

Name: \_\_\_\_\_ Lab: \_\_\_\_\_

Score: \_\_\_\_\_  
  
/25

# BBQ#3

**Due Date:** Exam#3 in the first 5 minutes of class.

Check List:

- 4 Misconceptions
- BBQ15
- BBQ16
- BBQ17 (Genetics Prob.)
- BBQ18 (Central Dogma Concept Map)
- BBQ19
- BBQ20

Review & Practice exams are available at: <https://zanniedallarasciencepage.weebly.com/bio11---exam-3.html>

*Stamps:*

*Week 8 in lab:*

<b>BBQ15</b>	<b>BBQ16</b>

*Week 9 in lab:*

<b>BBQ17</b>	<b>BBQ18</b>	<b>BBQ19</b>
	* At least make a start and come with questions.	

## BBQ#15

*Draw the Cell Cycle.*

- Name each section*
- Identify what occurs in each step. (IPMAT)*
- Cells spend most of their time in which phase & why?*



8/14/17

# BBQ#16

	Mitosis	Meiosis
Major Purpose(s)		
Steps (A really basic overview or visual representation)		
The type of cells that preform this process		

Lec #15 – DNA Structure and Replication:




BBQ#17

1) Explain why this mutation, a single point deletion, causes a frameshift.

2) Does this change the ultimate protein a lot or a little? Why?

3) Is this mutation likely to be good, bad or neutral to the Protein and the overall organism? Why?

Original DNA	Mutated DNA
DNA: TGGTACGGGGCAACTAAA mRNA: ACCAUGCCCCGUUGAUUU MET-PRO-ARG-STOP	This G has been removed from the original DNA strand TGGTACGGGGCAACTAAA  This G has been removed from the original DNA strand

## Lec #15 – DNA Structure and Replication:

Blue Book

### BBQ#18

### Homework:

BBQ – DUE @ START OF EXAM#3

#### Key Terms

- RNA
- DNA Replication
- Translation
- RNA Replication
- DNA
- Helicase
- DNA Polymerase
- Polymerase
- Protein
- Amino Acid
- Leaves Nucleus
- Ribosome

Big Idea:

1. Why is it called the "Central Dogma"?

**Goal**– Answer the Big Idea Questions & Create and submit a Concept Map of proteins. **Or** Draw out the central dogma of biology.

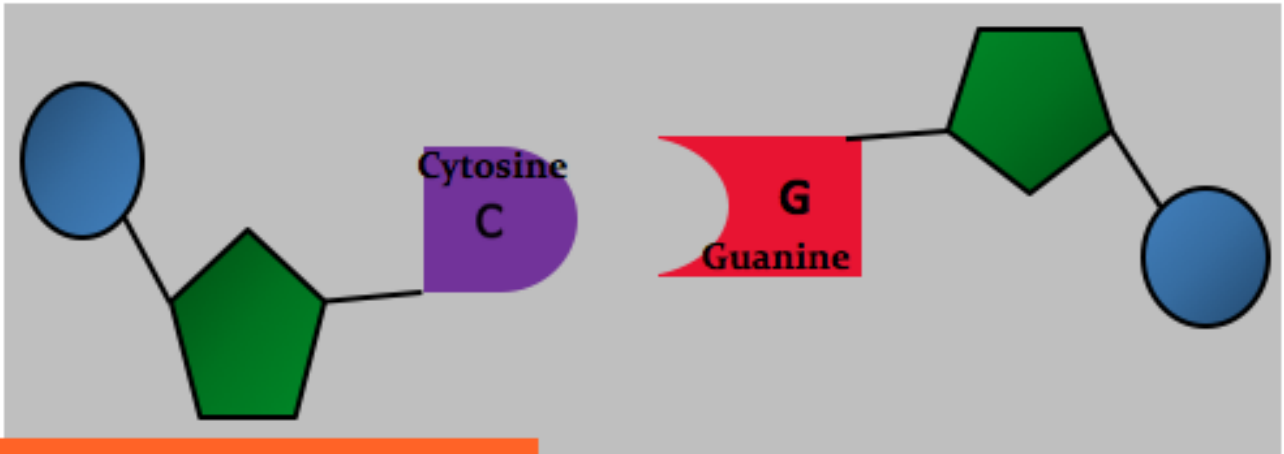
- **Verbal thinkers:** Use lines to connect each of the key words (listed to the left).
- **Visual Thinkers:** Instead of bubbles that have words in them, draw pictures and connect them with a map to help explain the order.
- Explain the connect with a little note near the line.

Lec #15 – DNA Structure and Replication:

Blue Book

# BBQ#19

- Draw and label of all of the parts of nucleotide base pair



**Tips**

Draw in & Label all Bonds

Lec #16 – Transcription and Translation:

Blue Book

## BBQ#20

- Take this strand of DNA run it through DNA Replication and then do the necessary steps to create a protein, show all intermediate steps.

Original DNA

**AGGTACGGGGCAACTAAA**

DNA replication (Make the complementary DNA Strand.)

Transcription (Make the complementary RNA strand to the original strand.)

Translation (Make protein by assembling the correct amino acids.)

## *Misconceptions:*

*Chose 4 to address (explain why they are wrong).*

In organisms, including humans, our cells divide when something is wrong or damaged.

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All mutations are harmful.

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DNA Replication and Mitosis are separate processes.

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The information in genes provides instructions for rearranging DNA into traits.