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BIOL 294 Genetics

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## Writing Assignment 2

A primary research article is a scientific paper that presents original research conducted by the authors. These articles report new data collected through experiments, observations, or clinical studies and are written for an academic audience. A section such as an abstract, introduction, materials and methods, results, discussion, and references. The methods section explains how the study was conducted so that other scientists could replicate it, while the results section presents data using figures and tables. Because primary articles focus on firsthand findings, they serve as direct evidence in scientific research.

A review article summarizes and analyzes existing research on a specific topic rather than presenting new experimental data. Authors of review articles evaluate multiple primary studies to identify trends, compare findings, and highlight gaps in current knowledge. Review articles usually do not include a methods or results section for original experiments, but they do not contain extensive citations to previously published research. These articles are especially useful for gaining background knowledge on a topic and understanding the current state of research in a field.

The scientific peer review process is the evaluation of a research manuscript by experts in the same field before it is published. After a scientist submits a paper to a

journal, the editor first reviews it for relevance and quality. If it meets basic standards, the editor sends it to independent reviewers who assess the study's methodology, accuracy, significance and clarity. Reviewers then provide feedback and recommend whether the paper should be accepted, revised, or rejected. This process helps ensure that published research is credible, ethical, and scientifically sound.

## Cited Sources

*Libguides: Tutorial: Evaluating information: Primary vs. secondary articles.*

Primary vs. Secondary Articles - Tutorial: Evaluating Information - LibGuides at Cornell University. (n.d.). <https://guides.library.cornell.edu/c.php?g=543699&p=3725401>

*Libguides: Primary, secondary, and tertiary sources: A quick guide: Secondary sources.* Secondary Sources - Primary, Secondary, and Tertiary Sources: A Quick Guide - LibGuides at Cornell University. (n.d.).

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