

Name: Kristoffer Van Atten		Grading Quarter: Q1	Week Beginning: 8/28/2023
School Year: 23-24		Subject: AP Biology	
Monday	Notes:	<p>Objective: SWBAT Describe the composition of macromolecules required by living organisms.</p> <ul style="list-style-type: none"> ENE-1.A.1 Organisms must exchange matter with the environment to grow, reproduce, and maintain organization. ENE-1.A.2 Atoms and molecules from the environment are necessary to build new molecules – <ul style="list-style-type: none"> a Carbon is used to build biological molecules such as carbohydrates, proteins, lipids, and nucleic acids. Carbon is used in storage compounds and cell formation in all organisms. b Nitrogen is used to build proteins and nucleic acids. Phosphorus is used to build nucleic acids and certain lipids. <p>Lesson Overview: Students take notes in their interactive notebooks and do activities based on the content. Students finish Water Properties Lab</p>	Academic Standards: ENE-1.A.1-2
Tuesday	Notes:	<p>Objective: SWBAT Describe the properties of the monomers and the type of bonds that connect the monomers in biological macromolecules.</p> <ul style="list-style-type: none"> SYI-1.B.1 Hydrolysis and dehydration synthesis are used to cleave and form covalent bonds between monomers. <p>Exclusion Statement: <i>The molecular structure of specific nucleotides and amino acids is beyond the scope of the AP Exam.</i></p> <p>Exclusion Statement: <i>The molecular structure of specific carbohydrate polymers is beyond the scope of the AP Exam.</i></p> <p>Lesson Overview: Students take notes in their interactive notebooks and do activities based on the content.</p>	Academic Standards: SYI-1.B.1
Wednesday	Notes:	<p>Objective: No School</p> <p>Lesson Overview: Some students may still think there is school and show up. That is a lesson unto itself</p>	Academic Standards:

Thursday	Notes:	<p>Objective: SWBAT Describe the properties of the monomers and the type of bonds that connect the monomers in biological macromolecules.</p> <ul style="list-style-type: none"> ● SYI-1.B.2 Structure and function of polymers are derived from the way their monomers are assembled – <ul style="list-style-type: none"> a In nucleic acids, biological information is encoded in sequences of nucleotide monomers. Each nucleotide has structural components: a five-carbon sugar (deoxyribose or ribose), a phosphate, and a nitrogen base (adenine, thymine, guanine, cytosine, or uracil). DNA and RNA differ in structure and function. b In proteins, the specific order of amino acids in a polypeptide (primary structure) determines the overall shape of the protein. Amino acids have directionality, with an amino (NH₂) terminus and a carboxyl (COOH) terminus. The R group of an amino acid can be categorized by chemical properties (hydrophobic, hydrophilic, or ionic), and the interactions of these R groups determine structure and function of that region of the protein. c Complex carbohydrates comprise sugar monomers whose structures determine the properties and functions of the molecules. d Lipids are nonpolar macromolecules – <ul style="list-style-type: none"> i Differences in saturation determine the structure and function of lipids. ii Phospholipids contain polar regions that interact with other polar molecules, such as water, and with nonpolar regions that are often hydrophobic. <p>Exclusion Statement: <i>The molecular structure of specific lipids is beyond the scope of the AP Exam.</i></p> <p>Lesson Overview: Students take notes in their interactive notebooks and do activities based on the content</p>	<p>Academic Standards: SYI-1.B.2</p>
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Friday	Notes:	<p>Objective: SWBAT Describe the properties of the monomers and the type of bonds that connect the monomers in biological macromolecules.</p> <ul style="list-style-type: none"> ● SYI-1.B.2 Structure and function of polymers are derived from the way their monomers are assembled – <ul style="list-style-type: none"> a In nucleic acids, biological information is encoded in sequences of nucleotide monomers. Each nucleotide has structural components: a five-carbon sugar (deoxyribose or ribose), a phosphate, and a nitrogen base (adenine, thymine, guanine, cytosine, or uracil). DNA and RNA differ in structure and function. b In proteins, the specific order of amino acids in a polypeptide (primary structure) determines the overall shape of the protein. Amino acids have directionality, with an amino (NH₂) terminus and a carboxyl (COOH) terminus. The R group of an amino acid can be categorized by chemical properties (hydrophobic, hydrophilic, or ionic), and the interactions of these R groups determine structure and function of that region of the protein. c Complex carbohydrates comprise sugar monomers whose structures determine the properties and functions of the molecules. d Lipids are nonpolar macromolecules – <ul style="list-style-type: none"> i Differences in saturation determine the structure and function of lipids. ii Phospholipids contain polar regions that interact with other polar molecules, such as water, and with nonpolar regions that are often hydrophobic. <p>Exclusion Statement: <i>The molecular structure of specific lipids is beyond the scope of the AP Exam.</i></p> <p>Lesson Overview: Students take notes in their interactive notebooks and do activities based on the content. Students Finish Properties of Water Lab</p>	<p>Academic Standards: SYI-1.B.2</p>
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