| Carrying Out Research Rubric | | | |
|------------------------------|---------------------------------------|-------------------------------------------------------------------|----------------------------------------------------|
| Objective | Novice (1) | Intermediate (2) | Expert (3) |
| Understanding | 1. Can give a vague and sketchy | 1. Can state orally with prompting and | 1. Can state orally and can provide |
| The Problem | summary of the scientific problem | can provide an incomplete written | a written summary of the |
| | that the research will address. | summary of the scientific problem that the research will address. | scientific problem that the research will address. |
| | 2. Can provide an incomplete reason | 2. Can provide with prompting a | 2. Can provide a compelling reason |
| | for performing the research. | reason for performing the research. | for performing the research. |
| Experimental | 1. Can carry out only portions of the | 1. Can carry out the experimental | 1. Can sucessfully carry out all |
| Procedures | experimental procedures. | procedures with significant assistance. | required experimental procedures. |
| | 2. Can describe some of the steps. | 2. Can describe each step. | 2. Can describe the significance of each step. |
| Experimental | 1. Data is collected in a manner that | 1. Data is collected in a manner to | 1. Data is collected in a manner to |
| Results | displays an unacceptable degree of | achieve a marginal degree of | achieve an acceptable degree of |
| | precision and accurracy. | precision and accurracy. | precision and accurracy. |
| | 2. Analysis of data is inappropriate | 2. Analysis of data is appropriate | 2. Analysis of data is appropriate |
| | and incorrect. | and correct, with guidance. | and correct. |
| | 3. Some data is used to address the | 3. Most data is used to address the | 3. Data is used to address the |
| | scientific problem. | scientific problem. | scientific problem. |
| Discussion and | 1. Interpretation of results is | 1. Interpretation of results is correct | Interpretation of results is correct |
| Conclusions | incorrect and inappropriate. | and appropriate, with guidance. | and appropriate. |
| | 2. Conclusions drawn from data are | 2. Most conclusions drawn are | 2. Conclusions drawn from data are |
| | inappropriate. | appropriate. | appropriate. |
| | 3. Further related research cannot | 3. Further related research can be | 3. Further related research can be |
| | be proposed without extensive | proposed, with prompting. | proposed. |
| | prompting | | |