

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. # classes	Notes	Mastery Check Inc. # of attempts
1	<p>Homeostasis & Thermoregulation: Describe the importance of maintaining homeostasis Explain the difference between positive and negative feedback loops</p>	<ul style="list-style-type: none"> - What can be regulated & Why - Feedback loops: Advantages of +/- - Thermoregulation: Endo vs. Ectotherms 	3		□□□□
2	<p>Excretory System: Explain the anatomy and function of the excretory system Describe how the kidney maintains blood pressure, water & pH levels</p>	<ul style="list-style-type: none"> - Kidney anatomy & function: Bowman's capsule, glomerulus, nephron, filtration, reabsorption, secretion - Hormones: ADH, blood pressure, pH balance 	3		□□□□
3	<p>Nervous System: Explain the anatomy and function of the nervous system including the central & peripheral systems, and nerve function Describe an action potential and how it works Explain the effects of various drugs on the nervous system</p>	<ul style="list-style-type: none"> - Importance of nervous system: branches, functions - Brain: anatomy, compartmentalization, motor vs sensory areas - Neurons: structure, function, action potentials, neurotransmitters - Drug effects on system: painkillers, sedatives, hallucinogens, narcotics, over-the-counter medications 	5		□□□□
4	<p>Endocrine System: Explain how hormones help regulate various systems including blood sugar, metabolism, stress and reproductive Describe the different types of hormones and how they work</p>	<ul style="list-style-type: none"> - Main Endocrine Glands - Hormone Types: steroid vs. protein, mechanisms - Blood Sugar: pancreas, insulin, glucagon, diabetes - Metabolism: Thyroid, parathyroid gland, growth hormone, iodine & T3/T4 - Stress: adrenal glands, epinephrine & norepinephrine, mineralo- & glucocorticoids, performance enhancers - Reproductive: male & female, FSH, LH, estrogen & progesterone, testosterone - Disorders & effects 	4		□□□□

Assessments & Labs

All **assessments & labs** must be completed in class and are due at the end of the in-class work period(s) unless otherwise indicated.

SUMMATIVE EVALUATIONS	DATE
Thermoregulation Lab	Thursday May 24 th
Topics 1 & 2 Quiz	Thursday May 31 st
Unit Test	Wednesday June 13 th
Dr. Is In Assignment	Friday June 15 th

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 - Afferent - Aldosterone - Ammonia - Anterior Pituitary - Antidiuretic Hormone - Autoreceptor - Axon - Axon Terminal - Bicarbonate - Bladder - Bowman's Capsule - Buffer System - Calcitonin - Calcium Channel - cAMP - Cerebellum - Collecting Ducts - Control Center - Cortisol - Dendrite - Depolarizing Phase - Distal Tubule - Diurnal - Dorsal Horn - Dorsal Root - Ectotherm | <ul style="list-style-type: none"> - Effector - Efferent - Endocrine - Endocrine Gland - Endotherm - Epinephrine - Equilibrium - Excitatory NT - Excretion - Filtrate - Filtration - Frontal Lobe - Glomerulus - Glucagon - Glucocorticoids - Glycogen - Grey Matter - Growth Hormone - Growth Hormone - Homeostasis - Hyperpolarization - Hypothalamus - Inhibitory NT - Insulin - Interstitial Cells - Interstitial Fluid - Involuntary - Islets of Langerhans - Juxtaglomerular apparatus - Kidney - Loop of Henle - Medulla | <ul style="list-style-type: none"> - Meninges - Meningitis - Mineralcorticoids - Motor Cortex - Myelin - 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 | <ul style="list-style-type: none"> - Resting Membrane Potential - 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 - Ventral Horn - Ventral Root - White Matter - α-cells - β-cells |
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Mastery Checks:

- Must be written during class or after school during **supervised** extra help times.
- Up to 3 attempts are permitted during class time. If more attempts are required they must be completed after school.
- Mastery or a minimum of 3 attempts must be completed to consider a topic complete
- Keep track of the number of attempts on the unit checklist
- Must be attempted as you progress through the topics – you **cannot** let them accumulate until the end of the unit

