

Re-designing Man: Science + Human Values:Unit 5 The World of the Unborn:

## Content Summary:

This film-strip lesson opens with a dialogue between a mother and her daughter who wishes to know if life begins at birth or in the womb. Dr. Landrum B. Shettles claims that life begins at fertilization, after which the embryo implants itself in the uterus and begins to develop. The film lesson reviews other stages of child development which have also been considered the beginning of life: quickening; viability; birth itself. The lesson continues with a description of new techniques for treating infants inside the womb and features a dramatic fetal transfusion performed by Dr. Stanley Asensio. There is then presented, ways and possible ways of altering the fetus--such as increasing intelligence-- an improvement which has already been accomplished. It is now suggested that even greater control of life will be possible when methods of artificial fertilization and in vitro development of the human fetus; already attempted by Drs. Petrucci and Edwards, are perfected. It is stated that the artificial fertilization and development of offspring have only been successful with mice. There is then discussed the ethical objection to the invitro creation of life, and the response of Dr. Edwards to this objection. Dr. Edwards feels, such research contributes to "fundamental knowledge and medicine." Continuing from here, the film lesson speculates on social conflicts and value questions which might result from widespread acceptance of invitro creation and surrogate motherhood: legal responsibility; competition for quality wombs and quality embryos; conflicts between real and surrogate mothers. Other forms of fetal treatments, are presented, and other forms of research such as, medications, transplantations, and inoculations; then it is suggested that the life of the fetus may need to be protected. This is followed by a discussion of Ashley Montague's belief that infants are not fully human until they have been socialized, (become socially aware and oriented). The film lesson comes to the conclusion that new developments in fetal research could either highlight or harm the world of the unborn.

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Objectives:

Students should be able to explain the stages in a child's development which are often considered the beginning of life: fertilization, implantation, quickening, viability, birth, socialization.

Students should express an understanding that these stages are related to an important value question: Once something is considered alive, when does it deserve protection?

Students should realize that the more we know about the early stages of human development, the more we are able to manipulate the unborn child. Such advances as medical treatment of the fetus, in vitro fertilization, artificial wombs and womb implantation are radical steps toward the control of life.

Objectives (cont'd)

Students should be able to express a relationships between such prenatal developments and family life of the future.

Students should be learning to question and anticipate possible uses and abuses of new technology.

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Social/Humanistic Questions:

1. A child goes through many stages of development before it is actually born, among them fertilization, implantation, and viability. After birth, the child is socialized. At which, if any of these stages, does the child deserve the right to protection? Should this decision be left up to the mother or to society?
2. Such developments as in vitro fertilization, artificial wombs and surrogate mothers may radically affect human social life (if they are widely accepted). What effects would they have on family life? Would there be any change in sexual roles? Would men and women feel differently toward each other?
3. In South Africa, the intelligence of several unborn infants appeared to increase after the mothers were supplied with extra oxygen. Do you think people should be allowed to change or improve unborn children? Who would be responsible if the child were harmed in any way? The doctor? The parents?
4. All adults must give informed consent before they undergo medical operations. When children are concerned, the parents give informed consent on the child's behalf. Why is this necessary? How should a parent decide whether his child should undergo surgery or treatment?
5. To whom should artificial wombs be available? The rich? Women who do not wish to be inconvenienced by carrying and bearing children? Those whose children need special pre-natal treatment?

Scientific Questions:

1. What are some of the benefits expected to result from the study of life before birth? To save lives? to improve mental capacities? To win Nobel prizes?
2. What features must an artificial womb have in order for an infant to survive?

Scientific Questions: cont'd

3. If human beings become dependent on artificial wombs for infant development, how might environmental catastrophes threaten our survival?
4. If a great many fetuses with genetic defects are treated (but not cured) inside the womb, how might evolution be affected?

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