unit is a discussion of chromosomes and genes, DNA, the genetic code: heredity and environment, a study of identical twins, and some genetic disorders.

The students will do some hands on activities with making DNA models. They will explore plants with the exact same heredity and plants with different heredity. Also, they will change the conditions in the environment to see the way the plant develops. A lack of food, water, or sunlight changes the way the plant organisms with the same heredity may develop differently in different environments. Heredity is not the only thing that affect development. The environment also has an important effect.

The unit can be taught to students in grades five through eight. The science and math teachers are encouraged to use a team teaching approach. Other features included in the unit are: content, lesson plans, resources, class trips, a reading list, and a bibliography.

(Recommended for Biology, Genetics, General Science, and Health Science, grades 5-8)

Key Words

Biology Herdity Genetics Human

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