



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
1982 Volume VII: Human Fetal Development

Environmental Causes of Birth Defects

Guide for Curriculum Unit 82.07.07
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My unit consists of materials on the environmental influences of human fetal development. The material could be presented in science and biology classes, and even for health and human physiology courses. The grade level for this prepared unit can begin at the junior high age up to seniors in high school. The unit would fit into a human reproduction course very nicely, especially after teaching the normal nine months of development of a fetus. The unit begins with a brief summary of the placenta and its functions. Teratogens are the next items. Alcohol and Fetal Alcohol Syndrome are discussed concerning mother and unborn. Tobacco and other chemicals are brought into view on what harm is actually done to the fetus and to the mother. Some infectious diseases are discussed and what serious birth defects or infections to the fetus and later on to the newborn are mentioned. We know there is no safe threshold for radiation and the discussion of what should be avoided and why are also mentioned. There are several lesson plans incorporated with the unit, from traditional vocabulary words to open discussion concerning an individual's feeling toward birth defects. Also included are films that can be borrowed from the March of Dimes that are very good tools to go along with the unit. The unit can open many eyes toward certain causes of birth defects and how some can be prevented.

(Recommended for 9th grade Physical Science, 10th grade Biology, 10th, 11th and 12th grades Health and Human Physiology)

Key Words

Human Genetics Biology Defects Reproduction

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