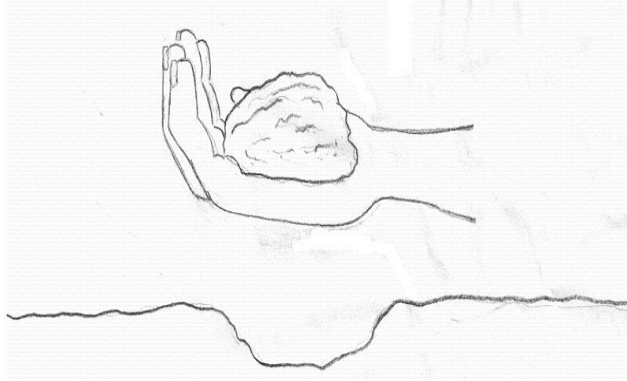


# Anatomy Overview



Genesis 1:26 **And God said, Let us make man in our image, after our likeness: and let them have dominion** over the fish of the sea, and over the fowl of the air, and over the cattle, and **over all the earth**, and over every creeping thing that creepeth upon the earth. Genesis 2:7 **And**

**the Lord God formed man of the dust of the ground**, and breathed into his nostrils the breath of life; and man became a living soul.

Job 18-21 **Behold, he put no trust in his servants**; and his angels he charged with folly: **How much less *in* them that dwell in houses of clay, whose foundation *is* in the dust, *which* are crushed before the moth?** They are destroyed from morning to evening: they perish for ever without any regarding *it*. **Doth not their excellency *which is* in them go away?** they die, even without wisdom.

Job 21:26 **They shall lie down alike in the dust, and the worms shall cover them.**

Job 34:15 All flesh shall perish together, and **man shall turn again unto dust.**

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## Notes for the teacher to consider:

- This teaching was compiled for a five-year old acquainted with the gospels and who could read and write. It can be used for any age--young or old--and can be adapted to meet your needs. Both my scholar and I have learned a tremendous amount about the body as a direct result of these early teachings. At the beginning of the school year, we had a two week Orientation in which we essentially covered most of the sheets in this booklet. There was no rote memorization. The teaching was done in those two weeks and was reviewed periodically in different formats throughout the school year. We had no regular Science class, just reviews when I thought about it.
- The following notes are based on an article entitled, *How we used the Bible to teach Science* located at [www.BiblicalScholarship.net/year2s.htm](http://www.BiblicalScholarship.net/year2s.htm).

Our Science program for Year 2 focused on anatomy. Our theme for Year 1 was "God made the earth a special place to be inhabited." Our theme for Year 2 was "God made man to rule the world." Year 2 would be the year of man, what he was made of. Based on how I read the scriptures, I surmised that man's body consists of--

### **Flesh and Blood Bones**

At the beginning of the school year we had a two-week Orientation. During that time, we had Bible studies and used models and worksheets to learn about man's anatomy. It was a lot of fun. We learned that **man's foundation is in the dust** and that plants bring up the dust of the earth for us in a form that we can eat and enjoy. The following is what we covered during the Orientation--

<b>Flesh and Blood:</b>
-------------------------

**Bible Study I:** Psalm 139. Emphasize v. 13-18. We are wonderfully made.

**Bible Study II:** I Corinthians 15. We must put on incorruption.

**Bible Study III:** Ephesians 6:12. We wrestle not against flesh and blood. Hebrews 2:14. Christ took part of flesh and blood that through death he might destroy him that had the power of death, that is the devil.

**Schoolwork:**

**\*\*Model.** Introduce our model, Julia Corruptible Adam. Take out organs, name, and replace.

**\*\*Worksheet.** Gross/surface anatomy, complete worksheet filling in body parts (head, feet, etc.)

**\*\*Cut and paste project.** Skeleton and Inwards (Considering God's Creation--we did not use much of this book). We cut out skeleton



pieces and glued them on a cardboard body. Scholar colored one or two organs per day until they were all done and ready to be cut out and glued onto a body about two feet by six inches. This helped the mind to understand how things are laid out.

## Bones/Skeleton:

### Bible Study I:

Job 10:11 (he hath clothed me with flesh and fenced me with bones and sinew), Job 21:24 (bones are moistened with marrow), Psalm 22:14 (...bones are out of joint), Amos 2:1, Zephaniah 3:3

**Bible Study II:** Ezekiel 37, the valley of dry bones. The church is dried up today and worldly when she was once alive. Can she live again?

### Schoolwork:

**\*\*Model.** Introduce and examine our skeletal model.

**\*\*Axial Skeleton** (bones of the axis, main part of the body, *you cannot live without this*)--skull, vertebrae, thorax (rib cage, breastbone). Axial skeleton supports the head, the neck and the trunk and protects the brain, the spinal cord and the organs in the thorax (lungs, heart, big blood vessels).

**\*\*Appendicular Skeleton** (bones of the limbs held on to the axial skeleton by the pectoral (chest) girdle and pelvic (hip) girdle). Discussed the symmetry and soundness of our bodies. The protection for our organs. The skull and rib cage are fences to hold us together. Consider our ability to move and go from place to place. God made us to move, run, jump, work.

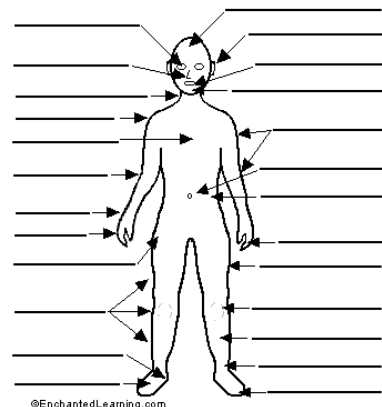


## Orientation is Critical

Our main teachings were presented during the first two weeks of school and then were reviewed at various times during the school year. This Orientation formed the foundation of our Science program.

