**Project: Protein Synthesis Storyboard** Name:

 Assessed By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PERFORMANCE-BASED ASSESSMENT:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Beginning** | **Developing** | **Accomplished** | **Exemplary** |
| **CONTENT****(STRUCTURE)** | Many of the components are missing or incorrectly used | The majority of structural components are correctly used, while some components are missing or incorrect | Almost all structural components are correctly used, with some minor errors. | All structural components are correctly used |
| DNA, nucleotide base sequence, enzymes, mRNA, hydrogen bonds, covalent bonds, ribosome, large ribosomal subunit, small ribosomal subunit, codon, start codon (AUG), tRNA, anticodon, tRNA-amino acyl complex, amino acid, methionine, peptide bond, different sites on ribosome, stop codon, release factor (protein) |
| **CONTENT (PROCESS)** | Many processes are incorrect or not included. | The majority of processes are correct and accurate, with some processes missing or incorrect | Almost all processes are correct and accurate, with some minor errors. | Entire process is correct and accurate |
| Transcription: unzipping, complimentary base pairing, hydrogen bonding between bases, formation of mRNA backbone, covalent bonding, location (nucleus)Translation – Initiation: complimentary base pairing (with hydrogen bonding), assembly of ribosomal subunits, location (cytoplasm/rough ER)Translation – Elongation: complimentary base pairing (with hydrogen bonding), movement of ribosome along mRNA, passing of growing polypeptide chain from outgoing tRNA to incoming tRNA (with peptide bonds), repetition of process, location (cytoplasm/rough ER)Translation – Termination: complimentary base pairing (with hydrogen bonding), release of polypeptide chain, separation of ribosomal subunits, location (cytoplasm/rough ER) |
| **CLARITY** | Although an attempt is made, it is difficult to understand most of the project. - Messy- Disorganized | Most sections are well organized with visuals and words, but some sections are not. | Entire project is well organized with clear visuals and clear words. | Entire project is effectively organized.*-visuals are clear with an effective legend- words are concise and to the point**-Project could be used as a teaching tool for all ages.* |
| **APPLICATION** | Visuals are not original and/or have no colour. | Somewhat effective use of colourno attempt is made to include a theme/analogy | Original, effective use of colourTheme/analogy attempted, but is not applicable/effective | Original and highly effective use of colourTheme/analogy effectively complements protein synthesis  |

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 Assessed By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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