Anatomy	**Physiology**
Macroscopic Anatomy	**Microscopic Anatomy**
Principle of Complementarity of Structure and Function	**Levels of Organization**
Tissue	**Organ**
Organ System	

Study of the structure of body parts and their relationship to one another	**How the parts of the body work and carry out their life-sustaining activities**
Gross Anatomy	**Study of the body structures that are visible to the naked eye**
Study of the body structures that are too small to be seen with the naked eye	**What a structure can do depends on its specific form**
Bones support our body because they contain hard mineral deposits	**Incisors and Canines are used for ripping and tearing apart food**
Atom	**Molecule**
Cell	**Tissue**
Organ	**Organ system**

Organism	**Carbon**
Sugar	**Mitochondria**
Muscle cell	**Muscle**
Heart	**Cardiovascular System**
Frog	**A group of cells that have a common function**
A structure that is composed of at least 2 types of tissues → performs a specific function	**A group of organs that work together to accomplish a common purpose**
Integumentary	**Skeletal**

Muscular	**Lymphatic or Immunity**
Respiratory	**Digestive**
Nervous	**Endocrine or Hormones**
Cardiovascular	**Urinary**
Reproductive	

Anatomical Position	**Sagittal Plane/Cut**
Transverse Plane/Cut	**Frontal Plane/Cut**
Mid-Sagittal Plane/Cut	**Oblique Section**
Superior	**Cranial**
Inferior	**Caudal**
Anterior	**Ventral**
Posterior	**Dorsal**

Medial	**Lateral**
Intermediate	**Proximal**
Distal	**Superficial**
External	**Deep**
Internal	

Standing upright	Feet slightly apart
Hands at your side	Palms facing forwards with thumbs pointing out
Vertical plane/cut that divides the body into right and left sides	Vertical plane/cut that divides the body into equal right and left sides
Horizontal plane/cut the divides the body into superior and inferior sections	Vertical plane/cut that divides the body into anterior and posterior sections
Cuts made diagonally between the horizontal and vertical planes	Towards the head or upper part of a structure of the body
Above	Away from the head or towards the lower part of a structure of the body
Below	Toward or at the front of the body

In front of	Toward or at the back of the body
Behind	Towards or at the middle (midline) of the body
Away from the middle of the body	To the side
Between a more medial and lateral structure	Closer to the origin of the body part or the point of attachment of a limb to the body trunk
Farther from the origin of a body part or the point of attachment of a limb to the body trunk	Toward or at the body surface
Away from the body surface	

Axial	**Appendicular**
Dorsal Body Cavity	**Cranial Body Cavity**
Vertebral/Spinal Cavity	**Ventral Body Cavity**
Thoracic Cavity	**Pleural Cavity**
Mediastinum	**Pericardial Cavity**
Abdominopelvic Cavity	**Abdominal Cavity**
Pelvic Cavity	**Orbital Cavity**

Nasal Cavity	**Oral Cavity**
Middle Ear Cavities	**Serous Membrane**
Parietal Serosa	**Visceral Serosa**
Serous fluid	

Axis of the body, consists of the head, neck, and trunk	The appendages or limbs of the body
Body cavities towards the back of the body	Broken down into the cranial and spinal cavity
Encases the brain	Runs within the bony vertebral column, encloses the spinal cord
More anterior and larger of the two main body cavities	Broken down into the Thoracic Cavity and abdiminopelvic cavity
Divided by the diaphragm	Surrounded by the ribcage
Diaphragm marks the inferior border	Divided into the Pleurcavities and mediastinum
Contains the lungs	Middle cavity

Contains the pericardial cavity and also surrounds the esophagus, trachea, and some other organs	Encloses the heart
Area below the diaphragm	Divided into the abdominal cavity and the pelvic cavity
Diaphragm is the superior border	Contains the stomach, intestines, spleen, liver, and other organs
Lies in the bony pelvis	Contains the bladder, some reproductive organs and the rectum
Houses the eye	Part of the respiratory passageways
Contains the teeth and tongue	Lies just medial to the eardrums
Contain tiny bones that transmit sound vibrations to the hearing receptors in the middle ear.	Serosa

Double layered membrane that covers the wall of the ventral body cavity and outer surface of the organs	The outer layer of the serous membrane that lines the cavity walls
The inner layer of the serosa that covers the organs of the ventral body cavity	Separates the serous membrane
Thin layer of lubricating fluid	

