

Unit Test #3 – Biology Student Outline

- cell size and diffusion
- organelles and function
- genetic material (DNA)
- plant cells vs. animal cells
- cell cycle (interphase, mitosis, cell cycle checkpoints)
- importance of cell division
- mitosis
 - prophase, metaphase, anaphase, telophase, cytokinesis
 - division of nuclear material
 - vocabulary (sister chromatids, chromosomes, centrioles, centromere, spindle fibre)
- cancer (tumours – malignant vs. benign, mitosis, causes, impact on body, treatment)
- levels of organization
- specialized cells
 - nerve, skin, intestinal lining, red blood cell, white blood cell, platelet
- stem cells
- tissues
 - types: structure and function (epithelial, nerve, connective, muscle)
 - role of tissues in different organs (i.e. heart, stomach, small intestine, esophagus) and organ systems
 - blood and its components
 - plant vs animal
- digestive system
 - organs, accessory organs, and function of each organ
 - chemical vs. mechanical
 - peristalsis
- circulatory system
 - structure and function of the heart
 - blood vessels structure and function (arteries, veins, capillaries)
 - diffusion of oxygen and carbon dioxide
- respiratory system
 - organs and the function of each organ
 - breathing (inhalation and exhalation)

- analogy for the function of organelles
- Venn Diagram (choice of two terms to compare)
- relating a patient symptom to a problem in an organ/organ system

- explain how a disease impacts the normal functioning of an organ system and identify a symptom you would observe because of this

- frog organ systems and function
 - importance of skin
 - differences between human and frog circulatory system
 - interaction between organ systems