During our Orientation, we studied:

- **outward man/gross anatomy** (I used worksheets to see what Hannah knew of gross anatomy (our outward man))
- **bones/skeletal system** (I used a model to teach her about our infrastructure (Job 10:11) as well as a cut and paste project. We drew the axial and complete skeleton a number of times during the school year)
- **inwards** (We used a large, tabletop model with



removable parts. We also used a worksheet with inwards)

Models were purchased from changbioscience.com--

- We used a **half-sized skeleton** model to teach about the bones. I thought I was ordering a full sized, but it turns out that half-sized was large enough.
- **We used a large (life-sized?) model with 26 removable parts to learn about the inwards**, e.g., brain, heart, lungs, liver, stomach, etc. As maid children, we had no need for the male genital insert so I discarded it without showing it to Hannah. We named our model, "Julia Corruptible Adam". Signifying that as remarkable as our bodies are, they are corruptible. They get sick and they will die.
- The 26-part dual sex torso includes thoracic vertebra, 4-part head with brain, female breast covering, 2 lungs, 2-part heart, 2-part stomach, liver with gall bladder, front kidney half, 4-part intestine system, 4-part male genital insert, and 3-part female genital insert with embryo.

## Science Topics Covered in Year 2

Below are some of the topics that we covered in Science. We did not have a regular science class. The mind needs time to rest and assimilate information and use it. Much of this was learned during our two week orientation and then just reviewed from time to time throughout the school year.

**General overview of thirteen (13) body systems** (digestive, respiratory, cardiovascular, integumentary, etc.). This was done only a few times to acquaint her with the fact that there are different functions regulating the body. We did a little closer study of several of the easier to understand body systems, e.g., digestion.

**Axial skeleton** (you cannot live without it), **Appendicular skeleton** (your appendices-- arms and legs) are held on to your axial skeleton by the pectoral girdle and the pelvic girdle).

**Creation consists of both living (plant, animal, man) and non-living elements (dry land, rocks).**

There are **three great domains**: (1) dry land (2) sea, (3) firmament--all of which are inhabited. The creation is full of cycles and patterns. Review the globe, continents, islands, seas, water cycle, wind cycle, where I live...

We **drew our own skeletons free hand** at various times.

**The senses.**

During our Ancient History class, when we arrived at Leviticus 11, we took time to study the anatomy of the sacrificial animals. What I found is that **our early studies of man's anatomy served as a benchmark against which to compare**

**other anatomies.** When Hannah learned that sheep have 52 vertebrae, she exclaimed, "Wow!" because she knew man only has 26. **It also paved the way for future studies in nutrition and medicine.**

Attention is the light of the teaching art. Simple teachings, interesting displays, various ways of seeing the same thing, occasional meaningful fieldtrips, pictures, etc. give opportunities to **deal with the same handful of facts in different ways.** Pictures and models are required here. One can make their own models (sew a heart, liver, lungs, etc. at their approximate size and stuff them into a pillowcase body or make them out of cardboard and let the scholar place them in their approximate positions. One can make their own worksheets, too--free hand or tracing paper. The mind does not require a perfect drawing. Hannah liked my homemade worksheets, etc. best and I think that it may be like that for a lot children.

You can customize your studies. I did not start out with this goal of developing my own materials, but when I looked for suitable materials in the marketplace, I could find none. Generally, publishers are 1) not using publishing materials based on the scriptures and 2) are not publishing intelligent materials for four, five, and six year olds. In junior high and high school there is an emphasis on cramming too many facts into a book. The examples are irrelevant to life (how many baskets did she score in the game? with this allele and that allele what is the probability for blue eyes?). In college, the books are written by people who excelled in irrelevant education and who are trying to make a name for themselves, so their books are worse than the ones they used even though they may be trying to help students. I *had* to compile my own books. They contained some original teachings and some sound teachings that I found in various sources. I would tear out a page here or an illustration there, write, draw, and research. In the end I would have a whole book.

- What you will find in this booklet are my own personal notes and sheets consulted in this journey in hopes that these discoveries may be an aid to those seeking and pursuing a truly Biblical scholarship utilizing the Authorized King James Bible. Literally, no other Bible version will work. The Christian reader is advised to (1) closely study Genesis 1:1-2:7\* and (2) test these things against the scriptures and his own researches.

*\*In studying Genesis 1;1-2:7, I made charts and notes--what was created each day and what brought forth what. I identified the three great domains (they are found throughout the scriptures, e.g., Revelation 14:7). I considered the word FIRMament--what we call space is a substance. I considered the dry land, minerals and Tubal-Cain. I considered heaven and earth (found throughout the scriptures)--depth is a created thing, the firmament was created on the second day. I considered light and darkness--both of which are substances--and am still doing so. Genesis 1:1-2:7 is as big as all creation but given to us in such a compact and amazing form. God, of a truth, is a teacher infinite in wisdom and power. The Bible itself is a marvel. Out of all the truth to be known, what we need to know has been condensed into a single, exquisite volume.*

**ANATOMY**, *n.* [Gr. through and cut.] The art of dissecting, or artificially separating the different parts of a body in order to examine or discover their situation, structure, and uses.

## **Introduction**

Anatomy studies the structure of the body (including organs and organ systems) while leaving the study of tissues to histology and cells to cytology. Man's body, as with the bodies of beasts, is made up of systems (circulatory, respiratory, digestive, etc.) that are made up of organs. Organs are made up of tissues and tissues are made up of cells. The life of the flesh is in the blood and therefore the Cardiovascular System is of particular and especial interest.

### ***Mineralogy***

The Bible teaches us that man is made of the dust of the earth which led us to--

- a study of mineralogy (we ordered The Washington Collection and other rock collections from Rockman's Trading Post-- <http://www.rocksandminerals.com>)
- Tubal-Cain father of every artificer in brass and iron,
- the precious stones of the Bible
- metals of the Bible
- rocks--including brimstone
- Aaron's breastplate.

### ***The Periodic Table***

When we arrived at the Periodic Table of the "Elements," we found that it is misnamed. The "elements" from which all things came are found in Genesis 1:1-2:7. For instance earth is an element--it brought forth the moving creature that hath life and God formed man from the dust of the ground. Man's idea of all life coming from a primordial chemical soup is preposterous. The Periodic Table, a remarkable tool, lists the elements that man has so far identified in the creation. A more fitting name for the Periodic Table may be "The Periodic Table of the Components"--the components being particles/atoms found in the earth, water, and firmament (the three great domains of creation) and the host of them. All substances that man has examined--whether they be found in the firmament (e.g., an asteroid) or on the earth (e.g., a mosquito or grass)--are composed of the handful of naturally occurring components\* (under 100) found in the Periodic Table. *"The Mystery of the Periodic Table,"* (ISBN 1-883937-71-X) by Benjamin D. Wiker, is a simply written, helpful book that gives the history of the Periodic Table.

