# Natural Molecular & Cellular Biology

# Author: Ann Schlosser

Professor @Moberly Area Community College

Published 2014

# Create, Share, and Discover Online Quizzes.

QuizOver.com is an intuitive and powerful online quiz creator. learn more

Join QuizOver.com



How to Analyze Stocks

By Yasser Ibrahim

1 month ago 12 Responses Official Honden Mohr



Pre Employment English ByKathaina jannifarN

5 months ago 19 Responses Officie: Alden



Lean Startup Quiz By Yosserlbrohim

2 months ago 16 Responses Office: Geletithe Occa

Powered by QuizOver.com

# The Leading Online Quiz & Exam Creator

Create, Share and Discover Quizzes & Exams

http://www.quizover.com

# Disclaimer

All services and content of QuizOver.com are provided under QuizOver.com terms of use on an "as is" basis, without warranty of any kind, either expressed or implied, including, without limitation, warranties that the provided services and content are free of defects, merchantable, fit for a particular purpose or non-infringing.

The entire risk as to the quality and performance of the provided services and content is with you.

In no event shall QuizOver.com be liable for any damages whatsoever arising out of or in connection with the use or performance of the services.

Should any provided services and content prove defective in any respect, you (not the initial developer, author or any other contributor) assume the cost of any necessary servicing, repair or correction.

This disclaimer of warranty constitutes an essential part of these "terms of use".

No use of any services and content of QuizOver.com is authorized hereunder except under this disclaimer.

The detailed and up to date "terms of use" of QuizOver.com can be found under:

http://www.QuizOver.com/public/termsOfUse.xhtml

Liang Wang, Johanna Choo, Ann Schlosser and Katie George. Introduction to Molecular and Cellular Biology. (The Saylor Academy), http://www.saylor.org/courses/bio101a/ (Accessed 16 May, 2014). License: Creative Commons BY-NC-ND

**Creative Commons License** 

Attribution-NonCommercial-NoDerivs 3.0 Unported (CC BY-NC-ND 3.0)

http://creativecommons.org/licenses/by-nc-nd/3.0/

You are free to:

Share: copy and redistribute the material in any medium or format

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution: You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NonCommercial: You may not use the material for commercial purposes.

NoDerivatives: If you remix, transform, or build upon the material, you may not distribute the modified material.

No additional restrictions: You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

# Table of Contents

Quiz Permalink: http://www.quizover.com/question/cellular-biology

Author Profile: http://www.quizover.com/user/profile/ann.schlosser

- 1. Molecular & Cellular Biology
- Unit 05: Central Dogma of Molecular Biology
- Unit 01: Biology and Life
- Unit 04: Photosynthesis
- Unit 02: Molecules, Macromolecules, and Polymers
- Unit 06: Cellular Energy
- Unit 07: Molecular Genetics
- Unit 08: Cell Division
- Unit 03: Cells

- 4. Chapter: Unit 05: Central Dogma of Molecular Biology
- 1. Unit 05: Central Dogma of Molecular Biology Questions

4.1.1. A protein binds a DNA sequence several hundred base pairs upstream ...

# Author: Ann Schlosser

A protein binds a DNA sequence several hundred base pairs upstream of a promoter and increases the rate of transcription of the gene, which the promoter controls. This protein is called which of the following?

Please choose only one answer:

- Repressor
- Lactose
- Polymerase
- Enhancer

Check the answer of this question online at QuizOver.com: Question: A protein binds a DNA sequence several Ann Schlosser @Moberly Area

Flashcards: http://www.quizover.com/flashcards/question-a-protein-binds-a-dna-sequence-several-ann-schlosser-moberly?pdf=1505

Interactive Question: http://www.quizover.com/question/question-a-protein-binds-a-dna-sequence-several-ann-schlosser-moberly?pdf=1505 4.1.2. Which of the following are the fundamental chronological steps of t...

## Author: Ann Schlosser

Which of the following are the fundamental chronological steps of the Central Dogma of Molecular Biology?

Please choose only one answer:

- DNA is translated to mRNA, which is transcribed to protein.
- DNA is transcribed to mRNA, which is translated to protein.
- DNA is polymerized to protein, which is translated to mRNA.
- DNA is transcribed to mRNA, which is functionalized to protein.

