~The Divine Black Mothers: Dr. Merit Ptah & Dr. Peses-Het’s~
Monthly Discussions on
The Human ANATOMY

BlackWoman, Mother of My Creation & Queen of My Universe,
I Thank you!

BlackHomeSchoolAcademy
Blackwoman, Mother of My Creation and Queen of My Universe, I Thankyou!

To:


From:


Date:


“I have come from the school of medicine and have studied at the woman's school at Sais where the Divine Mothers have taught me how to cure disease.”
When the children are in attendance, they don't sit in classrooms as modern children do. The lessons take place mostly outside in a natural setting. In every ritual, they are taught about the character development of a person.

They are taught that each aspect of character is directly reflected in a specific part of the human body, and how each one created its plant and animal.

The format of the lessons is somewhat like this: First of all, children are never discouraged from indulging in their imaginary worlds. Everyone knows that young children have imaginary friends in imaginary worlds that are as real to them as you and me sitting here.

They are encouraged to indulge in these worlds of the imagination to the utmost degree possible for their minds.
The teachers re-create 7 of the original plants and animals into this world the same way you intentionally create objects in your lucid dreams. The first 7 or so plants and animals they put in it correspond to those aspects of character that are the first to develop in a child, which are happiness, friendliness, activeness and so on, corresponding to the appropriate body parts like the heart, the eyes, the feet and so on.

Then the teachers create a situation in the imaginary worlds that leads, for example, to sadness in the children. They feel this sadness and immediately become sick in the corresponding part of the body, and they also notice the same effect on one of the animals and plants. The animal becomes sick and the plant begins to decay. They are then encouraged to remove the sadness and replace it with a happy situation.

For example, if the sadness was caused by the older children taking the younger children's toys, they give them back, thus restoring their happiness. Because it all happens in the imagination, the animal and plant are immediately healed, and the sickness disappears from the children's bodies.

By the use of simple exercises such as these they are taught about the anatomy of the human body, and which body part corresponds to which aspect of their character, and which plant and animal were created from it. Because of the wisdom of the teachers, the imaginary situations come in endless variety, stimulating their young minds.
As they grow older and eventually become adults, *they retain this power of vivid imagination*, having brought it under complete mental control under the guidance of their teachers. As a result, all adults have this power, but more so the teachers of rituals.

They use this natural gift (to us it's a natural gift whereas to modern people it's a curse from which they must "disabuse" their children); *the teachers take advantage of this gift and use it to impart their lessons.*

They encourage all the children to create a common imaginary world. The teachers then magnify it with their own minds until it is clearly visible to every child. To all those modern people who have forgotten the imaginary worlds of their childhood, it's somewhat like a lucid dream, but wide-awake.

Once all the children have entered this imaginary world, the teachers put in it about 7 of the original plants and animals, using their own imagination.
After 7 years they graduate in a ceremony that celebrates the first 7,000 aspects of character and their prototypes. They spend 40 days of the graduation period in a place whose name has come to the present from the past as *The Garden of Eden*.

*This was one of 12 such places on Earth*, one in each tribe's country. Every country's garden of prototypes is in 10 sections. The first section has 7,000 prototypes of both plants and animals, corresponding to elementary education, or the first 7 years from age 7 to 14.

Every following section is larger than the one before, with more prototypes. The next nine sections have prototypes corresponding to the rest of the person's ritual education every 7 years until the age of 77.
At the age of 77, the person's character reaches full maturity and perfection. At the elementary graduation festival the children see the perfect plants and animals for the first time, in their natural habitat.

After the 40-day period, the ceremony concludes with the preparation of food from the trees of life that grow in that section.

The festival is held at the clan capital. It's a huge celebration with children from a thousand towns all coming together at the capital for a week. There is music and dancing, and the whole clan is invited.

For at least one day of that week, most citizens will make sure not to miss the opportunity to attend and enjoy the feast.

❤️ ~BlackLove, BlackRoots & BlackFamily~ ❤️
The skeletal system is made up of bones, ligaments and tendons. It shapes the body and protects organs. The skeletal system works with the muscular system to help the body move. Marrow, which is soft, fatty tissue that produces red blood cells, many white blood cells, and other immune system cells, is found inside bones.
January: The Skeletal System

Identify:

1. Bones in Adult (206)
2. Bones in Baby (300)
3. Cranium
4. *Facial Bones
5. Clavicle
6. Scapula
7. Sternum
8. Vertebrae (33)
9. Ribs (24)
10. Humerus
11. Radius
12. Ulna
13. *Carpals
14. *Meta-carpals
15. Pelvic Bone (Hokey Pokey)
16. Femur (largest bone)
17. Patella
18. Tibia
19. Fibula
20. *Tarsals
21. *Meta-tarsals
22. *Phalanges
**Digestive System:** digestion and processing food with salivary glands, esophagus, stomach, liver, gallbladder, pancreas, intestines, rectum, and anus. The digestive system is made up of organs that break down food into protein, vitamins, minerals, carbohydrates, and fats, which the body needs for energy, growth, and repair.

