Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_\_\_

**Mind Map Assignment (Science 10: Topic 1.1 – DNA)**

Throughout this unit, you will be gradually building a mind map of your understanding of all key vocabulary words. This will occur in stages with smaller mind maps; at the end, you will assemble the whole thing as an assignment to submit.

You will be assessed according to the following scale. Do not lose this assignment sheet; it will need to be handed in with your final assignment for marking and feedback purposes.

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| --- | --- | --- | --- |
| **Extending** | **Proficient** | **Developing** | **Emerging** |
| * May include additional words that *add value* * Demonstrates sophisticated understanding of concepts: definitions, examples, analogies and diagrams are nuanced * Makes meaningful connections between concepts and explains them clearly and accurately * Clearly and accurately distinguishes between similar concepts | * Includes all words in mind map * Demonstrates solid understanding of concepts by putting definitions in own words and including own examples, analogies, and diagrams * Makes a combination of simplistic and meaningful connections between concepts and explains them | * Includes majority of words in mind map * Demonstrates a developing understanding of concepts by relying primarily on definitions, examples, and diagrams found in textbook, powerpoint, and other sources * Makes simplistic connections between concepts; these may not be thoroughly or accurately explained | * Missing key elements of mind map * Little understanding of vocabulary words is demonstrated |

**List of Required Vocabulary**

*Note: the list of required vocabulary may change depending on how the section is taught.*

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **Section** | **Vocabulary** | | **1.1 Concept 1** | Variation | | **1.1 Concept 2** | Nucleic Acid  DNA  RNA  Nucleotide  Nitrogenous base  Complementary base pairs  Adenine  Guanine  Cytosine  Thymine  Phosphate  Sugar  Hydrogen bonds  Double helix  Genome | | |  |  | | --- | --- | | **Section** | **Vocabulary** | | **1.1**  **Concept 3** | Chromosome  Chromatin  Centromere  Homologous chromosome  Sex chromosome  Autosome  Karyotype  Gene  Allele  Trait  Mitosis | | **1.1  Concept 4 and Powerpoint** | DNA replication  Protein  Protein synthesis  Transcription  Translation  mRNA  tRNA  Amino acid  Uracil  Ribosome  Codon  Anticodon | |