Check the answer of this question online at QuizOver.com: Question: Which of the following are the fundamental Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-are-the-fundamental-ann-schlosser-mobe?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-are-the-fundamental-ann-schlosser-mobe?pdf=1505

# 4.1.3. Which of the following is CORRECTLY matched?

## Author: Ann Schlosser

Which of the following is CORRECTLY matched?

Please choose only one answer:

- Exon and mRNA
- tRNA and nucleus
- Okazaki fragments and nucleus
- Assembly into multimeric protein and Golgi

Check the answer of this question online at QuizOver.com: Question: Which of the following is CORRECTLY matched Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-is-correctly-matched-ann-schlosser-mob?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-is-correctly-matched-ann-schlosser-mob?pdf=1505

# 4.1.4. Which statement about the role of these RNA polymerases is inaccurate?

# Author: Ann Schlosser

Which statement about the role of these RNA polymerases is inaccurate?

Please choose only one answer:

- mRNA is a RNA copy of a segment of DNA.
- tRNA transfers information from the DNA to the RNA.
- rRNA serves as a decoder during translation.
- tRNA and rRNA interact closely during translation.

Check the answer of this question online at QuizOver.com: Question: Which statement about the role of these Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-statement-about-the-role-of-these-ann-schlosser-moberly?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-statement-about-the-role-of-these-ann-schlosser-moberly?pdf=1505

- 4. Chapter: Unit 01: Biology and Life
- 1. Unit 01: Biology and Life Questions

# 4.1.1. How is energy transferred in metabolism?

# Author: Ann Schlosser

How is energy transferred in metabolism?

Please choose only one answer:

- By the process where a phosphate group is added to ADP
- By the process where a phosphate group is added to ATP
- By phosphate groups that are moved around
- By enzymes that are moved around

Check the answer of this question online at QuizOver.com: Question: How is energy transferred in metabolism Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-how-is-energy-transferred-in-metabolism-ann-schlosser-moberly?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-how-is-energy-transferred-in-metabolism-ann-schlosser-moberly?pdf=1505

4.1.2. Which of the following is NOT an organ involved in homeostasis?

## Author: Ann Schlosser

Which of the following is NOT an organ involved in homeostasis?

Please choose only one answer:

- Liver
- Kidney
- Endocrine system
- Cerebellum

Check the answer of this question online at QuizOver.com: Question: Which of the following is NOT an organ Ann Schlosser @Moberly Area

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-is-not-an-organ-ann-schlosser-moberly?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-is-not-an-organ-ann-schlosser-moberly?pdf=1505

4.1.3. Which of the following scientist(s) discovered the structure of the...

# Author: Ann Schlosser

Which of the following scientist(s) discovered the structure of the DNA molecule?

Please choose only one answer:

- Gregor Mendel
- Francis Crick and James Watson
- Louis Pasteur
- Antonie van Leeuwenhoek

Check the answer of this question online at QuizOver.com: Question: Which of the following scientist s discovered Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-scientist-s-discovered-ann-schlosser-m?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-scientist-s-discovered-ann-schlosser-m?pdf=1505

4.1.4. Which of the following statement about evolution and adaptation is ...

Author: Ann Schlosser

Which of the following statement about evolution and adaptation is false?

Please choose only one answer:

- The most superior individual in the species will pass the most genes to the next generation.
- The most superior finch in a habitat is the most efficient at finding sexual mates.
- The ability to survive various environments confers an adaptive advantage.
- Evolution is all natural, meaning that it has no rules.

Check the answer of this question online at QuizOver.com: Question: Which of the following statement about Ann Schlosser @Moberly Area

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-statement-about-ann-schlosser-moberly?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-statement-about-ann-schlosser-moberly?pdf=1505

- 4. Chapter: Unit 04: Photosynthesis
- 1. Unit 04: Photosynthesis Questions

# 4.1.1. Where is ATP produced in the chloroplast?

#### Author: Ann Schlosser

Where is ATP produced in the chloroplast?

Please choose only one answer:

- Calvin Cycle
- ATP synthase on the thylakoid membrane
- Electron transport chain of the light reactions in the thylakoid membrane
- All of the above

Check the answer of this question online at QuizOver.com: Question: Where is ATP produced in the chloroplast Ann Schlosser @Moberly Molecular

Flashcards:

http://www.quizover.com/flashcards/where-is-atp-produced-in-the-chloroplast-ann-schlosser-moberly-molecul?pdf=1505

Interactive Question:

http://www.quizover.com/question/where-is-atp-produced-in-the-chloroplast-ann-schlosser-moberly-molecul?pdf=1505

4.1.2. Which of the following are produced during the light reactions of p...

# Author: Ann Schlosser

Which of the following are produced during the light reactions of photosynthesis?