After food is chewed and swallowed, it goes down the esophagus and enters the stomach, where it is further broken down by powerful stomach acids.

From the stomach the food travels into the small intestine. This is where your food is broken down into nutrients that can enter the bloodstream through tiny hair-like projections. The excess food that the body doesn't need or can't digest is turned into waste and is eliminated from the body.

* Please Read “How to Eat to Live” Book 1 and Book 2 by the Honorable Elijah Muhammad
February: The Digestive System

Questions:

1. Parotoid Gland
2. Sublingual Gland
3. Submandibular Gland
4. Esophagus
5. Liver
6. Stomach
7. Spleen & Splenic Flexura of Transverse Colon
8. Transverse Colon
9. Jejunum
10. Descending Colon
11. Sigmoid Colon & Sigmoid Flexure
12. Rectum
13. Anus
14. Appendix
15. Cecum
16. ileum
17. Ascending Colon
18. Hipatic Flexure
19. Pancreas
20. Duodenum
21. Gall Bladder
The digestive system is an essential to the human body. It helps in break down of the foods we eat into smaller components that can be absorbed by the body for its nourishment. This process is known as digestion. The process of digestion involves grinding of the food, foods movement through the digestive tract, breaking down of larger molecules, absorption of nutrients into the blood and removing waste from the body.

Nutrition

~Today, we eat too often, eat at the wrong times and many of the wrong things!~

![Raw Food Pyramid](vegan-raw-diet.com)

**Good Foods**
1. Greens, Kale, Calaloo, Spinach
2. Honey
3. Black Seed (Nigella Sativa)
4. Apple Cider Vinegar
5. Yellow Yam
6. All Fruits & Vegetables
7. ALOE
8. Ginger
9. Tumeric
10. UNCOOKED fruits & vegetables

**Bad Foods**
1. Pork
2. Shrimps,
3. Crabs
4. All shell-fish
5. Chicken (because of hormones)
6. Milk (causes fibroids)
7. ANYTHING that is *microwaved*
8. Rabbits
9. Carnivores (dogs, lions, alligators etc)
10. Scavengers (vultures, possums, lobsters etc)
Reproductive system: the sex organs; in the female; ovaries, fallopian tubes, uterus, vagina, mammary glands, and in the male; testes, vas deferens, seminal vesicles, prostate, and penis. The reproductive system allows humans to produce children.

Sperm from the male fertilizes the female's egg, or ovum, in the fallopian tube. The fertilized egg travels from the fallopian tube to the uterus, where the fetus develops over a period of nine months.

**Magnetic Human Attraction:** Human beings of opposite sex (ie. male & female) are *normally naturally pulled towards each other* by the process of *Magnetic Human Attraction*.

This attraction is caused by the body’s production of chemicals called hormones and pheromones.

These chemicals along with the help of the body’s reproductive organs causes human beings to be pulled towards each other.

*Magnetic Human Attraction* is essential in encouraging our Kings & Queens to seek marriage and have family.

**Family:** The fundamental unit of any great Black Nation :) ~ *It is a long term commitment, effort and intention to support Black Children.*

**Marriage:** The Long-term Decision & Efforts of *more than one persons to maintain a household* & build a family.
1. External Genitalia
   • The penis contains three columns of erectile tissue and the urethra, which terminates at the glans.
   • The scrotum is divided by a septum. Each scrotal sac contains a testis, epididymis, and vas deferens.
   • The testes are two ovoid glands that contain seminiferous tubules, in which spermatogenesis occurs, and interstitial cells, which produce testosterone.

2. Internal Genitalia
   • The epididymis extends from seminiferous tubules of each testis.
   • The vas deferens extends from epididymis and enters the ejaculatory duct in the prostate gland. This uncoiled, fibromuscular tube is surrounded by arteries, veins, and a thick, fibrous coating.
   • The spermatic cord extends from the testis through the inguinal canal to the abdominal cavity. It is a bundle of blood vessels, nerves muscle fibers and the vas deferens.
   • The seminal vesicles, positioned behind the bladder, are two convoluted pouches that empty into the ejaculatory ducts and are lined with secretory epithelium.
   • The ejaculatory ducts join the seminal vesicles and urethra. They pass through the prostate gland and terminate in the prostatic urethra.
   • The prostate gland, located under the bladder and surrounding the urethra, is a walnut-sized gland divided into five lobules by the urethra and ejaculatory ducts.
   • The urethra leads from the base of the bladder through the prostate gland to the shaft and glans of the penis and is divided into three sections: the prostatic, membranous and penile urethra.

