

Biomolecules - Unit 2 PAP

I CAN -

- 1. Explain how a monomer is related to a polymer.
- 2. Describe how a polymer is formed and broken.
- 3. Describe the reactants and products of a dehydration synthesis and hydrolysis reaction.
- 4. Discuss the function of a carbohydrate, lipid, protein, and nucleic acid
- 5. List examples of carbohydrates, lipids, proteins, and nucleic acid
- 6. Compare the functions of the 4 biomolecule groups to each other
- 7. Describe the structure of DNA and identify parts of DNA
- 8. Recognize that DNA components are common to all living things.
- 9. Describe the characteristics of an enzyme
- 10. Explain the function of an enzyme
- 11. Label and explain a graph showing a reaction using an enzyme
- 12. Predict the effect of different factors (temperature, pH, concentration, inhibitors) on the activity of an enzyme

Test Date:

Tuesday, Sept.
24

Words to Know

Monomer, polymer, biomolecule/macromolecule, mono-, poly-, dehydration synthesis, hydrolysis, carbohydrate, saccharide, lipid, fatty acid, saturated, unsaturated, protein, amino acid, peptide bond, nucleic acid, nucleotide, nitrogenous base, Hydrogen bond, enzyme, activation energy, substrate, active site, catalyst, denature, competitive inhibitor, non-competitive inhibitor, DNA

Know the difference between polysaccharides and polypeptides

STUDENT OUTCOMES:

- I can describe the relationship between a monomer and a polymer. (B.9.D)
- I can compare the structure of the 4 main biomolecules and justify my classification. (B.9.A)
- I can discuss the function of each of the main classes of biomolecules. (B.9.A)
- I can describe the role of enzymes and their purpose. (B.9.C)
- I can examine the conditions that effect enzyme activity (B.9.C)
- I can use data to predict the effect of different factors on the activity of an enzyme. (B.9.C)
- I can identify parts of DNA, determine how traits are carried and recognize that DNA is in all living things.

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Calendar

Biomolecules Unit

Monday 9/2	Tuesday 9/3	Wednesday 9/4	Thursday 9/5	Friday 9/6
<u>Holiday!</u>	<u>Topic:</u> Scientific Design <u>Activities:</u> Review for test	<u>Topic:</u> Scientific Design <u>Activities:</u> Test over Scientific Design and Safety	<u>Topic:</u> Biomolecules <u>Activities:</u> TRTW <u>By the end of the period I can:</u> 4, 5, 6	<u>Topic:</u> Biomolecules <u>Activities:</u> Structure/Synthesis <u>By the end of the period I can:</u> 1, 2, 3, 4, 5, 6
Monday 9/9	Tuesday 9/10	Wednesday 9/11	Thursday 9/12	Friday 9/13
<u>Topic:</u> Biomolecules <u>Activities:</u> Practice, Card Match <u>By the end of the period I can:</u> 4, 5, 6	<u>Topic:</u> Biomolecules <u>Activities:</u> Practice, chart <u>By the end of the period I can:</u> 1, 2, 3, 4, 5, 6	<u>Topic:</u> Enzymes <u>Activities:</u> Game Day <u>By the end of the period I can:</u> 9, 10, 11, 12	<u>Topic:</u> Enzymes <u>Activities:</u> Enzyme Notes <u>By the end of the period I can:</u> 9, 10, 11, 12	<u>Topic:</u> Enzymes <u>Activities:</u> Lab <u>By the end of the period I can:</u> 9, 10, 11, 12
Monday 9/16	Tuesday 9/17	Wednesday 9/18	Thursday 9/19	Friday 9/20
<u>Topic:</u> Enzymes <u>Activities:</u> Enzyme Simulation & Graphing <u>By the end of the period I can:</u> 9, 10, 11, 12 Parent Night!	<u>Topic:</u> Enzymes <u>Activities:</u> Quiz <u>By the end of the period I can:</u> 9, 10, 11, 12	Late Arrival ☺ ☺ ☺ ☺ <u>Topic:</u> DNA Notes <u>Activities:</u> <u>By the end of the period I can:</u> 7, 8	<u>Topic:</u> DNA <u>Activities:</u> DNA model <u>By the end of the period I can:</u> 7, 8	<u>Topic:</u> DNA <u>Activities:</u> Candy DNA <u>By the end of the period I can:</u> 7, 8
Monday 9/23	Tuesday 9/24	Wednesday 9/25	Thursday 9/26	Friday 9/27
<u>Topic:</u> All Biomolecules <u>Activities:</u> Review for test <u>By the end of the period I can:</u> 1 - 10 Exam over Biomolecules!	<u>Topic:</u> Cells <u>Activities:</u> Pro vs Eu <u>By the end of the period I can:</u>	<u>Topic:</u> Cells <u>Activities:</u> Pro vs Eu <u>By the end of the period I can:</u>	<u>Topic:</u> Cells <u>Activities:</u> Pro vs Eu <u>By the end of the period I can:</u>

**** This is a tentative calendar and subject to change.