Please choose only one answer:

- ATP, NADPH, and O2
- Glucose, ATP, and NADPH
- ATP, NADPH, and CO2
- ADP, NADP+, and O2

Check the answer of this question online at QuizOver.com: Question: Which of the following are produced during Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-are-produced-during-ann-schlosser-mobe?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-are-produced-during-ann-schlosser-mobe?pdf=1505

- 4. Chapter: Unit 02: Molecules, Macromolecules, and Polymers
- 1. Unit 02: Molecules, Macromolecules, and Polymers Questions

4.1.1. If the general formula for monosaccharide is (CH2O)n, then the valu...

#### Author: Ann Schlosser

If the general formula for monosaccharide is (CH2O)n, then the value of n for galactose is \_\_\_\_\_\_ and fructose is \_\_\_\_\_\_.

Please choose only one answer:

- 4,6
- 6, 4
- 6, 6
- 5,6

Check the answer of this question online at QuizOver.com: Question: If the general formula for monosaccharide Ann Schlosser @Moberly

Flashcards: http://www.quizover.com/flashcards/question-if-the-general-formula-for-monosaccharide-ann-schlosser-mober?pdf=1505

Interactive Question: http://www.quizover.com/question/question-if-the-general-formula-for-monosaccharide-ann-schlosser-mober?pdf=1505

# 4.1.2. The conversion of ADP to ATP does NOT involve which of the following?

# Author: Ann Schlosser

The conversion of ADP to ATP does NOT involve which of the following?

Please choose only one answer:

- Expenditure of energy to form a high energy bond
- Attachment of a phosphate (P) atom
- Loss of a water molecule
- AMP

Check the answer of this question online at QuizOver.com: Question: The conversion of ADP to ATP does NOT Ann Schlosser @Moberly Area

Flashcards:

http://www.quizover.com/flashcards/question-the-conversion-of-adp-to-atp-does-not-ann-schlosser-moberly-a?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-the-conversion-of-adp-to-atp-does-not-ann-schlosser-moberly-a?pdf=1505

4.1.3. The monosaccharide that forms maltose is \_\_\_\_\_\_, that forms ...

Author: Ann Schlosser		
The monosaccharide that forms maltose is	, that forms lactose is, a	and that
forms sucrose is		

Please choose only one answer:

- Glucose + glucose, glucose + fructose, galactose + glucose
- Glucose + glucose, galactose + glucose, glucose + fructose
- Glucose + fructose, galactose + glucose, glucose + glucose
- Galactose + glucose, glucose + fructose, glucose + glucose

Check the answer of this question online at QuizOver.com: Question: The monosaccharide that forms maltose is Ann Schlosser @Moberly Molecular

Flashcards: http://www.quizover.com/flashcards/the-monosaccharide-that-forms-maltose-is-ann-schlosser-moberly-molecul?pdf=1505

Interactive Question: http://www.quizover.com/question/the-monosaccharide-that-forms-maltose-is-ann-schlosser-moberly-molecul?pdf=1505 4.1.4. What is the three-dimensional conformation of a polypeptide chain c...

# Author: Ann Schlosser

What is the three-dimensional conformation of a polypeptide chain called?

Please choose only one answer:

- Primary structure
- Secondary structure
- Tertiary structure
- Quaternary structure

Check the answer of this question online at QuizOver.com: Question: What is the three-dimensional conformation Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-what-is-the-three-dimensional-conformation-ann-schlosser-mobe?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-what-is-the-three-dimensional-conformation-ann-schlosser-mobe?pdf=1505

4.1.5. Which of the following is a TRUE statement regarding enzymes?

# Author: Ann Schlosser

Which of the following is a TRUE statement regarding enzymes?

Please choose only one answer:

- Enzymes do not change during a catalytic reaction.
- Enzymes always require coenzymes for their function.
- Enzymes are hydrolyzed during DNA replication.
- Enzymes are not organic, that is, they do not contain carbon atoms.

Check the answer of this question online at QuizOver.com: Question: Which of the following is a TRUE statement Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-is-a-true-statement-ann-schlosser-mobe?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-is-a-true-statement-ann-schlosser-mobe?pdf=1505

- 4. Chapter: Unit 06: Cellular Energy
- 1. Unit 06: Cellular Energy Questions

# 4.1.1. What is the first product of glycolysis?

## Author: Ann Schlosser

What is the first product of glycolysis?

