

## 8<sup>th</sup> GRADE LIFE SCIENCE: Assignment sheet (Flexbook)

**\*\*\*\*The following is a list of homework assignments that will be due throughout the year. The assignment is due whether or not we have reached the topic (this will assure coverage of all curriculum material since science no longer meets five periods a week). These assignments are from the online text book. The link to the book is:**

**<http://sites.google.com/site/mrsfuocolynnsience/useful-links> or you may go to the IS34 site. There will be other supplementary homework assignment along with these.\*\*\*\***

### SCIENCE SKILLS/ METHOD:

- Define: dependent variable, evidence, experiment, hypothesis, independent variable, model, observation, prediction, science, scientific investigation, scientific law, scientific method, scientific theory
- Read pg. 3-7, pg. 9 recall #1-5
- Pg. 9 apply concept #6, pg. 9 thinking critically #7-9

### BIOMES/ ENVIRONMENT

- Define: biodiversity, biology, biome, community, competition, ecosystem, organism, population, symbiosis, homeostasis, abiotic factor, biomass, biotic factor, carnivore, chemoautotroph, competitive, exclusion principle, decomposer, detritivore, detritus, ecology, food chain, food web, habitat, herbivore, niche, omnivore, photoautotroph, scavenger, trophic level
- Read pg. 23-31 pg. 32 recall #1-6
- Pg. 32 apply concepts #6 thinking critically #7-9
- Make your own food web poster for a particular biome
- Read pg.33-37 pg. 38 recall #1-5
- Define: aphotic zone, aquatic biome, climate, dormancy, estuary, freshwater biome, growing season, intertidal zone, marine biome, photic zone, phytoplankton, terrestrial biome, wetland, zooplankton
- Read pg.39-52 pg. 52 recall #1-6
- Pg. 52-53 Thinking critically #8-11
- Define: climax community, commensalism, ecological succession, host, interspecific competition, intraspecific competition, keystone species, mutualism, parasite, parasitism, pioneer species, predation, predator, prey, primary succession
- Read pg. 57-64 pg. 54 recall #1,2,4
- Define: animal, exoskeleton, invertebrate, notochord, vertebral column, vertebrate
- Read pg. 102-112 pg. 113 recall #1-5 Thinking critically #7
- Define: bilateral symmetry, cephalization, coelom, complete digestive system, ectoderm, endoderm, hydrostatic skeleton, incomplete digestive system, larva (plural, larvae), mesoderm, radial symmetry, segmentation, endoskeleton, regeneration, metamorphosis, molting, pupa, bone, cartilage, cranium, ectothermy, endotherm, vertebrae (singular, vertebra), amphibian, mammal

## **HUMAN BODY:**

- Define: • connective tissue, epithelial tissue, muscle tissue, nervous tissue
- Read pgs. 258-261 pg. 262 recall #1-6
- Define: bone marrow, bone matrix, compact bone, joint, ligament, ossification, osteoblast, osteoclast, osteocyte, skeletal system, spongy bone
- Read pg.263-269 outline pages
- Recall pg. 270 #1-5
- Define: cardiac muscle, muscle fiber, muscular system, skeletal muscle, sliding filament theory, smooth muscle, tendon
- Read pg. 271-277 outline pages.
- Recall pg.277 #1-4
- Define: autonomic nervous system (ANS), axon, brain, brain stem, cell body, central nervous system (CNS), cerebellum, dendrite, interneuron, motor neuron, nerve, nerve impulse, nervous system, neuron, neurotransmitter, peripheral nervous system (PNS), sensory neuron, sensory receptor, somatic nervous system (SNS), spinal cord
- Read pg. 288-305 outline pages
- Recall pg. 306 1-10 (even numbers)
- Define: adrenal glands, endocrine system, gonads, hypothalamus, pancreas, parathyroid glands, pineal gland, pituitary gland, target cell, thyroid gland
- Read pg. 308-314 outline pages
- Recall pg. 315 #1-4
- Define: antigen, artery, atherosclerosis, blood, blood pressure, blood type, capillary, cardiovascular disease (CVD), circulatory system, heart attack, hypertension, plasma, platelet, pulmonary circulation, red blood cell, systemic circulation, vein, white blood cell
- Read pg. 319-328 outline pages
- Recall pg. 328 #1-6
- Define: asthma, emphysema, larynx, lung, pharynx, pneumonia, respiration, respiratory system, trachea, ventilation
- Read pg.329-335 outline pages
- Recall pg. 336 #1-6
- Define: bile, body mass index (BMI), chemical digestion, digestion, digestive system, eating disorder, elimination, esophagus, feces, gall bladder, gastrointestinal (GI) tract, large intestine, liver, macronutrient, mechanical digestion, micronutrient, mineral, nutrient, obesity, peristalsis, small intestine, stomach, villi, vitamin
- Read pg. 337-349 recall #1-8
- Define: bladder, dialysis, excretion, excretory system, kidney failure, nephron, ureter, urethra, urinary system, urination, urine
- Read pg. 350-354 recall #1-4
- Define: inflammatory response, leukocyte, mucous membrane, mucus, pathogen, phagocytosis