3. Bulbourethral glands, or Cowper’s glands, are two pea-sized glands located beside the prostate. They drain into the urethra.
Functions of the Male Reproductive System

1. External genitalia
   • The penis serves as the male organ of copulation and the passageway for urine. Excitement leads to venous congestion, which causes distension and erection.
   • The scrotum protects and supports the testes and sperm.
   • The testes produce mature, functional spermatozoa. This is referred to as spermatogenesis, which begins at puberty and continues throughout life. It occurs in several stages:
     - Spermatogonia grow and develop into primary spermatocytes each containing 44 autosomes and 2 sex chromosomes, X and Y.
     - Primary spermatocytes divide to become secondary spermatocytes, each containing 22 autosomes and 1 sex chromosome, an X or Y.
     - Secondary spermatocytes divide to form spermatids, each retaining 23 chromosomes.
     - Spermatids mature into spermatozoa.

2. Internal genitalia
   • The epididymis stores sperm as it develops the power of motility and the capability to fertilize the female ovum.
   • The vas deferens stores most sperm. During this time sperm continues to mature.
   • The seminal vesicles produce yellowish, alkaline fluid rich in basic sugar and protein. This fluid enhances sperm motility by nourishing the sperm and improving pH.
   • The ejaculatory duct is the passage through which semen enters the urethra.
   • The prostate gland secretes fluid to add volume to semen, enhance sperm motility, and neutralize male urethral and vaginal acidity to enhance fertility.
   • The urethra serves as passageway for semen during ejaculation and as a canal for urine during voiding.
   • The bulbourethral glands secrete an alkaline fluid that also neutralizes the acid secretions found in the urethra to ensure the safe passage of sperm.

3. Testosterone, secreted by testicular interstitial cells (Leydig’s cells), is essential for the development and maintenance of male sex organs and secondary sex characteristics. Testosterone secretion begins in utero and increases at puberty. It is controlled by LH and FSH secreted by the anterior pituitary.
Can you label these body parts?
Vas deferens, Seminal vesicle, Prostate gland, Cowper's glands, Epididymis, Testis, Scrotum, Penis, (9. Pubic symphysis – this is cartilage & not a part of the reproductive system), Bladder, Urethra
Reproductive system: the sex organs; in the female; ovaries, fallopian tubes, uterus, vagina, mammary glands, and in the male; testes, vas deferens, seminal vesicles, prostate, and penis.

The reproductive system allows humans to produce children. Sperm from the male fertilizes the female's egg, or ovum, in the fallopian tube. The fertilized egg travels from the fallopian tube to the uterus, where the fetus develops over a period of nine months.

Functions of the Female Reproductive System:

1. External Genitalia
   - The mons pubic protects the pubic bone from trauma.
   - The clitoris provides for sexual arousal or magnetic human attraction.
   - The labia majora and minora protect the external genitalia, urethra, and distal vagina.
   - Secretions from Bartholin’s glands lubricate the external vulva during coitus and improve sperm survival.
   - Secretions from Skene’s glands lubricate the external genitalia during coitus.
   - The urethral meatus is the external opening of the female urethra.
   - The perineal muscle expands during childbirth to enlarge the vagina, allowing for passage of the fetal head.

2. Internal Genitalia
   - The vagina aids in conception by conveying sperm to the cervix and helps in childbirth by serving as a passageway for the fetus.
   - The uterus receives the fertilized egg, provides for implantation, nourishes and protects the growing fetus, and contacts to expel the fetus during childbirth.
   - The ovaries produce and release mature ova and regulate the menstrual cycle through the production of estrogen and progesterone.
   - The fallopian tubes move the sperm toward the ova and the ova toward the uterus, thereby aiding in fertilization.

3. The pelvis supports and protects the reproductive and other pelvic organs. During the late months of pregnancy, the false pelvis supports the uterus and helps direct the fetus into the true pelvis for birth.

4. The breasts serve to produce and secrete (Lactate) milk for the infant.

*Breast milk is the best food for babies!!!

~Studies show that breast fed babies have a lower risk of developing diseases, cancers, infections, allergies etc. Human milk is more than a beverage, its alive, organic, it contains a vast amount of ingredients. Human milk is said to be like blood. A drop of breastmilk contains around one million white blood cells. Human milk is only 10% nutrition. The remaining 90% is designed to build, support and protect every cell and every system in the body~
Fallopian tubes: These are narrow tubes that are attached to the upper part of the uterus and serve as tunnels for the ova (egg cells) to travel from the ovaries to the uterus. Conception, the fertilization of an egg by a sperm, normally occurs in the fallopian tubes. The fertilized egg then moves to the uterus, where it implants into the lining of the uterine wall.

Ovaries: The ovaries are small, oval-shaped glands that are located on either side of the uterus. The ovaries produce eggs and hormones.

Uterus (womb): The uterus is a hollow, pear-shaped organ that is the home to a developing fetus. The uterus is divided into two parts: the cervix, which is the lower part that opens into the vagina, and the main body of the uterus, called the corpus. The corpus can easily expand to hold a developing baby. A channel through the cervix allows sperm to enter and menstrual blood to exit.

The cervix: (from the Latin cervix uteri, meaning "neck of the womb") is the lower, narrow portion of the uterus where it joins with the top end of the vagina. It is cylindrical or conical in shape and protrudes through the upper anterior vaginal wall. Approximately half its length is visible with appropriate medical equipment; the remainder lies above the vagina beyond view. The cervix has an opening to allow sperm and menstrual fluid to move through.

