DARFIELD HIGH SCHOOL SCIENCE DEPARTMENT

BIOLOGY – NCEA Level 3

Key Words for the Unit: Homeostasis

***Highlight keywords as you encounter them during your lessons and/or research.***

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| **Key Word** | **Definition** |
| Action potential | Brief reversal of membrane potential that occurs during the passage of a nerve **impulse** |
| Afferent neuron | **Neuron** carrying **impulses** from a **receptor** to the **CNS** |
| Axon | Threadlike extension of **neuron** that transmits **impulses** |
| Central nervous system (CNS) | The part of the **nervous system** that coordinates all neural functions – in mammals, it consists of the brain and spinal cord |
| Dendrite | Threadlike part of the **neuron** that receives information |
| Effector | Structure that brings about a change - usually a muscle or gland |
| Efferent neuron | **Neuron** carrying **impulses** from the **CNS** to an **effector** |
| Endocrine System | Communication system concerned with long-lasting responses |
| Extracellular Fluid | The liquid outside the cells - in vertebrates this is blood plus tissue fluid |
| Homeostasis | The maintenance of near-constant conditions inside an organism |
| Impulse | The signal that travels along the length of a nerve fibre – it is how information is transmitted through the **nervous system** |
| Internal Environment | In multicellular animals, the liquid bathing the cells (tissue fluid in vertebrates) |
| Interneuron | **Neuron** connecting **afferent** and **efferent neuron** |
| Meninges | Protective membrane round the brain and spinal cord |
| Myelin | Layer of fatty material that surrounds and electrically insulates **axons**, enabling more rapid transmission of nerve **impulses** |
| Negative Feedback | Process in which the greater a change, the stronger the tendency to correct it |
| Nervous system | Communication system concerned with rapid responses in animals |
| Neuron | Nerve cell |
| Neurotransmitter | Chemical used to carry information from one **neuron** to another across **synapses** |
| Node of Ranvier | Gap between Schwann cells - the point at which action potentials occur |
| Peripheral nervous system | All the cranial and spinal nerves and their branches which link **receptors** and **effectors** with the **central nervous system** |
| Receptor | Structure that detects change |
| Reflex action | Automatic response to a **stimulus** |
| Refractory period | Brief period after an **action potential** during which an **axon** cannot undergo another **action potential** |
| Resting potential | Potential difference across plasma membrane of inactive **neuron** or muscle cell |
| Schwann cells | Cells forming the **myelin** sheath of nerve fibres |
| Set Point | The point at which a particular variable is regulated |
| Stimulus | Any change in the external or internal environment of an organism that provokes a physiological or behavioural response |
| Synapse | Gap between two **neurons** across which a **neurotransmitter** diffuses |
| Threshold | Minimum strength of **stimulu**s needed to develop an **action potential** |