



Advanced Inquiry/Scientific Process Rubric

	SCIENTIFIC CONCEPTS	SCIENTIFIC INQUIRY	DATA/OBSERVATIONS	CONCLUSIONS
4	Written explanations illustrate accurate and thorough understanding of scientific concepts.	The student independently conducts investigations and designs and carries out his or her own investigations.	Comprehensive data is collected and thorough observations are made. Diagrams, charts, tables, and graphs are used appropriately. Data and observations are presented clearly and neatly with appropriate labels.	The student clearly communicates what was learned and uses strong evidence to support reasoning. The conclusion includes application to real life situations.
3	Written explanations illustrate an accurate understanding of most scientific concepts.	The student follows procedures accurately to conduct given investigations, begins to design his or her own investigations.	Necessary data is collected. Observations are recorded. Diagrams, charts, tables, and graphs are used appropriately most of the time. Data is presented clearly.	The student communicates what was learned and uses some evidence to support reasoning.
2	Written explanations illustrate a limited understanding of scientific concepts.	The student may not conduct an investigation completely, parts of the inquiry process are missing.	Some data is collected. The student may lean more heavily on observations. Diagrams, charts, tables, and graphs may be used inappropriately or have some missing information.	The student communicates what was learned but is missing evidence to support reasoning.
1	Written explanations illustrate an inaccurate understanding of scientific concepts.	The student needs significant support to conduct an investigation.	Data and/or observations are missing or inaccurate.	The conclusion is missing or inaccurate.