Vagina: The vagina is a canal that joins the cervix (the lower part of uterus) to the outside of the body. It also is known as the birth canal.

Cramps: During menstruation the cervix stretches open slightly to allow the endometrium to be shed. This stretching is believed to be part of the cramping pain that many women experience. Evidence for this is given by the fact that some women's cramps subside or disappear after their first vaginal birth because the cervical opening has widened. During childbirth, contractions of the uterus will dilate the cervix up to 10 cm in diameter to allow the child to pass through.
**Fimbria**: is a Latin word meaning fringe. It is a fringe of tissue near the ovary leading to the fallopian tube. An oocyte (egg cell) is released from the ovary into the peritoneal cavity and the cilia of the fimbriae sweep the ovum (egg cell) into the Fallopian tube.

**Clitoris**: The clitoris provides for sexual arousal or magnetic human attraction. A cylindric, erectile body, rarely exceeding 2 cm in length. It is located above the opening of the urethra. And is similar to the penis in the male, except that it is not used to pass urine. It is a very sensitive organ and is protected by a fold of skin called the clitoral hood.

The clitoris works along with hormones & pheromones to encourage family & marriage by enhancing the magnetic attraction between possible partners.
Q: How many eggs do I have?  
**Clue:** How many degrees are in a circle? 360 degrees  
**Ans:** At birth, you have approximately 1 million eggs and by the time of puberty, only about 300,000 remain. Of these, approximately 360 will be ovulated during a woman's reproductive lifetime. The eggs continue to degenerate during pregnancy.

Q: How long will I remain fertile?  
**Clue1:** How many days are in a real/or lunar month? 28 days  
**Clue2:** How many days are in the reproductive cycle:) 28 days  
**Ans:** Your answer is 28YEARS!!!  
You can safely have children from approximately 12 years old to 40 years old, which is total of 28 years. ~That’s 28years to complete your reproductive circle!!!

Q: What are the best ages to become pregnant?  
**Ans:** Medically the ages with the least risks are 15-24 years old. The Second best ages are 25-29 years old. From a strictly biological perspective, the 20s is the best decade for conceiving and carrying a baby: Experts say the average woman's fertility peaks when she's 26.~(this is YEAR 14 of your reproductive life)~ fertility then begins to decline.

Q: When should I STOP having children?  
**A:** Medically, it is advised that a Queen should have ALL her children before the age of 36. Women who are 36 and older run the risk of having complicated pregnancies and losing the baby.

Q: Which day in my cycle is best for my King and I, if choosing to make a baby?  
**A:** Typically, the best days to choose are day 7 & 8 after your last period
**Menstruation Cycle:** the shedding of the uterine lining (endometrium). It occurs on a regular basis in sexually reproductive-age females of certain mammal species. This article focuses on human menstruation. Women typically stop menstruating if they conceive or if they are breastfeeding. Menstruation lasts from puberty until menopause.

**Fertilization** of the ovum by a sperm usually occurs in the distal third of the fallopian tube. About 5 days later, the zygote implants into the uterine endometrium.

**Gestation:** From the third to the eighth week of gestation, all essential structures of the fetus form. During the remaining weeks these existing structures grow and mature. Throughout pregnancy, the placenta continues to produce progesterone and estrogen. These hormones stimulate growth of the fetus and uterine blood supply, affect contractile activity, stimulate growth of mammary tissue, and affect the woman’s metabolism.

**Birth:** Normally, around the 40th week of gestation (9 months plus 3 weeks), the fetus and placenta are expelled from the body. Estrogen and progesterone play a role in initiating parturition. Under the influence of oxytocin, regular contractions increase in frequency and intensity to aid in this process of childbirth.

**Lactation:** The breast produce and release milk for the nourishment of the neonate. The production and release of milk is influenced by prolactin, oxytocin and suckling of the neonate. This process is referred to as lactation.

**Menopause:** occurs when menses cease (for at least 1 year), in most women between ages 40 and 55. After menopause, the ovaries atrophy, estrogen levels fall & changes occur in the vagina, cardiovascular system, skeletal system and integumentary system.
March: The Female Reproductive System

~Reproductive Cycle~ (28 days)

Ovulation (usually day 14): Ovulation occurs when a mature egg is released from the ovary into the abdominal cavity.

Pregnancy & Ovulation ~ The most fertile period or the time with the highest likelihood of pregnancy lasts until 1–2 days after ovulation.

The Moon

Women’s menstrual cycles are linked to the 28 day lunar cycle or the Moon cycle. They are called “menses” after the word “monthly.”

Synchronization: Women who live together will often find that their menses, or “moon time” move in sync with each other, hence the idea of the Red Tent, where women would join together in rest and renewal during their bleeding each month.

