Study Guide for the 1st Quarter Cumulative Test for Biology – Monday, 10/14/19 “A” & Tuesday, 10/15/19 “B”

Be able to pick out a controlled variable and the experimental group in an experiment. Why do scientists perform experiments?

Why do scientists publish their experiments? Be able to analyze a graph.

Know the following terms: homeostasis, metabolism, photosynthesis, solution, solute, solvent, activation energy, selective permeability, facilitated diffusion, active and passive transport, osmosis, diffusion, hypotonic solutions, hypertonic solutions, isotonic solutions, theories, laws

Know where the reactants and products are in a chemical equation.

What is unique about Carbon?

Know what type of images come from each microscope.

What are various properties of water?

Where are the charges on a water molecule?

Know the pH scale.

What are the 4 main groups and building blocks of the 4 Carbon-based molecules?

Functions of proteins.

Know and understand the Lock and Key Model.

Function of enzymes.

Similarities and differences in prokaryotes and eukaryotes. Be able to identify animal and plant cells.

Function of the following organelles: Golgi apparatus, mitochondrion, vacuole, ribosome, chloroplasts, rough and smooth endoplasmic reticulum, cell membrane, cell wall

What is the equation for cellular respiration?

What is the function of root hairs? What is the function of the upper surface of leaves?