**SOUTHERN RIVER COLLEGE**

**Human Biology**

**Unit 3**

**TASK 2**

**Reflexes Investigation (5%)**

**TYPE:** Investigation

**CONTENT:** Nervous system

**TASK 2:** Investigation **– Reflexes (5%)**

Interest in the measurement of human reaction time (the time elapsing between the onset of a stimulus and the onset of a response to the stimulus) apparently began as a result of the work of the Dutch physiologist F.C. Donders. Beginning in 1865, Donders became interested in the question of whether the time taken to perform basic mental processes could be measured. Until that time, mental processes had been thought to be too fast to be measurable.

**YOUR TASK:**

You will be required to plan, conduct and evaluate an investigation based on the comparison of reaction times between individuals. You will write up your investigation as a scientific report, following the guidelines on the following page.

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

• Investigation planning – one class period

• Conduction of investigation – one class period

• Completion of the write up of scientific report – at home

• Validation – one class period under test conditions

**Task weighting**

5% of the school mark for this pair of units

**Due Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**To complete:**

**In class activity:**  Introduction, materials and method sections of the scientific report.

**At home:** Complete scientific report write up, including; results, discussion and conclusion.

**Validation:** Hand in scientific report write up and complete validationin class in one week time.

**Complete in Class:**

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| --- |
| **Plan the investigation**  Things to consider when planning your investigation:   * Research and provide background information on the basic spinal reflex pathway * Devise a hypothesis and choose dependent and independent variables for your investigation * Identify variables to control * Decide upon the appropriate sample size, trials and data collection methods * Describe, in detail, the methodology you will use during your investigation * Decide upon the data recording method. |
| **Conduct the investigation**   * Set up times and places for the measurements to be taken * Carry out data collection from test subjects |

**Complete at home:**

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| --- |
| **Scientific report write up**   * Introduction * Background research * Aim * Hypothesis * Variables |
| * Method * Materials * Results   **The following sections will be marked: (10 marks)**   * Discussion (including reliability and validity) * Conclusion |

**Complete under test conditions:**

Complete validation based on second hand data (**no notes** are permitted).

NOTE: **completed** **scientific report** is expected to be handed in on the day of the validation (not just the marked sections).