The moon’s gravitational effects determine the rise and fall of the ocean’s tides. Interestingly, your body is 70% water and like the oceans of the earth it is also affected by the pull of the moons gravity.
Circulatory system: pumping and channeling blood to and from the body and lungs with heart, blood, and blood vessels. The circulatory system is the body's transport system. It is made up of a group of organs that transport blood throughout the body.

The heart pumps the blood and the arteries and veins transport it. Oxygen-rich blood leaves the left side of the heart and enters the biggest artery, called the aorta. The aorta branches into smaller arteries, which then branch into even smaller vessels that travel all over the body.

When blood enters the smallest blood vessels, which are called capillaries, and are found in body tissue, it gives nutrients and oxygen to the cells and takes in carbon dioxide, water, and waste. The blood, which no longer contains oxygen and nutrients, then goes back to the heart through veins.

Veins carry waste products away from cells and bring blood back to the heart, which pumps it to the lungs to pick up oxygen and eliminate waste carbon dioxide.
1. The Heart
2. How many Chambers of the Heart? -4
   - Left Atrium + Right Atrium
   - Left Ventricle + Right Ventricle
3. Jugular Vein
4. Sub-Clavian (clavicle) Vein
5. Sub-Clavian Artery
6. Superior Vena-cava
7. Pulmonary artery
8. Brachial Artery
9. Brachial Vein
10. Carotid Artery
11. Aorta
12. Femoral Artery - (Femur)
13. Femoral Vein
14. Capillaries

**Vocabulary**
1. Superior: Above or Greater
2. Inferior: Below or Lesser
3. Sub: Below or lesser
4. Brachial: Arm
5. Pulmonary: to do with the lungs & Respiration
6. Respiration: Breathing
7. Capillary: minute blood vessels connecting arteries to the veins, where diffusion takes place.
8. Diffusion: In diffusion, when capillaries contain a high concentration of oxygen and nutrients, while the surrounding tissues contain a lower concentration, Oxygen and nutrients leave the capillaries and enter the tissues.
10. Ventricle: Start of circulatory cycle- Blood pushes out of heart
Figure 2.7: Circulatory system

- Carotid artery
- Subclavian artery
- Aorta
- Jugular vein
- Subclavian vein
- Superior vena cava
- Pulmonary artery
- Brachial vein
- Heart
- Brachial artery
- Femoral vein
- Femoral artery
- Capillaries
Muscular system: muscles provide movement and a skeleton provides structural support and protection with bones, cartilage, ligaments, and tendons.

The muscular system is made up of tissues that work with the skeletal system to control movement of the body.

Some muscles —like the ones in your arms and legs— are voluntary, meaning that you decide when to move them. Other muscles, like the ones in your stomach, heart, intestines and other organs, are involuntary.

This means that they are controlled automatically by the nervous system and hormones—you often don't even realize they're at work.
Muscles are anchored to a fixed point on the skeleton by a tendon.

What do muscles do?
(1) Motion
(2) Maintaining Posture
(3) Producing heat (approx. 85% of body heat)

The Three Types of Muscles:
(1) **Skeletal muscle** - this muscle is called striated or stripey muscle, because it looks striped under a microscope. Skeletal muscle is a voluntary muscle.
(2) **Cardiac muscle** - situated in the walls of the heart. It is striated and involuntary.
(3) **Smooth muscle** - found in the walls of internal organs, blood vessels and the digestive, reproductive and urinary systems. Does not have the stripes found in skeletal muscle. This type of muscle is important in veins as it pushes blood back towards the heart. It is non-striated and involuntary.

~Muscle comprises 40-50% of a person's total body weight.~

Notes on above:
- The quadriceps consist of four muscles, the main one is called Rectus Femoris
- Chest muscles consist of pectoralis major & pectoralis minor. The major is higher up the body than the minor.
- Gluteus minimus and gluteus medius are part of the abductor group.
- The muscle over the shoulders is called the deltoid and has posterior, mid and anterior parts.
- The stomach muscles include the internal obliques, external obliques, rectus abdominis and the deep muscle the transverse abdominis.
- The multifidus muscles consist of lots of little muscles that are situated between the vertebrae.
May: The Muscular System
The urinary system eliminates waste from the body, in the form of urine. The kidneys remove waste from the blood. The waste combines with water to form urine. From the kidneys, urine travels down two thin tubes called ureters to the bladder. When the bladder is full, urine is discharged through the urethra. The kidneys, ureters, bladder and urethra involved in fluid balance, electrolyte balance and excretion of urine. Urinary System
July: The Urinary System

- Hepatic veins (cut)
- Inferior vena cava
- Adrenal gland
- Renal artery
- Renal hilum
- Renal vein
- Aorta
- Kidney
- Ureter
- Iliac crest
- Rectum (cut)
- Uterus (part of female reproductive system)
- Urinary bladder
- Urethra
**Endocrine system:** communication within the body using hormones made by endocrine glands such as the hypothalamus, pituitary or pituitary gland, pineal body or pineal gland, thyroid, parathyroids, and adrenals or adrenal glands

**Hormones:** chemical substances that act like messenger molecules in the body. After being made in one part of the body, they travel to other parts of the body where they help control how cells and organs do their work.

