Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DUE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Honors Biology Homework DNA/Protein Synthesis**

**Choose 1:**

1. Make a 3D model of DNA and the double-helix structure. You need to have different colors/materials to represent the 3 major components of nucleotides in your model. You will be graded on
	1. Creativity and neatness
	2. Accuracy with alternating sugar phosphate backbone in a double helix and correct base pairs
	3. Key including what each color or material in your model represents
	4. Extra points will be given if it can be manipulated to show DNA replication.
2. Design a game about protein synthesis (transcription and translation). It could be a card game, board game, outside game, or any other type of game. Bring the game in with instructions of how to play.
3. Create a flow chart for protein synthesis, starting with DNA and ending with the production of a protein. Must be neat and colorful and include pictures of each step in order to get full points. Must show DNA, mRNA, tRNA, ribosomes, and codons. Extra points if you make a model of this that is interactive/hands-on.
4. Write a song about the structure of DNA and how it is important for holding instructions to make proteins. Your song should include the following terms: nucleotides, nitrogenous base, phosphate, sugar, double helix, transcription, mRNA, translation, protein. Record the song and share the video with me!

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DUE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Honors Biology Homework DNA/Protein Synthesis**

**Choose 1:**

1. Make a 3D model of DNA and the double-helix structure. You need to have different colors/materials to represent the 3 major components of nucleotides in your model. You will be graded on
	1. Creativity and neatness
	2. Accuracy with alternating sugar phosphate backbone in a double helix and correct base pairs
	3. Key including what each color or material in your model represents
	4. Extra points will be given if it can be manipulated to show DNA replication.
2. Design a game about protein synthesis (transcription and translation). It could be a card game, board game, outside game, or any other type of game. Bring the game in with instructions of how to play.
3. Create a flow chart for protein synthesis, starting with DNA and ending with the production of a protein. Must be neat and colorful and include pictures of each step in order to get full points. Must show DNA, mRNA, tRNA, ribosomes, and codons. Extra points if you make a model of this that is interactive/hands-on.
4. Write a song about the structure of DNA and how it is important for holding instructions to make proteins. Your song should include the following terms: nucleotides, nitrogenous base, phosphate, sugar, double helix, transcription, mRNA, translation, protein. Record the song and share the video with me!