*\*The Periodic Table also includes synthetically created substances found nowhere but man's laboratory.*

### ***The Role of Plants***

Man is made of the dust of the ground but we do not ordinarily eat dust or clay. Plants uptake the dust/minerals and convert them into a form that we and the animals can eat. We see rocks as repositories of packed together minerals which leach into the soil when eroded by water. In examining these things, and others, we have found a beautiful and elegant system bespeaking the amazing and unlimited power and wisdom of God.



## **We are made out of the dust of the earth.**

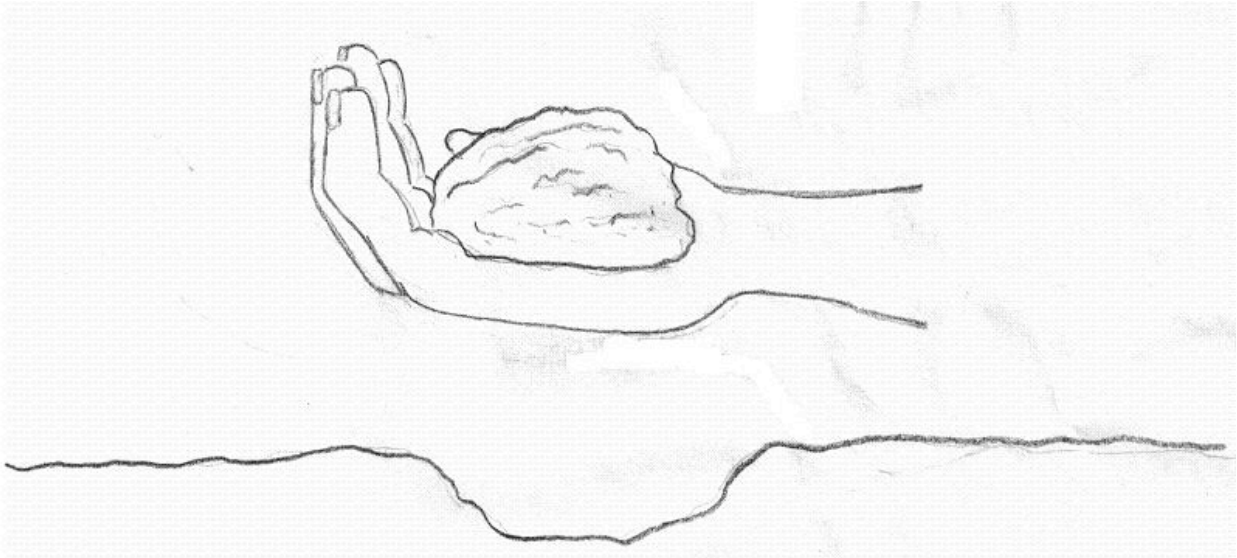
*Genesis 1:26 And God said, Let us make man in our image, after our likeness: and let them have dominion over...all the earth.*

*Genesis 2:7 And the LORD God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul.*

*Job 4:18-21 Behold, he put no trust in his servants; and his angels he charged with folly: How much less in them that dwell in houses of clay, whose foundation is in the dust, which are crushed before the moth? They are destroyed from morning to evening: they perish for ever without any regarding it. Doth not their excellency which is in them go away? they die, even without wisdom.*

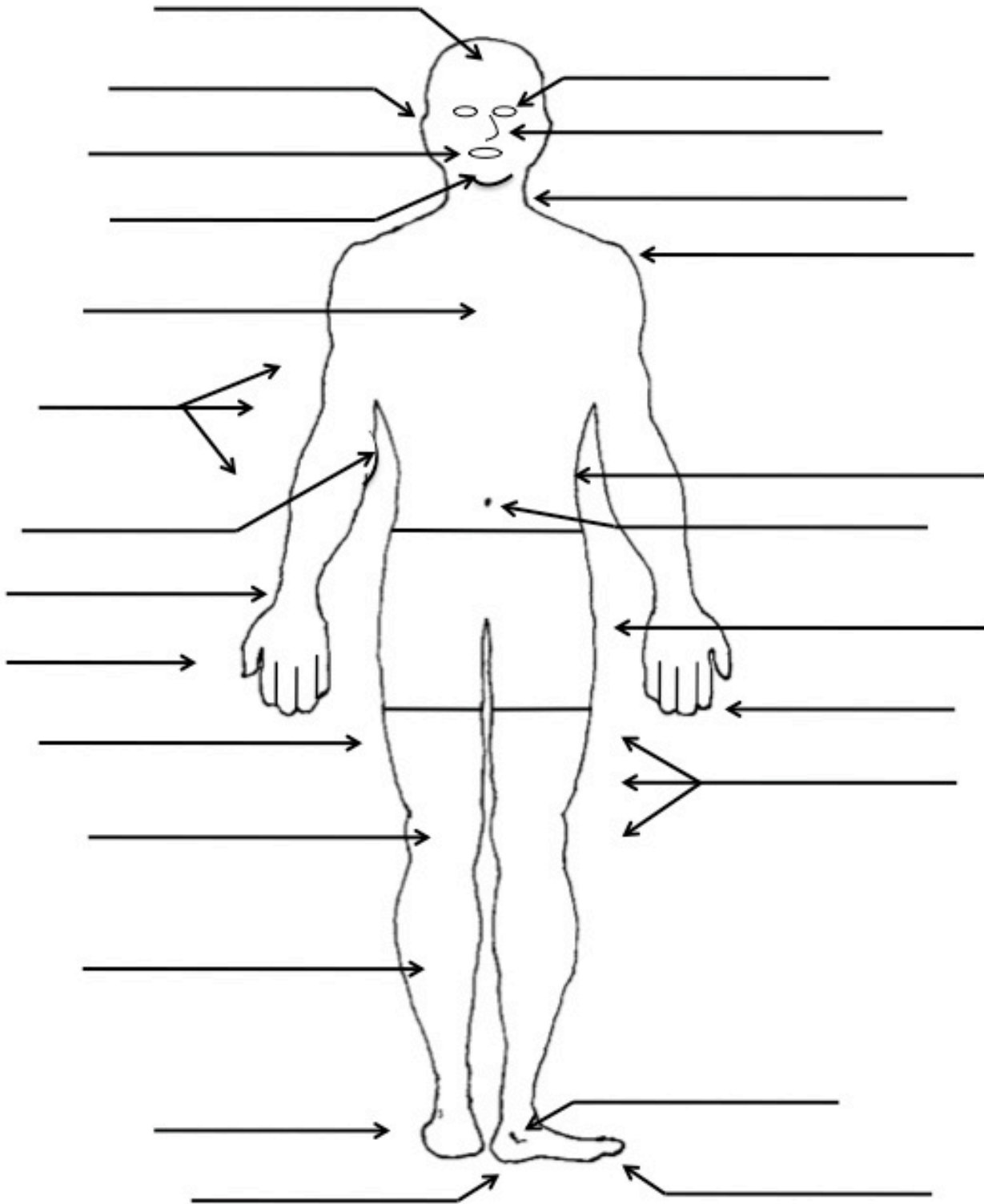
*Job 21:26 They shall lie down alike in the dust, and the worms shall cover them.*