Abdominal	Acromial
Axillary	Brachial
Buccal	Calcaneal
Carpal	Cephalic
Cervical	Coxal
Digital	Femoral
frontal	Gluetal

Hallux	Inguinal
lumbar	nasal
Occipital	Olecranal
Oral	Orbital
Otic	Palmar
Patellar	Pedal
Pelvic	Plantar

Pollex	Popliteal
Sacral	Scapular
Sternal	Tarsal
Thoracic	Umbilical
Adip/o	lip/o
Blast/o	Cardi/o
Coron/o	Cyt/o

-cyte	-ectomy
En	Endo
Epi	Exo
Gloss/o	Hepat/o
Hetero	Hist/o
Homo	Hem/o
Hemat/o	Hyper

Hypo	-ician
-ist	-ologist
-logy	My/o
Myos/o	Nas/o
Rhin/o	Nephr/o
Ren/o	Onc/o
Oste/o	Ped/o

Pod/o	Peri
Phneum/o	Pneumon/o
Pulmon/o	-poiesis
Viscer/o	

Abdomen	Lateral point of the shoulder
Arm pit	Upper arm
Cheek	Heel
Wrist	Head
Neck	Hip
Fingers / toes	Thigh
Forehead	Buttocks

Big toe	Groin
Lower back	Nose
Back of the head or base of skull	Back of elbow
Mouth	Eye
Ear	Palm
Knee	Foot
Hip	Bottom/sole of foot

Thumb	Back of knee
Between the hips	Shoulder blade
Sternum/breastbone	Ankle
Chest/rib cage	Navel/belly button
Fat	Early embryonic stage, immature
Heart	Cell
Surgical removal of	Inside, within

Above, over, upon	Outside, outward
Tongue	Liver
Different, other	Tissue
Same, similar	Blood
Above, excessive, beyond	Under, deficient, below
Specialist	Study of
Muscle	Nose

Kidney	Tumor, mass
Bone	Foot
Around, surrounding	Lungs
Internal organs	

Necessary Life Functions	Maintaining Boundaries
Movement	Responsiveness or Irritability
Digestion	Metabolism
Excretion	Reproduction
Growth	Survival Needs
Nutrients	Oxygen
Water	Normal Body Temperature

Homeostasis	Negative Feedback
Positive Feedback	Homeostasis
Negative Feedback	Positive Feedback
Homeostasis	Negative Feedback
Positive Feedback	Homeostasis
Negative Feedback	Positive Feedback

Internal environment remains distinct from the external environment	Cells have a membrane
Humans have skin	Propelling ourselves by using skeletal muscles
Movement of substances inside the body such as blood, foodstuffs, urine, etc.	Ability to sense changes (stimuli) in the environment and respond to them
Touch something hot → pull back quickly	Feel cold → start shivering
Breaking down of ingested food into simple molecules that can be absorbed into the blood	All chemical reactions that occur within body cells
Breakdown of "stuff" into simpler parts	Synthesizing more complex cellular structures from simpler substances
Using nutrients and oxygen to produce ATP	Catabolism

Anabolism	Process of removing wastes from the body
Digestive system, urinary system, and respiratory system	One cell divides into two cells
Sperm fertilizes egg	Increase in the size of a body part or the organism
Usually accomplished by increasing the number of cells	Taken in via the diet
Contain the chemical substances used for energy and cell building	Needed for cellular respiration
Needed for cellular respiration	Only 20% of the air we breathe contains this….
60-80% of our body weight	Needed for chemical reactions

Needed for body secretions and excretions	Needed for chemical reactions to occur
Human body temp is 98.6°F	Too low and reactions stop
Too low and reactions occur to fast and proteins denature and stop working	Force that air exerts on the surface of the body
Needed for gas exchange in the lungs	The ability to maintain a relatively stable internal environment even though the outside is constantly changing
Dynamic state of equilibrium or balance	Very complicated → all organ systems contribute to equilibrium
System shuts off the stimulus or reduces the intensity	All to prevent severe and sudden changes in the body
Causes the variable to change in the **opposite** direction	Regulation of body temperature

Most common type of feedback system	The result or response of the system is to enhance/exaggerate the original stimulus so that the activity (output) is accelerated
Called cascades because they are likely to race out of control	Causes the variable to change in the **same** direction
Blood clotting	Labor
Rare type of feedback system	