Study Guide for 3rd Quarter Cumulative Test – Fri. 3/13 (A day) & Mon., 3/16 (B day)

Information from the 1st Q

What are gametes? / What is an enzyme? / What is crossing-over? / What is a law?

What is a theory? / What is diffusion? / What occurs in each phase of the cell cycle.

What is sexual and asexual reproduction; what would offspring of each be like genetically?

Know the 4 carbon-based molecules (polymers) and what monomers are used to build them.

Know the difference between the light microscope, the transmission electron microscope (TEM), the scanning electron microscope (SEM) and a dissecting microscope. / What is the structural level of organization?

Compare and contrast eukaryotic cells and prokaryotic cells.

What are the 3 principles of the Cell Theory? / What is cohesion & adhesion?

Know the function of a mitochondria and what it looks like.

Be able to identify and know where instructions for making proteins are located in a cell.

Know what is primarily responsible for maintaining homeostasis in a cell & what it looks like.

Be able to identify a diagram of mitosis and meiosis. / What is a virus?

Information from the 2nd Q

Be able to perform a dominant – recessive genetic problem & a sex-linked genetic problem.

What is DNA replication and what would it look like?

Know the products & reactants in photosynthesis & cellular respiration.

Understand genetic engineering & its effects on genetic diversity.

Information from the 3rd Q

Know what specific & non-specific immune responses are with examples.

Understand food webs & energy flow. / Know the correct order of classification.

Understand energy pyramids. / What were most likely the first life-forms on Earth?

What is a producer & how do they get their energy? / What is The Endosymbiotic Theory (or Endosymbiosis)?

What happens when a person has atherosclerosis?

Know how to identify genus & species when given organisms’ Latin names.

Be able to identify major parts of the brain.