**Science 10**

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

**Learning Targets**

**It is your responsibility to keep track of your learning target assessments for this ENTIRE COURSE. After each unit test, write down the final mark and you will use this as evidence of your learning.**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Learning Targets** | | **Novice** | | **Apprentice** | | **Expert** | |
| **1** | **2** | **3** | **4** | **5** | **6** |
| **Unit 1 – Biology: DNA is the basis for the diversity of living things**  The extent to which I can: | | | | | | | |
| 1-1 | label DNA structures and describe their function |  |  |  |  |  |  |
| 1-2 | model and summarize the process of protein synthesis |  |  |  |  |  |  |
| 1-3 | construct and analyze a mono or dihybrid cross Punnett square to determine the probability of a certain phenotype or genotype |  |  |  |  |  |  |
| 1-4 | explain the significance of different types of genetic or chromosomal mutations |  |  |  |  |  |  |
| 1-5 | compare how natural and artificial selection impact a population |  |  |  |  |  |  |
| 1-6 | justify my opinion on the use of genetic engineering in society |  |  |  |  |  |  |
| **Unit 2: Chemistry: Energy change is required as atoms rearrange in a chemical process**  The extent to which I can: | | | | | | | |
| 2-1 | understand how different elements combine to make ionic and covalent compounds |  |  |  |  |  |  |
| 2-2 | understand how different compounds react in accordance with the law of conservation of mass |  |  |  |  |  |  |
| 2-3 | name, identify and state properties of acids and bases |  |  |  |  |  |  |
| 2-4 | explain the role of energy in a chemical reaction |  |  |  |  |  |  |
| 2-5 | analyze practical applications and implications of chemical processes |  |  |  |  |  |  |
| **Unit 3: Energy: Energy is conserved, and its transformation can affect living things and the environment**  The extent to which I can: | | | | | | | |
| 3-1 | apply the law of conservation of energy |  |  |  |  |  |  |
| 3-2 | explain and calculate the transfer of potential and kinetic energy |  |  |  |  |  |  |
| 3-3 | explain and analyze the use of nuclear energy |  |  |  |  |  |  |
| 3-4 | explain how transformation of energy effects the earth |  |  |  |  |  |  |
| **Unit 4: Astronomy: The formation of the universe can be explained by the big bang theory**  The extent to which I can: | | | | | | | |
| 4-1 | describe the evidence used to support the big bang theory |  |  |  |  |  |  |
| 4-2 | explain changes to the universe over time |  |  |  |  |  |  |
| 4-3 | analyze astronomical data |  |  |  |  |  |  |
| 4-4 | explain the role and significance of technology used to collect astronomical data |  |  |  |  |  |  |