Please choose only one answer:

- Fructose 6 phosphate
- Glucose 6 phosphate
- Pyruvate
- Fructose

Check the answer of this question online at QuizOver.com: Question: What is the first product of glycolysis Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-what-is-the-first-product-of-glycolysis-ann-schlosser-moberly?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-what-is-the-first-product-of-glycolysis-ann-schlosser-moberly?pdf=1505

4.1.2. Which of the following produces a net gain in the high energy molec...

# Author: Ann Schlosser

Which of the following produces a net gain in the high energy molecules ATP, NADH, and FADH2?

Please choose only one answer:

- Glycolysis
- Krebs cycle
- Lactic acid fermentation
- Alcoholic fermentation

Check the answer of this question online at QuizOver.com: Question: Which of the following produces a net gain Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-produces-a-net-gain-ann-schlosser-mobe?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-produces-a-net-gain-ann-schlosser-mobe?pdf=1505

- 4. Chapter: Unit 07: Molecular Genetics
- 1. Unit 07: Molecular Genetics Questions

# 4.1.1. In Polymerase Chain Reaction, what is the function of primers?

# Author: Ann Schlosser

In Polymerase Chain Reaction, what is the function of primers?

Please choose only one answer:

- Primers initiate the synthesis of DNA polymerase.
- Primes allow the double-stranded DNA to separate into single-stranded DNA.
- Primers activate the DNA polymerase to polymerize new DNA.
- Primers initiate the synthesis of DNA.

Check the answer of this question online at QuizOver.com: Question: In Polymerase Chain Reaction what is the Ann Schlosser @Moberly Molecular

Flashcards:

http://www.quizover.com/flashcards/in-polymerase-chain-reaction-what-is-the-ann-schlosser-moberly-molecul?pdf=1505

Interactive Question:

http://www.quizover.com/question/in-polymerase-chain-reaction-what-is-the-ann-schlosser-moberly-molecul?pdf=1505

# 4.1.2. What is the primary reaction catalyzed by DNA polymerases?

## Author: Ann Schlosser

What is the primary reaction catalyzed by DNA polymerases?

Please choose only one answer:

- Addition of a deoxyribonucleoside 5'-triphosphate to a 3'-hydroxyl group
- Elimination of a phosphate group from ATP
- Addition of a 3'-hydroxyl to a deoxyribonucleoside 5'-triphosphate group
- Elimination of an adenosine nucleotide from a deoxyribonucleoside 5'-triphosphate group

Check the answer of this question online at QuizOver.com: Question: What is the primary reaction catalyzed by Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-what-is-the-primary-reaction-catalyzed-by-ann-schlosser-mober?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-what-is-the-primary-reaction-catalyzed-by-ann-schlosser-mober?pdf=1505

# 4.1.3. Which of the following did Mendel's experiments demonstrate?

## Author: Ann Schlosser

Which of the following did Mendel's experiments demonstrate?

Please choose only one answer:

- Neither parent contributes any factors of each trait(s) shown in the offspring.
- The two members of each pair of factors segregate from each other during gamete formation.
- Inheritance is best described by the blending theory.
- Males contribute more than females to the traits in their offspring.

Check the answer of this question online at QuizOver.com: Question: Which of the following did Mendel's Ann Schlosser @Moberly Area Molecular

Flashcards:

http://www.quizover.com/flashcards/which-of-the-following-did-mendel-s-ann-schlosser-moberly-area-molecul?pdf=1505

Interactive Question:

http://www.quizover.com/question/which-of-the-following-did-mendel-s-ann-schlosser-moberly-area-molecul?pdf=1505

# 4.1.4. Which of the following statements about DNA replication is true?

# Author: Ann Schlosser

Which of the following statements about DNA replication is true?

Please choose only one answer:

- Okazaki fragments are newly synthesized DNA that occur on the 5' to 3' direction on the template DNA.
- DNA unwinds spontaneously before replication.
- DNA polymerase only reads in one direction.
- In eukaryotic cells, there is only one type of DNA polymerase.

