**Orientation: The Language of Anatomy Notes**

Anatomy- the study of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of body parts.

**Gross/\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 -Regional

 -Systemic

**Microscopic**

 -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-anatomy of \_\_\_\_\_\_\_\_\_\_

 -Histology-anatomy of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Physiology**

-the study of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the structural parts

 -Operations of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ systems and between cells

 -involves chemistry and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 -chemical concentrations, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ currents, pressures and

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The Principle of Complementarity**

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ always reflects structure: “\_\_\_\_\_\_\_\_\_\_\_ follows function”

Structural Organization Levels: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 🡪 molecules 🡪 \_\_\_\_\_\_\_\_ 🡪 tissues 🡪

Organs🡪 organ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 🡪 organism

**Functions of Life**

 -\_\_\_\_\_\_\_\_\_\_\_\_\_\_ boundaries, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, response to stimuli, digestion, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, excretion, reproduction, \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Maintaining Life: nutrients, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, water, normal body temperature, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pressure

**Homeostasis**

 -the ability to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a relatively stable internal condition as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ conditions change

Homeostasis is controlled primarily by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and nervous systems.

-stimuli 🡪 receptor 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pathway🡪 control center 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pathway 🡪 effector

**Feedback Control**

 -Negative feedback- effector turns stimuli \_\_\_\_\_\_\_\_\_
 -Positive Feedback- effector makes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ stronger

**Anatomical Position**

 -body \_\_\_\_\_\_\_\_\_\_\_\_, limbs extended

 -palms facing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and feet together

**Surfaces of the Body**

 Front= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or ventral surface

 Back= posterior or \_\_\_\_\_\_\_\_\_\_\_\_\_\_ surface

 Side= \_\_\_\_\_\_\_\_\_\_\_\_\_ surface

**Planes (cuts/sections)**

 -Sagittal:

 -Midsagittal-plane divides body into two equal right and left \_\_\_\_\_\_\_\_\_\_\_

 -Parasagittal-plane \_\_\_\_\_\_\_\_\_\_\_\_\_ to midsagittal plane (unequal halves)

 -Transverse

 -divides body into \_\_\_\_\_\_\_\_\_\_\_\_ and lower parts

 -superior and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ (same as horizontal)

 -Frontal (Coronal)

 -divides body into anterior and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ parts (front and back)

**Position**

 -lateral-towards the \_\_\_\_\_\_\_\_\_\_\_\_ of the body

 -medial-towards \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the body

 -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_= above (towards head)

 -inferior= \_\_\_\_\_\_\_\_\_\_\_\_\_ (towards feet)

 -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_=near beginning of limb

 -distal=near end of \_\_\_\_\_\_\_\_\_\_\_\_

 -superficial= near surface (ex: skin)

 -\_\_\_\_\_\_\_\_\_\_\_\_\_=deep to surface (ex: muscle)

**Cavities**

 -Lined by membranes

 -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ against cavity wall= **parietal**

-membrane against \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_= **visceral**

 -Dorsal cavity

 -cranial (brain)

 -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (vertebral)

 -Ventral cavity:

 -Thoracic cavity:

 -pericardial

 -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 -Abdominopelvic:

 -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (stomach, intestines, liver, pancreas)

 -pelvic (contains gonads)

**Quadrants**

 -the abdominopelvic cavity is divided into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 -upper right -upper \_\_\_\_\_\_\_\_\_\_\_\_

 -lower \_\_\_\_\_\_\_\_\_\_ -\_\_\_\_\_\_\_\_\_\_\_\_ left

**Regions:**

right hypochondriac epigastric left hypochondriac

Right \_\_\_\_\_\_\_\_\_\_\_ umbilical left lumbar

Right iliac \_\_\_\_\_\_\_\_\_\_\_\_\_\_ left iliac

**Radiography**

**-X-rays:** \_\_\_\_\_\_\_\_\_\_\_\_\_ electromagnetic waves. Dense structures \_\_\_\_\_\_\_\_\_\_\_\_\_\_ x-rays=light parts that you see. Fat, hollow areas absorb \_\_\_\_\_\_\_\_\_\_\_=dark

**-CT**-computerized \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It forms a dime thin transverse \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It eliminates images of overlapping structures

**-DSR-**dynamic \_\_\_\_\_\_\_\_\_\_\_\_\_\_ reconstruction. It provides physicians with a 3-D image. It shows \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ movement and volume (ex: heart)

**-DSA**-digital \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ angiography-it is used to ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (blood clots). Example: pulmonary embolism (clot in lung), clot in the leg, etc. It is also called an angiogram

**-PET**-positron \_\_\_\_\_\_\_\_\_\_\_\_\_\_ topography. Tagged \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are absorbed by the most \_\_\_\_\_\_\_\_\_\_\_\_ brain cells. It gives a live action \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of brain activity. It is used for \_\_\_\_\_\_\_\_\_\_\_\_, epilepsy, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, huntington’s disease etc. It can be used for the lungs to identify things like lung cancer

Sonography

-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-uses sound waves, \_\_\_\_\_\_\_\_\_\_\_\_. Little value at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ air filled structures. It is safe and cheap. It can be used in the abdomen, heart, pregnancy, in joints etc.

**Magnetic Resonance Images**

-subjects the body to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fields up to 60,000X stronger than the Earth’s magnetic \_\_\_\_\_\_\_\_\_\_\_\_\_. It can be dangerous if a patient has shrapnel in their eye or in other areas of the body. It makes H2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ spin, enhancing their energy. It \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into a high contrast image of soft \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is good for \_\_\_\_\_\_\_\_\_\_\_ tissue (containing most H2O). It can see the difference between \_\_\_\_\_\_\_\_\_\_\_\_ white matter and gray matter (ex: brain). It can see nerves un the spinal \_\_\_\_\_\_\_\_\_\_\_\_ and the dense skull does not \_\_\_\_\_\_\_\_\_\_\_\_\_. It can detect tumors and degenerative diseases such as Huntington’s, Alzheimer’s disease. It can be used in joints such as the shoulder and knee as well to look for abnormalities.