

Molecular Phylogeny Lab Report Rubric

Names:

Category	4	3	2	1
Header and Organization	Lists names, date, title, organized and easy to read	Lists names, date, title	Missing one component of header	Missing more than one component of header
Introduction	Clearly states the purpose of the lab in relation to the concept of molecular phylogeny	States the purpose of the lab and explains the concept of molecular phylogeny	Explains the basic concept of molecular phylogeny, but does not demonstrate clear understanding	Does not explain the concept of molecular phylogeny, or largely misunderstood
Results – Tree	Tree shows most parsimonious explanation, clear and neat, follows instructions	Tree shows good explanation and follows directions given, acceptably neat and clear	Tree is largely correct, but may have one error or not follow directions	Tree has several errors, has large parts missing, or no rough draft
Results – Written	Possible problems in the data are noted, along with noteworthy results, and feasible explanations for the errors	Possible problems in the data are noted, along with noteworthy results	There is some discussion of the data, but incomplete	No written description of the tree or data problems is given
Analysis – Conclusion	Discusses cases of apparent 'convergent evolution', explaining why the tree chosen is better than other options based on the evidence	Discusses cases of apparent 'convergent evolution' and why the tree shown was chosen	Mentions cases of apparent 'convergent evolution,' but does not explain clearly why one possibility was chosen over another	Does not discuss alternate explanations of the data
Analysis – Simplifying Assumptions	Describes in detail several simplifying assumptions made in the model, and how they are related to biological reality	Describes several simplifying assumptions made in the model	Describes at least one simplifying assumption made in the model	Does not discuss assumptions of the model