

Day 05 – 2/10/14

Student Learning Objectives

By the end of this class you will be expected to understand:

- The structure and chemistry of DNA and RNA
- How to read and write complementary strands of DNA
- The process of DNA replication
- How telomeres work and why they are linked to aging
- The purpose, steps, and products of mitosis

Support videos:

- Structure of DNA
 - <http://www.youtube.com/watch?v=8kK2zwjRV0M>
 - <http://www.youtube.com/watch?v=wdhL-T6tQco>
- Mitosis
 - <http://www.youtube.com/watch?v=L0k-enzoeOM>
 - <http://www.youtube.com/watch?v=pOsAbTi9tHw>

Assigned reading:

- Chapter 2, pages 43-44
- Chapter 17, pages 402-407 & 411-415

Vocabulary:

- Deoxyribonucleic Acid (DNA)
 - Chromosome
 - Chromatin
 - Gene
 - Genome
 - Complementary strand
 - Nucleotide
 - Phosphate
- Ribonucleic Acid (RNA)
 - Adenine
 - Guanine
 - Cytosine
 - Thymine
 - Uracil
- DNA polymerase
- Telomere
 - Telomerase
- Mitosis
 - Interphase
 - Prophase
 - Metaphase
 - Anaphase
 - Telophase
 - Cytokinesis