Fetus to Newborn: The Perinatal Period

Guide for Curriculum Unit 82.07.08
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The field of perinatology, the study of the time just before and after birth is quite new. Only recently have doctors been able to perform tests and even actually to save lives of babies in utero. This unit which was written for the Yale-New Haven Teachers Institute seminar on “Human Fetal Development,” contrasts the third trimester fetus with the newborn baby, and how they are adapted to their very different environments, with special emphasis on respiration, circulation, hemoglobin, and the nervous system. There are several activities for the classroom that accompany this unit. Dr. M.J. Mahoney and Dr. C. Smith of the Department of Human Genetics, have generously made available microscope slides of fetal blood, chromosomes, placenta, and umbilical cord as well as samples of amniotic fluid for analysis. Also ultrasound photos and models. There is also a set of slides of newborn reflexes, courtesy of Dr. R. Angoff, St. Raphael’s Hospital. There are also classroom activities using graphs, scientific words, and transparencies showing the placenta and developing brain.

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

Key Words

Biology Birth Defects Environmental Causes