

**Genetics Lab Report Rubric (for exploratory science or hypothesis-driven research)**

**Modified 6/1/2018**

<b>Criteria</b>	<b>Demonstrating (9-10 points)</b>	<b>Emerging (7-8 points)</b>	<b>Beginning (5-6 points)</b>
<i>Introduction (10 points)</i>	Provides a complete summary of ideas the reader needs to know to understand the research question, ending in a succinct but complete statement of the research topic. Briefly reviews the relevant parts of the general genetics topic under study and why the study system is appropriate to address the research question. Links the purpose for the experiment to relevant genetics concepts. Ideas are organized and flow smoothly. Content is clearly presented and accurate.	Provides a complete summary of ideas the reader needs to know to understand the question, ending in a statement of the research topic. Briefly reviews the relevant parts of the general genetics topic under study and why the study system is appropriate to address the research question. Mostly succeeds at linking the purpose for the experiment to relevant genetics concepts. Organization and flow of ideas is present, with perhaps a few inconsistencies. Content is accurate, with perhaps one error or inaccuracy.	Provides a partially complete summary of ideas the reader needs to know to understand the question, ending in an attempted statement of the research topic. Reviews the general genetics topic under study and/or why the study system is appropriate to address your question. Attempts to link the purpose for the experiment to relevant genetics concepts. States the research topic. Organization and flow of ideas are not fully realized. Mostly accurate but with errors in logic or concept.
<i>Methods (10 points)</i>	Opens with a clear and succinct description and purpose of the experiment and what evidence is needed to answer the research question. Describes the experimental design with the appropriate treatments, controls, and replicates and how this design will address the question. Names and describes the protocols used with information necessary to replicate but assuming the reader is versed in genetics techniques, while briefly stating the purpose for each protocol. Selects and correctly explains the correct analysis (e.g., statistical test) for the data & question, indicates what evidence will be necessary to draw a conclusion, showing the logic behind the decision. Ideas are organized and flow smoothly. Content is clearly presented and accurate.	Opens with a complete description and purpose of the experiment and indicates some or all of the evidence needed to answer the research question. Describes the experimental design with the appropriate treatments, controls, and some indication of replication and explains how this design will address the question. Names and describes the protocols used sufficiently to replicate, while briefly stating the purpose for each protocol. Selects and explains the correct analysis (e.g., statistical test) for the data & question, indicates what evidence will be necessary to draw a conclusion. Organization and flow of ideas is present, with perhaps a few inconsistencies. Content is accurate, with perhaps one error or inaccuracy.	Opens with a description and purpose of the experiment and indicates some of the evidence needed to answer the research question. Describes the experimental design, indicating some of the treatments and controls, and attempts to explain how this design will address the question. Names and describes the protocols used, providing inconsistent amounts of detail and does not assume the reader is versed in genetics techniques. May or may not state the purpose for each protocol. When needed, attempts to select and explain the statistical test for the data & question, and attempts to indicate what evidence will be necessary to draw a conclusion. Organization and flow of ideas are not fully realized. Mostly accurate but with errors in logic or concept.
<i>Writing (10 points)</i>	No errors in writing (grammar, syntax, and spelling). Entire work uses words carefully, minimizing excess while retaining clarity and accuracy.	May have an error in writing (grammar, syntax, and spelling) but is relatively clear. Careful word choice evident in parts; wordy in other parts.	May have a few errors in writing (grammar, syntax, and spelling) or some lack of clarity within sentences. Does not strive for economy of words.

Continued ...

Criteria	Demonstrating (9-10 points)	Emerging (7-8 points)	Beginning (5-6 points)
<i>Format</i> (10 points)	Title is specific and clearly conveys a summary of the lab report findings, without a separate title page. Written entirely in sentences organized as paragraphs, with appropriate paragraph breaks between ideas. Organized into the sections outlined in this rubric, separated by headings in bold, without page breaks between sections. Uses technical terminology minimally and correctly, abbreviating or italicizing consistently and according to the conventions of a Genetics style journal (e.g. species names, gene and allele names). Page formatting follows these conventions: Times New Roman 12 pt font (even for headings); 1 inch margins; single-spaced; pages are numbered.	Title is conveys a summary of the lab report findings, without a separate title page. Written entirely in sentences organized as paragraphs, with mostly logical paragraph breaks between ideas. Organized into the sections outlined in this rubric, separated by headings in bold, without page breaks between sections. Uses technical terminology minimally and correctly for the most part, abbreviating or italicizing consistently and according to the conventions of a Genetics style journal (e.g. species names, gene and allele names). Page formatting follows most of these conventions: Times New Roman 12 pt font (even for headings); 1 inch margins; single-spaced; pages are numbered.	Title is specific and clearly conveys a summary of the lab report findings, without a separate title page. Written in sentences organized as paragraphs, but breaks between paragraphs are not always when logical. Attempts to organize into the sections outlined in this rubric, separated by headings in bold, without page breaks between sections. Attempts to use technical terminology correctly, abbreviating or italicizing consistently and according to the conventions of a Genetics style journal (e.g. species names, gene and allele names). Page formatting follows some of these conventions: Times New Roman 12 pt font (even for headings); 1 inch margins; single-spaced; pages are numbered.