<table>
<thead>
<tr>
<th>Score 4.0</th>
<th>Score 3.0</th>
<th>Score 2.0</th>
<th>Score 1.0</th>
<th>Failing Score 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>Proficient</td>
<td>Basic</td>
<td>Below</td>
<td>No evidence or insufficient evidence of student learning.</td>
</tr>
<tr>
<td>Genetic Material</td>
<td>Genetic Material</td>
<td>Genetic Material</td>
<td>Genetic Material</td>
<td>Genetic Material</td>
</tr>
<tr>
<td>Mendelian Inheritance</td>
<td>Mendelian Inheritance</td>
<td>Mendelian Inheritance</td>
<td>Mendelian Inheritance</td>
<td>Mendelian Inheritance</td>
</tr>
</tbody>
</table>

**Students will be able to...**

- Anticipate the affects associated with organisms containing the same DNA
- Forecast the impact of a DNA mutation caused earlier in life rather than later.
- Analyze the role a parent plays in determining the traits of their child
- Critique technology's role in genetics

**No major errors or omissions regarding any of the information and/or processes (Basic, 2.0) and partial knowledge of the more complex ideas and processes (Proficient 3.0).**

**Basic Score 2.0**

- Recognize and recall specific terminology (e.g. chromosomes, gene, nucleotides, DNA, mutation); and
- Performing basic processes, such as . . .
  - Recognize mutations
  - Identifying causes for given diseases
- Determine the types of mutations including frameshift and base pair substitution
- Recognize and recall specific terminology (e.g. allele, homozygous, heterozygous, phenotype, genotype, Punnett squares, pedigree); and
- Perform basic processes, such as . . .
  - Complete a Punnett square
  - Identify individuals from a pedigree

**Basic Score 2.5**

- Construct an accurate reproduction of a strand of DNA
- Compare frame shift and base pair mutations, and give examples of each
- Express the results of given mutations
- Predict the ratio of offspring based on using Punnett squares
- Determine the trait proportion from pedigrees
- Differentiate between sex-linked and autosomal pedigrees

**Basic Score 3.0**

- No major errors or omissions regarding any of the information and/or processes that were explicitly taught.

**Proficient Score 3.0**

- In addition to the complex ideas and processes (Proficient 3.0) performance, partial success at in-depth inferences and extended applications of what was learned, including connections to other experiences.

- Partial success at in-depth inferences and extended applications of what was learned, including connections to other experiences.

**Advanced Score 4.0**

- In addition to the Proficient 3.0 performance, makes inferences and extended applications of what was learned, may include making connections to other experiences.

- Partial success at in-depth inferences and extended applications of what was learned, may include making connections to other experiences.