 Province of the

EASTERN CAPE

EDUCATION

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT**

**(SEN-FET)**

**HOME SCHOOLING SELF-STUDY WORKSHEET**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SUBJECT** | Life Sciences | **GRADE** | 12 | **DATE** | 26 May /2020 |
| **TOPIC** | Reflex action,Reflex arc CNS disorders, Stem cell use to treat injuries | **TERM 1**  **REVISION** |  | **TERM 2 CONTENT** | ✓ |
| **TIME ALLOCATION** | 30 min | **TIPS TO KEEP HEALTHY**  1. **WASH YOUR HANDS** thoroughly with soap and water for at least 20 seconds. Alternatively, use hand sanitizer with an alcohol content of at least 60%.  2. **PRACTICE SOCIAL DISTANCING** – keep a distance of 1m away from other people.  3. **PRACTISE GOOD RESPIRATORY HYGIENE**: cough or sneeze into your elbow or tissue and dispose of the tissue immediately after use.  4. **TRY NOT TO TOUCH YOUR FACE.** The virus can be transferred from your hands to your nose, mouth and eyes. It can then enter your body and make you sick.  5. **STAY AT HOME.** | | | |
| **INSTRUCTIONS** | Use the following resources to complete the worksheet:   * Textbook * Virtual lesson on Reflex action, reflex arc, CNS disorders and stem cell use to treat injuries * PowerPoint Presentation on Reflex action, reflex arc, CNS disorders and Stem cell use to treat injuries |

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| --- | --- | --- | --- | --- |
| **Question 1** | | | | |
|  |  |  |  |  |
| 1.1. | Give the correct **Biological term** for each of the following descriptions | | | |
|  |  | | | |
|  | 1.1.1 | The microscopic gap between consecutive neurons. | (1) |  |
|  | 1.1.2 | Undifferentiated cell that can develop into any tissue or organ | (1) |  |
|  | 1.1.3 | An automatic response to a stimulus, which is not under conscious control. | (1) |  |
|  | 1.1.4 | A disorder that is characterized by degeneration of the brain and loss of memory | (1) |  |
|  | 1.1.5 | Neuron that conducts impulses to the Central Nervous System. | (1) |  |
|  | 1.1.6 | The nervous pathway transmitting the impulses that results in a reflex action. | (1) |  |
|  |  |  | **[6]** |  |
| 1.2 | The diagram below represents TWO pathways, A and B, which a nerve impulse may follow in the human body. | | | |
|  |  | | |  |
|  |  |  |  |  |
|  | 1.2.1 | Which pathway, A or B, represents a reflex? | (1) |  |
|  | 1.2.2 | Give a visible reason in the diagram for your answer to QUESTION 1.2.1 | (1) |  |
|  | 1.2.3 | Describe the importance of a reflex action in the human body. | (3) |  |
|  | 1.2.4 | Identify the part of the nervous system represented by 1 | (1) |  |
|  | 1.2.5 | Describe how the person would be affected if the axon of neuron 2 was cut | (2) |  |
|  | 1.2.6 | Describe pathway B | (6) |  |
|  |  |  | **[14]** |  |

**[TOTAL: 20]**