

SBI4U HOMEOSTASIS Unit Checklist

Name: _____



Mastery Checks may be attempted more than once and are not considered complete until $\geq 70\%$ is achieved.

Notes and activities will be checked for completion & corrections.

Topic	Objective(s)	Key Concepts	Approx. # Hours	Video Lessons & Notes	Activities Check answers & Uploaded to OneNote	Mastery Checks Thatquiz.org Min 70%
Nervous System						
1	Nervous System Divisions: <i>Explain the anatomy and function of the nervous system including the central & peripheral systems, and nerve function</i>	<ul style="list-style-type: none"> - Importance of nervous system: branches, functions - Brain: anatomy, compartmentalization, motor vs sensory areas 	5 hrs online	<input type="checkbox"/> <input type="checkbox"/> 2 videos	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2	Nerves & Nerve Signals: <i>Describe an action potential and how it works</i> <i>Explain the effects of various drugs on the nervous system</i>	<ul style="list-style-type: none"> - Neurons: structure, function, action potentials, neurotransmitters, synapses - Drug effects on system: painkillers, sedatives, hallucinogens, narcotics, over-the-counter medications 	7.5 hrs online	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 3 videos	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Homeostasis						
3	Feedback Loops & Thermoregulation: <i>Describe the importance of maintaining homeostasis</i> <i>Explain the difference between positive and negative feedback loops</i>	<ul style="list-style-type: none"> - What can be regulated & Why - Feedback loops: Advantages of +/- - Thermoregulation: Endo vs. Ectotherms 	4 hrs online	<input type="checkbox"/> <input type="checkbox"/> 2 videos	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4	Endocrine System: <i>Explain how hormones help regulate various systems including blood sugar</i> <i>Describe the different types of hormones and how they work</i>	<ul style="list-style-type: none"> - Main Endocrine Glands - Hormone Types: steroid vs. protein, mechanisms - Blood Sugar: pancreas, insulin, glucagon, diabetes 	2.5 hrs online	<input type="checkbox"/> <input type="checkbox"/> 2 videos	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5	Excretory System: <i>Explain the anatomy and function of the excretory system</i> <i>Describe how the kidney maintains blood pressure & water levels</i>	<ul style="list-style-type: none"> - Kidney anatomy & function: Bowman's capsule, glomerulus, nephron, filtration, reabsorption, secretion - Hormones: ADH, aldosterone, blood pressure 	2.5 hrs online	<input type="checkbox"/> 1 video	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Quizzes & Tests	DATE
Nervous system test	Monday June 14 th
Homeostasis test	Monday June 21 st

Homeostasis Terms to Know

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| <ul style="list-style-type: none"> - Absolute Refractory Period - ACTH - Action Potential - Adrenal Cortex - Adrenal Medulla - Afferent - Aldosterone - Ammonia - Anterior Pituitary - Antidiuretic Hormone - Autoreceptor - Axon - Axon Terminal - Bladder - Bowman’s Capsule - Calcitonin - Calcium Channel - cAMP - Cerebellum - Collecting Ducts - Control Center - Cortisol - Dendrite - Depolarizing Phase - Distal Tubule - Ectotherm - Effector - Efferent - Endocrine - Endocrine Gland - Endotherm | <ul style="list-style-type: none"> - Epinephrine - Excitatory NT - Excretion - Filtrate - Filtration - Frontal Lobe - Glomerulus - Glucagon - Glucocorticoids - Glycogen - Grey Matter - Growth Hormone - Homeostasis - Hyperpolarization - Hypothalamus - Inhibitory NT - Insulin - Interstitial Cells - Interstitial Fluid - Involuntary - Islets of Langerhans - Juxtaglomerular apparatus - Kidney - Loop of Henle - Medulla - Meninges - Meningitis - Mineralcorticoids - Motor Cortex - Myelin | <ul style="list-style-type: none"> - Negative Feedback - Nephron - Nervous - Neurilemma - Neurotransmitter - Node of Ranvier - Non-Target Hormone - Norepinephrine - NT Re-Uptake Pump - Occipital Lobe - Osmoreceptors - Osmotic - Osmotic Gradient - Oxytocin - Parathyroid - Parietal Lobe - Positive Feedback - Posterior Pituitary - Postsynaptic Neuron - Potassium Pump - Presynaptic Neuron - Prolactin - Protein Hormone - Proximal Tubule - Reabsorption - Receptor - Regulator - Relative Refractory Period - Repolarizing Phase - Resting Membrane Potential | <ul style="list-style-type: none"> - Saltatory Conduction - Schwann Cell - Secondary Messenger - Secretion - Sensory Cortex - Sodium Pump - Spatial Summation - Spinal Ganglion - Steroid Hormone - Stimulus - Summation - Synapse - Synaptic Cleft - Synaptic Vesicle - Target Hormone - Temporal Lobe - Temporal Summation - Threshold - Thyroid - Thyroxine (T4) - Triiodothyronine (T3) - Type I Diabetes - Type II Diabetes - Urea - Ureter - Urethra - Uric Acid - White Matter - α-cells - β-cells |
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