**IB Biology SL Unit Plan**

**Instructor:** Joshua Amiel

 **Subject / Grade**: IB Biology SL (Nerves, hormones and homeostasis)

**IB Biology SL PLO’s:**

6.5.4: Define resting potential and action potential (depolarization and repolarization).

6.5.5: Explain how a nerve impulse passes along a non-myelinated neuron.

6.5.6: Explain the principles of synaptic transmission.

**Summative Assessment**

Action potential graphic organizers; action potential and synaptic transmission quiz.

**Resources:**

IB Biology texts (Clegg and Damon *et al*.).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Lesson Topic** | **Subject PLO’s** | **Student Activities** | **Teacher Activities** |
| Mar. 2 | Ch. 7 Nerves, hormones and homeostasis (Clegg, pp. 211-214).  | 6.5.4: Define resting potential and action potential (depolarization and repolarization). | * Watch action potential video.
* Actively read and take notes on action potentials.
* Begin action potential graphic organizer.
 | * Review nerve transmission and reflex arc.
* Set up action potential graphic organizer.
 |
| Mar. 4 | Ch. 7 Nerves, hormones and homeostasis (Clegg, pp. 211-216). | 6.5.5: Explain how a nerve impulse passes along a non-myelinated neuron.6.5.6: Explain the principles of synaptic transmission. | * Watch action potential video as review and follow the transport of ions.
* Create a human wave to visualize an action potential.
* Complete action potential graphic organizer **(due)**.
* Complete hand out on synaptic transmission using text.
 | * Review action potentials and ion transport.
* Have students create a human wave to visualize the transmission of an action potential down a non-myelinated neuron.
* Introduce synaptic transmission and relate it to muscle contraction.
 |
| Mar. 6 | Ch. 7 Nerves, hormones and homeostasis (Clegg, pp. 211-216).Ch. 7 Reproduction (Clegg, pp. 224-226). | 6.5.4: Define resting potential and action potential (depolarization and repolarization).6.5.5: Explain how a nerve impulse passes along a non-myelinated neuron.6.5.6: Explain the principles of synaptic transmission.6.6.1: Draw and label diagrams of the adult male and female reproductive systems. | * Ask questions before quiz.
* One student completes a diagram of synaptic transmission for the class, class asks questions.
* **QUIZ.**
* Read about reproduction and draw female reproductive tract.
 | * Review action potential, resting potential and synaptic transmission.
* Facilitate student synaptic transmission example.
* Proctor quiz.
* Introduce reproduction.
* Class construction of female reproductive tract.
 |