*Job 34:15 All flesh shall perish together, and man shall turn again unto dust.*



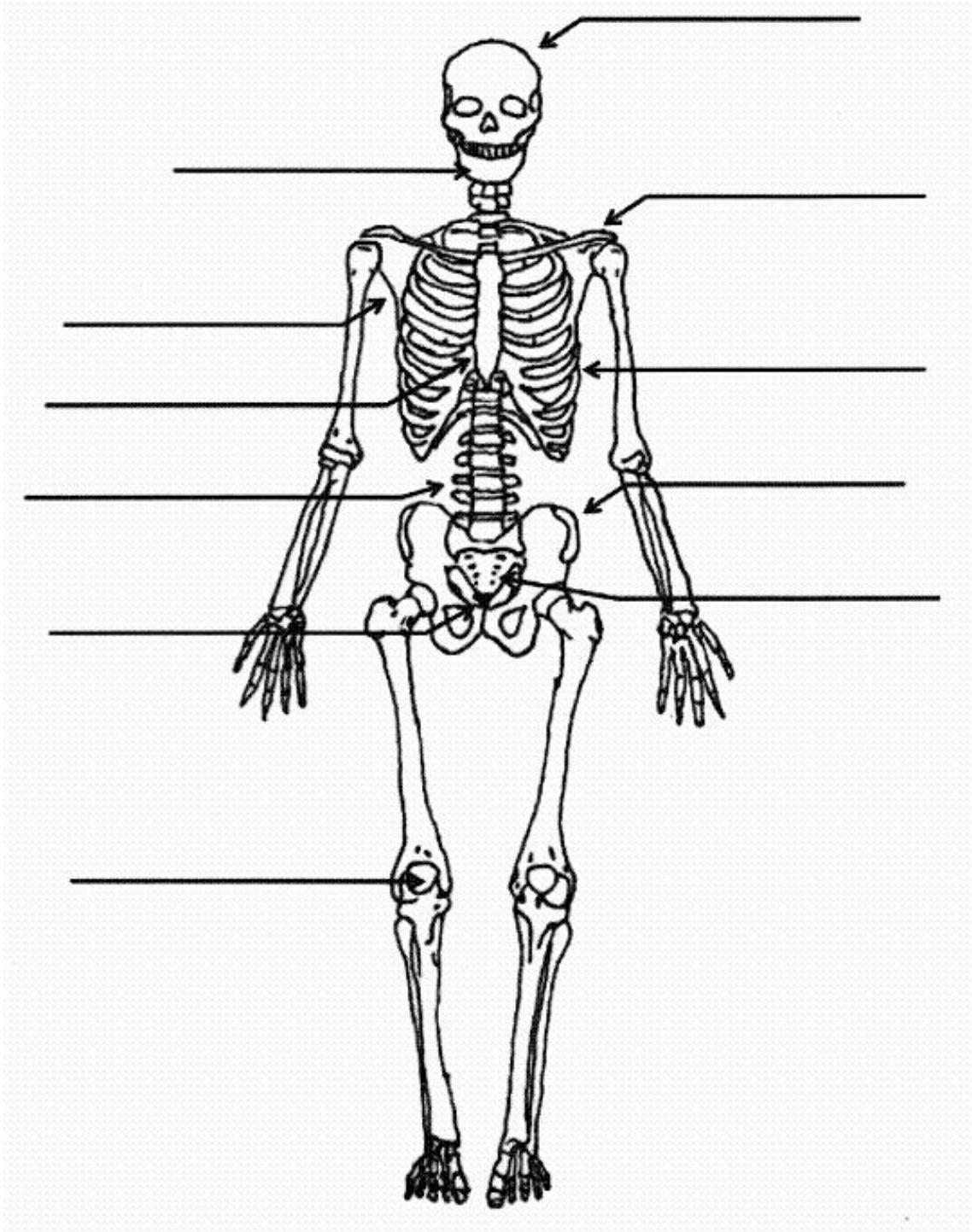
## Outward Man/Gross Anatomy Worksheet

*Psalms 139:14 I will praise thee; for I am fearfully and wonderfully made:  
marvellous are thy works; and that my soul knoweth right well.*



## Bones/Skeleton Worksheet

*Job 10:11 Thou hast clothed me with skin and flesh,  
and hast fenced me with bones and sinews.*



