Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Reaction Time Required Practical**

In this question you will be assessed on using good English, organising information clearly and using specialist terms where appropriate.

**A student is asked to investigate whether practice reduces human reaction times. Some of the equipment they were provided with is shown below:**

* a metre ruler
* a chair
* a table
* a partner

**Describe how they could carry out this investigation**

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**Reaction Time Required Practical**

Marks awarded for this answer will be determined by the quality of the written communication as well as the standard of the scientific response

|  |  |  |  |
| --- | --- | --- | --- |
| **Poor Understanding** **(0 marks)** | Level 1Basic Understanding(1-2 marks)**Grade 3-4** | Level 2Clear Understanding (3-4 marks)**Grade 5-6** | Level 3Detailed Understanding(5-6 marks)**Grade 7-8** |
|  | * Knowledge of basic information
* Simple understanding
* The answer is poorly organised, with almost no specialist terms and their use demonstrating a general lack of understanding of their meaning, little or no detail
* The spelling, punctuation and grammar are very weak
 | * Knowledge of accurate information
* Clear understanding
* The answer has some structure and organisation, use of terms has been attempted but not always accurately, some detail given
* There is reasonable accuracy in spelling, punctuation, although there may still be some errors.
 | * Knowledge of accurate information appropriately contextualised
* Detailed understanding supported by relevant evidence and examples
* Answer is coherent and is in an organised, logical sequence, containing a wide range of appropriate or relevant specialist terms used accurately
* The answer shows almost faultless spelling, punctuation and grammar
 |
| **Examples of biology points made in the response****When marking this question, the amounts do not need to be the same, however, the method should follow roughly the same steps**1. Use your weaker hand for this experiment. If you are right handed then your left hand is your weaker hand.
2. Sit down on the chair with good upright posture and eyes looking across the room.
3. Place the forearm of your weaker arm across the table with your hand overhanging the edge of the table.
4. Your partner will hold a ruler vertically with the bottom end (the end with the 0 cm) in between your thumb and first finger. Practice holding the ruler with those two fingers.
5. Your partner will take hold of the ruler and ask you to remove your fingers.
6. Your partner will hold the ruler so the zero mark is level with the top of your thumb. They will tell you to prepare to catch the ruler.
7. Your partner will then drop the ruler **without** telling you.
8. You must catch the ruler as quickly as you can when you sense that the ruler is dropping.
9. After catching the ruler, look at the number level with the top of your thumb.
10. Continue to repeat the test several times.
11. Swap places with your partner. Repeat the experiment to get their results.
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| **Total 6 marks** |