For example, insulin is a hormone that's made by the beta cells in the pancreas. When it's released into the blood, insulin helps regulate how the cells of the body use glucose (a type of sugar) for energy.
Hypothalamus: links the nervous system to the endocrine system via the pituitary gland

The hypothalamus is located below the thalamus, just above the brain stem. All vertebrate brains contain a hypothalamus. *In humans, it is roughly the size of an almond.*

It synthesizes and secretes certain neurohormones, often called hypothalamic-releasing hormones, and these in turn stimulate or inhibit the secretion of pituitary hormones.

*The hypothalamus controls body temperature, hunger, thirst, fatigue, sleep, and circadian cycles (biological clocks).*

Research has shown that: adults have a built-in day, which averages about 24 hours; indoor lighting does affect circadian rhythms; and most people attain their best-quality sleep during determined sleep periods.

A study found the range for normal, healthy adults of all ages to be quite narrow: 24 hours and 11 minutes ± 16 minutes. The "clock" resets itself daily to the 24-hour cycle of the Earth's rotation.
The pineal gland is responsible for the production of melatonin, a hormone that is secreted in response to darkness, and is also the site in the brain where the highest levels of Serotonin can be found.

Racial differences have been noted in the rate of pineal calcification. In Caucasians, calcified pineal is visualized in about 50% of adults over the age of 40 years (Wurtman et al, 1964); other scholars argue that Caucasians, in general, may have rates of pineal gland calcification as high as 60-80% (King, 2001).

There is a surprising rarity of calcified pineal gland on skull roentgenograms in West Africans. Adeloye and Odeku (1967)
Multiple Sclerosis tends to affect Caucasians disproportionately, and is nearly unheard of in Africa and is rare among African Americans. A high prevalence of pineal calcification has also been linked to bipolar disorder.

**Effects of Flouride:** The pineal gland simply absorbs more fluoride than any other physiological matter in the body, even bones.

Most whites have calcified pineal glands which thwarts Melatonin production, thereby limiting their moral capacity.

The pineal & pituitary glands regulate the body's other glands. Esoteric tradition regards the area of these glands as the third eye, seat of the soul; represented by the cobra on the forehead of Egyptian royalty/crowns.

Why did Africans view the European as creations of God but the Europeans, still to this day, can not recognize the God in Black people? Because of "melatonin," described as a mentally & morally stimulating humanizing hormone produced by the pineal gland.

Scientific research reveals that most whites are unable to produce much melatonin because their pineal glands are often calcified and nonfunctioning.
**Nervous system:** The nervous system is made up of the brain, the spinal cord, and nerves. One of the most important systems in your body, the nervous system is your body's control system.

It sends, receives, and processes nerve impulses throughout the body. These nerve impulses tell your muscles and organs what to do and how to respond to the environment.

There are three parts of your nervous system that work together: the central nervous system, the peripheral nervous system, and the autonomic nervous system.

**The Brain Stem & Spinal Cord**
Nerves, they are involved in almost everything happening in your body. The nerves are receivers and transmitters to all other functions and tissues.
September: The Nervous System

- **Parietal Lobe**: Touch, Pain, Voluntary Muscles, Temperature control
- **Frontal Lobe**: Thinking, Personality, Emotions
- **Occipital Lobe**: Vision
- **Temporal Lobe**: Time: Memory, Recall, Ears
- **Cerebellum**: Balance, Involuntary Movement, Breathing, Digestion etc.

**Brainstem**: Breathing, heart rate, arousal and consciousness, sleep and wake cycles

**Parietal Lobe**: Sense of touch, awareness of spatial relationships and academic functions such as reading

**Frontal Lobe**: Emotional control, self awareness, motivation, judgment, problem solving, talking, movement and initiation

**Occipital Lobe**: Vision

**Temporal Lobe**: Memory, hearing, understanding language, and processing information

**Cerebellum**: Balance, coordination, skilled motor activity
Tell me three things that each lobe controls:

1. Frontal Lobe
2. Temporal Lobe
3. Parietal Lobe
4. Occipital Lobe
5. Cerebellum
6. Brain Stem
Mr. Spinal Cord says
Please Label the Organs that I control :)
**Lymphatic system**: The lymphatic system is also a defense system for the body. It filters out organisms that cause disease, produces white blood cells, and generates disease-fighting antibodies.

It also distributes fluids and nutrients in the body and drains excess fluids and protein so that tissues do not swell.

The lymphatic system is made up of a network of vessels that help circulate body fluids. These vessels carry excess fluid away from the spaces between tissues and organs and return it to the bloodstream.
**Lymph nodes** are small balls or an oval-shaped organs of the immune system, distributed widely throughout the body including the armpit and stomach/gut and linked by lymphatic vessels. Lymph nodes are garrisons of B, T and other immune cells. Lymph nodes act as filters or traps for foreign particles and are important in the proper functioning of the immune system. They are packed tightly with the white blood cells called lymphocytes and macrophages.