- Read pg. 359-364 recall #1-5
- Define: active immunity, antibody, B cell, cell-mediated immune response, immune response, immunity, immunization, lymph, lymphatic system, lymph node, lymphocyte, memory cell, passive immunity, T cell
- Read pg. 365-373 recall #1-5
- Define: adolescent growth spurt, epididymis, luteinizing hormone (LH), penis, puberty, reproductive system, semen, sex hormone, spermatogenesis, testis, testosterone
- Read pg.390-395 recall #1,3
- Define: estrogen, fallopian tube, follicle-stimulating hormone (FSH), menarche, menopause, menstrual cycle, menstruation, oogenesis, ovulation, vulva
- Read pg. 390-402 recall pg. 404 #1-2

### **CELLS:**

- Define: cytoplasm, eukaryote, eukaryotic cell, nucleus, organelle, plasma membrane, prokaryote, prokaryotic cell, ribosome, virus
- Read pg. 423-429 recall pg. 431 #1-3 thinking critically #6
- Define: ATP, cell wall, central vacuole, chloroplast, cytoskeleton, endoplasmic reticulum, endosymbiotic theory, Golgi apparatus, mitochondria, phospholipid bilayer, vacuole, vesicle
- Read pg. 433-441 recall #1-4

### **PLANTS:**

- Define: cuticle, dermal tissue, ground tissue, meristem
- Read pg. 452-455 recall #1-4
- Define: bark, deciduous plant, evergreen plant, fibrous root, mesophyll, root hair, root system, stomata (singular, stoma), taproot
- Read pg. 456-465 recall #1-6 apply concepts #7
- Define: autotroph, cellular respiration, consumer, energy, food, glucose, heterotroph, photosynthesis, producer
- Read pg. 483-495 recall #1

### **REPRODUCTION OF ORGANISMS (mitosis/ meiosis):**

- Define: binary fission, cancer, cell cycle, cell division, cytokinesis, DNA replication, interphase, mitosis, tumor
- Read pg. 619-625 recall pg.1-5 thinking critically #7
- Define: anaphase, centromere, chromatid, chromatin, chromosome, gene, homologous chromosomes, metaphase, prophase, telophase
- Read pg. 626-632 recall pg. 632 #1-6

- Define: asexual reproduction, crossing-over, diploid, egg, fertilization, gamete, haploid, independent assortment, life cycle, meiosis, sexual reproduction, sperm, zygote

### **DNA/GENETICS:**

- Define: messenger RNA (mRNA), ribosomal RNA (rRNA), transfer RNA (tRNA)
- Read pg. 511-518 recall #4 thinking critically #7,8
- Define: codon, genetic code, promoter, protein synthesis, transcription, translation
- Read pg. 519-525 recall # 1-4 apply concepts #5
- Define: genetic disorder, germline mutation, mutagen, mutation, point mutation
- Read pg. 526-531 recall #1-3 apply concept #7
- Define: allele, dominant allele, genetics, genotype, heterozygote, homozygote, hybrid, law of independent assortment, law of segregation, phenotype, pollen, pollination, recessive allele
- Read pg. 539-547 recall #2,4,5,6 apply concept #8 thinking critically #11
- Define: codominance, incomplete dominance, polygenic characteristic, probability, Punnett square
- Read pg. 549-556 recall pg. 557 #1-5 apply concepts #6-7
- Define: autosome, human genome, Human Genome Project, linkage map, linked genes, sex chromosome, sex-linked gene, X-linked gene
- Read pg. 560-565 recall #1-4
- Define: • pedigree, sex-linked trait, X-linked trait
- Read pg. 567-575 recall #1,2,5
- Define: biotechnology, gene cloning, genetic engineering, pharmacogenomics, polymerase chain reaction (PCR), recombinant DNA, synthetic biology

### **EVOLUTION:**

- Define: artificial selection, fitness, Galápagos Islands, inheritance of acquired characteristics
- Read pg. 586-595 recall #1-5 thinking critically #7
- Define: adaptive radiation, analogous structure, biogeography, comparative anatomy, comparative embryology, homologous structure, paleontologist, vestigial structure
- Read pg. 597-604 recall #1-5 thinking critically #7,8