Answers from top to bottom--

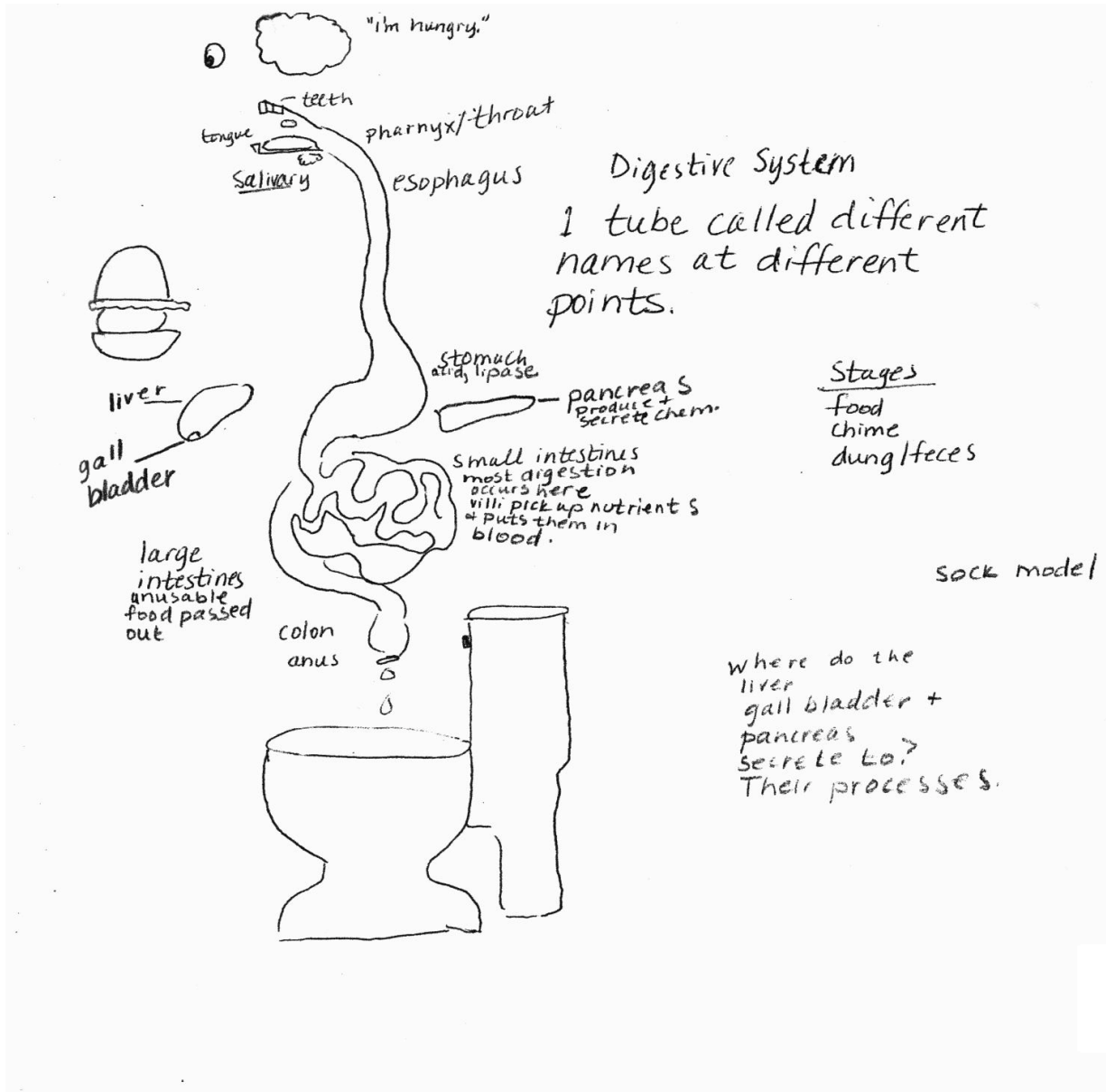
**Left side:** jawbone/mandible, scapula/shoulder blade, breastbone/sternum, backbone/vertebrae, coccyx, kneecap/patella

**Right side:** skull/cranium, collar bone/clavicle, rib/rib cage, pelvic bone, sacrum

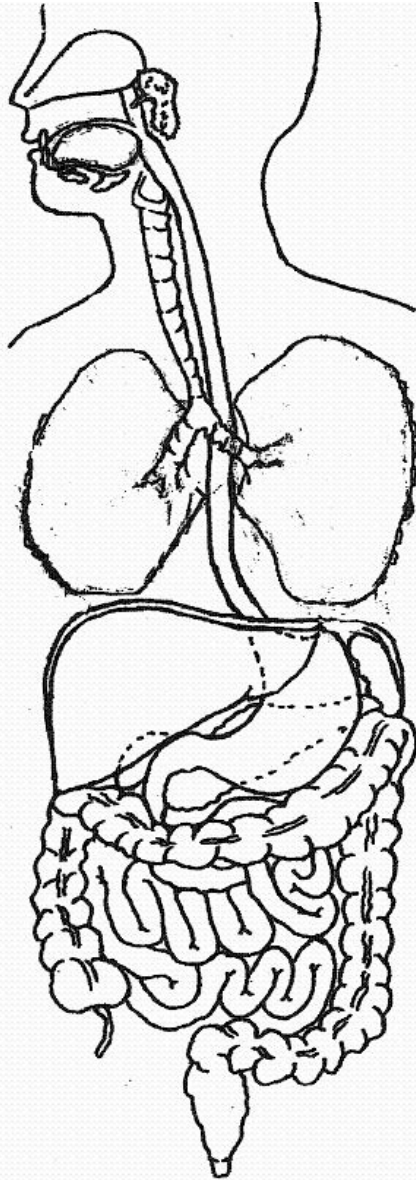
# The Digestive System

The digestive system is essentially one long tube called different names at different points. Food goes through the mouth down the pharynx/throat, down the esophagus into the stomach, through the small intestine, through the large intestine, and out of the anus. Below is a sketch that I made when I was learning about some of these things. It is included for the teacher's consideration.

(Note that the scholar learned about the tube and that some organs "skirted" in some chemicals at different points to help the digestive process. I don't think that we examined lipase. I don't know about chyme. Simplicity in teaching is very important.)



