**Mini Lab Poster Rubric- SENSORY SYSTEM Performance Assessment Midterm 2017**

The lab report requirements are described in the rubric below. All section names, except for *title*, should appear as bold headings in your report.

**LAB REPORT RUBRIC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Section** | **Component(s)** | **Advanced (4)** | **Proficient (3)** | **Working toward proficiency (2 or 1)** |
| **Title** | **Title** | The title clearly indicates the nature of your experiment. | The title clearly indicates the nature of your experiment. | The title vaguely relates to the nature of your experiment. |
| **Background** | **Question** | Question is clearly stated, narrowly focused, and answerable. | Question is answerable but not narrowly focused. | Question is too broad to be practically investigated. |
| **Identification of Variables** | Correctly identifies specific, measurable independent and dependent variables. Correctly identifies controlled and uncontrolled variables. | Identifies variable being tested and variable being measured. | Variables incomplete and/or inaccurate |
| **Hypothesis** | Hypothesis is clearly stated. It clearly predicts a relationship between dependent and independent variables. | Hypothesis is clearly stated. It predicts the influence of one variable on another. | Hypothesis is poorly stated and doesn’t directly mention the variables. |
| **Materials and Methodology** | **Materials** | Complete, detailed list of materials presented in vertical list format. | Most materials are listed and appropriate. | Materials incomplete or inappropriate for experiment. |
| **Procedure** | Procedure is in vertical list format, accurate, complete, easy-to-follow, and reproducible by another person. Includes diagrams, where appropriate, to clarify procedures. | Step by step procedure, generally complete. Minor errors/omissions make it difficult to follow or not always repeatable. | Procedure difficult to follow. Major omissions or errors. |
| **Data Analysis** | **Data Tables** | Data table contains accurate, precise raw data reported in correct SI units. Data table has a descriptive title. | Data table with accurate data, most units labeled or implied. Minor errors. Title absent. | Data table inaccurate, confusing and/or incomplete. Missing units. |
| **Graphs** | Appropriate graph(s) is/are used. Well-organized, easy to read. Descriptive title, appropriate axes labeling, keys, etc. | Well organized, easy to read graph and/or figures. Descriptive title, minor errors in use of units and labeling. | Graph/figures presented in a confusing and/or sloppy fashion. |
| **Statistical tests** | Appropriate statistical tests are used to evaluate data. | Appropriate statistical tests are used to evaluate data. | Statistical tests are missing. |
| **Analysis** | Description (but not interpretation) of your data and statistical test results. | Description (but not interpretation) of your data and statistical test results. | Partial description (and some interpretation) of your data and statistical tests. |
| **Conclusion** | **Conclusion** | Scientifically valid, logical conclusion, well supported by the data collected and statistical tests. Clearly addresses the stated hypothesis. | Scientifically valid, logical conclusion, supported by data collected. Attempts to address problem and stated hypothesis. | Conclusion is incomplete or illogical. Does not address the problem and hypothesis. |
| **Error Analysis** | Sources of error identified and explained. Appropriate recommendations made to eliminate errors. | Sources of error identified. | Weak/trivial attempt to identify sources of error. |

Sensory System Project

Instructions:

Develop an individual lab project (at-home or afterschool) to explore the features of the sensory system. Use the rubric (attached) to construct a “mini-lab poster”. Your mini lab poster will summarize the scientific methodology you implemented throughout your independent investigation.

Choose from 1 of the following resources:

“measuring your taste threshold” <http://www.sciencebuddies.org/science-fair-projects/project_ideas/HumBio_p013.shtml>

“Now you see it now you don’t” <http://www.sciencebuddies.org/science-fair-projects/project_ideas/HumBeh_p008.shtml#summary>

“Are your eyes playing tricks on you?” <http://www.sciencebuddies.org/science-fair-projects/project_ideas/HumBio_p021.shtml#summary>

“ When your sniffer snoozes you’ve got olfactory fatigue”

<http://www.sciencebuddies.org/science-fair-projects/project_ideas/HumBio_p031.shtml#summary>

“Do video game players have faster reaction times than non players” <http://www.sciencebuddies.org/science-fair-projects/project_ideas/HumBio_p025.shtml>

*\*Any other lab experiments or changes to the experiments above must be approved by the instructor (in writing).*