**Thymus**: *thymus* gland produces several hormones, called thymosins, which stimulate the production and development of T cells.  
*T cells* or *T lymphocytes* belong to a group of *white blood cells* They are called *T cells* because they mature in the *thymus*. There are several subsets of T cells, each with a distinct function.

**Spleen**: The spleen is brownish. It is an organ found in virtually all vertebrate animals. Similar in structure to a large lymph node, the spleen acts primarily as a blood filter.

It is a non-vital organ, with a healthy life possible after removal. Storage of red blood cells, lymphocytes and other formed elements.

In horses, roughly 30% of the red blood cells are stored there. The red blood cells can be released when needed. In humans, up to a cup (236.5ml) of red blood cells can be held in the spleen and released in cases of hypo-volemia (low-volume).

**Liver**: The liver is a vital organ. The liver is a reddish brown organ with four lobes. It is both the largest internal organ and *the largest gland in the human body*.

It has a wide range of functions, including detoxification, protein synthesis, and production of biochemicals necessary for digestion.
Questions

Do lymph nodes store B, T and other immune cells?  yes

What color is the spleen?

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Respiratory system: the organs used for breathing, the pharynx, larynx, trachea, bronchi, lungs, and diaphragm. The respiratory system brings air into the body and removes carbon dioxide. It includes the nose, trachea, and lungs.

When you breathe in, air enters your nose or mouth and goes down a long tube called the trachea. The trachea branches into two bronchial tubes, or primary bronchi, which go to the lungs. The primary bronchi branch off into even smaller bronchial tubes, or bronchioles. The bronchioles end in the alveoli, or air sacs.

Oxygen follows this path and passes through the walls of the air sacs and blood vessels and enters the blood stream. At the same time, carbon dioxide passes into the lungs and is exhaled.
November: The Respiratory System

- Trachea
- Right primary bronchus
- Left primary bronchus
- Right lung
- Left lung

Oxygenated blood to heart
Deoxygenated blood from heart
Pulmonary venule
Bronchus
Bronchiole
Alveoli
Smallest blood vessels (capillaries)
Pulmonary arteriole
November: The Respiratory System

Correctly Label:

Alveoli, bronchi, bronchiolie, diaphragm, lung, mouth, nasal passage, trachea
Immune system: the system that fights off disease; composed of leukocytes, tonsils, adenoids, thymus, and spleen. The immune system is our body's defense system against infections and diseases.

Organs, tissues, cells, and cell products work together to respond to dangerous organisms (like viruses or bacteria) and substances that may enter the body from the environment.

There are three types of response systems in the immune system: the anatomic response, the inflammatory response, and the immune response.

Functions of the Immune System:
1. Recognition: Detect infection or harm
2. Effector function: Contain and eliminate infection
3. Regulation: Control activity to avoid damage to the body
4. Memory: Remember exposure; react immediately and strongly upon re-exposure
Adenoids (or pharyngeal tonsil, or nasopharyngeal tonsil) are a mass of lymphoid tissue situated posterior to the nasal cavity, in the roof of the nasopharynx, where the nose blends into the throat.

Tonsils produce antibodies that neutralize respiratory infections (e.g. pneumonia, bronchitis, ear infections, laryngitis, sinusitis and rhinitis) Tonsils function to trap bacteria and antigens and allow the body to produce antibodies against them.

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Thymus: thymus gland produces several hormones, called thymosins, which stimulate the production and development of T cells. T cells play an important

Peyer’s Patch: They are aggregations of lymphoid tissue that are usually found in the lowest portion of the small intestine, the ileum, in humans; as such, they differentiate the ileum from the duodenum and jejunum. The duodenum can be identified by Brunner's glands. The Jejunum has neither Brunner's glands nor Peyer's Patches.

Spleen: The spleen is brownish. It is an organ found in virtually all vertebrate animals. Similar in structure to a large lymph node, the spleen acts primarily as a blood filter. As such, it is a non-vital organ, with a healthy life possible after removal. Storage of red blood cells, lymphocytes and other formed elements. In horses, roughly 30% of the red blood cells are stored there. The red blood cells can be released when needed. In humans, up to a cup (236.5ml) of red blood cells can be held in the spleen and released in cases of hypovolemia (low volume).

Appendix (Vermiform appendix): Where the good vermin or bacteria in your intestines form and can be protected. It is a tube connected to the cecum. It serves as a haven for useful bacteria or vermin when illness flushes those bacteria from the rest of the intestines.

Bone Marrow: produces new blood cells. It is the flexible tissue found in the interior of bones. In humans, bone marrow in large bones produces new blood cells.
December: The Immune System

Label us:

Ad____________

To____________

Th___________

Sp__________

Ly_____ No_____

Pe______ pa_______

Ly_____ Ve_____

Bo___ Ma_______

App_____________

Bo___ Ma_______

Ly____ No_______

Pe___ pa_______

Ly____ Ve_______

Bo___ Ma_______
1. **The skeletal system** is made up of bones, ligaments and tendons. It shapes the body and protects organs. The skeletal system works with the muscular system to help the body move. Marrow, which is soft, fatty tissue that produces red blood cells, many white blood cells, and other immune system cells, is found inside bones.