## Inwards



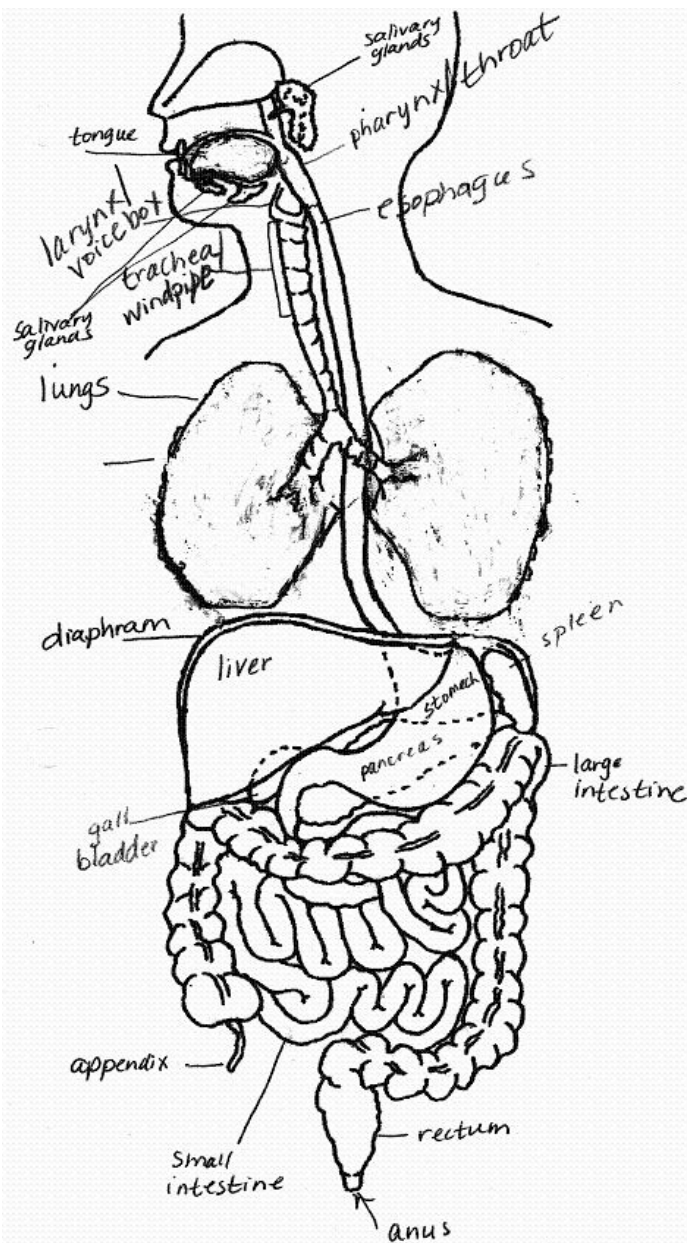
### INTERNAL ORGANS \*

Color the parts. Color the O that is next to the name, then color the body part the same color.

- O tongue
- O larynx/voicebox
- O trachea/windpipe
- O pancreas
- O stomach
- O small intestine
- O rectum
- O salivary glands
- O pharynx/throat
- O esophagus
- O lungs
- O liver
- O gall bladder
- O large intestine
- O appendix
- O anus
- O spleen
- O diaphragm

\* Organ: Instrument by which  
some process is carried on.





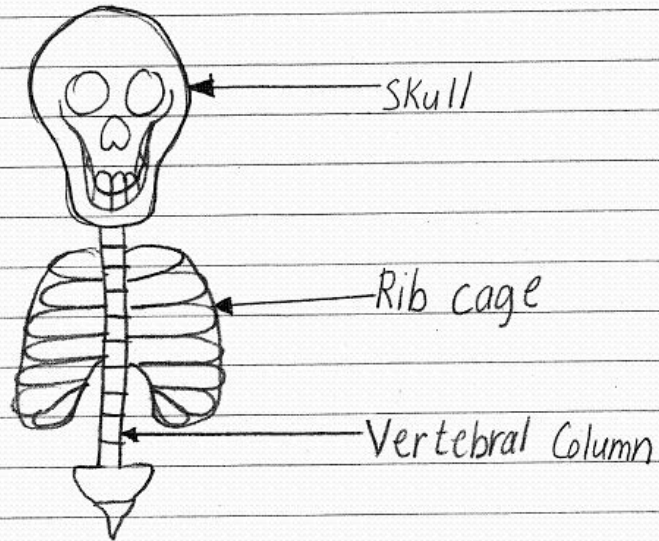
Color the parts. Color the ( that is next to the name, th color the body part the same color.

- ☐ tongue ✓ red
- ☐ larynx- ✓ voice box epiglottis ✓
- ☐ trachea ✓ gray windpipe
- ☐ pancreas ✓ yellow
- ☐ stomach ✓ pink
- ☐ small intestine ✓ pi
- ☐ rectum ✓ brown
- ☐ salivary glands ✓ ye
- ☐ pharynx ✓ pink throat
- ☐ esophagus ✓
- ☐ lungs ✓ burgundy
- ☐ liver ✓ burgundy
- ☐ gall bladder ✓ green
- ☐ large intestine ✓ gr
- ☐ appendix ✓ burgundy
- ☐ anus ✓ brown
- ☐ spleen ✓ burgundy
- ☐ diaphragm

Notes: (1) The heart is missing from this diagram (removable heart was examined with the tabletop model. Taught toddler about the heart by me running in place and then putting the child's hand on my chest so she could feel it beat. We also use a stethoscope to listen to the heart). (2) The larynx is the voice box. The epiglottis is part of the larynx/voice box (the epiglottis was not taught to the scholar). (3) Teacher can have scholar use colors of choice in completing the sheet.

