**ATHBY Task 1: Nerve Pathway**

**Assessment Type: Science Inquiry**

In groups of 2-3, plan and conduct the following investigation:

***Determine the effect of a particular distraction on reaction time.***

Individually, write a laboratory report for the experiment.

**Conditions**

**Time allowed for completion of the task:**

• investigation planning – one class period

• conduction of investigation – one class period

• completion of the Introduction, Aim and Hypothesis, Equipment and Procedure, Variables, Results and Graph sections of the scientific report – at home / in class time

• completion of the Discussion and Conclusion sections of the scientific report – one period under test conditions

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|  |  | **Mark Allocation** | **Mark** |
| Title | * Title relevant and concise | 1 |  |
| Introduction | * Review of current Scientific knowledge (3) * 2-3 references (1) | 4 |  |
| Aim and Hypothesis | * Aim is clear and concise * Hypothesis relates independent and dependent variables | 2 |  |
| Equipment and Procedure | * Appropriate equipment * Procedure is detailed and specific * Diagram is scientific, neat, labelled, captioned and appropriately sized * Safety and ethics considered | 4 |  |
| Variables | * Independent variable is numerical, incremental and includes units of measurement * Dependent variable is clear and includes units of measurement * 3-5 controlled variables identified (2) | 4 |  |
| Results | * Table includes title which relates variables * Columns relate to independent and dependent variables and include headings with units * Repeat trials or replicates, averages | 4 |  |
| Graph | * Graph title relates variables * Graph type appropriate for data * Axis correct orientation and labelled, including units (2) * Appropriate size and scale, correct plotting | 5 |  |
| Discussion | * Results summarised and patterns identified (in reference to the hypothesis) (2) * Explanation of results using scientific knowledge (4) * Classify & explain data as valid, if not suggest ways to improve the validity of your data (2) * Identify specific errors and related improvements (2) * Identify and explain data collection as replicate or repetition experiment. Discuss the reliability of data (2) | 12 |  |
| Conclusion | * Summary of findings * Hypothesis supported or not | 2 |  |
| Validation | * Unseen Questions | 12 |  |
|  |  | Total  /50 |  |

Comments