Dear Parents,

Beginning Monday December 5th we will watch a video called “In the womb” that originally aired on the national geographic channel. This video meets the following state standards from the Living Environment core curriculum.

2.1a Genes are inherited, but their expression can be modified by interactions with the

environment.

2.1b Every organism requires a set of coded instructions for specifying its traits. For offspring

to resemble their parents, there must be a reliable way to transfer information

from one generation to the next. Heredity is the passage of these instructions from one

generation to another.

2.1e In sexually reproducing organisms, the new individual receives half of the genetic

information from its mother (via the egg) and half from its father (via the sperm). Sexually

produced offspring often resemble, but are not identical to, either of their parents.

2.1j Offspring resemble their parents because they inherit similar genes that code for

the production of proteins that form similar structures and perform similar functions.

4.1c The processes of meiosis and fertilization are key to sexual reproduction in a wide

variety of organisms. The process of meiosis results in the production of eggs and sperm

which each contain half of the genetic information. During fertilization, gametes unite to

form a zygote, which contains the complete genetic information for the offspring.

4.1d The zygote may divide by mitosis and differentiate to form the specialized cells,

tissues, and organs of multicellular organisms.

4.1e Human reproduction and development are influenced by factors such as gene

expression, hormones, and the environment. The reproductive cycle in both males and

females is regulated by hormones such as testosterone, estrogen, and progesterone.

4.1f The structures and functions of the human female reproductive system, as in

almost all other mammals, are designed to produce gametes in ovaries, allow for internal

fertilization, support the internal development of the embryo and fetus in the uterus,

and provide essential materials through the placenta, and nutrition through milk for the

newborn.

4.1g The structures and functions of the human male reproductive system, as in other

mammals, are designed to produce gametes in testes and make possible the delivery of

these gametes for fertilization.

4.1h In humans, the embryonic development of essential organs occurs in early stages

of pregnancy. The embryo may encounter risks from faults in its genes and from its

mother’s exposure to environmental factors such as inadequate diet, use of

alcohol/drugs/tobacco, other toxins, or infections throughout her pregnancy.

You can view the video at https://www.youtube.com/watch?v=33R2zTGK1eM

If you do NOT want your student to view the video please e-mail, call or send a note with your child and I will provide an alternate assignment.

 Thank you,

 Mrs. Hahn

 Science teacher Ex 309

 jhahn@worcestercs.org