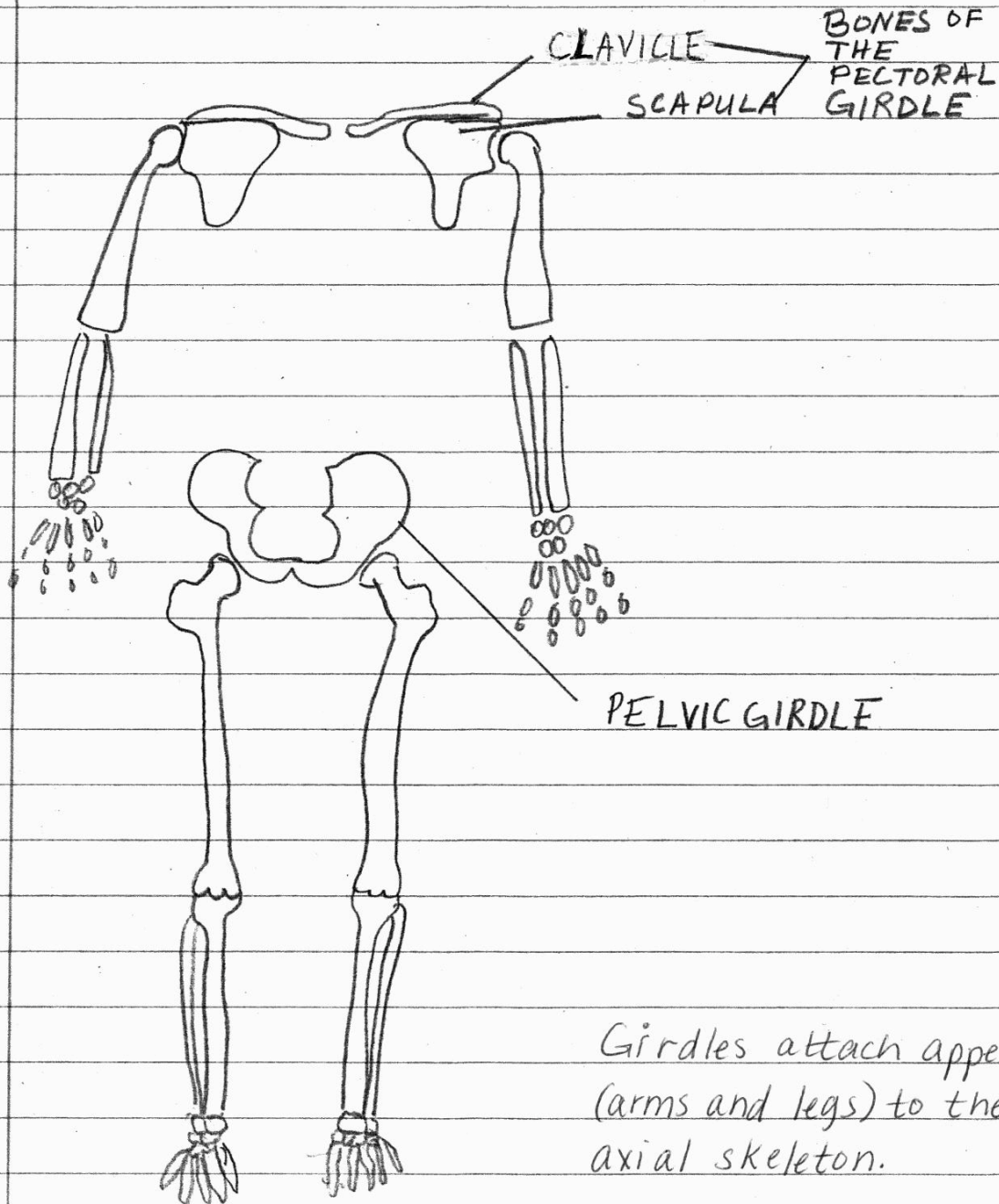
## Axial\* Skeleton

You cannot live without this.



\* Axis: the center of action.

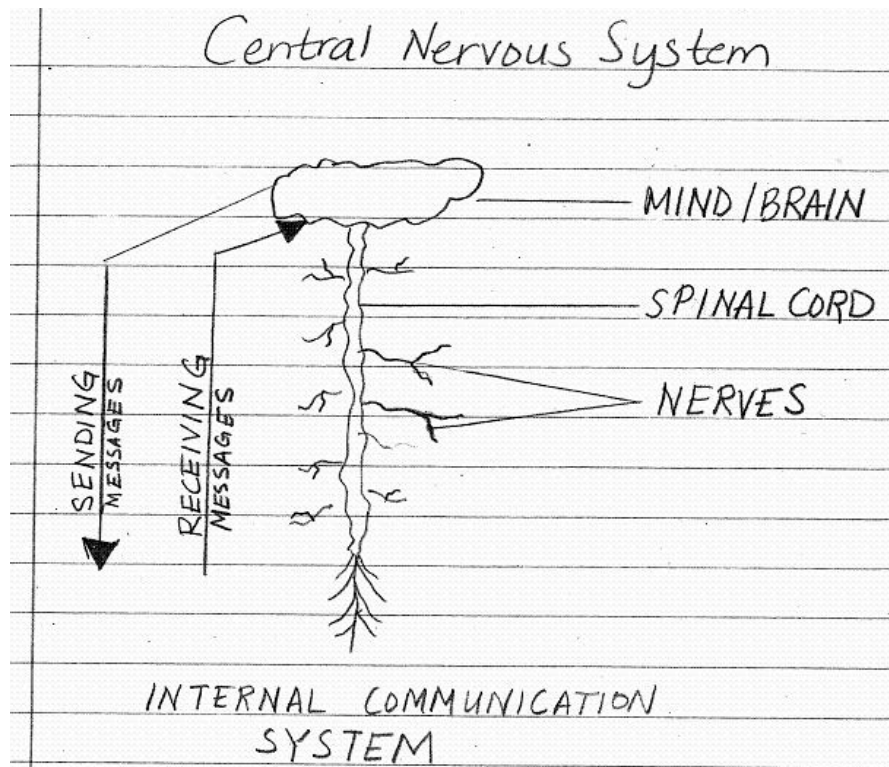
# Appendicular\* Skeleton



Girdles attach appendices (arms and legs) to the axial skeleton.

\* Appendix: Something added on.  
Arms and legs are add ons. You can live without them.





## THE SENSES

Organs\* by which we collect and receive communication from, and communicate with, the world outside the body.