2. **Digestive System**: digestion and processing food with salivary glands, esophagus, stomach, liver, gallbladder, pancreas, intestines, rectum, and anus. The digestive system is made up of organs that break down food into protein, vitamins, minerals, carbohydrates, and fats, which the body needs for energy, growth, and repair. After food is chewed and swallowed, it goes down the esophagus and enters the stomach, where it is further broken down by powerful stomach acids. From the stomach the food travels into the small intestine. This is where your food is broken down into nutrients that can enter the bloodstream through tiny hair-like projections. The excess food that the body doesn't need or can't digest is turned into waste and is eliminated from the body.

3. **Reproductive system**: the sex organs; in the female; ovaries, fallopian tubes, uterus, vagina, mammary glands, and in the male; testes, vas deferens, seminal vesicles, prostate, and penis. The reproductive system allows humans to produce children. Sperm from the male fertilizes the female's egg, or ovum, in the fallopian tube. The fertilized egg travels from the fallopian tube to the uterus, where the fetus develops over a period of nine months.

4. **Circulatory system**: pumping and channeling blood to and from the body and lungs with heart, blood, and blood vessels. The circulatory system is the body's transport system. It is made up of a group of organs that transport blood throughout the body. The heart pumps the blood and the arteries and veins transport it. Oxygen-rich blood leaves the left side of the heart and enters the biggest artery, called the aorta. The aorta branches into smaller arteries, which then branch into even smaller vessels that travel all over the body. When blood enters the smallest blood vessels, which are called capillaries, and are found in body tissue, it gives nutrients and oxygen to the cells and takes in carbon dioxide, water, and waste. The blood, which no longer contains oxygen and nutrients, then goes back to the heart through veins. Veins carry waste products away from cells and bring blood back to the heart, which pumps it to the lungs to pick up oxygen and eliminate waste carbon dioxide.

5. **Muscular system**: muscles provide movement and a skeleton provides structural support and protection with bones, cartilage, ligaments, and tendons. The muscular system is made up of tissues that work with the skeletal system to control movement of the body. Some muscles—like the ones in your arms and legs—are voluntary, meaning that you decide when to move them. Other muscles, like the ones in your stomach, heart, intestines and other organs, are involuntary. This means that they are controlled automatically by the nervous system and hormones—you often don't even realize they're at work.
6. **The urinary system** eliminates waste from the body, in the form of urine. The kidneys remove waste from the blood. The waste combines with water to form urine. From the kidneys, urine travels down two thin tubes called ureters to the bladder. When the bladder is full, urine is discharged through the urethra. The kidneys, ureters, bladder and urethra involved in fluid balance, electrolyte balance and excretion of urine. Urinary System

7. **Endocrine system**: communication within the body using hormones made by endocrine glands such as the hypothalamus, pituitary or pituitary gland, pineal body or pineal gland, thyroid, parathyroids, and adrenals or adrenal glands

8. **Nervous system**: The nervous system is made up of the brain, the spinal cord, and nerves. One of the most important systems in your body, the nervous system is your body's control system. It sends, receives, and processes nerve impulses throughout the body. These nerve impulses tell your muscles and organs what to do and how to respond to the environment. There are three parts of your nervous system that work together: the central nervous system, the peripheral nervous system, and the autonomic nervous system.

9. **Lymphatic system**: The lymphatic system is also a defense system for the body. It filters out organisms that cause disease, produces white blood cells, and generates disease-fighting antibodies. It also distributes fluids and nutrients in the body and drains excess fluids and protein so that tissues do not swell. The lymphatic system is made up of a network of vessels that help circulate body fluids. These vessels carry excess fluid away from the spaces between tissues and organs and return it to the bloodstream.

10. **Respiratory system**: the organs used for breathing, the pharynx, larynx, trachea, bronchi, lungs, and diaphragm. The respiratory system brings air into the body and removes carbon dioxide. It includes the nose, trachea, and lungs. When you breathe in, air enters your nose or mouth and goes down a long tube called the trachea. The trachea branches into two bronchial tubes, or primary bronchi, which go to the lungs. The primary bronchi branch off into even smaller bronchial tubes, or bronchioles. The bronchioles end in the alveoli, or air sacs. Oxygen follows this path and passes through the walls of the air sacs and blood vessels and enters the blood stream. At the same time, carbon dioxide passes into the lungs and is exhaled.

11. **Immune system**: the system that fights off disease; composed of leukocytes, tonsils, adenoids, thymus, and spleen. The immune system is our body's defense system against infections and diseases. Organs, tissues, cells, and cell products work together to respond to dangerous organisms (like viruses or bacteria) and substances that may enter the body from the environment. There are three types of response systems in the immune system: the anatomic response, the inflammatory response, and the immune response.