***Biology Pacing Guide 2019-2020 Riverside High School   Janet Green***

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| ***1st Term: 8/6/19 - 10/11/19 September 2 - Labor Day*** | ***2nd Term: 10/14/19 - 12/23/19 October 14 -Holiday/ Oct.15-PD Nov. 25-29 - Thanksgiving Break Dec. 20-Jan. 3 - ChristmasBreak*** | ***3rd Term: 1/6/20 - 3/6/20******January 20 - MLK Jr Holiday******February 17 - Holiday March 9 - 13 - Spring Break*** | ***4th Term: 3/16/20-5/21/20 April 10, 13 - Easter Break May 22 -Students’ last day/******May 26-27- Teacher Work Day*** |

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| **Content Strand/Disciplinary Core Idea** | **Number of Total Performance Objectives** | **Number of Items** |
| **Cells and Energy** | **18** | **16-30** |
| *Cells as a System* | *14* | *12-24* |
| *Energy Transfer* | *4* | *4-6* |
| **Heredity and Evolution** | **17** | **15-23** |
| *Reproduction & Heredity* | *11* | *10-16* |
| *Adaptations and Evolution* | *6* | *5-7* |
| **Interdependence of Organisms and Their Environments** | **7** | **8-10** |
| **TOTAL SCORED ITEMS** |  | **55** |
| **Field-Test Items** |  | **10** |
| **TOTAL TEST** |  | **65** |

**MAAP-EOC Biology Blueprint**

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| ***Science and Engineering Practices Scientific Thinking and Processes Tools and Technology Safety Norms of Scientific Investigations Introduction to Labs and Lab Reports******The Study of Life Unifying Themes in Biology******Characteristics of Life BIO.1A.1 - living vs nonliving BIO.1A.4 - viruses BIO.1B.1 - macromolecules BIO.1B.2 - enzymes******Cellular Organelles BIO.1A.2 - cell theory; scientists BIO.1A.3 - levels of organization BIO.1C.1 - cell organelles BIO.1C.2 - prokaryotic/******eukaryotic cells; plant/animal/fungal cells BIO.1C.3 - comparing viruses to cells******Cellular Transport BIO.1D.1 - cell membrane; active and passive transport BIO.1D.2 - regulating cellular transport; homeostasis******Benchmark 1 September 23 - October 9*** | ***Energy Transfer BIO.2.1 - ATP/ADP BIO.2.2 - photosynthesis BIO.2.3 - cellular respiration BIO.2.4 - aerobic vs anaerobic BIO.2.5 (enrichment) - variables that affect anaerobic respiration BIO.2.6 (enrichment) - fermentation******Cell Growth and Division BIO.1E.3 - asexual reproduction BIO.1E.2 - cell cycle; replication; cancer BIO.1E.1 - mitosis BIO.1E.4 (enrichment) - stem cells BIO.3A.1 - meiosis BIO.3A.2 - comparing mitosis/meiosis BIO.3A.3 - chromosomal abnormalities******DNA and Protein Synthesis BIO.3C.1 - DNA/genes/chromosomes BIO.3C.2 - protein synthesis BIO.3C.3 - nucleotide sequence; mutations BIO.3C.4 - DNA technology \*Common Assignment Module=debate/argument BIO.3C.5 (enrichment) - biotechnology******Benchmark 2 December 9 - December 20*** | ***Genetics******BIO.3B.1 - Mendel’s Law of Dominance/Punnett Squares BIO.3B.2 - Mendel’s Law of Independent Assortment/Punnett Squares BIO.3B.3 - non-Mendelian inheritance patterns BIO.3B.4 - Analyze and interpret data (pedigrees, family/population studies)******Ecology BIO.5.1 - levels of ecological hierarchy BIO.5.2 - abiotic/biotic factors; cycling of matter BIO.5.3 - effects of greenhouse gases BIO.5.4 - flow of energy/food chains/food webs/energy pyramids BIO.5.5 - ecological relationships BIO.5.6 - population studies/limiting factors/carrying capacity******BIO.5.7 - ecological succession BIO.5.8 (enrichment) - design solutions to address ecological conditions BIO.5.9 (enrichment) - biomimicry******Benchmark 3******March 16 - March 27*** | ***Adaptations and Evolution******BIO.4.3 - cladograms BIO.4.6 - mechanisms of speciation BIO.4.4 - natural selection******BIO.4.5 - Darwin’s theory of evolution by natural selection******BIO.4.1 - organic/chemical evolution BIO.4.2 - evidence for biological evolution (homologous structures, embryological similarities, fossil record, molecular/biochemical similarities, biogeographical distribution)******BIO.4.7 (enrichment) - how various disease agents can influence natural selection******Review for State Assessment******State Testing Window Opens -*** |