ORGAN	* SENSE
-------	---------



SIGHT



HEARING



TOUCH



TASTE



SMELL

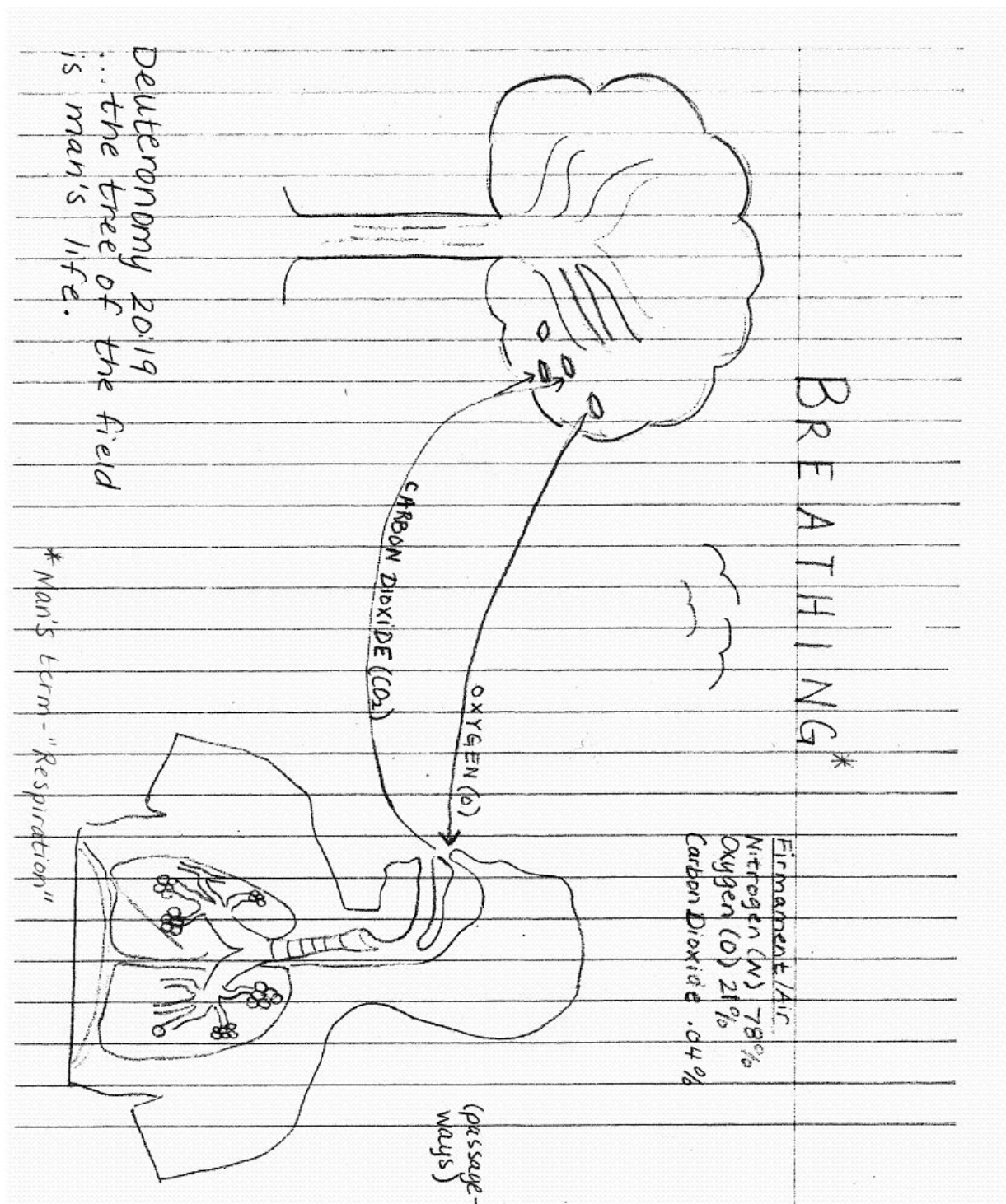
As wonderful as your senses are, the Bible is more reliable than all of your senses (see II Peter 1:16-21).

\* organ: Instrument by which some process is carried on.

## Major Systems of the Body

*Job 34:15 All flesh shall perish together, and man shall turn again unto dust.*

1. **Skeletal System:** fencing/protection and structural support.
2. **Central Nervous System:** command center--mind (brain), spinal cord, and nerves. sending information, receiving information, processing information.
3. **Senses:** organs by which we receive communication from the outside world and by which we communicate with the outside world.
4. **Respiratory System:** organs used for breathing.
5. **Digestive System:** intake and processing of food. One long tube called different things at different points (esophagus, stomach, small intestine, etc.)
6. **Excretory System:** eliminating urinary wastes from the body
7. **Cardiovascular System:** circulatory system--heart, blood, blood vessels.
8. **Reproductive System:** multiplication/reproductive organs.
9. **Endocrine System:** communicating within the body using hormones secreted into the blood.
10. **Exocrine System:** see "Integumentary System.
11. **Immune System:** body's defense against foreign agents and disease.
12. **Muscular System:** sinew/tendons/ligaments/muscles that join bones and move the body.
13. **Integumentary (L. "to cover") System:** skin and its accessory structures--hair nails, exocrine (exit) glands which secrete into ducts leading to the exterior of the body.
14. **Lymphatic System:** Immune system protects the body from pathogens.  
*Vaccinations* (which we do not trust) inject a pathogen directly into the body (bypassing the normal blockages to entry) and the body itself creates antibodies in response to it. If the disease comes around later, the body already has antibodies. The immune system is the hero, not the vaccination.  
*Antibiotics* stave off the invading pathogen allowing the immune system to work with less hinderance. The immune system, again, is the hero. A body nourished with good (non-GMO), whole foods is critical to good health.



Notes: We learned about the trachea/windpipe, bronchi (two tubes that branch off of the trachea), bronchioles (smaller tubes that branch off from the bronchi), and alveoli (the little balloon-like air sacs where oxygen enters the bloodstream and the carbon dioxide exits to be exhaled when we breathe out).

## COMMON COMPONENTS/ATOMS MAKING UP MAN'S BODY

### Major (96.1%)

Oxygen, O, 65%

Carbon, C, 18.5%

Hydrogen, H, 9.5%

Nitrogen, N, 3.2%

### Lesser (3.9%)

Calcium, Ca, 1.5%

Phosphorus, P, 1%

Potassium, K, .4%

Sulfur, S, .3%

Sodium, Na, .2%

Chlorine, Cl, .2%

Magnesium, Mg, .1%

Iodine, I, .1%

Iron, Fe, .1%

### Trace (less than .01%)

Chromium (Cr), Cobalt (Co), Copper (Cu), Fluorine (F), Manganese (Mn), Molybdenum (Mo), Selenium (Se), Silicon (Si), Tin (Sn), Vanadium (V), Zinc (Zn) -- *(many trace components are found as a part of enzymes or are required for enzyme activation)*



FOUND ON THE PERIODIC TABLE. Of course

these are all found in the dust of the earth's crust from whence we came (ref. Genesis 2:7)

[illegible]