Name: Date: Class:

Post Assessment

1. **Quiz on Learned Concepts**
    a. **Neuroscience Applications**:
        i. Explain how electrical signals from muscles are recorded.

        ii. Describe how these signals can be analyzed to learn about the nervous system.

    b. **Data Conversion**:
    Outline the steps to convert a .wav file to a .csv file using Python.

    c. **Data Analysis and AI**:
        i. How can visualizing data help in understanding muscle activity?

        ii. What are some basic machine learning techniques that could be applied to this data?

2. **Hands-On Post-Test**
    a. **Python Programming**:
        i. Write a Python script to convert a .wav file to a .csv file.

        ii. Create a simple plot of the muscle activity data using Matplotlib.

b. **Collaborative Analysis**:
    i. In Google Colab, collaboratively analyze a dataset and summarize the findings.

3. **Project-Based Assessment**
    a. **Group Presentation**:
        i. Each group presents their findings, including data visualization and analysis.
        ii. Discuss the significance of your results in the context of neuroscience research.

    b. **Reflective Writing**:
        i. Write a short essay on what you learned about data conversion, analysis, and the application of AI in neuroscience.

        ii. Reflect on the collaborative process and how it contributed to your understanding.