Cell Biology and Disease – Post Test – Study Guide

Standard 3: Life Science ***Core Standard:*** Understand the cellular structure of living organisms, both single-celled and multicellular.		
STANDARD	MAIN TOPICS/ IDEAS	OTHER DETAILS
☐ 7.3.1 Explain that all living organisms are composed of one or more cells and that the many functions needed to sustain life are carried out within such cells.	- living things are made of one or more cells	
☐ 7.3.2 Understand that water is a major component within all cells and is required to carry out many cellular functions.	- cells need water to survive and function - diffusion - osmosis	
☐ 7.3.3 Explain that although the way cells function is similar in all living organisms, multicellular organisms also have specialized cells whose specialized functions are directly related to their structure.	- the structure (shape) of a cell is related to its function (job)	

☐ 7.3.4 Compare and contrast similarities and differences between specialized subcellular components within plant and animal cells, including organelles and cell walls that perform essential functions and give a cell its shape and structure.	- plant vs. animal cells - different shapes - organelles and their functions	
☐ 7.3.5 Explain that cells in multicellular organisms repeatedly divide to make more cells for growth and repair.	- cells divide for: growth, repair, and reproduction - exact copy unless there is a mutation	
☐ 7.3.6 Explain that after fertilization, a small cluster of cells divides to form the basic tissues of an embryo which further develops into all the specialized tissues and organs within a multicellular organism.	- sexual reproduction - fertilization, zygote, embryo - cell division to develop tissues and organs of the organism	
☐ 7.3.7 Describe how various organs and tissues serve the needs of cells for nutrient and oxygen delivery and waste removal.	- organs tissues - deliver nutrients and oxygen to body parts - remove wastes	

Diseases:

disease –

infectious disease –

quarantine -

microbe –

vector –