Biology (SOL)

Syllabus 2024-25

TEXT- <u>Biology</u>, Stephen Nowicki, Houghton Mifflin Harcourt 2013 trevor_brinkman@surryschools.net 757.267.2211 x325

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COURSE DESCRIPTION -

Biology is the study of life. From the chemicals that make up cells, to the structure and function of DNA, to the actions of organs within the body, to the classification of organisms into Kingdoms, to the interactions between organisms and their environments. This class will explore all of these concepts and more, provide the students with the knowledge and experiences on which the SOL is based, and give them a greater understanding of the life of Surry, Virginia, and the Earth.

COURSE GOALS -

- This course aims to provide the students with an understanding of life, interactions within organisms, interactions between organisms, and the necessary features of the Earth that support life.
- The students will gain proficiency at the methods and materials used for scientific investigation.

Join (+) Google Classroom code: owhpywz

Projected Course Outline-

BIO SOL	SOL Topic
1, 3	Introduction to Biology, Experimentation, and Tools of Biology
2,5	Chemistry- Atoms, Water Chemistry; Organic Molecules
2, 3, 4	Cell Biology; Photosynthesis & Cellular Respiration
3, 5	Cellular Reproduction (Mitosis/Meiosis)
2, 5	Molecular Genetics (DNA - RNA Protein)
5	Mendelian Genetics; Genetic Crosses
5	Genetic Engineering : Mutations and Applied Genetics The Human Genome: Chromosomal & Sexual Genetics Genetic Disease
4, 6, 7	Origins of Life- Evolution, Natural Selection, and Classification
8	Ecology: Principles, Energy, Matter, Interactions, and Biomes, Populations
	SOL Review and Testing/ Post-SOL/ Final Exam

Important note to Parents & Guardians: There will be discussions of the biological processes of sexual reproduction in this course.