

Southern Regional High School

Manahawkin, New Jersey

Course Syllabus

Department: Science

Course: Honors Biology

Marking Period 1

Topics/Units to be covered:

- Classroom Expectations/Grading
- The Process of science as an explanation of events in the natural world
- Characteristics of living organisms
- The nature of matter and the relationship of atomic particles, elements, atoms & molecules
- Energy flow through ecosystems
- Factors that limit population size.
- Biological community interactions and symbiotic relationships
- Quarterly

Marking Period 2

Topics/Units to be covered:

- Structure & Function of macromolecules: lipids, carbohydrates, proteins, nucleic acids
- Cellular diversity, structure and organelle processes
- Cell transport
- Photosynthesis & Respiration
- Cell Growth & Division (Mitosis)
- Quarterly

Marking Period 3

Topics/Units to be covered:

- Mendelian Genetics
- Gamete formation (meiosis)
- The structural, functional & biochemical nature of DNA
- DNA replication and protein synthesis
- Human heredity & genetic disorders
- Genetic engineering
- Quarterly

Marking Period 4

Topics/Units to be covered:

- Darwinian evolution and natural selection
- Evolution of populations
- Diversity of Life on Earth(taxonomy)
- Quarterly