1. Fertilization occurs when an ovum and a sperm combine to form a new cell. A man places the erect penis in the woman’s vagina. Semen, containing sperm cells, is ejaculated into the vagina. Millions of sperm cells are deposited at one time. If an ovum (egg) is in the woman’s fallopian tube, a sperm may combine with the ovum and fertilize it. A single cell is formed. The cell divides into two cells and continues to divide. The fertilized ovum travels down the fallopian tube to the uterus where it attaches itself to the lining of the uterus. The developing ball of cells is called an embryo. This attachment of the embryo is the beginning of pregnancy.

2. Male Reproduction—While the female has a cycle that only produces one (97% of the time) egg per month, the male can produce about 150 million sperm per day. There is no monthly cycle for sperm. They begin to develop in the testes when the hormones become active in the male body (10-16 years), usually closer to 12-14 years of age. The same hormones that cause female eggs to start developing are active in the male and cause sperm to be produced in the testes.

3. Sperm start out in the testes where it is cool (1-8 degrees) lower than body temperature. The scrotum keeps the testes outside the body so they are cool. It takes about six weeks for sperm to develop in the testes. From there, they move into a coiled tube called the epididymis where they get lots of nourishment and mature so they can fertilize; this takes 10-20 days. Now they are ready for a long journey to the outside of the body. Sperm move through the vas deferens by muscle contractions of the tube. They cannot swim until they get into liquid. They travel from the scrotum into the body and to a holding area at the end of the vas deferens. When the male is sexually aroused, some sperm, sugary liquid from the seminal vesicle, and a little milky fluid from the prostate gland mix in the area called the ejaculatory duct. When the sperm (only about 5% of the mixture) and the liquid mix together, the sperm are able to swim. This mixture is called semen. Now the semen is ready to come out of the penis. By this time, the male has an erection (the penis is filled with blood and sticks out straight). Before the semen comes out, called ejaculation, little glands called Cowpers glands send out a few drops of liquid that clean out the pathway. Both urine and semen come out the same tube. When a male gets an erection, he cannot urinate at the same time. A muscle closes off the bladder. The Cowpers glands squirt out their cleaning fluid and the urethra is clean and ready for semen. When the male ejaculates, the semen (with sperm in it) shoots out the penis. This can happen during wet dreams, during masturbation or during sexual intercourse.

4. Voice changes in the male also take place in two stages. Some early voice changes take place prior to first ejaculation, but the deep tonal change tends to appear after the appearance of underarm hair and the period of maximum growth. Males may also be relieved to learn that the beard is the last thing to grow. Many men are unable to grow moustaches and beards throughout their twenties and sometimes never.

5. Female Reproduction—Many times when a female begins to menstruate, she is considered “a woman,” although she may not feel much different. Menstruation has a lot of names; the most common is “period.” It is the result of at least a month’s activity inside the female body. Usually between the ages of 9 and 18 years, a female
begins menstruating. Menstruation is made up of blood and tissue that come from the uterus and is no longer needed. It dribbles out of the female body through the vagina for two to eight days. Although the discharge is called “bleeding” and looks like bloods, not much of it is blood (usually less than 1/4 cup). The female isn’t bleeding as if she had a cut. The lining of the uterus, which is naturally cleaning itself out, no longer has fresh new blood flowing through it because the blood supply has been shut off to that part of the lining. So a female isn’t bleeding to death. During this time, the female wears either a sanitary napkin or a tampon to catch the discharge so it won’t stain clothes. She should change this every four hours or less, even if she is not flowing heavily. The first day of menses (men seez), a shorter word for menstruation, is called the first day of that menstrual cycle. A cycle usually lasts about a month. When a young female first starts her period, she probably will not have regular monthly cycles for a year or more. (Some are never regular). The cycle ends the day before the next period starts. It is usually 20-40 days long. What is happening when the female is not flowing? Her body is very active. While the uterus is cleaning out (menses), an egg is actively developing in the ovary. This usually takes about two weeks—this is the time of the cycle which is highly variable in time and may be affected by stress, illness, and many other factors. It may be just a few days to a month in length. After ovulation, the cycle length is very consistent—12 to 16 days in length, and is controlled by hormones. As the egg is maturing, a blister forms on the ovary. When the egg is mature, the blister pops the egg pops out of the ovary. This is called ovulation. The finger-like ends of the oviduct swim around the ovary, pick up the egg and move it into the oviduct. Inside the oviduct are tiny little hairs that move the egg into the uterus. This usually takes three to five days. If fertilization, sperm and egg combining, is to take place, it happens here in the widest part of the oviduct. During the few weeks all this is going on, the uterus is building up its lining with fresh tissue and blood. By the time the egg arrives, the lining is rich and soft. It is ready if the egg is fertilized and can implant itself in the lining. That would start a pregnancy. If the egg is not fertilized, the lining breaks down in the uterus and dribbles out the vagina as the menses.