|  |  |  |  |
| --- | --- | --- | --- |
| 1. protects organs2. provides shape,support3. stores materials(fats, minerals)4. produces bloodcells5. allows movement | Fights off foreigninvaders in thebody | Allows formovement bycontracting | Transport materialsto and from cells |
| 1. barrier againstInfection (1st lineof defense)2. helps regulatebody temp.3. removesexcretory waste(urea, water)4. protects againstsun’s UV rays5. produces vitamin D | 1. take in food(ingestion)2. digest food intosmaller moleculesand absorbnutrients3. removeundigestable foodfrom body (feces) | 1. stores andcarries WBC’sthat fightdisease2. collects excessfluid and returnsit to blood (2ndcirculatorysystem-reachesplaces other onecan’t – between cells | Takes in oxygenand removes carbondioxide and water |
| 1. removes wasteproducts fromcellularmetabolism (urea,water, CO2)2. filters blood | Allows organisms toreproduce whichprevents theirspecies frombecoming extinct. | Regulates bodyactivities usinghormones. Slowresponse, longlastingGlands | 1. gathers andinterpretsinformation2. responds toinformation3. helps maintainhomeostasis |

**PRIMARY FUNCTIONS: these are scrambled—find out which organ system each belongs to – write into your booklet**

|  |  |  |  |
| --- | --- | --- | --- |
| BonesCartilageligaments | Glands\*Hypothalamus\*Pituitary\*Thyroid\*Thymus\*Adrenal\*Pancreas\*Ovaries\*TestesGlands produce hormones | White BloodCells\*T cells\*B cells-produce antibodies\*MacrophagesSkin | Mouth,esophagus,stomach, Small Intestine, Large intestine,rectum, anusSalivary glands,pancreas, liver,gall bladder |
| BrainSpinal cordNervesNerve cells =neuronshypothalamus | SKIN\*Epidermis\*Dermis- sweat gland- sebaceousgland (oil)- hair follicle- bloodvessels- nerves | HeartVeinsArteriesCapillariesRed blood cells | Cardiac muscleSmooth muscleSkeletal muscletendons |
| NoseTracheaBronchiBronchiolesAlveolilungs | Ovaries\*produce eggsTestes\*producesperm | KidneysUretersBladderUrethraLungsSkin – sweatglandsLiver (producesurea) | Lymph (liquidpart of blood –plasma, whenit’s in lymphvessels)Lymph VesselsLymph NodesContain WBCs |

MAJOR ORGANS INVOLVED: --these are scrambled—find out which organ system each belongs to – write into booklet

**INTERACTING SYSTEMS: -- these are scrambled – find out which organ system each belongs to- write into the blooklet**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. w/respiratory – deliver O2 from lungs to cells and drop off CO2 from cells to lungs2. w/digestive – absorb and deliver digested nutrients to cells3. w/excretory – kidneys filter cellular waste out of blood for removal4. w/nervous – brain controls heartbeat5. w/endocrine – transports hormones | 1. w/muscular – allowmovement2. w/circulatory –produce blood cells3. w/immune – producewhite blood cells4. w/circulatory andrespiratory – protectsit’s organs | Controls all othersystemsHypothalamus – maintains homeostasis by workingwith all systems | 1. w/circulatory – takesin O2 for delivery tocells and removes CO2 brought from cells2. w/excretory – removes excretory waste3. w/nervous – controlsbreathing4. w/muscular –diaphragm controls breathing |
| 1. w/excretory – removescellular waste2. w/nervous – controlsbody temperature(sweating, goose bumps)3. w/immune – preventspathogens from entering | 1. w/circulatory – filterswaste out of blood2. w/lungs – removesexcretory waste3. w/integumentary –removes excretory waste | 1. w/circulatory –transports WBCs tofight invaders2. w/lymphatic – has lots of WBCs to fightinvaders, spleen filtersbacteria/viruses out ofblood3. w/skeletal – WBCsmade in bone marrow4. w/integumentary –prevents invaders fromgetting in  | 1. w/skeletal – allowmovement2. w/digestive – alloworgans to contract to pushfood through3. w/respiratory –diaphragm controlsbreathing4. w/circulatory – controlspumping of blood (heart)5. w/nervous – controls allmuscle contractions |
| 1. w/circulatory –transports hormones totarget organs2. w/nervous – maintainhomeostasis, hormonerelease3. w/reproductive –controlled by hormones4. w/skeletal – controlsgrowth of bones | 1. w/endocrine – controls production of sex cells2. w/muscular – uteruscontracts to give birth –controlled by hormones | 1. w/circulatory – absorb & deliver the digestednutrients to the cells2. w/muscular – control the contractions of many of the digestive organs to pass food along3.w/nervous – hypothalamusmaintains homeostasis bytriggering appetite(stomach growling) | 1. w/immune – holds lots of White Blood Cells (WBC) to fightpathogens2. w/circulatory – totransport materials toand from cells |

Body Diagrams:-these are scrambled - find out which organ system each belongs to – draw and label into booklet

|  |  |  |  |
| --- | --- | --- | --- |
| assist in anatomy, biology, and human science | assist in anatomy, biology, and human science | assist in anatomy, biology, and human science | assist in anatomy, biology, and human science |
| assist in anatomy, biology, and human science | assist in anatomy, biology, and human science | assist in anatomy, biology, and human science | assist in anatomy, biology, and human science |
| assist in anatomy, biology, and human science | assist in anatomy, biology, and human science | https://www.hopkinsmedicine.org/healthlibrary/GetImage.aspx?ImageId=259187 | assist in anatomy, biology, and human science |