Check the answer of this question online at QuizOver.com: Question: Which of the following statements about Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-statements-about-ann-schlosser-moberly?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-statements-about-ann-schlosser-moberly?pdf=1505

- 4. Chapter: Unit 08: Cell Division
- 1. Unit 08: Cell Division Questions

# 4.1.1. Mitotic spindles are NOT present during which phase?

#### Author: Ann Schlosser

Mitotic spindles are NOT present during which phase?

Please choose only one answer:

- Interphase
- Prophase
- Metaphase
- Anaphase

Check the answer of this question online at QuizOver.com: Question: Mitotic spindles are NOT present during Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-mitotic-spindles-are-not-present-during-ann-schlosser-moberly?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-mitotic-spindles-are-not-present-during-ann-schlosser-moberly?pdf=1505

# 4.1.2. Nucleoli are present during which phase?

## Author: Ann Schlosser

Nucleoli are present during which phase?

Please choose only one answer:

- Interphase
- Prophase
- Metaphase
- Anaphase

Check the answer of this question online at QuizOver.com: Question: Nucleoli are present during which phase Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-nucleoli-are-present-during-which-phase-ann-schlosser-moberly?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-nucleoli-are-present-during-which-phase-ann-schlosser-moberly?pdf=1505

# 4.1.3. Which of the following is a definition of centrosome?

## Author: Ann Schlosser

Which of the following is a definition of centrosome?

Please choose only one answer:

- An organelle that is involved in formation of the mitotic spindle
- The aggregation of all genetic information
- DNA, the genetic code
- An organelle that is responsible for replicating DNA

Check the answer of this question online at QuizOver.com: Question: Which of the following is a definition of Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-is-a-definition-of-ann-schlosser-mober?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-is-a-definition-of-ann-schlosser-mober?pdf=1505

# 4. Chapter: Unit 03: Cells

1. Unit 03: Cells Questions

4.1.1. Which of the following is found in BOTH plant and animal cells?

## Author: Ann Schlosser

Which of the following is found in BOTH plant and animal cells?

Please choose only one answer:

- Cell wall
- Nucleus
- Chloroplast
- Central vacuole

Check the answer of this question online at QuizOver.com: Question: Which of the following is found in BOTH Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-is-found-in-both-ann-schlosser-moberly?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-is-found-in-both-ann-schlosser-moberly?pdf=1505

4.1.2. Which of the following is NOT a property, or characteristic, of cel...

# Author: Ann Schlosser

Which of the following is NOT a property, or characteristic, of cell membranes or a component found in cell membranes?

Please choose only one answer:

- Cells membranes are permeable to water and charged molecules.
- Cell membranes are fluid structures that can shift and move.
- Cell membranes not only found as an external outer covering of the cell
- All of the above

Check the answer of this question online at QuizOver.com: Question: Which of the following is NOT a property Ann Schlosser @Moberly Molecular

Flashcards: http://www.quizover.com/flashcards/which-of-the-following-is-not-a-property-ann-schlosser-moberly-molecul?pdf=1505

Interactive Question: http://www.quizover.com/question/which-of-the-following-is-not-a-property-ann-schlosser-moberly-molecul?pdf=1505 4.1.3. Which of the following organelles is CORRECTLY matched to their fun...

Author: Ann Schlosser

Which of the following organelles is CORRECTLY matched to their function?

Please choose only one answer:

- Golgi apparatus is the organelle where energy rich ATP is generated.
- Endoplasmic reticulum (ER) is involved in protein synthesis.
- Peroxisomes are vesicles inside the cells that contain digestive enzymes for degrading old organelles.
- Central Vacuole is the site for DNA and RNA synthesis

Check the answer of this question online at QuizOver.com: Question: Which of the following organelles is Ann Schlosser @Moberly Area

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-organelles-is-ann-schlosser-moberly-ar?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-organelles-is-ann-schlosser-moberly-ar?pdf=1505

4.1.4. Which of the following is NOT a structure or characteristic associa...

#### Author: Ann Schlosser

Which of the following is NOT a structure or characteristic associated with eukaryotes?

Please choose only one answer:

- Golgi apparatus
- Nucleus
- Plasmids
- Chloroplast

Check the answer of this question online at QuizOver.com: Question: Which of the following is NOT a structure Ann Schlosser @Moberly

Flashcards:

http://www.quizover.com/flashcards/question-which-of-the-following-is-not-a-structure-ann-schlosser-mober?pdf=1505

Interactive Question:

http://www.quizover.com/question/question-which-of-the-following-is-not-a-structure-ann-schlosser-mober?pdf=1505