

Biology 4th Nine Weeks: Scope and Sequence

<h2>Content Standards</h2>	Dates Taught	% of Students scoring 70% and over	Dates Re-taught (Optional)	Formative and Summative Assessments/ (Any Additional Comments Optional)
<p>(7) Apply Mendel’s Law to determine phenotypic and genotypic probabilities of offspring.</p> <ul style="list-style-type: none"> Defining important genetic terms, including dihybrid cross, monohybrid cross, phenotype, genotype, homozygous, heterozygous, dominant trait, recessive trait, incomplete dominance, codominance, and allele Interpreting inheritance patterns shown in graphs and charts Calculating genotypic and phenotypic percentages and ratios using a Punnett square 				
<p>(8) Identify the structure and function of DNA, RNA, and protein.</p> <ul style="list-style-type: none"> Explaining relationships among DNA, genes, and chromosomes Explore significant contributions of biotechnology to society, including agricultural, medical practices including cloning, DNA fingerprinting, insulin and growth hormone development Relate normal patterns of genetic inheritance to genetic variation, example crossing over Relate ways chance, mutagens, and genetic engineering increase diversity, example translocation and recombinant DNA Relate genetic disorders and disease to patterns of genetic inheritance, Down’s syndrome... 				
<p>(9) Differentiate between the previous five kingdoms and current six kingdom classification systems.</p> <ul style="list-style-type: none"> Sequencing taxa from most inclusive to least inclusive in the classification of living things Identifying organisms using a dichotomous key Write scientific name using binomial nomenclature Justify grouping viruses in a category separate from living things 				

<p>(10) Distinguish between monocots and dicots, angiosperms and gymnosperms, vascular and non-vascular plants.</p> <ul style="list-style-type: none"> • Describe the histology of roots, stems, leaves, and flowers • Recognize the physical and chemical adaptations of plants Ex. toxic, needles 				
<p>(11) Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion.</p> <ul style="list-style-type: none"> • Examples: skeletal structure – vertebrates and invertebrates; fertilization -external, internal; reproduction - sexual, asexual; body symmetry – bilateral, radial, asymmetrical; body coverings – feathers, scales, fur; locomotion – cilia, flagella, pseudopodia 				
<p>(12) Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.</p> <ul style="list-style-type: none"> • Identifying ways in which the theory of evolution explains the nature and diversity of organisms • Describing natural selection, survival of the fittest, geographic isolation, and fossil record 				